

PDC14-051/PD16-019

# **PUBLIC COMMENT**

# **A**

## Le, Thai-Chau

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**From:** Aerieways <aerieways@aol.com>  
**Sent:** Monday, April 09, 2018 11:16 PM  
**To:** Le, Thai-Chau  
**Subject:** Re: Public Review Draft Mitigated Negative Declaration: Dove Hill Medical Care Facility Project (PDC14-051)

Subject: Dove Hill Medical Care Project

Thai-Chau,

Per agreement lands once resided by the Tamien speakers will be represented by the Muwekma Tribal Band. Please consult with the Muwekma Tribal Band.

Ed Ketchum  
Amah Mutsun Tribal Band'  
Historian

-----Original Message-----

From: Le, Thai-Chau <Thai-Chau.Le@sanjoseca.gov>

Sent: Mon, Apr 9, 2018 11:05 am

Subject: Public Review Draft Mitigated Negative Declaration: Dove Hill Medical Care Facility Project (PDC14-051)

**PUBLIC NOTICE  
INTENT TO ADOPT  
A MITIGATED NEGATIVE DECLARATION  
CITY OF SAN JOSÉ, CALIFORNIA**

**Project Name:** Dove Hill Medical Care Project

**File No.:** PDC14-051 and PD16-019

**Description:** The project proposed to rezone three acres ("development footprint") of the 21-acre site from Agriculture to A(PD) Planned Development for the demolition of all existing buildings, structures, trees and landscaping, and associated improvements, and to develop a convalescent hospital facility with two buildings containing a total of 155 patient rooms and up to 248 beds, all within the development footprint of the three acres. The remaining 18 acres would stay zoned Agriculture and would be maintained as undeveloped, permanent private open space.

**Location:** A three-acre portion of a larger 21-acre site will be rezoned to a Planned Development (PD) zoning. The three acres include all of Assessor's Parcel Numbers (APNs) 679-08-003 and 679-09-001, as well as portions of APNs 679-08-002 and 679-09-002. The site is located at 4200 Dove Hill Road in south San José, adjacent to the east side of United States Highway 101 (US 101).

**Assessor's Parcel No.:** 679-08-003 and 679-09-001, 679-08-002 and 679-09-002

**Council District:** 8

**Applicant Contact Information:** Salvatore Caruso Design Corporation; 980 El Camino Real, Suite 200, Santa Clara, CA 95050; (408) 998-4087

The City has performed environmental review on the project. Environmental review examines the nature and extent of any adverse effects on the environment that could occur if a project is approved and implemented. Based on the

review, the City has prepared a draft Mitigated Negative Declaration (MND) for this project. An MND is a statement by the City that the project will not have a significant effect on the environment if protective measures (mitigation measures) are included in the project.

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The draft Mitigated Negative Declaration, initial study, and reference documents are available online at: <http://www.san Joseca.gov/index.aspx?nid=2165> . The documents are also available for review from 9:00 a.m. to 5:00 p.m. Monday through Friday at the City of San Jose Department of Planning, Building & Code Enforcement, located at City Hall, 200 East Santa Clara Street; and at the Dr. Martin Luther King, Jr. Main Library, located at 150 E. San Fernando Street.

For additional information, please contact Thai-Chau Le at (408) 535-5658, or by e-mail at [Thai-Chau.Le@san Joseca.gov](mailto:Thai-Chau.Le@san Joseca.gov).

Thai-Chau Le  
Planner | City of San Jose  
Environmental Planning  
Planning, Building & Code Enforcement  
[Thai-Chau.Le@san Joseca.gov](mailto:Thai-Chau.Le@san Joseca.gov)  
1.408.535.5658

## Le, Thai-Chau

---

**From:** Val Lopez <vlopez@amahmutsun.org>  
**Sent:** Wednesday, May 02, 2018 2:41 PM  
**To:** Le, Thai-Chau  
**Subject:** Re: Public Review Draft Mitigated Negative Declaration: Dove Hill Medical Care Facility Project (PDC14-051)

This project is outside our traditional tribal territory, we have no comment.

Valentin Lopez, Chair  
Amah Mutsun Tribal Band  
916-743-5833

On Mon, Apr 9, 2018 at 11:04 AM, Le, Thai-Chau <[Thai-Chau.Le@sanjoseca.gov](mailto:Thai-Chau.Le@sanjoseca.gov)> wrote:

### **PUBLIC NOTICE**

### **INTENT TO ADOPT**

### **A MITIGATED NEGATIVE DECLARATION**

### **CITY OF SAN JOSÉ, CALIFORNIA**

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**Council District: 8**

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For additional information, please contact Thai-Chau Le at (408) 535-5658, or by e-mail at [Thai-Chau.Le@sanjoseca.gov](mailto:Thai-Chau.Le@sanjoseca.gov).

Thai-Chau Le

Planner | City of San Jose

Environmental Planning

Planning, Building & Code Enforcement

[Thai-Chau.Le@sanjoseca.gov](mailto:Thai-Chau.Le@sanjoseca.gov)

1.408.535.5658



PDC14-051/PD16-019

# **PUBLIC COMMENT**

# **B**

## Keyon, David

---

**From:** Deepesh Chouhan <deepeshchouhan@yahoo.com>  
**Sent:** Sunday, April 29, 2018 1:28 PM  
**To:** Le, Thai-Chau  
**Cc:** 'Jitesh'; 'jiprk2'; kinjal26@hotmail.com; tjsanghvi@gmail.com; vsthi@yahoo.com; anuj.dua@me.com; saumya\_tripathi@hotmail.com; Keyon, David  
**Subject:** Public Comments: Dove Hill Medical Care Facility Project (PDC14-051)  
**Attachments:** DoveHill\_Planning\_Commission\_2010June09\_Handout\_Final.pdf

Thai, David

Here are my public comments

City of San Jose Planning Commission, in 2010, recommended that if this project needs to move forward, it needs to address some/all of these concerns at the zoning & permit stages

1. Traffic Hazard
  - a. Safety Hazard – Blind Spots, no Shoulders on Dove Road and Hassler Bridge on US-101
  - b. Reduced Level of Service (LOS)
2. Noise Health Hazard – Being so close to US-101; Noise level exceed levels permitted by City of San Jose
3. Fire Safety Hazard – Very limited access to this Hillside location
4. Air Quality Health Hazards – As per California Air Resource Board – Sensitive use like Medical facility should not be so close to highway; This site is barely 100 feet from US-101; Major air quality impact on future residents of this proposed facility;
5. Special Status Species Habitat Impact – White Tail Kite, Loggerhead Shrike, Santa Clara Valley Dudleya Plant
6. Land Use and Hillside Development Goals – Proposal conflicts with City of San Jose's own Hillside Development Goals

Please see attached – Detailed info/slides on each of these topics – Item Number GP08-08-3

[http://sanjose.granicus.com/MediaPlayer.php?view\\_id=&clip\\_id=4355&meta\\_id=304447](http://sanjose.granicus.com/MediaPlayer.php?view_id=&clip_id=4355&meta_id=304447).

For instance when you slide to 1 hour 25 minutes – Developer Mr. Caruso is agreeing that Blind Spot issue for the road needs to be addressed

In the latest proposal, Property Developers have not put forth any new mitigation plans to address these long standing concerns.

We appreciate your support and opportunity to provide public comments.

Please let us know what the next steps are – If need be, we can come and present our concerns in-person as well

Regards  
Deepesh

---

**From:** Keyon, David <david.keyon@sanjoseca.gov>  
**Sent:** Monday, April 23, 2018 1:26 PM  
**To:** Deepesh Chouhan <deepeshchouhan@yahoo.com>  
**Subject:** RE: [theranchonsilvercreek] If you use Hassler Parkway to commute to/From US-101: This upcoming project will impact you - You need to act before April 30th

Hi Deepesh,

No particular format needed. E-mail or letter is fine.

Thank you,

## David Keyon AICP

Supervising Planner - Environmental Review

City of San Jose - Department of Planning, Building, and Code Enforcement

(408) 535-7898

---

**From:** Deepesh Chouhan [<mailto:deepeshchouhan@yahoo.com>]

**Sent:** Monday, April 23, 2018 12:23 PM

**To:** Keyon, David <[david.keyon@sanjoseca.gov](mailto:david.keyon@sanjoseca.gov)>

**Cc:** Sonia Saini <[sonia.saini@gmail.com](mailto:sonia.saini@gmail.com)>; Jiprk2 <[jiprk2@yahoo.com](mailto:jiprk2@yahoo.com)>; Jitesh <[jki.patel@gmail.com](mailto:jki.patel@gmail.com)>; Saumya Tripathi <[saumya\\_tripathi@hotmail.com](mailto:saumya_tripathi@hotmail.com)>; Le, Thai-Chau <[Thai-Chau.Le@sanjoseca.gov](mailto:Thai-Chau.Le@sanjoseca.gov)>

**Subject:** Re: [theranchonsilvercreek] If you use Hassler Parkway to commute to/From US-101: This upcoming project will impact you - You need to act before April 30th

David

Thanks for your reply

We will send our comment by email to Thai and CC you.

Is there a format or form we need to use?

Regards

Deepesh

On Apr 23, 2018, at 8:32 AM, Keyon, David <[david.keyon@sanjoseca.gov](mailto:david.keyon@sanjoseca.gov)> wrote:

Hi Deepesh,

Please send via U.S. Mail or via e-mail to Thai (and copy me) by April 30<sup>th</sup>. There is no public hearing scheduled for this project at this time.

I added you name as a contact for The Ranch on Silver Creek in the project file.

Thank you,

## David Keyon AICP

Supervising Planner - Environmental Review

City of San Jose - Department of Planning, Building, and Code Enforcement

(408) 535-7898

---

**From:** Deepesh Chouhan [<mailto:deepeshchouhan@yahoo.com>]

**Sent:** Sunday, April 22, 2018 4:25 PM

**To:** Sonia Saini <[sonia.saini@gmail.com](mailto:sonia.saini@gmail.com)>; Jiprk2 <[jiprk2@yahoo.com](mailto:jiprk2@yahoo.com)>; Jitesh <[jki.patel@gmail.com](mailto:jki.patel@gmail.com)>; Saumya Tripathi <[saumya\\_tripathi@hotmail.com](mailto:saumya_tripathi@hotmail.com)>; Le, Thai-Chau <[Thai-Chau.Le@sanjoseca.gov](mailto:Thai-Chau.Le@sanjoseca.gov)>;

Keyon, David <[david.keyon@sanjoseca.gov](mailto:david.keyon@sanjoseca.gov)>

**Subject:** Re: [theranchonsilvercreek] If you use Hassler Parkway to commute to/From US-101: This upcoming project will impact you - You need to act before April 30th

David

Thai is out of office - he has your email ID on his OOO message.

Please see below and kindly advise

Regards

Deepesh

On Apr 22, 2018, at 4:21 PM, Deepesh Chouhan <[deepeshchouhan@yahoo.com](mailto:deepeshchouhan@yahoo.com)> wrote:

Thai

Sonia has passed this on to me as she has relocated to another place. I am resident of Ranch of Silver Creek and it will be great if you can replace Sonia's name with mine as primary contact from Ranch on Silver Creek Neighborhood for this project.

>> Please send any comments you have about the environmental review of this project to me and I will include that as part of the public record.

Should these comments be sent via email or registered USPS mail?  
Also, can we provide comment in City hall on Apr 24th during 6 PM session? Is that needed now? Or does that happen later in the process?

Regards

Deepesh

**From:** "Le, Thai-Chau" <[Thai-Chau.Le@sanjoseca.gov](mailto:Thai-Chau.Le@sanjoseca.gov)>  
**Date:** April 9, 2018 at 2:15:13 PM PDT  
**To:** "[sonia.saini@gmail.com](mailto:sonia.saini@gmail.com)" <[sonia.saini@gmail.com](mailto:sonia.saini@gmail.com)>  
**Subject:** FW: Public Review Draft Mitigated Negative Declaration: Dove Hill Medical Care Facility Project (PDC14-051)

Hi Sonia,

I am the Environmental Project Manager for the proposed Dove Hill Medical Care Facility Project. I obtained your email information from John Tu, the project manager for this project. You previously sent an email with regards to the CP08-08-03 General Plan Amendment in 2016 so I wanted to notify you of the project below.

The project is currently under review and the proposal is stated below. The environmental documents are available online for public comments. Please send any

comments you have about the environmental review of this project to me and I will include that as part of the public record.

Please forward this notice to anyone else you think may be interested in commenting.

Please let me know if you have any questions.

Best regards,

Thai

Thai-Chau Le

Planner | City of San Jose

Environmental Planning

Planning, Building & Code Enforcement

[Thai-Chau.Le@sanjoseca.gov](mailto:Thai-Chau.Le@sanjoseca.gov)

1.408.535.5658

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**Sent:** Monday, April 09, 2018 11:05 AM  
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Thai-Chau Le

Planner | City of San Jose

Environmental Planning

Planning, Building & Code Enforcement

[Thai-Chau.Le@sanjoseca.gov](mailto:Thai-Chau.Le@sanjoseca.gov)

1.408.535.5658

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Posted by: deepesh chouhan <[deepeshchouhan@yahoo.com](mailto:deepeshchouhan@yahoo.com)>

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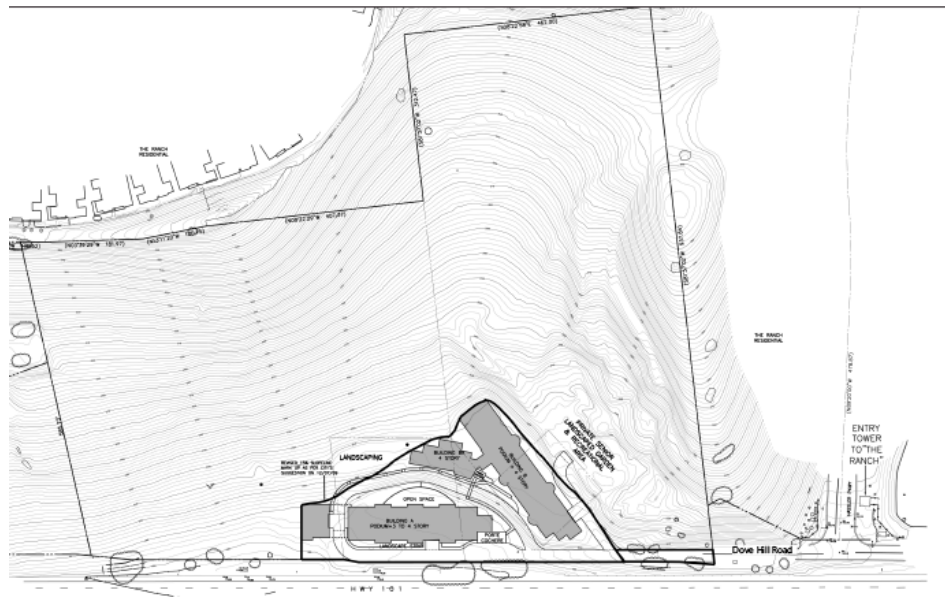
# DoveHill Project General Plan Amendment

Key Concerns on GPA

Community Suggestions

The Ranch on Silver Creek community

## Supporting Material for Slide 1: **Proposed Project Site**



## Key Concerns on GPA for Project

- ▣ Traffic
  - ▣ Safety Hazards
  - ▣ Reduced Level of Service (LOS)
- ▣ Noise Health Hazards
- ▣ Fire Safety Hazards
- ▣ Air Quality Health Hazards
- ▣ Special Status Species Habitat Impact
- ▣ Land Use and Hillside Development Goals
- ▣ Community Suggestions
- ▣ Summary

2

## Supporting Material for Slide 2: **Content**

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### Legend for the Supporting Material

Reference from Initial Study, Technical Appendices, City Staff Reports

Additional References

Comments

## Facts: Traffic – Safety Hazard

- Per SJFD records, 0 calls made to SJFD in six months (July-Dec 2009) from residents on Hassler Parkway between Dove Road and Silver Creek Valley Road
- In context of the proposed project for assisted living, **additional 100 calls per year will be made to Emergency services.** This is about two Emergency calls every week
- Dove Road is primary and fastest way to get to US-101
  - Two lane road
  - At least two blind spots
  - Has ABSOLUTELY NO shoulder

3

### Supporting Material for Slide 3 Facts: Traffic - Safety Hazard

Email from **Ty Mayfield, San Jose Fire Department** on May 27, 2010

For the six months between 7/1/2009 and 12/31/2009 there were:

- **no emergency responses anywhere on Hassler Parkway during the six month interval**
- 27 medical emergencies and 2 cancelled calls at 4463 San Felipe
- 47 medical emergencies, 1 service call, and 2 cancellations at 4855 San Felipe

[Initial Study: Page 180]

Based on project's estimated number of proposed units (275), **the SJFD estimates the project may result in up to 100 calls per year.**

**Proposed project leads to about 2 ADDITIONAL Emergency Calls to SJFD per week and this is about the same number of emergency calls that originated from a nearby Assisted Living Facility during six month period of Jul-Dec 2009.**

Please note that this severity of risk doesn't exist today as number of emergency calls is near zero.

## Concern : Traffic – Safety Hazard

A

2. Two blind turns around the hill and no shoulder

1. Peak Hour Traffic backs up on Dove Road, goes around the hill

3. Emergency Vehicles in oncoming traffic lane around the hill, with blind turns



**Impacts Personal Safety of Current and Future Residents:** Increases current near zero risk of crash with Emergency vehicles to a very high risk of traffic crashes. Personal safety in jeopardy.

4

### Supporting Material for Slide 4 Concern: Traffic – Safety Hazard

B

Blind turn for North bound Traffic on Dove Road



No shoulder on either side

C

Blind turn for South bound Traffic on Dove Road



No shoulder on either side

During peak hours, Emergency Vehicles in oncoming traffic lane around the hill, with blind turns

## Concern : Traffic – Level of Service

- Initial Study **incorrectly** classifies two of the four intersections to Signalized intersections
- City has no near term or short term plans to signalize
- LOS reflected as "D" – Minimum acceptable level by City and EEHDP
- Once these two intersections are correctly classified to "Unsignalized Intersections" – LOS drops to "F", far below acceptable levels

**Impacts Quality of Life:** Significant delays and added commute time for the residents in the neighborhood

5

### Supporting Material for Slide 5 Concern: Traffic – Level of Service

[Initial Study: Page 190]

The intersections of Helleyer Avenue (W) and 101 south ramps and Helleyer Avenue and 101 ramps are currently unsignalized signals. Per City Staff, these intersections were analyzed as signalized intersections.

[Technical Appendix J Traffic : Page iv]

Intersection	Peak Hour	Existing		Background		Project Conditions			
		Avg. Delay	LOS	Avg. Delay	LOS	Avg. Delay	LOS	Increase in Crit. Delay	Increase in Crit. V/C
City of San Jose (Citywide) LOS Policy									
101 South Ramps & Hellyer Avenue (W)	AM	20.8	C	32.0	C	32.6	C	+0.06	+0.010
	PM	19.3	B	21.2	C	21.4	C	+0.1	+0.012
101 North Ramps & Hellyer Avenue (E)	AM	30.8	C	47.0	D	48.1	D	+1.4	+0.009
	PM	27.4	C	28.4	C	30.4	C	+2.2	+0.022

Data provided in Appendix J: Traffic is analyzed by using Highway Capacity Manual 1994 to calculate LOS for these intersections as Unsignalized intersections.

#### Intersection Levels of Service Under Project Conditions

Intersection Levels of Service Under Project Conditions							
Intersection	Peak Hour	Existing		Project Conditions			
		Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Increase in Crit. Delay (sec)	Increase (%)
Unsignalized Intersections							
101 South Ramps & Hellyer Avenue (W)	AM	20.9	C	307.8	F	286.9	1373%
	PM	25	C	31.9	D	6.9	28%
101 North Ramps & Hellyer Avenue (E)	AM	69.4	F	361.9	F	292.5	421%
	PM	9.0	A	72.4	F	63.4	704%

## Fact: Noise Hazard

Current Exterior Noise Levels at the proposed site	88 dBA DNL
Projected Exterior Noise Levels with increased traffic on US-101 (increase by 1 to 2 dB)	90 dBA DNL
City of San Jose Acceptable Exterior Noise Levels	60 dBA DNL
Max. Exterior Noise Levels to avoid Significant Adverse Health Effects	76 dBA DNL

- Average Exterior Noise Levels are about:
  - 1000 times louder than City of San Jose Acceptable Levels
  - 25 times louder than Max. Exterior Noise Levels to avoid significant adverse health effect
- San Jose 2020 General Plan Land Use Guidelines for areas with External Noise Levels higher than 70 dBA DNL :
  - "Entirely Indoors Only" development
  - Outside activity is permitted if noise level is lower than 60 dBA DNL
- Proposed project has exterior use spaces, landscaped area, senior recreational areas and balconies

### Supporting Material for Slide 6 Fact: Noise Hazard

[Initial Study: Page 156]

**Table 20: Existing Noise Environment**

Site	Location	Date/Time	DNL
MI	Western Edge of Site Monitor Approximately 105' east of US-101 centerline, 13' above ground	2-4 Feb 2009	88 dBA <sup>65</sup>

[Initial Study: Page 157]

The City forecasts that peak hour traffic volumes along US-101 in the project vicinity will increase by approximately 38-percent from Caltrans 2007 published volumes. This corresponds with [approximately a 1- to 2-decibel increase in environmental noise](#).

[Initial Study: Page 155]

**Table 19: Land Use Compatibility Guidelines for Community Noise**

DNL Value in Decibels	Compatibility Level for Residential Land Use
Greater than 70 dB	New development permitted only if uses are entirely indoors and building design limits interior levels to <=45 DNL. Onsite activity areas should be permitted if site planning and noise barriers can achieve levels of 60 DNL or less. Existing uses have top priority for remedial treatment.



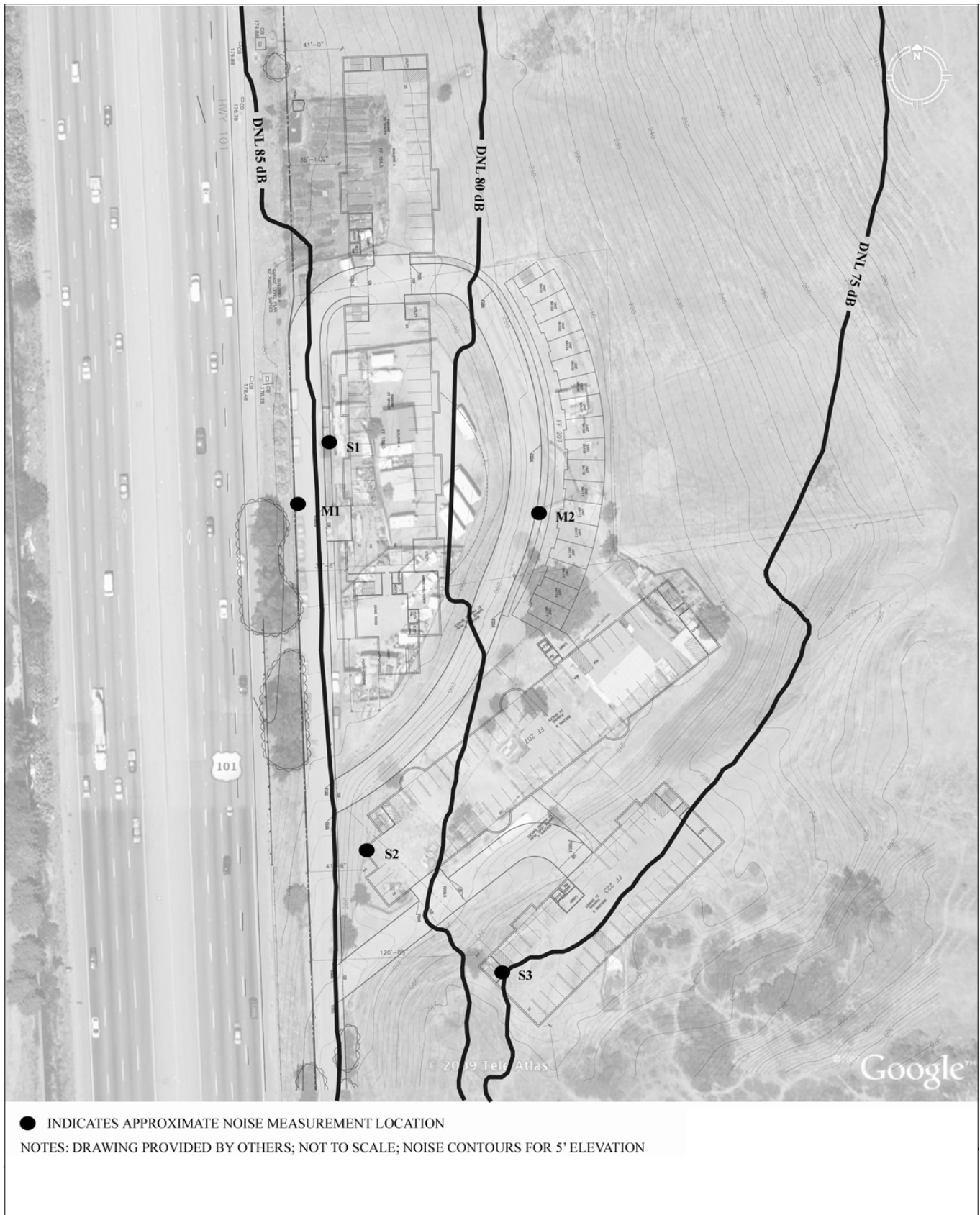


Figure 12  
Noise Measurement Locations  
and Existing Noise Contours



Source: Copyright 2009 Charles M. Salter Associates, Inc.



Source: Copyright 2009 Charles M. Salter Associates, Inc.

## Concern: Noise Hazard

- Proposed project has outdoor use areas with Exterior Noise Levels that far exceeds San Jose 2020 General Plan Guidelines
- For Exterior Noise Levels, Initial Study states “*An eight-foot wall is deemed more appropriate (but not required)...*”. Hence, there is NO MITIGATION FOR EXTERIOR NOISE LEVELS

### **Impacts Health of Elderly Residents of Proposed Assisted Living:**

When outdoors, Residents will be exposed to exterior noise level that is MULTIPLE ORDER OF MAGNITUDE LOUDER than acceptable levels by City of San Jose

7

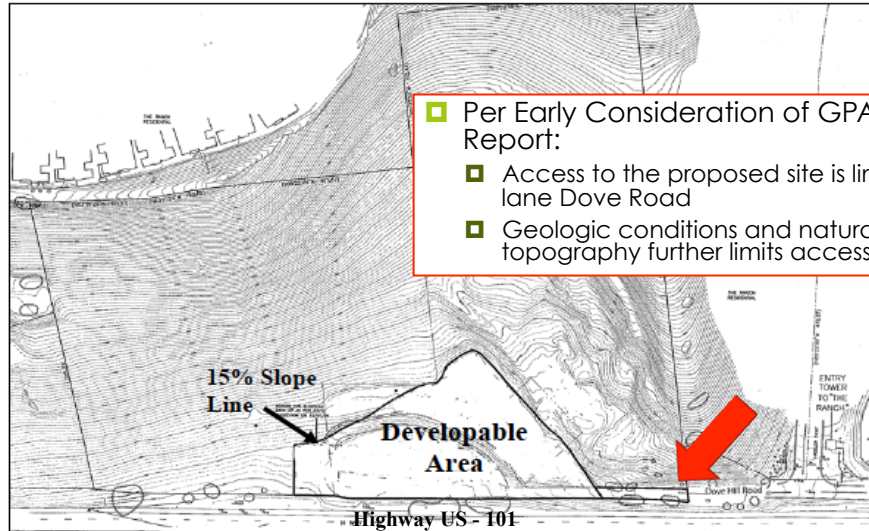
## Supporting Material for Slide 7 Concern: Noise Hazard

[Initial Study: Page 165]

A noise barrier along the western property line adjacent to Highway 101 would be a possible addition to consider for reducing exterior noise levels at the site. Such a barrier would shield ground-level residents and guests in the driveway and sidewalks in the western portion of the project site from vehicle noise from Highway 101. For reference, preliminary calculations suggest that a barrier would need to be in the range of 14 to 18 feet tall to reduce exterior noise to DNL 76 dB or lower at ground level. Since residences nearest Highway 101 will be elevated on the second floor and above, *barrier walls would provide little shielding of traffic noise at residences, and are, therefore, not recommended.* Furthermore, a 14-18 foot wall would not be appropriate along the westerly property line. *An eight-foot wall would be more appropriate (but not required) to further reduce the noise impact.*

Initial Study describes MM N-5 to MM N-7 but **none of these mitigations address Exterior Noise Levels.**

## Fact : Fire Safety Hazard



- Per Early Consideration of GPA Staff Report:
  - Access to the proposed site is limited – 2 lane Dove Road
  - Geologic conditions and natural steep topography further limits access

8

### Supporting Material for Slide 8 Fact: Fire Safety Hazard

[Early Consideration of GPA Staff Report Submitted Date: 6/30/2008: Page 7 of 10]

#### *Growth Management Major Strategy*

.....  
fire protection. The site is removed from commercial, financial, or employment centers and is not adequately served by transit. [Access to the site is limited and the natural topography poses significant limitations in providing services such as fire or sanitation services. Therefore, the proposal does not further but rather contradicts the Growth Management Major Strategy principle of maximizing existing resources to reduce costs of providing services.](#)

## Concern: Fire Safety Hazard

- Mitigation discusses how to reduce the fire risk but doesn't address what happens if a fire or other calamity occurs
- In an event of calamity, this site has limited access and can turn into a death trap for the residents

**Impacts Public Safety** : Risks human life and poses safety hazards for elderly residents

### Supporting Material for Slide 9 Concern: Fire Safety Hazard

BP had multiple levels of safety precaution mechanisms in place for its off-shore drilling, but no back-up plan for a disaster. Result is obvious in the Gulf of Mexico today.

Initial Study discusses ways to reduce the risk of fire hazards and any other calamity.

However, the question is different. What happens if a fire or other disaster were to occur that requires an evacuation from this site?

This facility is different from an average home because it proposes to host about 340 elderly residents who require assistance.

## Fact & Concern: Air Quality Health Hazard

- California Air Resources Board (CARB) recommends that certain sensitive land use should be at least 500 ft away from urban roads with 100,000 vehicles per day
- Proposed site is 100 feet from US-101 which carries traffic of 190,000 vehicles per day
- Exposure to diesel exhaust has immediate health effects: Irritation of eyes, nose, throat, lungs and can cause coughs, headaches, light headedness and nausea

**Concern:** Elderly residents of proposed project will be subject to this exposure when using any exterior use area

### Impacts Health of Elderly Residents of Proposed Assisted Living

10

## Supporting Material for Slide 10 Fact & Concern: Air Quality Hazard

[Initial Study: Page 53]

### *California Air Resources Board Handbook*

The California Air Resources Board (CARB) has developed an Air Quality and Land Use Handbook intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. The CARB handbook recommends that [planning agencies strongly consider proximity to these sources when finding new locations for “sensitive” land use](#) such as homes, [medical facilities](#), daycare centers, schools and playgrounds. Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners and large gasoline service stations. [Key recommendations in the Handbook including taking steps to avoid siting new, sensitive land uses:](#)

- [Within 500 feet of a freeway, urban roads with 100,000 vehicles / day or rural roads with 50,000 vehicles/day](#)

[Initial Study: Page 54]

[The proposed project would develop an assisted living community on the project site located within 100 feet of Highway 101.](#)

[Initial Study: Page 55]

[Caltrans annual traffic data was used as an input to the model. The total annual average daily traffic \(AADT\) along Highway 101 is 190,000 ....](#)

## Fact & Concern : Special Status Species Habitat

For Bay Checkeredspot Butterfly	
Key Criteria for Habitat Per US Fish and Wildlife	Proposed Site Habitat
Grasslands with strands of native plantain	Has occasional patches of native plantain
Serpentine Soils	Has serpentine rocks and soil
Early season nectar on warm south and west-facing slopes	Has west-facing slopes
Topographic diversity	Has topographic diversity

■ Per Initial Study:

- Special status plant Santa Clara Valley dudleya is observed at the proposed site.
- Other special status birds such as white-tailed kite (state fully protected species), loggerhead shrike MAY occur within the area proposed

**Concern:** This area has special status plants (dudleya) and could be the habitat suitable for special status birds and species

11

### Supporting Material for Slide 11 Fact: Special Status Species Habitat

US Fish and Wildlife Services website for bay checkered butterflies information.  
<http://www.fws.gov/pacific/news/2001/2001-61.htm>

[Initial Study: Page 81, 82]

There is a low probability of occurrence of burrowing owl, a California species of special concern, on the project site due to paucity of California ground squirrel burrows. If this owl does occur on the project site, it would not do so within the developed portion of the project site where direct impacts will occur. Nevertheless, it is possible that burrowing owls use the grassland within the area proposed as private open space for foraging, roosting and possibly nesting. **Other special-status birds may occur on the project site include the white-tailed kite (*Elanus leucurus*), a state fully protected species, and the loggerhead shrike (*Lanius ludovicianus*), a California species of special concern.** It is possible that a single pair of each of these species could nest in trees or tall shrubs on the project site and forage in the project site's grasslands. ....

[Initial Study: Page 89]

#### **Special-Status Plants**

The serpentine grasslands on the project site, most of which are located outside of the proposed development footprint, have the potential to support several special-status plant species. **The only special-status plant that was observed on the project site during surveys was Santa Clara Valley dudleya.** Up to 150 dudleya plants occur in the private open space land on the outcrops of serpentine rock.

## Land Use and Hillside Development Goals

- Hillside Development Goals:
  - Preserve valuable natural resources of hillsides
  - Maintain rural character and preserve the open space character of these land areas
  - Preserve valuable watershed and view shed
- Per City staff Early Report (6/30/2008 Page 6 of 10), then proposed project was inconsistent with General Plan Conformance
  - Silver Creek Valley planned residential community vision and specific Land Use Plan
  - "...hillside slope of westerly edge [proposed site] was specifically designated to Non-Urban Hillside to preserve its open space and scenic value for Santa Clara Valley and the South San Jose area."
- Proposed project has been reduced from original size, yet it conflicts with the General Plan and Hillside development goals
- Proposed project has three (3) three-to-four story buildings. Assuming these to be about 45-50 ft high, these buildings will hide most of the hill (about 230 ft high)

**Concern:** Proposed project is inconsistent with hillside development goals

12

### Supporting Material for Slide 12 Land Use and Hillside Development Goals

[Early Consideration of GPA Staff Report Submitted Date: 6/30/2008: Page 5,6 of 10]

#### General Plan Conformance

##### Inconsistencies with the Silver Creek Planned Residential Community Vision and Specific Land Use Plan

The project site is located on the hillside slope of westerly edge of the Silver Creek Planned Residential Community and has a land use designation of Non-Urban Hillside. The Silver Creek Planned Residential Community encompasses approximately 3,100 acres of land at the northerly extension of the Silver Creek Hills. Two ridgelines are contained within the Silver Creek Planned Residential Community, with the west ridge being the most prominent in terms of scale, topological relief and visibility. The primary land use designations incorporated in the Silver Creek Planned Residential Community include: Low Density Residential (3 DU/AC), Estate Residential (1 DU/AC), Rural Residential (1 DU/5 AC), and Non-Urban Hillside. These land use designation were established to preserve the basic character of the area and minimize the grading necessary for development. Although located within the City's Greenline/Urban Growth boundary, and within the City's Urban Service Area, the hillside slope on the westerly edge of the Planned Residential Community was specifically designated Non-Urban Hillside to preserve its open space and scenic value of Santa Clara Valley and the South San Jose area. Restrictions on development of western slopes and low-density uses planned throughout the Silver Creek Planned Residential Community were determined necessary in order to preserve and protect the valuable view-shed and watershed characteristics of hillsides.

[Initial Study: Page 4,5]

The project site slopes steeply from west to east, with the eastern property line situated at an elevation approximately 230 feet higher than the western property line.

....

The proposed development would consist primarily of three (3) three-to-four-story buildings.



## Community Suggestions

### ■ Proposed Site

- Current land designation keeps safety hazard risks to minimum
- Current designation is aligned with hillside development goals

### ■ Proposed Project

- Aligns with City of San Jose's future needs for additional assisted living facilities
- Existing shovel-ready sites in nearby area can fulfill this need

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## Supporting Material for Slide 13 Community Suggestions

Existing site for an "Immediate Hospital Development Opportunity" in a nearby area

The attached site is a flat 8+ acre lot and is located at the **SW corner of silver creek valley place and silver creek valley road**. The lot backs to US-101. **The location is already zoned commercial and ready for a hospital development.** Access to US-101 is much better and controlled by a traffic light. Allows for future growth opportunity.



## Community Suggestions (cont.)

- City of San Jose to consider:
  - Safety of existing and future residents as priority
  - Existing land designated for similar use for proposed project
- At this stage, community suggestions are:
  - Alternate emergency vehicle exit path to North of proposed site to US-101
  - Expansion of Dove Hill Road to avoid Safety Hazards
  - Concrete mitigation plans for Exterior Noise Levels to meet Acceptable levels (60dBA)
  - Concrete plans to maintain & foster habitat for special status species
  - Limit the height of any building to two floors to preserve the hillside view
  - Proposed project participates in economic burden (on current community) as its fair share

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### Supporting Material for Slide 14 Community Suggestions (Cont.)

## Summary

- Community has serious concerns for this site in context of the proposed project as it relates to
  - Traffic Safety Hazards
  - Noise Health Hazards
  - Fire Safety Hazards
  - Air Quality Health Hazards
  - Special Status Species Habitat Impact
  - Land Use and Hillside Development Goals
- Community requests focus on safety of current and future residents
- Alternate sites provides better results for this and similar projects
- Community has suggestions to improve current proposal

PDC14-051/PD16-019

# **PUBLIC COMMENT**

## **C**

## Le, Thai-Chau

---

**From:** Cerezo, Melissa <Melissa.Cerezo@vta.org>  
**Sent:** Monday, April 30, 2018 8:51 AM  
**To:** Le, Thai-Chau  
**Cc:** Molseed, Roy; Pearse, Brent  
**Subject:** No Comments from VTA - Dove Hill Medical Care Facility Initial Study

Dear Thai-Chau,

VTA is not planning to submit comments on the Dove Hill Medical Care Facility Initial Study associated with file numbers PDC14-051 and PD16-019.

Thanks!  
Melissa

**Melissa R. Cerezo, AICP**  
Senior Transportation Planner

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Conserve paper. Think before you print.

PDC14-051/PD16-019

# **PUBLIC COMMENT**

## **D**



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April 30, 2018

Via E-Mail

Thai-Chau Le, Planner  
City of San José  
Department of Planning, Building, and Code Enforcement  
200 East Santa Clara Street, Third Floor  
San José, California 95113  
Thai-Chau.Le@sanjoseca.gov

**RE:** Dove Hill Medical Care Project (Project Files Nos. PDC14-051 and PD16-019)

Dear Director Hughey and Ms. Le:

I am writing on behalf of the Laborers International Union of North America, Local Union 270 and its members living in and around the City of San Jose ("LIUNA") regarding the Initial Study and Mitigated Negative Declaration ("IS/MND") prepared for the Dove Hill Medical Care Project ("Project") (Project Files Nos. PDC14-051 and PD16-019). After reviewing the IS/MND, and with the assistance of expert reviews by wildlife biologist Dr. Shawn Smallwood and environmental consulting firm SWAPE, it is clear that there is a "fair argument" that the Project may have unmitigated adverse environmental impacts. SWAPE's and Dr. Smallwood's comments (attached hereto as, respectively, Exhibits A and B), as well as the comments below, identify substantial evidence of a fair argument that the Project may have significant environmental impacts. Accordingly, an environmental impact report ("EIR") is required to analyze these impacts and to propose all feasible mitigation measures to reduce those impacts. We urge the Department of Planning, Building & Code Enforcement ("DPBCE") to decline to approve the IS/MND, and to prepare an EIR for the Project prior to any Project approvals.

## **I. PROJECT BACKGROUND**

Salvatore Caruso Design Corporation proposes to construct a convalescent hospital facility with two buildings containing a total of 155 patient rooms and up to 248 beds. The proposed Project also would include a dining hall, multipurpose room and other ancillary uses, surface parking areas, new landscaping, walkways, and landscaped common outdoor open space. IS/MND, p. 8. Each of the two buildings would contain a back-up diesel generator *Id.*, p. 15. The Project would result in an increase of about 759 vehicle trips per day. The Project would be located on about

three-acres of a 21-acre site. The other 18 acres of the site would remain private open space currently zoned for agriculture and consisting of grassland being used as pasture for horses. *Id.* The Project would be located immediately adjacent to U.S. Highway 101. The Project would include demolishing several existing structures within the 3-acre Project area. The 3-acre Project site is currently designated in the General Plan as Public/Quasi Public. The zoning is Agriculture (A). The Project proposes to rezone the site as A(PD) Planned Development.

## II. LEGAL STANDARD

As the California Supreme Court 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 Management Dist.* (2010) 48 Cal.4th 310, 319-320 [“CBE v. SCAQMD”], 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 [“PRC”] § 21068; see also 14 CCR § 15382. An effect on the environment need not be “momentous” to meet the CEQA test for significance; it is enough that the impacts are “not trivial.” *No Oil, Inc., supra*, 13 Cal.3d at 83. “The ‘foremost principle’ in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.” *Communities for a Better Env’t v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 109 [“CBE v. CRA”].

The EIR is the very heart of CEQA. *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214; *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 University of California* (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.

An EIR is required if “there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment.” PRC § 21080(d); see also *Pocket Protectors*, 124 Cal.App.4th at 927. In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 Cal. Code Regs. § 15371), only if there is



not even a “fair argument” that the project will have a significant environmental effect. PRC, §§ 21100, 21064. Since “[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process,” by allowing the agency “to dispense with the duty [to prepare an EIR],” negative declarations are allowed only in cases where “the proposed project will not affect the environment at all.” *Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440. 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, supra*, 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–905.

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, 150-15; *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. 273-274. 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.

### **III. There is a Fair Argument that the Project May Have Unmitigated Adverse Environmental Impacts.**

#### **A. The MND’s air quality analysis is not based on substantial evidence because it applies BAAQMD Guidelines which expressly state they do not apply when a project includes emergency generators.**

The Project relies solely on screening criteria developed by the Bay Area Air Quality Management District (“BAAQMD”) as the basis for concluding that the Project would not have any significant air quality impacts as a result of its construction and operation. IS/MND, pp. 38-39. The IS/MND points to Table 3-1 of the BAAQMD Guidelines, entitled “Operational-Related Criteria Air Pollutant and Precursor Screening Level Sizes.” BAAQMD Guidelines, pp. 3-2 – 3-3. The IS/MND relies on screening criteria for a “congregate care facility.” Under the Guidelines, a congregate care facility with less than 657 dwelling units (“du”) is presumed not to have significant operational emissions of reactive organic gases (“ROGs”). *Id.*, p. 3-2. For construction emissions, the Guideline establishes a screening level of 240 du for a congregate care facility below which ROG emission will not be significant.

The City’s use of the BAAQMD screening levels as evidence of no significant air quality impacts is incorrect and not based on substantial evidence for several reasons.

First, Table 3-1 of the BAAQMD Guideline expressly cautions that the screening levels are not sufficient when a project includes back-up generators. The note to Table 3-1 states that “[e]missions from engines (e.g., **back-up generators**) and industrial sources subject to Air District Rules and Regulations embedded in the land uses are not included in the screening estimates and must be added to the above land uses.” BAAQMD Guidelines, pp. 3-3 (emphasis added). Because the IS/MND fails to include the emissions from testing and operating the back-up generators proposed for the Project, its air quality conclusion is unsupported by substantial evidence and errs as a matter of law. SWAPE Comments, pp. 1-3.

Second, the BAAQMD screening criteria do not address emissions associated with demolition activities: “These screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration.” BAAQMD Guidelines, pp. 3-2. Because the “analysis” does not address the demolition activities proposed as part of the Project, it is not supported by substantial evidence and errs as a matter of law. SWAPE Comments, pp. 1-3.

Third, the Project is not a “congregate care facility.” According to an industry source, “[a] congregate care facility is typically for residents 55 years of age or older, where limited or no assistance with daily living activities is needed and a state issued

license is not required.” <http://thejchgroup.com/blog/what-is-a-congregate-care-facility/>. This is not equivalent to the proposed convalescent hospital facility. Because the screening criteria relied upon by the IS/MND do not reflect the actual Project, the IS/MND’s air quality discussion and conclusion is not supported by substantial evidence and errs as a matter of law.

Because the screening level table does not provide criteria that address back-up generators and the proposed demolition activities, and the criteria referenced in the IS/MND are not for a facility that is remotely similar to the proposed project, the IS/MND is not supported by substantial evidence and a fair argument exists that the Project may have significant air quality impacts.

**B. There is substantial evidence of a fair argument that the Project may have significant health risk impacts from its emissions of toxic air contaminants.**

The IS/MND claims that construction of the Project will only result in an increased cancer risk of 0.1 in a million. IS/MND, pp. 39-40. Comparing that figure to BAAQMD’s threshold of significant for toxic air contaminants of ten in one million, the IS/MND concludes that the Project will have no significant health risks to nearby sensitive receptors. *Id.* As noted by SWAPE, “review of the construction HRA demonstrates that the analysis is based on diesel particulate matter (DPM) emission estimates from a CalEEMod file that the Project Applicant fails to provide.” SWAPE Comment, p. 3. Hence, nothing in the documents made available to the public during the comment period provide substantial evidence supporting the City’s health risk assessment for the Project’s construction.

As for the Project’s operational emissions, the IS/MND concludes that there will be no significant health risks but does not rely on any health risk assessment prepared for the Project. IS/MND, p. 41. As SWAPE emphasizes, “the IS/MND fails to evaluate, whatsoever, the health risk impacts posed to nearby residences as a result of exposure to TAC emissions generated by operation of the Project.” SWAPE Comments, pp. 3-4. In order to fully disclose the potential health risks associated with the Project, an accurate health risk assessment encompassing the Project’s operational phase and consistent with guidelines published by the Office of Environmental Health Hazard Assessment must be prepared. Currently, the IS/MND’s conclusion that the Project will not result in any significant health risks is not supported by substantial evidence and a fair argument exists that the Project may have significant health risk impacts.

The arbitrariness of the IS/MND’s health risk discussion is further established by SWAPE’s preparation of a Level 2 health risk screening assessment (“HRSA”). BAAQMD recommends a significance threshold of 10 in one million cancer risk for infants, children and lifetime residency. Applying the U.S. Environmental Protection Agency’s AERSCREEN model, as recommended by OEHHA and CAPCOA, SWAPE calculates that construction and operation of the Project will result in cancer risks to

infants, children, adults, and nearby residents over the course of a 30-year residential lifetime of, respectively, 69 in one million, 46 in one million, 7 in one million, and 120 in one million, well in excess of BAAQMD's threshold. SWAPE Comment, pp. 5-7. Based on this substantial screening evidence, a fair argument is present that the Project may have significant health risk impacts on infants, children and nearby residents. A complete health risk assessment must be prepared for the Project in order to provide a substantial basis for any conclusions regarding the Project's health risks to current residents.

In addition, the IS/MND fails to meaningfully apply the directives issued by the Supreme Court in its 2015 decision in *California Building Industry Ass'n v. BAAQMD* (2015) 62 Cal.4th 369. As acknowledged by the IS/MND, in *BIA v. BAAQMD* the Supreme Court held that a CEQA document must analyze "a project's potentially significant *exacerbating* effects on existing environmental hazards – effects that arise because the project brings 'development and people into the area affected.'" 62 Cal.4<sup>th</sup> at 388. "Because this type of inquiry still focuses on the *project's impacts on the environment*—how a project might worsen existing conditions—directing an agency to evaluate how such worsened conditions could affect a project's future users or residents is entirely consistent with this focus and with CEQA as a whole." *Id.* at 389. Rather than evaluate whether the Project's additional traffic and vehicle emissions exacerbate the existing TAC emissions spewing onto the Project site from the highway by adding additional vehicles to that serious TAC source, the IS/MND ignores the Project's additional TAC emissions from additional vehicles associated with the Project using the adjacent highway and contributing to its TAC emissions onto the Project site.

Likewise, contrary to CEQA, by adding TAC emissions to the immediate area, the Project cannot avoid evaluating the cumulative impacts of the Project including the adjacent highway's existing TAC emissions on nearby sensitive receptors. The estimated increased cancer risks to infants of 92.7 in a million from the Project's TAC emissions is only slightly below the BAAQMDF significance threshold of 100 in a million cancer risk. Those TAC emissions are thus considerable, albeit just below the threshold. There is no evidence of what the operational TAC emissions are from the back-up generators and hundreds of vehicles per day accessing the project site, presumably including diesel trucks. Given that the IS/MND estimates a health risk of 21.2 per million cancer risk from the highway alone already grossly exceeds the BAAQMD significance threshold of 10 in a million, the addition of TACs from the Project's construction or operation is considerable and may significantly contribute to the Project's cumulative adverse health risk impact. Hence, the IS/MND's conclusion that the Project will not have cumulative health risk impacts is not supported by substantial evidence and a fair argument exists that the Project will result in cumulative health risks. Nor is there any assessment of how the proposed TAC mitigations, including air filters, may reduce these cumulative impacts. The resulting indoor air levels are not analyzed. Given the extensive landscaping proposed for the Project, the residents will not be in their rooms at all times and will be exposed to significant levels

of TACs whenever they venture outside the buildings.

**C. A fair argument exists that the project may have significant GHG emissions because the Project fails to explain how it complies with requirements of the City's GHG Reduction Strategy and does not include solar panels or other strategies supposedly encouraged by the Strategy.**

The IS/MND claims that because the Project is not inconsistent with the mandatory requirements of the City's GHG Reduction Strategy ("GHGRS"), it will not have any significant impacts from its GHG emissions. IS/MND, pp. 82-85. The Project is proposing entirely new uses, new traffic and new operational effects than currently exist at the site. A review of the GHG emission discussion confirms that the Project's actual measures are not identified and not all of the mandatory requirements of the GHG strategy are being implemented. Nor does the discussion show that any of the relevant measures to be encouraged by the City are being implemented at the site. Most of the measures adopted for the Project will have little relevance to GHG reductions, such as for example, "enhanc[ing] the pedestrian environment with new sidewalks." IS/MND, p. 82. The Project is isolated from other neighborhoods and amenities and abuts a freeway and will focus on assisting convalescent patients. How improving sidewalks would significantly enhance a pedestrian environment in such a way as to reduce any GHG emissions at such a facility is unknown and without any evidentiary support. No estimate or prediction of any people walking to the facility is suggested in the IS/MND. No connections or amenities that would draw pedestrians from nearby residential areas are proposed. Convalescing patients will not be strolling uphill from the site or onto the adjacent highway.

Going through the relevant GHG reduction strategies included in the City's plan, there is no evidence that the Project will comply with all of the GHG Reduction Strategy's mandatory requirements. Moreover, there is an almost complete failure to implement any strategy being encouraged by the City. In addition, a number of the mandatory strategies, as applied to the Project, would not have any positive reduction effect on GHG emissions and would appear to do the opposite.

For example, without explanation, the IS/MND claims that if the Project is consistent with the General Plan's Public/Quasi-Public land use designation for the site, that fact somehow will control GHG emissions. IS/MND, pp. 82-83 (Table 4.7-1). This may be true for portions of the General Plan that concentrate development near transit and San Jose's downtown area. It cannot be true for an isolated Public/Quasi-Public designation that is interpreted to allow a large convalescent facility to be built in an isolated open space area surrounded by unrelated residential development. No rationale is provided of how this particular land use designation serves to reduce any GHG emissions.

Although LIUNA agrees with the Project's inclusion of bicycle and pedestrian facilities, as noted above, there is no discussion or effort to quantify how these facilities will meaningfully reduce GHG emissions at such an isolated facility with no use relevant to the surrounding neighborhoods. IS/MND, p. 83.

The IS/MND claims that the Project will comply with certain components of the GHG Reduction Strategy, including "Implementation of Green Building Measures related to: • Solar Site Orientation • Site Design • Architectural Design • Construction Techniques • Consistency with City Green Building Ordinance and Policies • Consistency with GHGRS Policies: MS-2.3, MS-2.11, and MS-14.4." IS/MND, p. 83. The referenced GHGRS policies represent a laundry list of possible design and construction measures a project may utilize. The measures however do not say which ones will be used for this Project or how they would be implemented for this Project. Thus, GHGRS Policy MS-2.3 states that the City shall "encourage consideration of solar orientation, including building placement, landscaping, design and construction techniques for new construction to minimize energy consumption." GHGRS, Attachment B, p. 33. Merely encouraging and considering such measures does not indicate that they will be implemented at this Project. Policy MS-2.11 appears somewhat more proactive, stating that the City will "[r]equire new development to incorporate green building practices, including those required by the Green Building Ordinance." *Id.* Policy MS-2.11 also provides a few examples: "[s]pecifically, target reduced energy use through construction techniques (e.g., design of building envelopes and systems to maximize energy performance), through architectural design (e.g. design to maximize cross ventilation and interior daylight) and through site design techniques (e.g. orienting buildings on sites to maximize the effectiveness of passive solar design)." *Id.* Policy MS-14.4 is similar, stating that the City will "[i]mplement the City's Green Building Policies (see Green Building Section) so that new construction and rehabilitation of existing buildings fully implements industry best practices, including the use of optimized energy systems, selection of materials and resources, water efficiency, sustainable site selection, passive solar building design, and planting of trees and other landscape materials to reduce energy consumption." *Id.*

None of these general admonitions to employ green building components in designing a project indicates or explains how the Project will employ such techniques or whether the existing design includes any such components. For example, nothing in the IS/MND indicates if or how the Project's orientation would "maximize the effectiveness of passive solar design." See SWAPE Comments, p. 10.

There is no indication as to how water efficiency is promoted by the landscaping proposed for the Project. Indeed, the Project proposes to use 931,258 gallons of water per day. IS/MND, p. 140. Only 28,365 gallons of that would be for the Project's indoor use. (*Id.*) Compared to the current estimated water use of the site at approximately 1,213 gallons of water per day, there is certainly nothing in the IS/MND to suggest some effective water conservation strategy, drought resistant landscaping or any other measure that would actually reduce GHGs. See SWAPE Comment, p. 10. The IS/MND

ignores GHGRS Policy MS-21.3 which calls on the City to “ [e]nsure that San José’s Community Forest is comprised of species that have low water requirements and are well adapted to its Mediterranean climate.” GHGRS, Att. B, p. 34. See SWAPE Comment, p. 10.

The site selection for the Project has nothing to do with promoting GHG reductions or energy efficiency, amounting to an almost random opportunity to replace a somewhat degraded site with a type of project generally deemed beneficial and in demand. No other details about materials, design or any other aspect of the Project indicate how it will further the referenced green building examples or achieve any particular LEED rating.

The various references to the City’s Private Sector Green Building Policy and Green Building Ordinance boil down to a requirement that certain categories of projects within San Jose achieve certain levels of LEED certification. San Jose Municipal Code, Chapter 17.84. LEED certification is not transparent to a reader of the IS/MND. The various LEED certification levels are based on a point system. The IS/MND does not explain the LEED point system. Nothing in the IS/MND explains what features the Project would claim to justify whatever points may be available to the Project in the LEED system. In other words, it is completely opaque for the IS/MND to invoke the City’s Private Sector Green Building Policy and Green Building Ordinance, which in turn invoke a LEED point system that is inaccessible to the reviewing public, as a logical explanation of how the Project’s specific design elements and facilities will reduce GHG emissions.

In addition, the IS/MND does not accurately describe even the City’s Green Building requirements. The IS/MND states that pursuant to the City’s Private Sector Green Building Policy, “the proposed project would be required to be LEED Certified.” IS/MND, p. 84. However, the Private Sector Green Building Policy actually requires this Project to be certified LEED Silver. <http://www.sanjoseca.gov/index.aspx?NID=3284> (“Commercial/Industrial Tier 2 - ≥ 25,000 square feet = LEED Silver”). Residential projects may rely on a mere LEED certification. This is not a residential or assisted living facility but a private, for-profit, convalescent hospital, a commercial enterprise. San Jose Municipal Code § 17.84.104 (“‘Commercial / industrial building’ means all non-residential construction including construction of retail space, office space, and other commercial uses, regardless of the zoning scheme at the project’s location”). See also § 17.84.112 (“‘Large commercial building’ means a non-residential building having a gross floor area of twenty-five thousand (25,000) square feet or more and is not a high-rise building”). Large commercial buildings are deemed Tier two projects under the Code. § 17.84.121 (“Tier two project” means a large commercial industrial building...). “All tier two commercial industrial projects for which this chapter is applicable must receive the minimum green building certification of LEED Silver.” § 17.84.220.

Even with that heightened LEED certification level, the City's ordinance does not guarantee that even a large commercial project such as the proposed Project will necessarily achieve LEED Silver because it provides for Project specific exemptions at the discretion of the Director of Planning. § 17.84.210. As a result, no one can be sure what compliance with the City's Green Building Ordinance may look like for this Project.

In addition to the lack of relevance of many of the table entries, and the lack of any effort to explain how the project's designs would meet the City's policy and achieve a LEED Silver rating, the IS/MND table is most notable for emphasizing the GHG reductions the Project refuses to do, despite the City claiming to have encouraged their implementation. Hence, the Project refuses to install solar panels to make the Facility energy independent. IS/MND, p. 84. Despite its seemingly excessive proposed water use, no water recycling is proposed to meet that excessive demand. *Id.* Rather than reduce traffic by reducing parking, the Project proposes to increase parking above the City's minimum requirements. *Id.* In short, the IS/MND's GHG emissions discussion fails to provide any substantive discussion of the Project's GHG emission impacts or what, if any, mitigations would be applied to the Project. This aspect of the IS/MND is entirely without evidentiary support and a fair argument exists that the Project may have significant GHG emission impacts.

**D. The IS/MND fails to address all of the Project's potential impacts to biological resources at and near the Project site.**

Wildlife biologist Dr. Shawn Smallwood, Ph.D., concludes that the Project may have significant impacts on several special status species. An EIR is required to analyze and mitigate these impacts. Dr. Smallwood's expert comments and resume are attached hereto as Exhibit B.

**a. The wildlife baseline relied upon by the IS/MND is woefully inadequate.**

Wildlife biologist Dr. Shawn Smallwood, Ph.D., concludes that the Project may have significant impacts on several special status species. An EIR is required to analyze and mitigate these impacts.

The IS/MND's baseline for biological impacts is incomplete, outdated, and understates the biological values at the Project site. According to the IS/MND, a reconnaissance-level wildlife survey was conducted on 12 September 2008 and a reconnaissance level plant survey was done on 21 September 2008. IS/MND, App. B, p. 1; Smallwood Comments, p. 2. A follow-up survey occurred on February 9, 2009. IS/MND, App. B, p. 1. A reconnaissance-level site survey and a focused survey for adult Bay checkerspot butterflies (*Euphydryas editha bayensis*) was conducted on 31 March 2015. IS/MND, App. B, p. 2. "No details were reported about these surveys, such as when they began, how long they lasted, and what methods were used." Smallwood



Comments, p. 2. Hence, whether the biotic assessment is substantial evidence is not apparent from the face of the document or the IS/MND.

The surveys conducted for the Project do not provide substantial evidence of the presence or absence of species of concern that are known to be present in the vicinity. For example, the Biotic Assessment states that “No evidence of burrowing owls was observed on the site during reconnaissance-level surveys conducted for the project...” Biotic Assessment, p. 14. Based on this assertion, the Assessment goes on to conclude that “[t]here is a low probability of occurrence of the burrowing owl, a California species of special concern, on the site due to the paucity of California ground squirrel burrows, and if this owl occurs on the site, it would not do so within the developed portion of the site where direct impacts will occur.” *Id.* Dr. Smallwood notes that the lack of evidence of burrowing owls was not necessarily because they weren’t there, but because the surveys were not conducted during the breeding season when the owls may be present and did not adhere to the survey protocols for burrowing owls prepared by the Department of Fish & Wildlife. As Dr. Smallwood writes:

none of these surveys occurred during the burrowing owl breeding season, and none were consistent with the surveys recommended in the available survey guidelines of the time (CDFW 1995) or since (CDFW 2012). Therefore, H.T. Harvey & Associates’ (2015:14) statement, “*No evidence of burrowing owls was observed on the site during reconnaissance-level surveys conducted for the project...*” was misleading because such a survey cannot provide the evidence needed to determine absence. The City of San Jose’s (2018:47) determination was even more misleading by claiming that the site lacks burrows of California ground squirrel, a claim that is contrary to the reporting of H.T. Harvey & Associates (2015). Detection surveys are needed for burrowing owls on and near the project site, consistent with the recommendations of CDFW (2012). An EIR should be prepared along with a report of appropriate detection surveys.

Smallwood Comments, p. 2. Given the paucity of owls present in Santa Clara and the importance of that county to the breeding success of the species, the Project’s baseline must be informed by protocol level surveys that can determine the presence or absence of burrowing owls at the site. *Id.* Only with an accurate baseline could the IS/MND purport to assess the impacts on that species of concern.

The same baseline problem afflicts the IS/MND’s discussion of bat species on the site. No attempt was made at identifying the baseline for these species. No surveys were performed that could detect bats. According to Dr. Smallwood, “[a]coustic monitoring could have been done, or thermal-imaging surveys.” Smallwood Comments, p. 3. Given bats ability to roost in a variety of locations, Dr. Smallwood concludes that “[t]he potential for bat occurrences is likely higher than reported” in the Assessment. *Id.*

Without having looked for bats, the IS/MND cannot have disclosed their presence or the extent of any impact to that species.

The surveys conducted almost a decade ago are similarly flawed for white-tailed kite and dusky woodrats, two species of special concern. From his experience and expertise, DR. Smallwood notes that “White-tailed kites require substantial survey effort to locate nest sites (Erichsen et al. 1995), and these are unlikely to be found in February when the species is still roosting within groups of conspecifics.” Smallwood Comments, p. 3. The same is true for detecting woodrats: “Likewise, I know from experience that woodrats can be difficult to detect without the aid of live-trapping. H.T. Harvey & Associates (2015) reported no use of live-trapping for small mammals.” *Id.*

In addition to these inadequate surveying methods and unidentified baseline, the IS/MND and its biotic assessment understate the range of animal species that likely are present on the site. Reviewing various on-line databases, Dr. Smallwood identifies no less than 30 special status species one can expect use the site:

A white-tailed kite was seen on the edge of the neighborhood immediately east of the project site. A California tiger salamander was found only 1,200 meters east of the project site only 3 months ago. Thirty special-status species occur in the area (Table 1), two of them were seen on site, and multiple others have added potential to occur on site due to the occurrence of the keystone species, California ground squirrel (*Otospermophilus beecheyi*) (H.T. Harvey & Associates 2015:6).

Smallwood Comments, pp. 1, 4-5 (Table 1).

In regard to loggerhead shrikes and white-tailed kites, the biotic assessment acknowledges these species may be present. The Assessment then states that “the loss of one pair of each species [white-tailed kite and loggerhead shrike] would not be considered a significant impact under CEQA given the extremely low proportion of the regional population that would be represented by a single pair.” Biotic Assessment, p. 13. Dr. Smallwood notes that “losing individuals of species such as white-tailed kite and loggerhead shrike is not akin to losing individuals of common, r-selected species such as California vole or deer mouse. Species such as white-tailed kite and loggerhead shrike are assigned special status due to the effects of cumulative impacts – due to the past and ongoing losses of breeding colonies and of many single pairs or individuals causing noticeable declines in the species.” Smallwood Comments, p. 3. Dr. Smallwood further notes that this conclusion is without any substantial evidence, the assessment including “no information on local populations of loggerhead shrike or white-tailed kite – no spatial boundaries, no population size estimates, nothing at all about populations or even local demography.” *Id.*, p. 6. In addition, the IS/MND and Assessment do not address the Project’s impacts on foraging habitat for loggerhead shrikes and white-tailed kites, assuming only nesting sites matter to the species. As Dr. Smallwood points out, “[f]oraging habitat is just as critical to species as is nesting habitat, and really there

is no distinction between foraging and nesting habitat when it comes to nesting success.” As a result, the conclusion that the Project will not significantly impact shrikes and kites relied upon by the IS/MND is not supported by substantial evidence and a fair argument exists that the Project may have significant impacts on the species of special concern.

The IS/MND also fails to address the Project’s possible impacts on the non-breeding habitat of California tiger salamander and California red-legged frog. As Dr. Smallwood explains:

the [IS/MND] draws a false distinction between breeding and non-breeding habitat of California tiger salamander and California red-legged frog, concluding no significant impacts due to lack of breeding habitat on the project site. Having performed extensive surveys for both of these species, I can attest to the importance of ground squirrel burrows as non-breeding season refugia for these species. For example, in two years of surveys for California red-legged frogs in the Almaden, Los Gatos, and Calero watersheds just west-southwest of the project site, I found the species in only one location, and that happened to be the only location along many miles of surveyed streams where ground squirrels remained abundant in the surrounding uplands (US Fish and Wildlife Service unpublished data). Similarly, at a large study area to the north of the project site, I found California tiger salamander larvae and California red-legged frog adults in ponds surrounded by uplands occupied by ground squirrels or pocket gophers (Smallwood and Morrison 2007). Orloff (2011) reported California tiger salamanders dispersing to upland refugia up to 2.2 km from breeding ponds, or well beyond the 1,200 m distance between the project site and the recently observed California tiger salamander posted on iNaturalist. The grasslands of the project site could very well be important refuge and crossover habitat used by California tiger salamander and California red-legged frog.

Smallwood Comments, pp. 6-7. Given the close proximity of these species to the Project site, the IS/MND fails as a matter of law to analyze the impacts to these species’s non-breeding habitat.

**b. The IS/MND fails to address the Project’s potential significant impacts on wildlife movement.**

The IS/MND and biotic assessment fail to address impacts on wildlife movement, instead looking for impacts to a “designated migratory wildlife corridor.” As Dr. Smallwood states, the CEQA significance threshold is whether a project will “[i]nterfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors...” See Smallwood Comments, p. 7. Impacts to wildlife movement may occur with or without the

presence of a migratory wildlife corridor, never mind a *designated* migratory wildlife corridor, whatever that phrase may signify. *Id.*

Dr. Smallwood notes that “[w]ildlife movement in the region is often diffuse rather than channeled (Runge et al. 2014, Taylor et al. 2011), and includes stop-over habitat used by birds and bats (Taylor et al. 2011), staging habitat (Warnock 2010), and crossover habitat used by nonvolant wildlife during dispersal, migration or home range patrol.” The IS/MND and biotic assessment cite no source for the “designation” of a wildlife corridor. No analysis of any impacts to wildlife movement, including birds’ stop-over habitat, is included in the IS/MND and its appendix.

**c. The Project may have significant effects on wildlife resulting from collisions with vehicles associated with the Project.**

Dr. Smallwood identifies the serious impacts that increased traffic has on wildlife. Smallwood Comment, pp. 7-8. Indeed, as he points out, the Project is proposed to be located in the midst of a major hotspot of wildlife mortality. *Id.*, p. 8. The additional 759 vehicle trips expected from the Project will result in collisions with wildlife. *Id.* Wildlife that will be run over by the Project’s additional traffic may include special-status species of wildlife such as Alameda whipsnake (*Masticophis lateralis euryxanthus*), California red-legged frog (*Rana draytonii*), California tiger salamander (*Ambystoma californiense*), and American badgers (*Taxidea taxus*). Although these species do not appear on the Project site, they do cross roads over which traffic from the Project will travel. As Dr. Smallwood explains:

Vehicle collisions have accounted for the deaths of many thousands of reptile, amphibian, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Increased use of existing roads will increase wildlife fatalities (see Figure 7 in Kobylarz 2001). It is possible that project-related traffic impacts will far exceed the impacts of land conversion to residential use. But not one word of traffic-related impacts appears in the IS/MND – a gross shortfall of the CEQA review.

Smallwood Comment, p. 7. The IS/MND fails to recognize at all this potential significant impact of the project. Because a fair argument exists that the Project may have a significant impact on wildlife in the vicinity, an EIR must be prepared to assess this impact and identify appropriate mitigation.

**d. The IS/MND fails to address the Project’s potential cumulative impacts on habitat fragmentation.**

The IS/MND does not assess the likelihood of cumulative impacts to wildlife, especially from habitat fragmentation in the vicinity. Smallwood Comment, p. 8. Because a fair argument exists that developing currently undeveloped and vegetated

sites on the southern edge of San Jose will further fragment wildlife habitat in this area, there is a fair argument that the project may contribute to habitat fragmentation.

**e. The pre-construction surveys identified in the IS/MND are not sufficient to address potential impacts to bats and birds that may be present at the site.**

Dr. Smallwood has reviewed the proposed wildlife impact mitigations identified in the IS/MND. Smallwood Comment, p. 8. Although he agrees with the need for preconstruction surveys for bats and birds at the site, he notes that preconstruction surveys will come too late either to disclose the Project's anticipated impacts or to fully mitigate impacts to birds and bats. *Id.* Dr. Smallwood states that detection surveys need to be performed to professional standards and that information used to disclose potential impacts and to inform the pre-construction surveys. As Dr. Smallwood explains, "Detection surveys are needed, because detection surveys provide the bases for impacts assessments and formulation of mitigation measures. They also inform preconstruction surveys, which are otherwise performed in a rushed manner just ahead of the tractor blade." *Id.* By failing to determine the actual baseline of bird's and bat's reliance on the site for roosting, nesting and foraging and instead waiting until the eve of construction to determine what roosts, nests, birds, and bats may suffer impacts from the Project, the IS/MND fails to evaluate and mitigate the Project's potential significant impacts to birds and bats.

**E. CONCLUSION**

For the foregoing reasons, the IS/MND for the Project should be withdrawn, an EIR should be prepared, and the draft EIR should be circulated for public review and comment in accordance with CEQA. Thank you for considering these comments.

Sincerely,



Michael R. Lozeau  
Lozeau | Drury LLP

# EXHIBIT A



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April 27, 2018

Michael Lozeau  
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410 12th Street, Suite 250  
Oakland, CA 94607

**Subject:           Comments on the Dove Hills Medical Care Facility Project**

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Dear Mr. Lozeau,

We have reviewed the April 2018 Initial Study and Mitigated Negative Declaration (IS/MND) for the Dove Hill Medical Care Facility Project ("Project") located in the City of San Jose. The Project proposes to rezone three acres of the 21-acre Project site from "Agriculture" to "A Planned Development" and to demolish all existing buildings, structures, trees and landscaping, and associated improvements. On these three acres, the Project proposes to construct a convalescent home with 155 patient rooms, a surface parking lot, and two on-site generators. The remaining 18-acres of the Project site will be maintained as open space.

Our review concludes that the IS/MND fails to adequately evaluate the Project's Air Quality and Greenhouse Gas (GHG) impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. A project-specific Draft Environmental Impact Report (DEIR) should be prepared to adequately assess and mitigate the potential air quality, health risk, and GHG impacts that the Project may have on the surrounding environment.

## **Air Quality**

### **Failure to Quantify Emissions from Project Construction and Operation**

The IS/MND concludes that criteria air pollutant emissions released during Project construction and operation will result in a less-than-significant impact on regional air quality (p. 38, 39). The IS/MND attempts to justify this claim by stating,

"In the 2017 update to the CEQA *Air Quality Guidelines*, BAAQMD identifies screening criteria for the sizes of land use projects that could result in significant air pollutant emissions. For a congregate care facility construction criteria pollutant impacts, the construction screening size is

240 units. The proposed project includes 155 rooms, which is below the specified screening size. As a result, criteria pollutant emissions would be below the BAAQMD significance screening criteria level and the project would not result in a cumulatively considerable construction-related increase of any criteria pollutant for which the project region is classified as non-attainment” (IS/MND, p. 38).

The IS/MND goes onto say,

“According to the BAAQMD *Air Quality Guidelines*, operation of a convalescent care facility would not exceed the operational criteria air pollutant thresholds if it contains fewer than 657 units. The project proposes 155 rooms which is below the operational BAAQMD screening criteria level. As a result, criteria pollutant emissions would be below the BAAQMD significance screening criteria level and the project would not result in a cumulatively considerable operational increase of any criteria pollutant for which the project region is classified as non-attainment” (IS/MND, p. 39).

As a result, the IS/MND states that the Project’s air quality impacts will be less than significant (IS/MND, p. 36). Based on the number of proposed rooms the Project proposes to construct, the Project would meet the screening criteria contained in the Bay Area Air Quality Management District’s (BAAQMD) Screening Tables. BAAQMD *Air Quality Guidelines* state that if a proposed project meets the screening criteria, “then the lead agency or applicant would not need to perform a detailed air quality assessment of their project’s air pollutant emissions”.<sup>1</sup> Thus, because the Project proposes to construct fewer than 657 units, the IS/MND concludes that a more detailed air quality analysis is not needed, and therefore, the Project Applicant is exempt from quantifying the Project’s construction and operational emissions. This conclusion, however, is incorrect as the Project requires demolition prior to Project construction and proposes the use of diesel generators on the Project site (p. 8, 39). As a result, the Project cannot rely on the BAAQMD screening tables to determine if a more detailed air quality analysis should be prepared.

The IS/MND states that “all existing buildings, structures, trees and landscaping, and associated improvements within the development footprint would be removed as part of the Project” (p. 8). According to the BAAQMD’s *Air Quality Guidelines*, the Screening Tables are “generally representative of new development on greenfield sites”.<sup>2</sup> Thus, because the proposed Project requires demolition of existing structures prior to Project construction, the Project site does not constitute as a greenfield site, and therefore, the use of the Screening Tables to determine whether or not a more thorough air quality assessment should be conducted is inappropriate for the proposed Project.

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<sup>1</sup> “Air Quality Guidelines” BAAQMD, May 2010, available at: [http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Draft\\_BAAQMD\\_CEQA\\_Guidelines\\_May\\_2010\\_Final.ashx](http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Draft_BAAQMD_CEQA_Guidelines_May_2010_Final.ashx) p. 3-1

<sup>2</sup> “Air Quality Guidelines” BAAQMD, May 2010, available at: [http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Draft\\_BAAQMD\\_CEQA\\_Guidelines\\_May\\_2010\\_Final.ashx](http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Draft_BAAQMD_CEQA_Guidelines_May_2010_Final.ashx) p. 3-1



Additionally, according to the IS/MND, the Project proposes to use two emergency back-up diesel generators to provide electrical power in case of a power outage (IS/MND, p. 39). According to the BAAQMD's *Air Quality Guidelines*, due to the use of these back-up generators, the Project does not meet the requirements to use the Screening Tables to determine if the Project could result in a potentially significant air quality impact. The BAAQMD's *Air Quality Guidelines* state,

"If a Project includes emissions from stationary source engines (e.g., back-up generators) and industrial source subject to Air District Rules and Regulations, the screening criteria should not be used. The project's stationary source emissions should be analyzed separately from the land use-related indirect mobile- and area-source emissions. Stationary source emissions are not included in the screening estimates given below and, for criteria pollutants, must be added to the indirect mobile- and area-source emissions generated by the land use development and compared to the appropriate Thresholds of Significance."<sup>3</sup>

As you can see in the excerpt above, if a project will generate stationary source emissions, such as those emitted by back-up generators, then these emissions should be quantified and compared to the BAAQMD's criteria air pollutant thresholds. The back-up generators that the Project proposes to use will produce stationary source emissions and therefore, the Dove Hills Medical Care Center Project should quantify these emissions and compare the emissions estimates to applicable thresholds. Prior to project approval, a Project specific DEIR should be prepared that includes air quality emission estimates.

### Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The IS/MND conducts a construction and operational health risk assessment (HRA) to evaluate the health risk posed to nearby sensitive receptors from exposure to toxic air contaminant (TAC) emissions generated during construction and operation of the proposed Project. According to the IS/MND, construction of the Project would result in an increase cancer risk of 0.1 in one million, which is less than the BAAQMD's threshold of ten in one million (p. 39-40). Thus, the IS/MND concludes that the Project's construction-related health risk impact will be less than significant (p. 39-40). However, review of the construction HRA demonstrates that the analysis is based on diesel particulate matter (DPM) emission estimates from a CalEEMod file that the Project Applicant fails to provide. Since the Project Applicant fails to provide the CalEEMod output files that contain the Project's estimated DPM emissions, we cannot verify the conclusions made within the HRA. As a result, the DPM emissions estimates provided in the construction Community Risk Assessment are unreliable and should not be used to determine Project significance, since there is no documentation verifying the values.

Additionally, review of the Project's operational health risk, found in Appendix A, demonstrates that the Project Applicant evaluated the risk posed to on-site sensitive receptors from emissions from Interstate I-101 near the Project. However, the IS/MND fails to evaluate, whatsoever, the health risk impacts posed to nearby residences as a result of exposure to TAC emissions generated by operation of the

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<sup>3</sup> "Air Quality Guidelines" BAAQMD, May 2010, available at: [http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Draft\\_BAAQMD\\_CEQA\\_Guidelines\\_May\\_2010\\_Final.ashx](http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Draft_BAAQMD_CEQA_Guidelines_May_2010_Final.ashx), p. 3-1

Project. Despite the IS/MND's lack of a proper analysis of the potential health impacts that could occur as a result of emissions generated during Project operation, the IS/MND concludes that operational health impacts would be less than significant (p. 41). The Community Risk Assessment states,

"Operation of this proposed project is not considered a source of TAC or fine particulate matter (PM<sub>2.5</sub>) emissions. The project would include two small emergency generators powered by diesel fuel. These generator engines are anticipated to be less than 50 horsepower; and therefore, result in less than significant impacts with respect to air pollutant emissions and community risk impacts. As a result, the project operation would not cause emissions that expose sensitive receptors to unhealthy air pollutant levels" (Appendix A, p. 5).

However, this justification for failing to evaluate the health risk posed to the nearest sensitive receptors to the Project site during operation is entirely incorrect.

The omission of a quantified HRA is inconsistent with the most recent guidance published by OEHHA. In February of 2015, OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, which was formally adopted in March of 2015.<sup>4</sup> This guidance document describes the types of projects that warrant the preparation of a HRA. At full buildout, Project operation will generate approximately 372 daily vehicle trips as a result of the Project's proposed land uses, which will generate substantial exhaust emissions and expose nearby sensitive receptors to these DPM emissions.<sup>5</sup> The OEHHA document recommends that exposure from projects lasting more than 6 months should be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident (MEIR).<sup>6</sup> Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, per OEHHA guidelines, health risk impacts from Project construction and operation should be included in a revised CEQA evaluation for the Project.

In an effort to demonstrate the potential risk posed by construction and operation of the proposed Project to nearby sensitive receptors, we prepared a simple screening-level HRA. The results of our assessment, as described in the sections below, provide substantial evidence demonstrating that potential health risk impacts associated with construction and operation of the proposed Project may result in a potentially significant health risk impact. As such, a DEIR should be prepared to adequately evaluate the proposed Project's health risk impacts, and mitigation measures should be identified and incorporated into the Project design, where necessary.

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<sup>4</sup> "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>

<sup>5</sup> Our updated SWAPE CalEEMod output files demonstrate that the Project will generate approximately 372 daily vehicle trips during operation.

<sup>6</sup> "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>, p. 8-6, 8-15

In order to conduct our screening level risk assessment, we relied upon AERSCREEN, which is a screening level air quality dispersion model.<sup>7</sup> The model replaced SCREEN3, and AERSCREEN is included in the OEHHA<sup>8</sup> and the California Air Pollution Control Officers Associated (CAPCOA)<sup>9</sup> guidance as the appropriate air dispersion model for Level 2 health risk screening assessments (“HRSAs”). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary health risk screening assessment of the Project's health-related impact to sensitive receptors using the annual PM<sub>10</sub> exhaust estimates from our SWAPE CalEEMod model. According to the Community Risk Assessment, the closest sensitive receptor to the Project site is located approximately 500 feet, or 152 meters, from the Project site (Appendix C, p. 3). Consistent with recommendations set forth by OEHHA, we used a residential exposure duration of 30 years, starting from the infantile stage of life. We also assumed that construction and operation of the Project would occur in quick succession, with no gaps between each Project phase. The SWAPE CalEEMod model's annual emissions indicate that construction activities will generate approximately 406 pounds of DPM over the approximately 13-month construction period. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation.

$$\text{Emission Rate} \left( \frac{\text{grams}}{\text{second}} \right) = \frac{406 \text{ lbs}}{389 \text{ days}} \times \frac{453.6 \text{ grams}}{\text{lbs}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}} = \mathbf{0.005482 \text{ g/s}}$$

Using this equation, we estimated a construction emission rate of 0.005482 grams per second (g/s). The SWAPE annual CalEEMod output files indicate that operational activities will generate approximately 174 pounds of DPM per year over the 28.9-years of operation. Applying the same equation used to estimate the construction DPM emission rate, we estimated the following emission rate for Project operation.

$$\text{Emission Rate} \left( \frac{\text{grams}}{\text{second}} \right) = \frac{174 \text{ lbs}}{365 \text{ days}} \times \frac{453.6 \text{ grams}}{\text{lbs}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}} = \mathbf{0.002497 \text{ g/s}}$$

Using this equation, we estimated an operational emission rate of 0.002497 g/s. Construction and operational activity was simulated as a 21-acre rectangular area source in AERSCREEN, with dimensions of 415 meters by 195 meters. A release height of three meters was selected to represent the height of

<sup>7</sup> “AERSCREEN Released as the EPA Recommended Screening Model,” USEPA, April 11, 2011, available at: [http://www.epa.gov/ttn/scram/guidance/clarification/20110411\\_AERSCREEN\\_Release\\_Memo.pdf](http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf)

<sup>8</sup> “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>

<sup>9</sup> “Health Risk Assessments for Proposed Land Use Projects,” CAPCOA, July 2009, available at: [http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA\\_HRA\\_LU\\_Guidelines\\_8-6-09.pdf](http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf)

exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.<sup>10</sup> For example, for the MEIR the single-hour concentration estimated by AERSCREEN for Project construction is approximately 2.783  $\mu\text{g}/\text{m}^3$  DPM at approximately 150 meters. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.2783  $\mu\text{g}/\text{m}^3$  for Project construction at the MEIR. For Project operation, the single-hour concentration at the MEIR estimated by AERSCREEN is approximately 1.268  $\mu\text{g}/\text{m}^3$  DPM at approximately 150 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.1268  $\mu\text{g}/\text{m}^3$  for Project operation at the MEIR.

We calculated the excess cancer risk to the residential receptors located closest to the Project site using the applicable health risk assessment methodologies prescribed by OEHHA and the BAAQMD. Consistent with the construction schedule proposed by the IS/MND, the annualized average concentration for construction was used for the first 1.1 years of the infantile stage of life (0-2 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the remainder of the infantile stage of life (0-2 years), the child stages of life (2 to 16 years) and adult stages of life (16 to 30 years). Consistent with OEHHA guidance, we used Age Sensitivity Factors (ASFs) to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.<sup>11</sup> According to the updated guidance, quantified cancer risk should be multiplied by a factor of ten during the first two years of life (infant) and should be multiplied by a factor of three during the child stage of life (2 to 16 years). Furthermore, in accordance with guidance set forth by OEHHA, we used 95<sup>th</sup> percentile breathing rates for infants.<sup>12</sup> We used a cancer potency factor of 1.1 (mg/kg-day)<sup>-1</sup> and an averaging time of 25,550 days. The results of our calculations are shown below.

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<sup>10</sup> [http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019\\_OCR.pdf](http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf)

<sup>11</sup> "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>

<sup>12</sup> "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act," June 5, 2015, available at: <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6>, p. 19

"Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>

The Maximum Exposed Individual at an Existing Residential Receptor (MEIR)					
Activity	Duration (years)	Concentration ( $\mu\text{g}/\text{m}^3$ )	Breathing Rate (L/kg-day)	ASF	Cancer Risk
Construction	1.10	0.2783	1090	10	5.0E-05
Operation	0.90	0.1268	1090	10	1.9E-05
<b>Infant Exposure Duration</b>	<b>2.00</b>			<b>Infant Exposure</b>	<b>6.9E-05</b>
Operation	14.00	0.1268	572	3	4.6E-05
<b>Child Exposure Duration</b>	<b>14.00</b>			<b>Child Exposure</b>	<b>4.6E-05</b>
Operation	14.00	0.1268	261	1	7.0E-06
<b>Adult Exposure Duration</b>	<b>14.00</b>			<b>Adult Exposure</b>	<b>7.0E-06</b>
<b>Lifetime Exposure Duration</b>	<b>30.00</b>			<b>Lifetime Exposure</b>	<b>1.2E-04</b>

The excess cancer risk posed to adults, children, and infants at the MEIR located approximately 150 meters away, over the course of Project construction and operation are 7, 46, and 69 in one million, respectively. Furthermore, the excess cancer risk over the course of a residential lifetime (30 years) at the MEIR is approximately 120 in one million. Consistent with OEHHA guidance, exposure was assumed to begin in the infantile stage of life to provide the most conservative estimates of air quality hazards. The infant, child, and lifetime cancer risks exceed the BAAQMD threshold of 10 in one million.

It should be noted that our analysis represents a screening-level HRA, which is known to be more conservative, and tends to err on the side of health protection.<sup>13</sup> The purpose of a screening-level HRA, however, is to determine if a more refined HRA needs to be conducted. If the results of a screening-level health risk are above applicable thresholds, then the Project needs to conduct a more refined HRA that is more representative of site specific concentrations. Our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. As a result, a refined HRA must be prepared to examine air quality impacts generated by Project construction and operation using site-specific meteorology and specific equipment usage schedules. A project specific DEIR must be prepared to adequately evaluate the Project's health risk impact, and should include mitigation measures to reduce these impacts to a less-than-significant level.

## Greenhouse Gas

### Failure to Adequately Assess the Project's Greenhouse Gas Impacts

According to the IS/MND, the Project's GHG emissions will be less than significant (p. 85) The IS/MND states,

"The proposed project is consistent with applicable mandatory criteria from the City's GHG Reduction Strategy, as well as some of the voluntary criteria. In addition, with conformance with the City's Private Sector Green Building Policy, Municipal Code (including the Green Building Ordinance), and applicable General Plan policies, the project would not conflict with an

<sup>13</sup> <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>, p. 1-5

applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG emissions (Less than Significant Impact)” (IS/MND, p. 85).

The IS/MND cannot simply state that the Project is consistent with the City’s GHG Reduction Strategy and conclude that the Project’s GHG impact is less than significant as a result, as the IS/MND fails to actually demonstrate compliance with all of the applicable criteria disclosed in the City’s GHG Reduction Strategy. The IS/MND’s GHG Analysis identifies a number of GHG reduction measures and concludes that since the Project would implement these measures, the Project would not result in a significant GHG impact (p. 85). Therefore, the measures proposed in the Screening Tables, Table 4.7-1 and Table 4.7-2, should have been included as mandatory conditions of approval or as mitigation in order to ensure that the proposed measures will be implemented once the Project is approved. Review of the IS/MND, however, demonstrates that the proposed reduction measures outlined in the Screening Tables were not included as mitigation measures, approved as mandatory conditions of approval, and not consistent with information provided by the IS/MND. As a result, it is unclear what measures will actually be implemented once the Project is approved, and it is unclear whether implementation of these measures would satisfy requirements set forth by the GHG Reduction Strategy. By failing to include the measures proposed in the Screening Table as mitigation or mandatory conditions of approval, these measures are not enforceable. Thus, the GHG Reduction Strategy consistency analysis conducted by the IS/MND becomes an empty paper exercise, in which boxes are checked but the actual activities called for in those boxes do not occur. Until the Project includes the Screening Table reduction measures as mitigation or mandatory conditions of approval, the Project is not consistent with the GHG Reduction Strategies and cannot claim that it is.

### *Failure to Demonstrate How the Project Will Be Consistent with LEED Certification*

Review of the IS/MNND demonstrates that the Project fails to be consistent with all of the GHG Reduction Strategy’s mandatory criteria. According to the Project Applicant, the Project will be LEED Certified and, therefore, comply with the Implementation of Green Building Measures (see excerpt below) (Table 4.7-1, p. 83).

Table 4.7-1: Mandatory Greenhouse Gas Reduction Strategy Criteria		
Policies	Description of Project Conformance	Project Conformance
Implementation of Green Building Measures related to: <ul style="list-style-type: none"> <li>• Solar Site Orientation</li> <li>• Site Design</li> <li>• Architectural Design</li> <li>• Construction Techniques</li> <li>• Consistency with City Green Building Ordinance and Policies</li> <li>• Consistency with GHGRS Policies: MS-2.3, MS-2.11, and MS-14.4</li> </ul>	The project is required to be LEED certified per the City of San José Green Building Ordinance and City Council Policy 6-32, which requires the incorporation of environmentally conscious site and architectural design, including planting new landscaping, trees, and pedestrian connections. The project would green building measures in conformance with the City's Green Building Ordinance. Additionally, the project will undergo the City's design review process, which will ensure compliance with MS-2.3, MS-2.11, and MS-14.4.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable

The IS/MND goes on to state that in order to be consistent with LEED certification, the Project must implement the following design features (p. 85):

- provide bicycle lockers;
- install high performance lighting and controls;
- maximize natural lighting, minimize summer heat gain, and increase heating in winter;
- salvage and recycle construction waste;
- use recycled content building materials;
- use low-VOC emitting paints, sealants, coatings, and flooring systems; and
- Water efficient landscaping and irrigation design

Review of the IS/MND demonstrates that the Project Applicant fails to explain how all of these design features will be implemented. Specifically, the Project Applicant fails to explain or even mention the installation of high performance lighting, minimizing summer heat gain/increasing heating in winter, recycling construction waste, the use of recycled content building materials, the use of low-VOC emitting paints, sealants, coatings, or floorings, or water efficient landscaping. As a result, not only is the Project unable to demonstrate LEED certification, but failing to address some of these Project design features is also inconsistent with measures set forth in the GHG Reduction Strategy.<sup>14</sup>

Review of both the IS/MND and the GHG Reduction Strategy reveals that the Project fails to demonstrate compliance with MS-2.3 and MS-21.3. Measures MS-2.3 states,<sup>15</sup>

<sup>14</sup> <http://www.sanjoseca.gov/documentcenter/view/9388>, pp. 34

<sup>15</sup> <http://www.sanjoseca.gov/documentcenter/view/9388>, pp. 34



**MS-2.3:** Encourage consideration of solar orientation, including building placement, landscaping, design and construction techniques for new construction to minimize energy consumption.

Review of the IS/MND shows that the Project had to consider solar orientation as part of the General Plan; however, the Project fails to include any analysis that demonstrates how the Project will “encourage solar orientation” in order to minimize energy consumption (p. 20). This is a significant problem, as the IS/MND states that in order to be LEED certified, a Project should “maximize natural lighting, minimize summer heat gain, and increase heating in winter,” which is done through solar orientation. As a result, the building fails to demonstrate consistency with both the GHG Reduction Strategy, as well as LEED Certification.

Furthermore, the Project fails to demonstrate consistency with MS-21.3 (see excerpt below),<sup>16</sup>

**MS-21.3:** Ensure that San José’s Community Forest is comprised of species that have low water requirements and are well adapted to its Mediterranean climate. Select and plant diverse species to prevent monocultures that are vulnerable to pest invasions. Furthermore, consider the appropriate placement of tree species and their lifespan to ensure the perpetuation of the Community Forest.

According to the IS/MND, the developed portion of this site will include a “landscaped common outdoor open space” (p. 8). However, nowhere in the IS/MND does it require that the landscaped areas have plants with low water requirements or that these plants are well adapted to the climate of San Jose. This presents a significant issue, as LEED certification requires that the Project have “water efficient landscaping.” As a result, the building fails to demonstrate consistency with both the GHG Reduction Strategy, as well as LEED Certification.

For the reasons listed above, we cannot verify that the Project is consistent with the Green Building mandatory measures and, as a result, may not be consistent with the City’s GHG Reduction Strategy. Since the Project fails to demonstrate compliance with the City of San Jose’s GHG Reduction Plan, the Project Applicant must quantify the Project’s GHG emissions and compare the emissions estimates to BAAQMD thresholds in order to determine Project significance, as required by CEQA Guidelines (Section 15064.4).<sup>17</sup> Prior to Project Approval, the Project Applicant should provide an updated GHG analysis that either demonstrates consistency with all mandatory measures of the GHG Reduction Strategy or quantifies Project emissions and compares them to applicable thresholds in order to assess the Project’s GHG impact.

Sincerely,



Matt Hagemann, P.G., C.Hg.

<sup>16</sup> <http://www.sanjoseca.gov/documentcenter/view/9388>, pp. 35

<sup>17</sup> “CEQA Guidelines.” *The Governor’s Office of Planning & Research*, 2011, available at: [http://resources.ca.gov/ceqa/docs/FINAL\\_Text\\_of\\_Proposed\\_Amendments.pdf](http://resources.ca.gov/ceqa/docs/FINAL_Text_of_Proposed_Amendments.pdf)



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**Geologic and Hydrogeologic Characterization  
Industrial Stormwater Compliance  
Investigation and Remediation Strategies  
Litigation Support and Testifying Expert  
CEQA Review**

**Education:**

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

**Professional Certifications:**

California Professional Geologist

California Certified Hydrogeologist

Qualified SWPPP Developer and Practitioner

**Professional Experience:**

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

**Senior Regulatory and Litigation Support Analyst:**

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

### **Executive Director:**

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

### **Hydrogeology:**

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

### **Policy:**

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

### **Geology:**

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

### **Teaching:**

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

### **Invited Testimony, Reports, Papers and Presentations:**

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

**Hagemann, M.F.**, 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

**Hagemann, M.F.**, 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

**Hagemann, M.F.**, 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

**Hagemann, M.F.**, 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

**Hagemann, M.F.**, 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

**Hagemann, M.F.**, 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

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**Other Experience:**

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

# HADLEY KATHRYN NOLAN

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Technical Consultation, Data Analysis and  
Litigation Support for the Environment

## SOIL WATER AIR PROTECTION ENTERPRISE

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## EDUCATION

UNIVERSITY OF CALIFORNIA, LOS ANGELES B.S. ENVIRONMENTAL SCIENCES & ENVIRONMENTAL SYSTEMS AND SOCIETY JUNE 2016

## PROJECT EXPERIENCE

### SOIL WATER AIR PROTECTION ENTERPRISE

SANTA MONICA, CA

#### AIR QUALITY SPECIALIST

#### SENIOR PROJECT ANALYST: CEQA ANALYSIS & MODELING

- Modeled construction and operational activities for proposed land use projects using CalEEMod to quantify criteria air pollutant and greenhouse gas (GHG) emissions.
- Organized presentations containing figures and tables that compare results of criteria air pollutant analyses to thresholds.
- Quantified ambient air concentrations at sensitive receptor locations using AERSCREEN, a U.S. EPA recommended screening level dispersion model.
- Conducted construction and operational health risk assessments for residential, worker, and school children sensitive receptors.
- Prepared reports that discuss adequacy of air quality and health risk analyses conducted for proposed land use developments subject to CEQA review by verifying compliance with local, state, and regional regulations.

#### SENIOR PROJECT ANALYST: GREENHOUSE GAS MODELING AND DETERMINATION OF SIGNIFICANCE

- Evaluated environmental impact reports for proposed projects to identify discrepancies with the methods used to quantify and assess GHG impacts.
- Quantified GHG emissions for proposed projects using CalEEMod to produce reports, tables, and figures that compare emissions to applicable CEQA thresholds and reduction targets.
- Determined compliance of proposed land use developments with AB 32 GHG reduction targets, with GHG significance thresholds recommended by Air Quality Management Districts in California, and with guidelines set forth by CEQA.

#### PROJECT ANALYST: ASSESSMENT OF AIR QUALITY IMPACTS FROM PROPOSED DIRECT TRANSFER FACILITY

- Assessed air quality impacts resulting from implementation of a proposed Collection Service Agreement for Exclusive Residential and Commercial Garbage, Recyclable Materials, and Organic Waste Collection Services for a community.
- Organized tables and maps to demonstrate potential air quality impacts resulting from proposed hauling trip routes.
- Conducted air quality analyses that compared quantified criteria air pollutant emissions released during construction of direct transfer facility to the Bay Area Air Quality Management District's (BAAQMD) significance thresholds.
- Prepared final analytical report to demonstrate local and regional air quality impacts, as well as GHG impacts.

#### PROJECT ANALYST: EXPOSURE ASSESSMENT OF LEAD PRODUCTS FOR PROPOSITION 65 COMPLIANCE DETERMINATION

- Calculated human exposure and lifetime health risk for over 300 lead products undergoing Proposition 65 compliance review.
- Compiled and analyzed laboratory testing data and produced tables, charts, and graphs to exhibit emission levels.
- Compared finalized testing data to Proposition 65 Maximum Allowable Dose Levels (MADLs) to determine level of compliance.
- Prepared final analytical lead exposure Certificate of Merit (COM) reports and organized supporting data for use in environmental enforcement statute Proposition 65 cases.

## ACCOMPLISHMENTS

- Academic Honoree, Dean's List, University of California, Los Angeles

MAR 2013, MAR 2014, JAN 2015, JAN 2016

# EXHIBIT B

Shawn Smallwood, PhD  
3108 Finch Street  
Davis, CA 95616

Thai-Chau Le, Environmental Project Manager  
City of San Jose  
200 E. Santa Clara Street, 3<sup>rd</sup> Floor  
San Jose, CA 95113

29 April 2018

RE: Dove Hill Road Assisted Living Project

Dear Ms. Le,

I write to comment on the biological resources assessment (Harvey and Associates) prepared for the mitigated negative declaration of the Dove Hill Road Assisted Living Project (City of San Jose 2018), which I understand is to be a new convalescent facility development on about 3 acres of a 21.1 acres in San Jose, California.

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 for four years as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research is on animal density and distribution, habitat selection, habitat restoration, interactions between wildlife and human infrastructure and activities, conservation of rare and endangered species, and on the ecology of invading species. I have authored papers on special-status species issues, including “Using the best scientific data for endangered species conservation” (Smallwood et al. 1999) and “Suggested standards for science applied to conservation issues” (Smallwood et al. 2001). I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and the Raptor Research Foundation, and I’ve been a part-time lecturer at California State University, Sacramento. I served as Associate Editor of Biological Conservation and of wildlife biology’s premier scientific journal, The Journal of Wildlife Management, and I served on the Editorial Board of Environmental Management.

I have performed wildlife surveys in California for thirty-three years. I studied the impacts of human activities and human infrastructure on wildlife, including on golden eagle, Swainson's hawk, burrowing owl, San Joaquin kangaroo rat, mountain lion, California tiger salamander, California red-legged frog, and other species. I have performed research on wildlife mortality caused by wind turbines, electric distribution lines, agricultural practices, and road traffic, and I’ve performed wildlife surveys at many proposed project sites. I collaborate with colleagues worldwide on the underlying science and policy issues related to anthropogenic impacts on wildlife.

My CV is attached.

## BIOLOGICAL IMPACTS ASSESSMENT

The potential impacts caused by the proposed project have not yet been assessed adequately. Many special-status species have been recorded nearby the project site (Table 1, and see H.T. Harvey & Associates 2015). Looking through iNaturalist (<https://www.inaturalist.org/observations>) and eBird (<https://eBird.org>), I quickly found numerous postings of special-status species observed nearby the project site. Many of the postings were of sightings right across the highway to the west or along Hassler Parkway. A white-tailed kite was seen on the edge of the neighborhood immediately east of the project site. A California tiger salamander was found only 1,200 meters east of the project site only 3 months ago. Thirty special-status species occur in the area (Table 1), two of them were seen on site, and multiple others have added potential to occur on site due to the occurrence of the keystone species, California ground squirrel (*Otospermophilus beecheyi*) (H.T. Harvey & Associates 2015:6).

Based on my experience and the postings on eBird, I am confident that the majority, if not all of the species in Table 1 use the project site at least on occasion. Some species would need to be detected by winter visits, including ferruginous hawks and merlin, and others likely use the site as stop-over habitat during migration. Some species would require more time on site for detection because they likely visit it periodically as part of their foraging circuit – species such as golden eagle and peregrine falcon. Special survey protocols or guidelines have been prepared for some of the species in Table 1, and would need to be implemented before concluding the species is absent.

For example, determining the absence of burrowing owls requires a survey effort consistent with the recommended survey standards in CDFW (2012). Such surveys have not been performed on the project site. The only wildlife surveys performed included one on 12 September 2008, one on 21 September 2008, and another on 9 February 2009. No details were reported about these surveys, such as when they began, how long they lasted, and what methods were used. But regardless, none of these surveys occurred during the burrowing owl breeding season, and none were consistent with the surveys recommended in the available survey guidelines of the time (CDFW 1995) or since (CDFW 2012). Therefore, H.T. Harvey & Associates' (2015:14) statement, "*No evidence of burrowing owls was observed on the site during reconnaissance-level surveys conducted for the project...*" was misleading because such a survey cannot provide the evidence needed to determine absence. The City of San Jose's (2018:47) determination was even more misleading by claiming that the site lacks burrows of California ground squirrel, a claim that is contrary to the reporting of H.T. Harvey & Associates (2015). Detection surveys are needed for burrowing owls on and near the project site, consistent with the recommendations of CDFW (2012). An EIR should be prepared along with a report of appropriate detection surveys.

Burrowing owls are of particular concern in Santa Clara County, because the species had declined to only about 37 breeding pairs by 2015, and this number composed the majority of breeding burrowing owls remaining in the San Francisco Bay Area. Concern had grown so high by the end of 2016 that the Santa Clara County Valley Habitat Agency

convened a workshop of species' experts, held in February 2017. Five experts were invited to lead the workshop, including myself (four attended). My summary of the workshop is attached. Burrowing owls are on the verge of extirpation from the San Francisco Bay Area, and the Santa Clara Valley region harbors most of the remaining breeding pairs. Potential project impacts on burrowing owls need to be taken seriously. Appropriate detection surveys are needed.

Although a few bat species were given potential for occurrence due to buildings on site that could serve as roosts (H.T. Harvey & Associates 2015:6), no surveys were performed to detect bats. Acoustic monitoring could have been done, or thermal-imaging surveys. Also, bats will roost in a variety of environmental settings. In their extensive review of studies of bat roosting behaviors, Kunz and Lumsden (2003) reported findings that indicated a wide diversity of conditions suitable for roosting. The very first sentence of Kunz and Lumsden (2003:3) reads, "Bats occupy a wide variety of roosts in both natural and manmade structures." By the third page of their review, Kunz and Lumsden (2003:5) were presenting photos and summaries of the variety of cavities and other structures used by roosting bats. The potential for bat occurrences is likely higher than reported in H.T. Harvey & Associates (2015).

The 9 February 2009 reconnaissance surveys was reportedly made to double-check whether evidence exists of white-tailed kite or San Francisco dusky-footed woodrat occurrence (H.T. Harvey & Associates 2015:13). Whereas the "double-check" term implies a thoroughness to the survey effort, these are not the types of surveys needed to determine species' absence. White-tailed kites require substantial survey effort to locate nest sites (Erichsen et al. 1995), and these are unlikely to be found in February when the species is still roosting within groups of conspecifics. Likewise, I know from experience that woodrats can be difficult to detect without the aid of live-trapping. H.T. Harvey & Associates (2015) reported no use of live-trapping for small mammals. An EIR should be prepared along with reports of appropriate detection surveys for these two species.

Not only should an EIR be prepared along with appropriate detection surveys, but it should be prepared by qualified biologists who are not so willing to dismiss the losses of individuals or breeding pairs of special-status species. H.T. Harvey & Associates (2015:13) wrote, "*In our opinion, the loss of one pair of each species [white-tailed kite and loggerhead shrike] would not be considered a significant impact under CEQA given the extremely low proportion of the regional population that would be represented by a single pair.*" However, losing individuals of species such as white-tailed kite and loggerhead shrike is not akin to losing individuals of common, r-selected species such as California vole or deer mouse. Species such as white-tailed kite and loggerhead shrike are assigned special status due to the effects of cumulative impacts – due to the past and ongoing losses of breeding colonies and of many single pairs or individuals causing noticeable declines in the species. Following careful consideration by resource agency and non-agency wildlife biologists working on these species, it has been determined that every loss of individuals or pairs of these species is significant. H. T. Harvey & Associates' opinion is contrary to the State of California and most other wildlife biologists with expertise on white-tailed kite and loggerhead shrike.

**Table 2.** Species reported on by H.T. Harvey & Associates (2015), iNaturalist (<https://www.inaturalist.org/observations>), or eBird (<https://eBird.org>) on or near the proposed project site.

Species	Scientific name	Status <sup>1</sup>	Covered by HCP?	Location
California tiger salamander	<i>Ambystoma californiense</i>	FT, CT	Yes	iNaturalist posting nearby
Pallid bat	<i>Antrozous pallidus</i>	SSC	No	Unknown, but likely
Western red bat	<i>Lasiurus blossevillii</i>	SSC	No	Unknown, but likely
Fringed myotis	<i>Myotis thysanodes</i>	WBWG	No	Unknown, but likely
Long-eared myotis	<i>Myotis evotis</i>	WBWG	No	Unknown, but likely
Small-footed myotis	<i>Myotis cililabrum</i>	WBWG	No	Unknown, but likely
San Francisco dusky-footed woodrat	<i>Neotoma fuscipes annectens</i>	SSC	No	Unknown, but likely
California gull	<i>Larus californicus</i>	TWL	No	eBird postings nearby
Golden eagle	<i>Aquila chrysaetos</i>	BGEPA, BCC, CFP	No	eBird postings nearby
Red-tailed hawk	<i>Buteo jamaicensis</i>	CDFW 3503.5	No	eBird postings nearby
Ferruginous hawk	<i>Buteo regalis</i>	CDFW 3503.5, TWL	No	on site; eBird postings nearby
Red-shouldered hawk	<i>Buteo lineatus</i>	CDFW 3503.5	No	eBird postings nearby
Sharp-shinned hawk	<i>Accipiter striatus</i>	CDFW 3503.5, TWL	No	eBird postings nearby
Cooper's hawk	<i>Accipiter cooperi</i>	CDFW 3503.5, TWL	No	eBird postings nearby
Northern harrier	<i>Circus cyaneus</i>	SSC3	No	eBird postings nearby
White-tailed kite	<i>Elanus leucurus</i>	CFP, TWL	No	eBird postings nearby
American kestrel	<i>Falco sparverius</i>	CDFW 3503.5	No	on site; eBird postings nearby
Merlin	<i>Falco columbarius</i>	CDFW 3503.5, TWL	No	eBird postings nearby
Prairie falcon	<i>Falco mexicanus</i>	CDFW 3503.5, TWL	No	eBird postings nearby
Peregrine falcon	<i>Falco peregrinus</i>	CE, CFP	No	eBird postings nearby
Burrowing owl	<i>Athene cunicularia</i>	FCC, SSC2	Yes	Occurrences in region
Great-horned owl	<i>Bubo virginianus</i>	CDFW 3503.5	No	eBird postings nearby
Barn owl	<i>Tyto alba</i>	CDFW 3503.5,	No	eBird postings nearby
Olive-sided flycatcher	<i>Contopus cooperi</i>	SSC2	No	eBird postings nearby
Oak titmouse	<i>Baeolophus inornatus</i>	BCC	No	eBird postings nearby
Loggerhead shrike	<i>Lanius ludovicianus</i>	FSC, SSC2	No	eBird postings nearby
Yellow warbler	<i>Setophaga petechia</i>	SSC2	No	eBird postings nearby
Common yellowthroat	<i>Geothlypis trichas sinuosa</i>	SSC3	No	eBird postings nearby



Savannah sparrow	<i>Passerculus sandwichensis alaudinus</i>	SSC3	No	eBird postings nearby
Tricolored blackbird	<i>Agelaius tricolor</i>	SSC1	Yes	eBird postings nearby

<sup>1</sup> Listed as FT = federal threatened, FCC = U.S. Fish and Wildlife Service Bird of Conservation Concern, BCC = federal Bird Species of Conservation Concern, CE = California endangered, CT = California threatened, CFP = California Fully Protected (CDFG Code 4700), CDFW 3503.5 = California Department of Fish and Wildlife Code 3503.5 (Birds of prey), and SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), and TWL = Taxa to Watch List (Shuford and Gardali 2008).

H. T. Harvey & Associates (2015) justified their opinion of insignificant impacts on loggerhead shrike and white-tailed kite using a false standard for determining significance. CEQA does not require an assessment of the proportion of a population lost to a project. If it did, then there would be a standard methodology for defining the bounds of a population so that the number affected by a project could be divided by the total population size. There would also be a standard threshold against which to compare the predicted proportion of a population lost to the project. Even if these standards existed, which they do not, H. T. Harvey & Associates presented no information on local populations of loggerhead shrike or white-tailed kite – no spatial boundaries, no population size estimates, nothing at all about populations or even local demography. What was reported was an opinion based on baseless speculation, and contrary to the views of those who assigned special status to these species.

Another false standard, this one implied by City of San Jose (2018:47), is that it is only the loss of nests of loggerhead shrike and white-tailed kite that should be factored into a significance determination. Foraging habitat is just as critical to species as is nesting habitat, and really there is no distinction between foraging and nesting habitat when it comes to nesting success. White-tailed kites and loggerhead shrikes cannot successfully nest on-site or off without being able to acquire sufficient forage to sustain themselves and their chicks. Even if white-tailed kites and loggerhead shrikes do not nest on site, they most likely forage on site and their foraging there helps sustain their nesting efforts elsewhere.

The false distinction between nesting and foraging habitat was also applied to other special-status species of birds such as grasshopper sparrow and Bryant's savannah sparrow (City of San Jose 2018:47). These species do not have to nest on the project site in order to be adversely affected by the project. Furthermore, the City of San Jose (2018:47) argues that the project site is too small to be used by nesting grasshopper sparrows or Bryant's savannah sparrows without informing the reader about the threshold habitat area below which these species cannot breed. If there is a minimum reproductive home range, then the City of San Jose ought to report it.

Similarly, the City of San Jose draws a false distinction between breeding and non-breeding habitat of California tiger salamander and California red-legged frog, concluding no significant impacts due to lack of breeding habitat on the project site. Having performed extensive surveys for both of these species, I can attest to the importance of ground squirrel burrows as non-breeding season refugia for these species. For example, in two years of surveys for California red-legged frogs in the Almaden, Los Gatos, and Calero watersheds just west-southwest of the project site, I found the species in only one location, and that happened to be the only location along many miles of surveyed streams where ground squirrels remained abundant in the surrounding uplands (US Fish and Wildlife Service unpublished data). Similarly, at a large study area to the north of the project site, I found California tiger salamander larvae and California red-legged frog adults in ponds surrounded by uplands occupied by ground squirrels or pocket gophers (Smallwood and Morrison 2007). Orloff (2011) reported California tiger salamanders dispersing to upland refugia up to 2.2 km from breeding

ponds, or well beyond the 1,200 m distance between the project site and the recently observed California tiger salamander posted on iNaturalist. The grasslands of the project site could very well be important refuge and crossover habitat used by California tiger salamander and California red-legged frog.

## **Wildlife Movement**

The conclusions related to potential project impacts on wildlife movement also rely on a false CEQA standard. The CEQA standard is whether a project will “*Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors...*” The primary phrase of the standard goes to wildlife movement regardless of whether the movement is channeled by a corridor. In fact, whereas natural corridors sometimes exist, the corridor concept mostly applies to human landscape engineering to reduce the effects of habitat fragmentation (Smallwood 2015). Wildlife movement in the region is often diffuse rather than channeled (Runge et al. 2014, Taylor et al. 2011), and includes stop-over habitat used by birds and bats (Taylor et al. 2011), staging habitat (Warnock 2010), and crossover habitat used by nonvolant wildlife during dispersal, migration or home range patrol. The false standard used by the City of San Jose was whether the project would intersect a “designated migratory wildlife corridor.” No source was provided for such designations, and no attention at all was given to other forms of wildlife movement in a region.

## **Traffic Impacts on Wildlife**

A fundamental shortfall of the IS/MND is its failure to analyze the impacts of the project’s added road traffic on special-status species of wildlife, including species such as Alameda whipsnake (*Masticophis lateralis euryxanthus*), California red-legged frog (*Rana draytonii*), California tiger salamander (*Ambystoma californiense*), and American badgers (*Taxidea taxus*) that, regardless of whether they live on the site, must cross roadways that will experience increased traffic volume caused by this project. The IS/MND provided no analysis of impacts on wildlife that will be caused by increased traffic on roadways servicing the project. The IS/MND estimates a daily trip generation of about 700 resulting from the project, but makes no effort to relate this trip generation to wildlife injuries and fatalities that will be caused by collisions and crushing. The project’s added traffic impacts on wildlife need to be assessed to the extent that the project’s added traffic is reasonably expected to travel from the project site.

Vehicle collisions have accounted for the deaths of many thousands of reptile, amphibian, mammal, bird, and arthropod fauna, and the impacts have often been found to be significant at the population level (Forman et al. 2003). Increased use of existing roads will increase wildlife fatalities (see Figure 7 in Kobylarz 2001). It is possible that project-related traffic impacts will far exceed the impacts of land conversion to residential use. But not one word of traffic-related impacts appears in the IS/MND – a gross shortfall of the CEQA review.

Many thousands of roadkill wildlife incidents have been reported to the UC Davis Road Ecology Center (Shilling et al. 2017). In 2017, one of the major hotspots of road-killed wildlife overlaps the project site (Shilling et al. 2017). In fact, the wildlife roadkill hotspot in the project area was found to be statistically highly significant (see Figure 5 of Shilling et al. 2017). The costs to drivers is also high (Shilling et al. 2017). The IS/MND should be revised to assess wildlife mortality that will be caused by increased traffic on existing roadways, and it should provide mitigation measures.

## **Cumulative Impacts**

The IS/MND provided no cumulative impacts analysis of biological resources. CEQA requires a cumulative effects analysis. Therefore, the IS/MND is fundamentally flawed. An EIR should be prepared, and it should include a cumulative effects analysis of biological resources.

## **MITIGATION MEASURES**

**MM BIO-1.1** A monitoring and management plan to preserve serpentine habitat should be prepared for incorporation into an EIR. The measures, as written, effectively excludes me and other members of the public from commenting on the details of a monitoring and management plan. The details are the most crucial portions of any such plan, and are the portions upon which public comments make the most effective contributions toward minimizing a project's impacts on the environment.

**MM BIO-2.1** Preconstruction surveys would come too late to reduce project impacts on white-tailed kite and loggerhead shrike. Neither of these species are covered by the incidental take permit issued to participants with the Santa Clara County Valley Habitat Plan. For these and multiple other species of birds (see Table 1), detection surveys are needed, because detection surveys provide the bases for impacts assessments and formulation of mitigation measures. They also inform preconstruction surveys, which are otherwise performed in a rushed manner just ahead of the tractor blade. These detection surveys should be performed to professional standards and their results included in an EIR.

**MM BIO-3.1** As with breeding birds, preconstruction surveys would come too late to reduce project impacts on bats. Special-status species of bats are not covered by the incidental take permit issued to participants with the Santa Clara County Valley Habitat Plan. Detection surveys are needed, because detection surveys provide the bases for impacts assessments and formulation of mitigation measures. They also inform preconstruction surveys, which are otherwise performed in a rushed manner just ahead of the tractor blade. These detection surveys should be performed to professional standards and their results included in an EIR.

**MM BIO-3.2** The IS/MND provides no mitigation for the project's impacts on wildlife movement in the region. What is needed are compensatory measures for the loss and degradation of stop-over and crossover habitat. Furthermore, mitigation is

needed for the project's added traffic impacts on wildlife attempting to move across roadways in the region.

**4.4.3.4** Three of the 30 special-status species likely affected by the project (Table 1) are covered by the Santa Clara County Valley Habitat Plan, which means 27 of the 30 species are not covered. Additional impacts assessments and mitigation measures are needed for these other 27 special-status species not covered by the Plan.

## **ADDITIONAL COMMENTS ON MITIGATION**

### **Windows**

I recommend that the project mitigates bird collisions with the facility's windows by designing windows and choosing window materials to minimize collisions, and by planning landscaping to minimize distances between ornamental vegetation and windows. Much has been learned about the mechanisms of bird-window collisions and how to minimize or reduce such collisions. The most effective measures are those planned in advance of construction, so it is important to consult with existing window collision guidelines, e.g., Sheppard and Phillips (2015).

### **Habitat Protection**

To compensate impacts on 30 special-status species of wildlife, 27 of which are not covered by the Santa Clara County Valley Habitat Plan, I recommend that an EIR be prepared, and that it identifies selected properties for permanent habitat protection relevant to these 30 species. Performance standards are needed to ensure that nexus can be demonstrated between the project's impacts and the benefits gained in the protected habitat. There needs to be demonstrated nexus between impacts and mitigation, and the public reviewing the EIR needs to see it in order to effectively participate with it.

### **Donations to Wildlife Rehabilitation Facilities**

Despite efforts to minimize and reduce project impacts on wildlife, there will be impacts. Wildlife will be injured by windows, pets, auto traffic and infrastructure such as by electric distribution lines and fences, and many of them will be discovered by concerned residents within and outside the project. These injured animals are often taken to wildlife rehabilitation facilities, where most are euthanized either because the injuries are too great for any hope of releasing the animal back to the wild or because operating budgets are too low to afford the level of care needed for rehabilitation and release. The truth is that the non-profit organizations serving to rehabilitate wildlife are almost always operating on shoestring budgets. Many more injured wildlife can be rehabilitated and released by increasing the operating budgets of wildlife rehabbers.

I recommend that compensatory mitigation for project impacts be provided in the form of donations to wildlife rehabilitation facilities. The amount of the fund could be

assessed by estimating the numbers of injured animals found and delivered to rehabilitation facilities and by interviewing rehabilitation facilities for their costs. Little has been done in support of such an assessment, but Leyvas and Smallwood (2015) initiated a small effort on the cost side of the problem. We surveyed 38 rehabilitation facilities to assess the cost of rehabilitating raptors injured by wind turbines, and we ended up recommending \$3,230/injured raptor would serve as a reasonable interim mitigation cost. Since then we have also hazarded to guess that \$500 per injured non-raptor animal would be reasonable. These costs would need to be multiplied by the number of injured animals ending up in rehabilitation facilities, and these numbers could be obtained by interviewing the rehabbers. Alternatively, a reasonable one-time sum could be estimated and paid out without having to monitor for injuries.

Thank you for your attention,



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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

- 478 professional publications, including:
  - 82 peer reviewed publications
  - 24 in non-reviewed proceedings
- 370 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 87 public presentations of research results at meetings

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., D. A. Bell, E. L. Walther, E. Leyvas, S. Standish, J. Mount, B. Karas. 2018. Estimating wind turbine fatalities using integrated detection trials. *Journal of Wildlife Management*: In press.
- Smallwood, K. S. 2017. Long search intervals under-estimate bird and bat fatalities caused by wind turbines. *Wildlife Society Bulletin* 41:224-230.
- Smallwood, K. S. 2017. The challenges of addressing wildlife impacts when repowering wind energy projects. Pages 175-187 in Köppel, J., Editor, *Wind Energy and Wildlife Impacts: Proceedings from the CWW2015 Conference*. Springer. Cham, Switzerland.
- May, R., Gill, A. B., Köppel, J. Langston, R. H.W., Reichenbach, M., Scheidat, M., Smallwood, S., Voigt, C. C., Hüppop, O., and Portman, M. 2017. Future research directions to reconcile wind turbine-wildlife interactions. Pages 255-276 in Köppel, J., Editor, *Wind Energy and Wildlife Impacts: Proceedings from the CWW2015 Conference*. Springer. Cham, Switzerland.
- Smallwood, K. S. 2017. Monitoring birds. M. Perrow, Ed., *Wildlife and Wind Farms - Conflicts and Solutions*, Volume 2. Pelagic Publishing, Exeter, United Kingdom. [www.bit.ly/2v3cR9Q](http://www.bit.ly/2v3cR9Q)
- Smallwood, K. S., L. Neher, and D. A. Bell. 2017. Siting to Minimize Raptor Collisions: an example from the Repowering Altamont Pass Wind Resource Area. M. Perrow, Ed., *Wildlife and Wind Farms - Conflicts and Solutions*, Volume 2. Pelagic Publishing, Exeter, United Kingdom. [www.bit.ly/2v3cR9Q](http://www.bit.ly/2v3cR9Q)
- Johnson, D. H., S. R. Loss, K. S. Smallwood, W. P. Erickson. 2016. Avian fatalities at wind energy facilities in North America: A comparison of recent approaches. *Human-Wildlife Interactions* 10(1):7-18.
- Sadar, M. J., D. S.-M. Guzman, A. Mete, J. Foley, N. Stephenson, K. H. Rogers, C. Grosset, K. S. Smallwood, J. Shipman, A. Wells, S. D. White, D. A. Bell, and M. G. Hawkins. 2015. Mange Caused by a novel *Micnemidocoptes* mite in a Golden Eagle (*Aquila chrysaetos*). *Journal of Avian Medicine and Surgery* 29(3):231-237.
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- Mete, A., N. Stephenson, K. Rogers, M. G. Hawkins, M. Sadar, D. Guzman, D. A. Bell, J. Shipman, A. Wells, K. S. Smallwood, and J. Foley. 2014. Emergence of Knemidocoptic mange in wild Golden Eagles (*Aquila chrysaetos*) in California. *Emerging Infectious Diseases* 20(10):1716-1718.
- Smallwood, K. S. 2013. Introduction: Wind-energy development and wildlife conservation. *Wildlife Society Bulletin* 37: 3-4.

- Smallwood, K. S. 2013. Comparing bird and bat fatality-rate estimates among North American wind-energy projects. *Wildlife Society Bulletin* 37:19-33. + Online Supplemental Material.
- Smallwood, K. S., L. Neher, J. Mount, and R. C. E. Culver. 2013. Nesting Burrowing Owl Abundance in the Altamont Pass Wind Resource Area, California. *Wildlife Society Bulletin*: 37:787-795.
- Smallwood, K. S., D. A. Bell, B. Karas, and S. A. Snyder. 2013. Response to Huso and Erickson Comments on Novel Scavenger Removal Trials. *Journal of Wildlife Management* 77: 216-225.
- Bell, D. A., and K. S. Smallwood. 2010. Birds of prey remain at risk. *Science* 330:913.
- Smallwood, K. S., D. A. Bell, S. A. Snyder, and J. E. DiDonato. 2010. Novel scavenger removal trials increase estimates of wind turbine-caused avian fatality rates. *Journal of Wildlife Management* 74: 1089-1097 + Online Supplemental Material.
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- Smallwood, K. S. and B. Karas. 2009. Avian and Bat Fatality Rates at Old-Generation and Repowered Wind Turbines in California. *Journal of Wildlife Management* 73:1062-1071.
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- Smallwood, K. S., C. G. Thelander. 2008. Bird Mortality in the Altamont Pass Wind Resource Area, California. *Journal of Wildlife Management* 72:215-223.
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- Smallwood, K. S., C. G. Thelander, M. L. Morrison, and L. M. Rugge. 2007. Burrowing owl mortality in the Altamont Pass Wind Resource Area. *Journal of Wildlife Management* 71:1513-1524.
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### **Comments on Environmental Documents**

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

- The Villages of Lakeview EIR (2017; 28 pp);
- Notes on Proposed Study Options for Trail Impacts on Northern Spotted Owl (2017; 4 pp);
- San Geronio Crossings EIR (2017; 22 pp);
- Replies to responses on Jupiter Project IS and MND (2017; 12 pp);
- MacArthur Transit Village Project Modified 2016 CEQA Analysis (2017; 12 pp);
- Central SoMa Plan DEIR (2017; 14 pp);
- Colony Commerce Center Specific Plan DEIR (2016; 16 pp);
- Fairway Trails Improvements MND (2016; 13 pp);
- Review of Avian-Solar Science Plan (2016; 28 pp);
- Replies to responses on Initial Study for Pyramid Asphalt (2016; 5 pp);
- Initial Study for Pyramid Asphalt (2016; 4 pp);
- Agua Mansa Distribution Warehouse Project Initial Study (2016; 14 pp);
- Santa Anita Warehouse IS and MND (2016; 12 pp);
- CapRock Distribution Center III DEIR (2016; 12 pp);
- Orange Show Logistics Center Initial Study and MND (2016; 9 pp);
- City of Palmdale Oasis Medical Village Project IS and MND (2016; 7 pp);
- Comments on proposed rule for incidental eagle take (2016, 49 pp);
- Grapevine Specific and Community Plan FEIR (2016; 25 pp);
- Grapevine Specific and Community Plan DEIR (2016; 15 pp);
- Clinton County Zoning Ordinance for Wind Turbine siting (2016);
- Hallmark at Shenandoah Warehouse Project Initial Study (2016; 6 pp);
- Tri-City Industrial Complex Initial Study (2016; 5 pp);
- Hidden Canyon Industrial Park Plot Plan 16-PP-02 (2016; 12 pp);
- Kimball Business Park DEIR (2016; 10 pp);
- Jupiter Project IS and MND (2016; 9 pp);
- Revised Draft Giant Garter Snake Recovery Plan of 2015 (2016, 18 pp);
- Palo Verde Mesa Solar Project Draft Environmental Impact Report (2016; 27 pp);
- Reply Witness Statement on Fairview Wind Project, Ontario, Canada (2016; 14 pp);
- Fairview Wind Project, Ontario, Canada (2016; 41 pp);
- Supplementary Reply Witness Statement Amherst Island Wind Farm, Ontario (2015, 38 pp);
- Witness Statement on Amherst Island Wind Farm, Ontario (2015, 31 pp);

- Second Reply Witness Statement on White Pines Wind Farm, Ontario (2015, 6 pp);
- Reply Witness Statement on White Pines Wind Farm, Ontario (2015, 10 pp);
- Witness Statement on White Pines Wind Farm, Ontario (2015, 9 pp);
- Proposed Section 24 Specific Plan Agua Caliente Band of Cahuilla Indians DEIS (2015, 9 pp);
- Replies to comments 24 Specific Plan Agua Caliente Band of Cahuilla Indians FEIS (2015, 6 pp);
- Willow Springs Solar Photovoltaic Project DEIR (2015; 28 pp);
- Sierra Lakes Commerce Center Project DEIR (2015, 9 pp);
- Columbia Business Center MND (2015; 8 pp);
- West Valley Logistics Center Specific Plan DEIR (2015, 10 pp);
- World Logistic Center Specific Plan FEIR (2015, 12 pp);
- Bay Delta Conservation Plan EIR/EIS (2014, 21 pp);
- Addison Wind Energy Project DEIR (2014, 32 pp);
- Response to Comments on the Addison Wind Energy Project DEIR (2014, 15 pp);
- Addison and Rising Tree Wind Energy Project FEIR (2014, 12 pp);
- Alta East Wind Energy Project FEIS (2013, 23 pp);
- Blythe Solar Power Project Staff Assessment, California Energy Commission (2013, 16 pp);
- Clearwater and Yakima Solar Projects DEIR (2013, 9 pp);
- Cuyama Solar Project DEIR (2014, 19 pp);
- Draft Desert Renewable Energy Conservation Plan (DRECP) EIR/EIS (2015, 49 pp);
- Kingbird Solar Photovoltaic Project EIR (2013, 19 pp);
- Lucerne Valley Solar Project Initial Study & Mitigated Negative Declaration (2013, 12 pp);
- Palen Solar Electric Generating System Final Staff Assessment of California Energy Commission, (2014, 20 pp);
- Rebuttal testimony on Palen Solar Energy Generating System (2014, 9 pp);
- Rising Tree Wind Energy Project DEIR (2014, 32 pp);
- Response to Comments on the Rising Tree Wind Energy Project DEIR (2014, 15 pp);
- Soitec Solar Development Project Draft PEIR (2014, 18 pp);
- Comment on the Biological Opinion (08ESMF-00-2012-F-0387) of Oakland Zoo expansion on Alameda whipsnake and California red-legged frog (2014; 3 pp);
- West Antelope Solar Energy Project Initial Study and Negative Declaration (2013, 18 pp);
- Willow Springs Solar Photovoltaic Project DEIR (2015, 28 pp);
- Alameda Creek Bridge Replacement Project DEIR (2015, 10 pp);
- Declaration on Tule Wind project FEIR/FEIS (2013; 24 pp);
- Sunlight Partners LANDPRO Solar Project Mitigated Negative Declaration (2013; 11 pp);
- Declaration in opposition to BLM fracking (2013; 5 pp);
- Rosamond Solar Project Addendum EIR (2013; 13 pp);
- Pioneer Green Solar Project EIR (2013; 13 pp);
- Reply to Staff Responses to Comments on Soccer Center Solar Project Mitigated Negative Declaration (2013; 6 pp);
- Soccer Center Solar Project Mitigated Negative Declaration (2013; 10 pp);
- Plainview Solar Works Mitigated Negative Declaration (2013; 10 pp);
- Reply to the County Staff's Responses on comments to Imperial Valley Solar Company 2

- Project (2013; 10 pp);
- Imperial Valley Solar Company 2 Project (2013; 13 pp);
- FRV Orion Solar Project DEIR (PP12232) (2013; 9 pp);
- Casa Diablo IV Geothermal Development Project (2013; 6 pp);
- Reply to Staff Responses to Comments on Casa Diablo IV Geothermal Development Project (2013; 8 pp);
- FEIS prepared for Alta East Wind Project (2013; 23 pp);
- Metropolitan Air Park DEIR, City of San Diego (2013; );
- Davidson Homes Tentative Subdivision Map and Rezoning Project DEIR (2013; 9 pp);
- Analysis of Biological Assessment of Oakland Zoo Expansion Impacts on Alameda Whipsnake (2013; 10 pp);
- Declaration on Campo Verde Solar project FEIR (2013; 11pp);
- Neg Dec comments on Davis Sewer Trunk Rehabilitation (2013; 8 pp);
- Declaration on North Steens Transmission Line FEIS (2012; 62 pp);
- City of Lancaster Revised Initial Study for Conditional Use Permits 12-08 and 12-09, Summer Solar and Springtime Solar Projects (2012; 8 pp);
- J&J Ranch, 24 Adobe Lane Environmental Review (2012; 14 pp);
- Reply to the County Staff's Responses on comments to Hudson Ranch Power II Geothermal Project and the Simbol Calipatria Plant II (2012; 8 pp);
- Hudson Ranch Power II Geothermal Project and the Simbol Calipatria Plant II (2012; 9 pp);
- Desert Harvest Solar Project EIS (2012; 15 pp);
- Solar Gen 2 Array Project DEIR (2012; 16 pp);
- Ocotillo Sol Project EIS (2012; 4 pp);
- Beacon Photovoltaic Project DEIR (2012; 5 pp);
- Declaration on Initial Study and Proposed Negative Declaration for the Butte Water District 2012 Water Transfer Program (2012; 11 pp);
- Mount Signal and Calexico Solar Farm Projects DEIR (2011; 16 pp);
- City of Elk Grove Sphere of Influence EIR (2011; 28 pp);
- Comment on Sutter Landing Park Solar Photovoltaic Project MND (2011; 9 pp);
- Statement of Shawn Smallwood, Ph.D. Regarding Proposed Rabik/Gudath Project, 22611 Coleman Valley Road, Bodega Bay (CPN 10-0002) (2011; 4 pp);
- Declaration of K. Shawn Smallwood on Biological Impacts of the Ivanpah Solar Electric Generating System (ISEGS) (2011; 9 pp);
- Comments on Draft Eagle Conservation Plan Guidance (2011; 13 pp);
- Comments on Draft EIR/EA for Niles Canyon Safety Improvement Project (2011; 16 pp);
- Declaration of K. Shawn Smallwood, Ph.D., on Biological Impacts of the Route 84 Safety Improvement Project (2011; 7 pp);
- Rebuttal Testimony of Witness #22, K. Shawn Smallwood, Ph.D, on Behalf of Intervenors Friends of The Columbia Gorge & Save Our Scenic Area (2010; 6 pp);
- Prefiled Direct Testimony of Witness #22, K. Shawn Smallwood, Ph.D, on Behalf of Intervenors Friends of the Columbia Gorge & Save Our Scenic Area. Comments on Whistling Ridge Wind Energy Power Project DEIS, Skamania County, Washington (2010; 41 pp);
- Evaluation of Klickitat County's Decisions on the Windy Flats West Wind Energy Project (2010; 17 pp);



- St. John's Church Project Draft Environmental Impact Report (2010; 14 pp.);
- Initial Study/Mitigated Negative Declaration for Results Radio Zone File #2009-001 (2010; 20 pp);
- Rio del Oro Specific Plan Project Final Environmental Impact Report (2010;12 pp);
- Answers to Questions on 33% RPS Implementation Analysis Preliminary Results Report (2009; 9 pp);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington. Second Declaration to Friends of the Columbia Gorge, Inc. and Save Our Scenic Area (Dec 2008; 17 pp);
- Comments on Draft 1A Summary Report to CAISO (2008; 10 pp);
- County of Placer's Categorical Exemption of Hilton Manor Project (2009; 9 pp);
- 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 pp);
- Tehachapi Renewable Transmission Project EIR/EIS (2009; 142 pp);
- Delta Shores Project EIR, south Sacramento (2009; 11 pp + addendum 2 pp);
- Declaration of Shawn Smallwood in Support of Care's Petition to Modify D.07-09-040 (2008; 3 pp);
- 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 pp);
- 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 pp);
- Draft 1A Summary Report to California Independent System Operator for Planning Reserve Margins (PRM) Study (2008; 7 pp.);
- SEPA Determination of Non-significance regarding zoning adjustments for Skamania County, Washington. Declaration to Friends of the Columbia Gorge, Inc. and Save Our Scenic Area (Sep 2008; 16 pp);
- California Energy Commission's Preliminary Staff Assessment of the Colusa Generating Station (2007; 24 pp);
- Rio del Oro Specific Plan Project Recirculated Draft Environmental Impact Report (2008; 66 pp);
- Replies to Response to Comments Re: Regional University Specific Plan Environmental Impact Report (2008; 20 pp);
- Regional University Specific Plan Environmental Impact Report (2008; 33 pp.);
- Clark Precast, LLC's "Sugarland" project, Negative Declaration (2008; 15 pp.);
- Cape Wind Project Draft Environmental Impact Statement (2008; 157 pp.);
- Yuba Highlands Specific Plan (or Area Plan) Environmental Impact Report (2006; 37 pp.);
- Replies to responses to comments on Mitigated Negative Declaration of the proposed Mining Permit (MIN 04-01) and Modification of Use Permit 96-02 at North Table Mountain (2006; 5 pp);
- Mitigated Negative Declaration of the proposed Mining Permit (MIN 04-01) and Modification of Use Permit 96-02 at North Table Mountain (2006; 15 pp);
- Windy Point Wind Farm Environmental Review and EIS (2006; 14 pp and 36 Powerpoint

- slides in reply to responses to comments);
- Shiloh I Wind Power Project EIR (2005; 18 pp);
- Buena Vista Wind Energy Project Notice of Preparation of EIR (2004; 15 pp);
- Negative Declaration of the proposed Callahan Estates Subdivision (2004; 11 pp);
- Negative Declaration of the proposed Winters Highlands Subdivision (2004; 9 pp);
- Negative Declaration of the proposed Winters Highlands Subdivision (2004; 13 pp);
- Negative Declaration of the proposed Creekside Highlands Project, Tract 7270 (2004; 21 pp);
- On the petition California Fish and Game Commission to list the Burrowing Owl as threatened or endangered (2003; 10 pp);
- Conditional Use Permit renewals from Alameda County for wind turbine operations in the Altamont Pass Wind Resource Area (2003; 41 pp);
- UC Davis Long Range Development Plan of 2003, particularly with regard to the Neighborhood Master Plan (2003; 23 pp);
- Anderson Marketplace Draft Environmental Impact Report (2003: 18 pp + 3 plates of photos);
- Negative Declaration of the proposed expansion of Temple B'nai Tikyah (2003: 6 pp);
- Antonio Mountain Ranch Specific Plan Public Draft EIR (2002: 23 pp);
- Response to testimony of experts at the East Altamont Energy Center evidentiary hearing on biological resources (2002: 9 pp);
- Revised Draft Environmental Impact Report, The Promenade (2002: 7 pp);
- Recirculated Initial Study for Calpine's proposed Pajaro Valley Energy Center (2002: 3 pp);
- UC Merced -- Declaration of Dr. Shawn Smallwood in support of petitioner's application for temporary restraining order and preliminary injunction (2002: 5 pp);
- Replies to response to comments in Final Environmental Impact Report, Atwood Ranch Unit III Subdivision (2003: 22 pp);
- Draft Environmental Impact Report, Atwood Ranch Unit III Subdivision (2002: 19 pp + 8 photos on 4 plates);
- California Energy Commission Staff Report on GWF Tracy Peaker Project (2002: 17 pp + 3 photos; follow-up report of 3 pp);
- Initial Study and Negative Declaration, Silver Bend Apartments, Placer County (2002: 13 pp);
- UC Merced Long-range Development Plan DEIR and UC Merced Community Plan DEIR (2001: 26 pp);
- Initial Study, Colusa County Power Plant (2001: 6 pp);
- Comments on Proposed Dog Park at Catlin Park, Folsom, California (2001: 5 pp + 4 photos);
- Pacific Lumber Co. (Headwaters) Habitat Conservation Plan and Environmental Impact Report (1998: 28 pp);
- Final Environmental Impact Report/Statement for Issuance of Take authorization for listed species within the MSCP planning area in San Diego County, California (Fed. Reg. 62 (60): 14938, San Diego Multi-Species Conservation Program) (1997: 10 pp);
- Permit (PRT-823773) Amendment for the Natomas Basin Habitat Conservation Plan, Sacramento, CA (Fed. Reg. 63 (101): 29020-29021) (1998);
- Draft Recovery Plan for the Giant Garter Snake (*Thamnophis gigas*). (Fed. Reg. 64(176):

- 49497-49498) (1999: 8 pp);
- Review of the Draft Recovery Plan for the Arroyo Southwestern Toad (*Bufo microscaphus californicus*) (1998);
- Ballona West Bluffs Project Environmental Impact Report (1999: oral presentation);
- California Board of Forestry's proposed amended Forest Practices Rules (1999);
- Negative Declaration for the Sunset Sky Ranch Airport Use Permit (1999);
- Calpine and Bechtel Corporations' Biological Resources Implementation and Monitoring Program (BRMIMP) for the Metcalf Energy Center (2000: 10 pp);
- California Energy Commission's Final Staff Assessment of the proposed Metcalf Energy Center (2000);
- US Fish and Wildlife Service Section 7 consultation with the California Energy Commission regarding Calpine and Bechtel Corporations' Metcalf Energy Center (2000: 4 pp);
- California Energy Commission's Preliminary Staff Assessment of the proposed Metcalf Energy Center (2000: 11 pp);
- Site-specific management plans for the Natomas Basin Conservancy's mitigation lands, prepared by Wildlands, Inc. (2000: 7 pp);
- 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 pp).

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

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

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 (*Geomyidae*) 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, Asylomar, 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.

**Reviews of Journal Papers** (Scientific journals for whom I've provided peer review)

<b>Journal</b>	<b>Journal</b>
American Naturalist	Journal of Animal Ecology
Journal of Wildlife Management	Western North American Naturalist
Auk	Journal of Raptor Research
Biological Conservation	National Renewable Energy Lab reports
Canadian Journal of Zoology	Oikos
Ecosystem Health	The Prairie Naturalist
Environmental Conservation	Restoration Ecology
Environmental Management	Southwestern Naturalist
Functional Ecology	The Wildlife Society--Western Section Trans.
Journal of Zoology (London)	Proc. Int. Congress on Managing for Ecosystem Health
Journal of Applied Ecology	Transactions in GIS
Ecology	Tropical Ecology
Biological Control	The Condor

**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 and Amherst Island 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

### Representative Clients/Funders

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Law Offices of Stephan C. Volker Blum Collins, LLP Eric K. Gillespie Professional Corporation Law Offices of Berger & Montague Lozeau   Drury LLP Law Offices of Roy Haber Law Offices of Edward MacDonald Law Office of John Gabrielli Law Office of Bill Kopper Law Office of Donald B. Mooney Law Office of Veneruso & Moncharsh Law Office of Steven Thompson Law Office of Brian Gaffney California Wildlife Federation Defenders of Wildlife Sierra Club National Endangered Species Network Spirit of the Sage Council The Humane Society Hagens Berman LLP Environmental Protection Information Center Goldberg, Kamin & Garvin, Attorneys at Law Californians for Renewable Energy (CARE) Seatuck Environmental Association Friends of the Columbia Gorge, Inc. Save Our Scenic Area Alliance to Protect Nantucket Sound Friends of the Swainson's Hawk Alameda Creek Alliance Center for Biological Diversity California Native Plant Society Endangered Wildlife Trust and BirdLife South Africa AquAlliance Oregon Natural Desert Association Save Our Sound G3 Energy and Pattern Energy Emerald Farms Pacific Gas & Electric Co. Southern California Edison Co. Georgia-Pacific Timber Co. Northern Territories Inc. David Magney Environmental Consulting Wildlife History Foundation NextEra Energy Resources, LLC Ogin, Inc.	EDF Renewables National Renewable Energy Lab Altamont Winds LLC Salka Energy Comstocks Business (magazine) BioResource Consultants Tierra Data Black and Veatch Terry Preston, Wildlife Ecology Research Center EcoStat, Inc. US Navy US Department of Agriculture US Forest Service US Fish & Wildlife Service US Department of Justice California Energy Commission California Office of the Attorney General California Department of Fish & Wildlife California Department of Transportation California Department of Forestry California Department of Food & Agriculture Ventura County Counsel County of Yolo Tahoe Regional Planning Agency Sustainable Agriculture Research & Education Program Sacramento-Yolo Mosquito and Vector Control District East Bay Regional Park District County of Alameda Don & LaNelle Silverstien Seventh Day Adventist Church Escuela de la Raza Unida Susan Pelican and Howard Beeman Residents Against Inconsistent Development, Inc. Bob Sarvey Mike Boyd Hillcroft Neighborhood Fund Joint Labor Management Committee, Retail Food Industry Lisa Rocca Kevin Jackson Dawn Stover and Jay Letto Nancy Havassy Catherine Portman (for Brenda Cedarblade) Ventus Environmental Solutions, Inc. Panorama Environmental, Inc. Adams Broadwell Professional Corporation
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**Representative special-status species experience**

<b>Common name</b>	<b>Species name</b>	<b>Description</b>
<b>Field experience</b>		
California red-legged frog	<i>Rana aurora draytonii</i>	Protocol searches; Many detections
Foothill yellow-legged frog	<i>Rana boylei</i>	Presence surveys; Many detections
Western spadefoot	<i>Spea hammondi</i>	Presence surveys; Few detections
California tiger salamander	<i>Ambystoma californiense</i>	Protocol searches; Many detections
Coast range newt	<i>Taricha torosa torosa</i>	Searches and multiple detections
Blunt-nosed leopard lizard	<i>Gambelia sila</i>	Detected in San Luis Obispo County
California horned lizard	<i>Phrynosoma coronatum frontale</i>	Searches; Many detections
Western pond turtle	<i>Clemmys marmorata</i>	Searches; Many detections
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	Protocol searches; detections
Sumatran tiger	<i>Panthera tigris</i>	Track surveys in Sumatra
Mountain lion	<i>Puma concolor californicus</i>	Research and publications
Point Arena mountain beaver	<i>Aplodontia rufa nigra</i>	Remote camera operation
Giant kangaroo rat	<i>Dipodomys ingens</i>	Detected in Cholame Valley
San Joaquin kangaroo rat	<i>Dipodomys nitratoideus</i>	Monitoring & habitat restoration
Monterey dusky-footed woodrat	<i>Neotoma fuscipes luciana</i>	Non-target captures and mapping of dens
Salt marsh harvest mouse	<i>Reithrodontomys raviventris</i>	Habitat assessment, monitoring
Salinas harvest mouse	<i>Reithrodontomys megalotus distichlus</i>	Captures; habitat assessment
Bats		Thermal imaging surveys
California clapper rail	<i>Rallus longirostris</i>	Surveys and detections
Golden eagle	<i>Aquila chrysaetos</i>	Numerical & behavioral surveys
Swainson's hawk	<i>Buteo swainsoni</i>	Numerical & behavioral surveys
Northern harrier	<i>Circus cyaneus</i>	Numerical & behavioral surveys
White-tailed kite	<i>Elanus leucurus</i>	Numerical & behavioral surveys
Loggerhead shrike	<i>Lanius ludovicianus</i>	Large area surveys
Least Bell's vireo	<i>Vireo bellii pusillus</i>	Detected in Monterey County
Willow flycatcher	<i>Empidonax traillii eximius</i>	Research at Sierra Nevada breeding sites
Burrowing owl	<i>Athene cunicularia hypuglia</i>	Numerical & behavioral surveys
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	Monitored success of relocation and habitat restoration
<b>Analytical</b>		
Arroyo southwestern toad	<i>Bufo microscaphus californicus</i>	Research and report.
Giant garter snake	<i>Thamnophis gigas</i>	Research and publication
Northern goshawk	<i>Accipiter gentilis</i>	Research and publication
Northern spotted owl	<i>Strix occidentalis</i>	Research and reports
Alameda whipsnake	<i>Masticophis lateralis euryxanthus</i>	Expert testimony