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*Via Electronic Email and Overnight Delivery*

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**RE: Comment on the Draft Environmental Impact Report for the World Logistics Center Project (SCH # 2012021045)**

Dear Mr. Gross:

I am writing on behalf of Laborers International Union of North America, Local Union No. 1184 and its members living in Riverside County (collectively "LIUNA Local Union No. 1184" or "LIUNA" or "Commenters") regarding the Draft Environmental Impact Report ("DEIR") prepared for the World Logistics Center Project, State Clearinghouse No. 2012021045 ("Project").

We have reviewed the DEIR with the assistance of:

1. Hydrogeologist, Matthew Hagemann, C.Hg., MS.
2. Biologist, Scott Cashen, M.S.
3. Agricultural Consultant, Gregory A. House.

These experts have prepared written comments that are attached hereto, and which are incorporated in their entirety. The City of Moreno Valley ("City") should respond to the expert comments separately. These experts and our own independent review demonstrate that the DEIR is woefully inadequate and that a new supplemental EIR is required to be prepared and recirculated for public comment. In particular, the EIR suffers from the following significant errors and omissions, among others:

- **BASELINE:** The DEIR fails to establish an accurate baseline for hazardous materials and biological resources by failing to conduct and/or rely on adequate surveys and/or assessments.
- **LOSS OF FARMLAND:** The DEIR acknowledges that the Project's conversion of approximately 3,500 acres of active and designated farmland is a significant impact, but the DEIR fails to adequately mitigate for the loss of farmland. Its conclusion that agricultural mitigation banks are infeasible is unsupported by substantial evidence.
- **AIR QUALITY:** The DEIR fails to adequately mitigate significant construction and operational air quality impacts. The DEIR also fails to adequately analyze and mitigate significant indirect source pollution.
- **BIOLOGICAL RESOURCES:** The DEIR fails to adequately analyze and mitigate the Project's impacts on biological resources.
- **GREENHOUSE GAS EMISSIONS:** The DEIR fails to adequately analyze and mitigate the Project's construction and operational GHG emissions.
- **HAZARDOUS MATERIALS:** The DEIR fails to establish an adequate environmental baseline for the Project site because (1) it relies on inadequate sampling of pesticides in Project site soils from past uses and (2) it failed to evaluate the entire Project site for potential hazards.
- **HYDROLOGY AND WATER QUALITY:** The DEIR fails to adequately analyze and mitigate stormwater impacts on water quality.
- **CUMULATIVE IMPACTS ANALYSIS:** The DEIR's entire cumulative impacts analyses are based on outdated and inaccurate summary of projections. The DEIR also fails to adequately analyze and mitigate the Project's cumulative impacts for the following topics: (1) agricultural resources, (2) biological resources, and (3) air quality.
- **ALTERNATIVES:** The DEIR fails to adequately analyze Project alternatives and fails to implement the environmentally superior Alternative 1.

Commenters urge the City to revise the EIR to adequately describe, analyze, and mitigate the Project and its impacts.<sup>1</sup> The revised EIR should be recirculated to allow public review and comment.

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<sup>1</sup> We reserve the right to supplement these comments at later hearings and proceedings for this Project. (See, *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109.)

## **I. PROJECT DESCRIPTION**

The Project site encompasses 3,918 acres of land located in Rancho Belago, the eastern portion of the City of Moreno Valley, and is situated directly south of State Route 60 (SR-60) with the Badlands area to the east and northeast, the Mount Russell Range to the southwest, and Mystic Lake and the San Jacinto wildlife Area to the southeast. (DEIR, p. 3-19.)

This mega-scale Project proposes to construct a maximum of 41.4 million square feet of “high-cube logistics” warehouse distribution uses classified as “Logistics Development” (LD) and 200,000 square feet (approx. 0.5%) of warehousing-related uses classified as “Light Logistics” (LL) on 2,710 acres within the World Logistics Center (“WLC”) Specific Plan. (DEIR, p. 3-19.) The Project will be used primarily for the storage and/or consolidation of manufactured goods, imported through the Ports of Los Angeles and Long Beach, prior to their distribution to secondary retail outlets. (DEIR, p. 3-26.)

In addition to the Specific Plan area, the Project site includes (1) 910 acres of the California Department of Fish and Wildlife (CDFW) Conservation Buffer area to the south, (2) 194 acres of Public Facilities Lands area, and (3) 104 acres of Off-site Improvement Area. (DEIR, p.3-26.)

The Project site primarily consists of active farmland. (DEIR, pp.3-1, 3-2.) Approximately 3,389 acres, or 89 percent of the 3,814-acre project area, are designated as Farmland of Local Importance and approximately 25 acres are designated as Unique Farmland. (DEIR, p. 4.2-7.) The site is also scattered with seven residences. (DEIR, p. 3-2.)

The Project would require significant changes to the General Plan, overhaul of the existing Specific Plan and zoning changes, including:

- **General Plan Amendment:** The Project includes an amendment to the General Plan that will permit the establishment of logistics land uses on the 3,814-acre property. The following General Elements will be amended: Community Development; Circulation; Parks, Recreation and Open Space; Safety; Conservation; and General Plan Goals and Objectives. (DEIR, p.3-25.)
- **Adoption of a Specific Plan:** The Project includes a Specific Plan, the World Logistics Center Specific Plan, to implement the amended General Plan and is a master plan for the 2,710-acre site for the development of up to 41.6 million square feet of modern high-cube logistics and related warehouse distribution facilities defined as Logistics Development and Light Logistics. (DEIR, p.3-74.) The Project will also replace most of the currently approved Moreno Highlands Specific Plan (“MHSP”), which covers 3,038 acres of the project area. (DEIR, p.3-25.) The MHSP contemplates the development of a mixed-use community

consisting of up to 7,763 residential dwelling units and approximately 603 acres of business, retail, institutional, and other uses. (Id.)

- **Zone Change:** The Project includes a Zone Change covering the Project's entire 3,814-acre property, which will designate 2,710 acres for the World Logistics Center Specific Plan, 1,084 acres of land for Open Space, and 20 acres for Public Facilities. (DEIR, p.3-74.)

The Project also encompasses pre-annexation zoning for an 85-acre parcel of land and a Development Agreement between the City and Highland Fairview (the project applicant).

## **II. STANDING**

Members of Local Union No. 1184 live, work, and recreate in the immediate vicinity of the Project site. These members will suffer the impacts of a poorly executed or inadequately mitigated Project, just as would the members of any nearby homeowners association, community group, or environmental group. Hundreds of LIUNA Local Union No. 1184 members live and work in areas that will be affected by traffic, air pollution, and water pollution generated by the Project.

In addition, construction workers will suffer many of the most significant impacts from the Project as currently proposed, such as from air pollution emissions from poorly maintained or controlled construction equipment, possible risks related to hazardous materials on the Project site, and other impacts. Therefore, LIUNA Local Union No. 1184 and its members have a direct interest in ensuring that the Project is adequately analyzed and that its environmental and public health impacts are mitigated to the fullest extent feasible.

## **III. LEGAL STANDARDS**

### **A. EIR**

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

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. (14 Cal. Code Regs. ("CEQA Guidelines") § 15002(a)(1).) "Its purpose is to inform the

public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR ‘protects not only the environment but also informed self-government.’” (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.) The EIR has been described as “an environmental ‘alarm bell’ whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.” (*Berkeley Keep Jets Over the Bay v. Bd. of Port Comm’rs.* (2001) 91 Cal. App. 4th 1344, 1354 (“*Berkeley Jets*”); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.)

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

While the courts review an EIR using an “abuse of discretion” standard, “the reviewing court is not to ‘uncritically rely on every study or analysis presented by a project proponent in support of its position. A ‘clearly inadequate or unsupported study is entitled to no judicial deference.’” (*Berkeley Jets*, 91 Cal. App. 4th at p. 1355 (emphasis added), quoting, *Laurel Heights Improvement Assn. v. Regents of University of California*, 47 Cal. 3d 376, 391 409, fn. 12 (1988).) As the court stated in *Berkeley Jets*, 91 Cal. App. 4th at p. 1355:

A prejudicial abuse of discretion occurs “if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process.” (*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 722; *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal. App. 4th 1109, 1117; *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal. App. 4th 931, 946.)

## **B. SUPPLEMENTAL EIR**

Recirculation of an EIR prior to certification is required “when the new information added to an EIR discloses: (1) a new substantial environmental impact resulting from the project or from a new mitigation measure proposed to be implemented (cf. CEQA Guidelines, § 15162, subd. (a)(1), (3)(B)(1)); (2) a substantial increase in the severity of

an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance (cf. CEQA Guidelines, § 15162, subd. (a)(3)(B)(2)); (3) a feasible project alternative or mitigation measure that clearly would lessen the environmental impacts of the project, but which the project's proponents decline to adopt (cf. CEQA Guidelines, § 15162, subd. (a)(3)(B)(3), (4)); or (4) that the draft EIR was so fundamentally and basically inadequate and conclusory in nature that public comment on the draft was in effect meaningless.” (*Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal. 4th 1112, 1130, citing *Mountain Lion Coalition v. Fish & Game Comm’n* (1989) 214 Cal.App.3d 1043.)

Significant new information requiring recirculation can include:

- (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.
- (4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

(CEQA Guidelines, § 15088.5(a).)

The DEIR fails to analyze significant environmental impacts pertaining to the Project and to fully consider available mitigation measures to address those impacts. A revised EIR is required to be prepared and recirculated to address these deficiencies.

#### **IV. THE DEIR FAILS TO ACCURATELY ESTABLISH THE PROJECT’S ENVIRONMENTAL SETTING OR “BASELINE.”**

##### **A. CEQA BASELINE STANDARD**

To facilitate its informational goals, an EIR must contain an accurate description of the project’s environmental setting, or “baseline.” The CEQA “baseline” is the set of environmental conditions against which to compare a project’s anticipated impacts. (*Communities for a Better Environment v. So Coast Air Qual. Mgmt. Dist.* (2010) 48 Cal. 4th 310, 321.) CEQA Guidelines section 15125(a) states, in pertinent part, that a lead agency’s environmental review under CEQA:

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

(See, *Save Our Peninsula Committee v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-125 (“*Save Our Peninsula*”).) As the court of appeal has explained, “the impacts of the project must be measured against the ‘real conditions on the ground,’” and not against hypothetical permitted levels. (*Id.* at 121-123.) The court has explained, using such a skewed baseline “mislead(s) the public” and “draws a red herring across the path of public input.” (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 656; *Woodward Park Homeowners v. City of Fresno* (2007) 150 Cal.App.4th 683, 708-711.)

**B. THE DEIR FAILS TO ADEQUATELY ANALYZE HAZARDS AND HAZARDOUS MATERIALS AND ESTABLISHES AN ERRONEOUS BASELINE.**

**1. Residual Pesticides in the Soil May Pose Health Risks to Workers and Nearby Residents.**

The DEIR recognizes that the Project area has been historically used for dry farming and livestock grazing, and almost all of the Project area (3,238 acres or 97%) is currently dry farmed. (DEIR, pp. 4.4-4, 4.8-2.) Based on these uses of the Project site, there is a potential that residual pesticides remain in the soil, which may pose health risks to workers and nearby residents. However, the DEIR and supporting documents fail to provide any information reflecting the “real conditions on the ground” on the types of pesticides that have been used on the Project site in association with these agricultural operations. (*Save Our Peninsula, supra*, 87 Cal.App.4th at pp. 121-123.) Therefore, the DEIR fails to adequately describe the environmental setting for the Project and fails to serve its informational purpose.

According to Mr. Hagemann, the DEIR and the eighteen Phase I Environmental Site Assessments (“Phase I ESAs”) did not conduct adequate sampling of pesticides in Project site soils from past uses:

Eighteen Phase I Environmental Site Assessments (“Phase I ESAs”) were completed for the site from May 2003 to January 2013 and are included as Appendix I to the DEIR. The January 2013 Phase I ESA, which includes a summary of the findings of the previous Phase I ESAs, states that past uses of the site included a chicken ranch, three dairies, and agriculture (2013 Phase I ESA, p. 1).

The 2013 Phase I ESA states that there are no recognized environmental conditions (RECs)<sup>2</sup> associated with the Project site (2013 Phase I ESA, p. 35). Our review shows that the Phase I ESA and the DEIR do not thoroughly evaluate current soil conditions at the site. Failure to adequately disclose baseline conditions at the Project site that may result in significant impacts to construction workers and nearby residents.

#### Inadequate sampling of pesticides in Project site soils from past uses

Currently, the Project site is used for dry farming and wheat is typically grown on the Project site (DEIR, p. 4.2-2). The DEIR states that dry farming does not typically use pesticides (DEIR, p. 4.8-4) but our review of data for the Project site from the California Department of Pesticide Regulation (CDPR) shows that pesticides such as 2,4-D, 2-ethylhexyl ester were used on the site for wheat cultivation (see Attachment A).

The 2013 Phase I ESA, however, does not mention recent pesticide usage. The 2013 Phase I does include sampling results for organochlorine pesticides (OCPs). The ESA notes that OCP sampling results were below regulatory levels (2013 Phase I ESA, p. 2). However, only 52 samples were collected from the Project site in previous investigations.

The “Interim Guidance for Sampling Agricultural Properties” prepared by the Department of Toxic Substances Control (DTSC) recommends that, when testing for OCPs, samples for sites over 50 acres should be collected at over 60 locations.<sup>3</sup> The Project site, at 2,710 acres, is well over 50 acres. Therefore, the 52 samples collected over the last ten years<sup>4</sup> are likely insufficient to provide an accurate assessment of the Project site’s soil conditions and collecting such a limited number of samples may not reliably disclose current environmental concerns associated with Project site soils. In addition, because these samples were collected a minimum of eight years ago, sampling results are outdated and cannot be used to baseline conditions.

The Project site has been used for agricultural purposes since at least 1948 (2013 Phase I ESA, p. 15). OCPs such as DDT and DDE were used

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<sup>2</sup> A REC is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. See <http://www.astm.org/Standards/E1527.htm>

<sup>3</sup> Department of Toxic Substances Control, Interim Guidance for Sampling Agricultural Properties (Third Revision). <http://www.dtsc.ca.gov/Schools/upload/Ag-Guidance-Rev-3-August-7-2008-2.pdf>, p. 8

<sup>4</sup> 42 samples were collected in 2003, 9 samples were collected in 2004, and one sample was collected in 2005.



starting in 1940s.<sup>5</sup> Although their use was banned in the 1970s, these compounds can persist in soil for hundreds of years.<sup>6</sup>

The limited number of samples collected on the Project site may not fully show the total extent of OCP concentrations throughout the Project site. The Applicant should disclose how many acres of the 2,710-acre site were historically and currently used for agricultural activities and should collect 60 soil samples per 50-acre portion. For example, if 100 acres of the Project site was used for agriculture, 60 samples on each 50-acre portion should be collected for a total of 120 samples.

(Exhibit 1, pp. 1-3.)

Based on Mr. Hagemann's findings, the DEIR fails to adequately disclose baseline conditions at the Project site by relying on inadequate sampling of pesticides in Project site soils. If contaminated soil exists at the Project site, construction workers, such as LiUNA members are likely to suffer some of the most significant exposures since they may come in contact with soil contamination during excavation, site grading and earth movement during Project construction.

## **2. The Phase I Environmental Site Assessments Completed for the Project are Outdated and Inadequate.**

Additionally, the DEIR relies on Phase I Environmental Site Assessments (ESAs) which are outdated and inadequate, establishing an erroneous baseline for hazards and hazardous materials. (DEIR, p. 4.8-1; Appendix I.) According to Mr. Hagemann,

The Project site is currently used for wheat cultivation but no samples were collected in association with the 2013 Phase I ESA. Because the Project site is still used for agricultural purposes, relying on sampling results from eight years ago will not reflect pesticide residuals that may exist in site soils from agricultural use of the site from 2005 to present-day. Additional pesticide sampling, to include 2, 4-D, 2-ethylhexyl ester and any other pesticides that may have been used for wheat farming, should be conducted.

Project construction will require grading, excavation, vegetation removal, and trenching. Construction workers can be exposed, via inhalation and dermal contact, to pesticides in soil that can become airborne during these ground-disturbing activities. Exposure to these pesticides can pose significant health risks. Oral exposure to 2, 4-D, 2-ethylhexyl ester can

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<sup>5</sup> U.S. EPA, DDT – A Brief History and Status. <http://www.epa.gov/pesticides/factsheets/chemicals/ddt-brief-history-status.htm>

<sup>6</sup> *Ibid.*, p. 3

result in vomiting, diarrhea, headache, confusion, and bizarre behavior. Dermal exposure can result in irritation and inhalation exposure can lead to coughing and burning sensations in the upper respiratory tract and chest.<sup>7</sup> Exposure to DDT can result in headaches, nausea, and convulsions<sup>8</sup> as well as damage the liver, nervous, and reproductive system.<sup>9</sup>

There are seven residences located onsite (DEIR, p. 4.5-12) and residences are also located directly adjacent to the Project site along the western boundary of the Project site (DEIR, Figure 3.8). These residents may also be adversely affected from exposure to pesticide-containing soil during Project construction. Inhalation of pesticide-contaminated soil has been linked to asthma in recent research.<sup>10</sup> A report prepared by the California Department of Health identifies pesticides as an asthma trigger.<sup>11</sup>

Limited soil sampling was conducted on the Project site eight years ago. Sampling did not target pesticides used for wheat cultivation, such as 2, 4-D, 2-ethylhexyl ester. Project soils should be tested for all pesticides that may have been used on the site. All sampling results should be compared to appropriate human health regulatory levels<sup>12</sup> as well as construction worker thresholds<sup>13</sup> to determine if the Project may pose significant health risks. A revised DEIR should be prepared to disclose sampling results and any mitigation, if necessary, to ensure that the Project will not result in significant public health impacts.

(Exhibit 1, pp. 3-4.)

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<sup>7</sup> National Pesticide Information Center. 2, 4-D Technical Fact Sheet. <http://npic.orst.edu/factsheets/2,4-DTech.pdf>, p. 2.

<sup>8</sup> U.S. EPA, DDE. <http://www.epa.gov/ttnatw01/hlthef/dde.html>

<sup>9</sup> U.S. EPA, DDT. <http://www.epa.gov/pbt/pubs/ddt.htm>

<sup>10</sup> U.S. National Library of Medicine, Pesticides and Asthma. <http://www.ncbi.nlm.nih.gov/pubmed/21368619>

<sup>11</sup> California Department of Public Health, Strategic Plan for Asthma in California, 2008-2012. <http://www.cdph.ca.gov/programs/caphi/Documents/AsthmaStrategicPlan.5-5-08.pdf>, p. 22.

<sup>12</sup> See California Human Health Screening Levels: <http://www.calepa.ca.gov/brownfields/documents/2005/CHHSLsGuide.pdf>

<sup>13</sup> See Table K-2 of the February 2013 San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels: [http://www.waterboards.ca.gov/rwqcb2/water\\_issues/programs/ESL/Lookup\\_Tables\\_Feb\\_2013.pdf](http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/Lookup_Tables_Feb_2013.pdf)

### **3. The DEIR's Hazardous Conditions Baseline Does Not Include the Entire Project Area.**

Moreover, the DEIR's hazardous conditions baseline is inaccurate since the DEIR and the eighteen Phase I ESAs failed to survey the entire Project site for potential hazards. According to Mr. Hagemann,

Our review of the areas evaluated in the 18 Phase I ESAs shows that an approximately 50-acre portion of the Project site located south of Alessandro Blvd., east of Merwin St., and north of Brodiaea Ave has not been surveyed (see Attachment B). The land use map in the DEIR shows that this area will be used for logistics development (DEIR, Figure 3.8).

Project construction will occur in areas that have not been surveyed by the Phase I ESA. Therefore, conclusions in the DEIR about the absence of environmental concerns on the Project site are not completely substantiated. If environmental hazards exist on this portion of the site, Project construction may pose significant risks to workers and other site personnel.

A new Phase I ESA should be prepared to survey, identify and disclose baseline conditions of the entire Project site, to be included with a revised DEIR. If hazardous conditions are found, all appropriate mitigation measures should be identified to prevent the exposure of workers to conditions that would present health risks during construction and operation of the Project.

(Exhibit 1, p. 4.)

Pursuant to Mr. Hagemann's recommendations, new sampling of Project soil must be conducted for all pesticides that may have been used on the Project site to establish an accurate hazardous conditions baseline. The entire Project site must also be evaluated for potential hazards. Thereafter, a revised DEIR must then be prepared to analyze and mitigate potential hazards and establish an accurate hazardous conditions baseline.

### **C. THE DEIR FAILS TO ESTABLISH AN ACCURATE BASELINE FOR SENSITIVE BIOLOGICAL RESOURCES.**

Establishing an accurate baseline is the sine qua non to adequately analyzing and mitigating the significant environmental impacts of the Project. (See CEQA Guidelines, § 15125(a); *Save Our Peninsula, supra*, 87 Cal.App.4th at pp. 121-123.) Unfortunately, the DEIR's failure to investigate and identify the occurrences of sensitive biological resources at the Project site resulted in a skewed baseline. Such skewed

baseline ultimately “mislead(s) the public” by engendering skewed and inaccurate analyses of environmental impacts, mitigation measures and cumulative impacts for biological resources. (See *San Joaquin Raptor Rescue Center, supra*, 149 Cal.App.4th at p. 656; *Woodward Park Homeowners, supra*, 150 Cal.App.4th at pp. 708-711.)

### **1. The DEIR Fails to Accurately Disclose the Value of Project Site to Raptors.**

The DEIR fails to adequately assess the value of the Project site as raptors’ habitat. Mr. Cashen, a biological expert, states,

The DEIR identifies the Project site as providing “marginal foraging habitat for some raptors species.”<sup>14</sup> This statement is not substantiated by survey data. Indeed, two different studies that were conducted in the Project area demonstrate (or strongly suggest) that the Project site provides very important habitat for raptors.

McCrary et al. (1985) conducted a 2-year fall and winter study of raptors in the San Jacinto Valley to provide baseline data on populations in southern California and to quantify the importance of the valley as a wintering area for raptors.<sup>15</sup> The study area was predominately agricultural lands (alfalfa and grain crops) and dairy farms, and it included the southern half of the Project site.<sup>16</sup> The investigators detected 14 raptor species during their study, and raptor densities were 5 to 17 times higher than those reported for other regions. This led the authors to conclude that “*the San Jacinto Valley and similar surrounding areas are of major importance to wintering birds of prey.*”<sup>17</sup>

Beckman et al. (2011) replicated the raptor surveys between 2005 and 2009 and derived a comparable conclusion regarding the importance of the region to raptor species.<sup>18</sup> Furthermore, both studies indicate the San Jacinto Valley provides important wintering grounds for the white-tailed kite, northern harrier, ferruginous hawk, golden eagle, and prairie falcon—all of which are special-status species. The State of California indicates 22 overwintering raptor species are known to utilize the San Jacinto Valley, and that the San Jacinto Valley consistently ranks in the top one to

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<sup>14</sup> DEIR, p. 4.4-28.

<sup>15</sup> McCrary MD, RL McKernan, WD Wagner, RE Landry. 1986. Roadside raptor census in the San Jacinto Valley of southern California. *Western Birds* 17:123-130. (Attachment A).

<sup>16</sup> *Ibid*, p. 123 and Figure 1.

<sup>17</sup> *Ibid*. [emphasis added].

<sup>18</sup> Beckman A, S Hoffman, R Zembal, and others. 2011. Roadside Raptor Surveys of the Santa Ana River Watershed in Riverside and San Bernardino Counties, California, 2005-2009 [Abstract]. 2011 Annual Conference of the Western Section of the Wildlife Society, Riverside, California. (Attachment B).

two percent in species diversity for the North American Christmas Bird Counts.<sup>19</sup>

(Exhibit 2, p. 2.)

## **2. The Burrowing Owl Surveys are Incomplete and Failed to Adhere to Survey Protocols.**

The DEIR relies on burrowing owl surveys which are incomplete and failed to adhere to the MSHCP's survey protocols. (DEIR, p. 4.4-29; Appendix D.) Thus, the DEIR's biological resources baseline for burrowing owl is inaccurate. According to Mr. Cashen:

The Western Riverside County Multiple Species Habitat Conservation Plan ("MSHCP") identifies the Project site as being within an area requiring focused surveys for burrowing owls. The Applicant did not conduct surveys throughout all portions of the Project site that provide suitable habitat for burrowing owls, nor did it conduct surveys according to the protocol established by the MSHCP.<sup>20</sup>

Burrowing owls occur in open habitat types (e.g., grassland, shrub steppe, desert, agriculture, and ruderal, among others) if the vegetation structure is suitable and there are useable burrows and foraging habitat in proximity.<sup>21</sup> As the DEIR acknowledges, almost all of the Project site and surrounding buffer area provide potentially suitable habitat for burrowing owls.<sup>22</sup> The DEIR suggests protocol surveys for the burrowing owl were conducted throughout the entire Project site, and that much of the Project site has been subject to several years of protocol-level surveys. To the contrary, the survey reports that accompany the DEIR suggest the burrowing owl surveys were cursory, and that some portions of the Project site providing suitable burrowing owl habitat were never surveyed.

### 2005 Surveys

In 2005, the Applicant's consultants used aerial photographs to categorize the potential (i.e., low, moderate, and high potential) for burrowing owls to occur in various portions of the 1,778-acre Bel Lago Property (a subset of the Project site). The consultants then conducted four surveys "on foot

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<sup>19</sup> State of California. 2008. San Jacinto Wildlife Area, Expansion 31, Riverside County [internet]. Available at: <http://bondaccountability.resources.ca.gov/NewsArticle.aspx?pid=4&id=133>

<sup>20</sup> Regional Conservation Authority. 2006. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. Available at: <http://www.wrc-rca.org/library.asp#id164>.

<sup>21</sup> CDFG. 2012. Staff Report on Burrowing Owl Mitigation. Available at: [www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf](http://www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf).

<sup>22</sup> DEIR, p. 4.4-29.

and by vehicle within suitable habitat on the Project site and within a 100-foot buffer around the suitable habitat.”<sup>23</sup> In my opinion, those surveys were insufficient for documenting habitat suitability; and the presence, abundance, and distribution of burrowing owls in the survey area.

First, the presence and abundance of suitable burrows is an essential element of burrowing owl habitat, and thus, the suitability of the habitat as a whole. It would have been impossible for the Applicant’s consultants to use aerial photographs to map the presence of burrows. This issue is confounded because the conclusions in the survey report pertaining to habitat suitability are internally inconsistent and/or are not supported by scientific literature. For example, the report first states habitat within the “low potential” area had little to no vegetation, but it subsequently states “low potential” habitat typically contained 100% vegetation coverage that provided poor habitat for burrowing owls due to limited visibility of ground dwelling species.<sup>24</sup>

Second, the surveys did not adhere to the methods described in the California Department of Fish and Wildlife’s (“CDFW”) Staff Report on Burrowing Owl Mitigation, as required by the MSHCP. CDFW’s 2005 Staff Report states: “[s]urveys should be conducted by *walking* suitable habitat on the entire project site and (where possible) in areas within 150 meters (approx. 500 ft.) of the project impact zone.”<sup>25</sup> Indeed, administrators of the MSHCP have established that burrowing owl surveys that are conducted while driving are unacceptable.<sup>26</sup> Although the surveyors detected a breeding pair of burrowing owls on the Project site they did not conduct additional surveys to identify the location of the nest site.<sup>27</sup>

### 2007 Surveys

The Applicant’s consultant conducted additional surveys for burrowing owls in 2007. However, the surveys were limited to the site for the 158.4-acre Highland Fairview Corporate Park and the surrounding 500-foot buffer zone.<sup>28</sup> The surveys did not encompass the location where

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<sup>23</sup> *Ibid*, Appendix E. Michael Brandman Associates. 2005 Sep 12. DRAFT Focused Burrowing Owl Survey Report for the 1,778-acre Bel Lago Property, p. 6.

<sup>24</sup> *Ibid*, pp. 6 and 10.

<sup>25</sup> California Department of Fish and Game. 1995. Staff Report on Burrowing Owl Mitigation. [emphasis added].

<sup>26</sup> Regional Conservation Authority. 2006. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. Available at: <http://www.wrc-rca.org/library.asp#id164>.

<sup>27</sup> DEIR, Appendix E. Michael Brandman Associates. 2005 Sep 12. DRAFT Focused Burrowing Owl Survey Report for the 1,778-acre Bel Lago Property, p. 6.

<sup>28</sup> *Ibid*. Michael Brandman Associates. 2008 Feb 5. Burrowing Owl Focused Survey: Highland Fairview Corporate Park.

burrowing owls were detected in 2005, and thus they were incapable of determining continued use of the site by the breeding pair.<sup>29</sup>

### 2010 Surveys

In 2010, the Applicant's consultant conducted surveys within the 4,321-acre Highlands Specific Plan area. According to the survey report, a single biologist conducted the burrow survey (Part A of the protocol) and first focused burrowing owl survey (Part B of the protocol) between 0630 and 0730 hours on June 9, 2010.<sup>30</sup> Only areas identified in the initial survey as having potential burrows and adjacent foraging habitat for owls were surveyed during the remaining three surveys.<sup>31</sup> As a result, the survey effort was limited to four drainages within the entire Project site and surrounding buffer zone.<sup>32</sup> Such an effort would have been insufficient for documenting the presence, abundance, and distribution of burrowing owls within the Project site.

First, it would have been impossible for a single biologist to identify the presence of potentially suitable burrows across several thousand acres of potentially suitable habitat within one hour. Furthermore, the "Sensitive Plant Focused Survey" report indicates the biologist was conducting sensitive plant surveys within four drainages at the exact same time and date. Consequently, he could not have been conducting the burrow and burrowing owl survey across the entire Project site and buffer—as the report indicates.

Second, each of the remaining three focused surveys was limited to two biologists conducting surveys for one hour per day.<sup>33</sup> At the same time, one of the two biologists was reported to have been conducting surveys for sensitive plant species.<sup>34</sup> It would have been impossible for the biologists to reliably survey the four drainages for burrowing owls and sensitive plants during such a short period of time, especially given that there were numerous burrows throughout the survey area.<sup>35</sup>

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<sup>29</sup> *Ibid*, Exhibit 4. See also DEIR, Appendix E. Michael Brandman Associates. 2005 Sep 12. DRAFT Focused Burrowing Owl Survey Report for the 1,778-acre Bel Lago Property, Exhibit 4.

<sup>30</sup> DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Burrowing Owl Focused Survey: Highlands Specific Plan, p. 18.

<sup>31</sup> *Ibid*, p. 13.

<sup>32</sup> *Ibid*, Exhibit 4.

<sup>33</sup> *Ibid*, Table 2.

<sup>34</sup> DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, Table 3.

<sup>35</sup> *Ibid*. Michael Brandman Associates. 2010 Dec 13. Burrowing Owl Focused Survey: Highlands Specific Plan, p. 18.

The survey report indicates: “[t]here is no additional suitable habitat within 500 feet surrounding the project site. Therefore, although evaluated, protocol burrowing owl surveys were not conducted within the 500-foot buffer area.”<sup>36</sup> This statement is misleading and undermines the information presented in the DEIR. First, it is clear the Applicant’s consultant did not walk through (evaluate) the entire Project site and 500-foot buffer zone to determine the presence of potentially suitable burrows for burrowing owls. Second, the survey area appears to have been dictated by habitat suitability for sensitive plant species, which does not necessarily coincide with that for burrowing owls.<sup>37</sup> Third, the consultant’s statement conflicts with information presented in its 2005 survey report, which identifies most of the Project site as having “moderate potential habitat” for burrowing owls.<sup>38</sup> Fourth, the consultant’s statement conflicts with: (a) its map of vegetation communities; (b) imagery available through Google Earth (Figures 1 and 2); and (c) information provided in the DEIR.<sup>39</sup> These sources suggest there is considerably more suitable habitat for burrowing owls than suggested in the consultant’s 2010 survey report.

#### 2007 and 2012 Surveys

The DEIR indicates focused burrow and burrowing owls surveys also were conducted in 2006 (750 acres) and 2012 (3,300 acres).<sup>40</sup> However, the DEIR does not provide survey reports or any other information that describes and documents the survey efforts. As a result, I am unable to evaluate the value of those survey efforts in providing information pertaining to the burrowing owl.

A single burrowing owl was observed within the temporary detention basin located south of the Highland Fairview Corporate Park during a March 2012 site visit associated with the Jurisdictional Delineation.<sup>41</sup> Although this observation was important given the scarcity of owls in the MSHCP plan area, the Applicant’s consultant apparently made no attempt to determine the breeding status of the owl.

The Applicant’s consultant has concluded the burrowing owl “is not considered a permanent resident within the entire study area.”<sup>42</sup> The

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<sup>36</sup> *Ibid.*

<sup>37</sup> *Ibid.*, Exhibit 4. See also DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, p. 10 and Exhibit 5.

<sup>38</sup> DEIR, Appendix E. Michael Brandman Associates. 2005 Sep 12. DRAFT Focused Burrowing Owl Survey Report for the 1,778-acre Bel Lago Property, Exhibit 4.

<sup>39</sup> *Ibid.*, p. 4.4-29.

<sup>40</sup> *Ibid.*

<sup>41</sup> *Ibid.*, Appendix E, p. 46.

<sup>42</sup> *Ibid.*



consultant has no basis for its conclusion because it did not conduct any surveys to evaluate winter residency. Moreover, it appears that at least one burrowing owl was detected south of the Highland Fairview Corporate Park (Skecher's Logistic Center) each time the area was surveyed.<sup>43</sup> This information, and the knowledge that burrowing owls have high site fidelity, strongly suggests that the burrowing owl is a breeding season resident on the Project site.



Figure 1. Potentially suitable burrowing owl habitat at proposed debris basin site east of Gilman Springs Road.

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<sup>43</sup> *Ibid.*



Figure 2. Potentially suitable burrowing owl habitat at proposed debris basin site east of Gilman Springs Road.

(Exhibit 2, pp. 2-7.)

### 3. The DEIR's Baseline Fails to account for the Presence of Los Angeles Pocket Mouse.

The DEIR's baseline fails to account for the occurrences of Los Angeles Pocket Mouse at the Project site and consequently, fails to analyze and mitigate the Project's impacts on such species. According to Mr. Cashen,

The Los Angeles pocket mouse is a state listed Species of Special Concern and a MSHCP Group 3 species. The Los Angeles pocket mouse is associated with fine, sandy soils in intermittent drainages, non-native grassland, Riversidean sage scrub, Riversidean alluvial fan sage scrub, chaparral and redshank chaparral habitats.<sup>44</sup> The DEIR relays the opinion of the Applicant's consultant that the species is absent from the Project area.<sup>45</sup> That conclusion is unjustified for two reasons.

<sup>44</sup> MSHCP, Vol II-B, Species Accounts: Mammals. Available at: <http://www.wrc-rca.org/library.asp>

<sup>45</sup> DEIR, p. 4.4-30.

First, focused surveys for the Los Angeles pocket mouse were not conducted throughout all potentially suitable habitats. In 2005, trapping surveys were limited to nine acres of suitable habitat within “Drainage Feature 9.”<sup>46</sup> In 2010, surveys were limited to trapping along approximately 1,000 feet of Drainage Feature 9, and within two ephemeral drainages (each also approximately 1,000 feet) dominated by mule fat but within an agricultural field.<sup>47</sup> Trapping surveys were never conducted in other portions of the Project area that contain potentially suitable habitat for the Los Angeles pocket mouse. These include: (a) the northern portion of “Drainage Feature 7” where it is associated with native vegetation; (b) the drainages and native vegetation communities east of Gilman Springs Road and north of Highway 60; (c) the grassland community within the Project area; and (d) the remaining scrub communities in the Project area.

Second, it is well established in the field of wildlife science that it is nearly impossible to prove absence. This is especially true for the Los Angeles pocket mouse, which appears to occur at low densities and is difficult to trap.<sup>48</sup>

Potentially significant Project impacts to the Los Angeles pocket mouse cannot be properly disclosed, analyzed, and mitigated until trapping surveys have been completed throughout all potentially suitable habitats in the Project area and buffer zone.

(Exhibit 2, pp. 9-10.)

#### **4. The DEIR Fails to Provide Sufficient Information on Special-Status Plant Species Which May be Impacted by the Project.**

The DEIR never conducted protocol-level plant surveys. The surveys that the DEIR did rely on (1) did not encompass the entire Project area and (2) used inappropriate methodology. Therefore, the DEIR’s baseline fails to account for all special-status plant species and as a result, fails to adequately analyze the Project’s impacts on such species. According to Mr. Cashen,

##### Protocol-Level Plant Surveys Were Not Conducted

*Failure to survey the entire Project area and buffer-*

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<sup>46</sup> *Ibid*, Appendix E. Michael Brandman Associates. 2005 Sep 26. DRAFT Focused Los Angeles Pocket Mouse Survey Report for the 1,778-Acre Bel Lago Property, p. 7.

<sup>47</sup> *Ibid*, p. 10.

<sup>48</sup> MSHCP, Vol II-B, Species Accounts: Mammals, p. M-92. Available at: <http://www.wrc-rca.org/library.asp>

The Applicant's consultant conducted rare plant surveys in June 2010. These surveys, however, were based on the footprint for the Highlands Specific Plan, and they were limited to four drainages within the Project site.<sup>49</sup> The Applicant's consultant did not survey any other portions of the Project area, including the Riversidean Sage Scrub communities, which the DEIR identifies as having the potential to support rare plant species that are not covered by the MSHCP.<sup>50</sup>

CDFW survey guidelines indicate focused botanical surveys should be conducted *whenever natural or naturalized vegetation occurs on a project site* and the project has the potential for direct or indirect effects on vegetation.<sup>51</sup> Natural and naturalized vegetation occur on and adjacent to the Project site, and the Project will have direct and indirect impacts on that vegetation.<sup>52</sup> Therefore, to establish existing conditions and comply with CDFW guidelines, the Applicant needs to conduct appropriately timed botanical surveys throughout all portions of the Project area and buffer zone containing natural or naturalized vegetation. Data from those surveys are required to fully assess existing conditions, analyze Project impacts, and formulate appropriate mitigation for impacts to sensitive botanical resources.

#### *Inappropriate methodology-*

The methods used to survey special-status plants on the Project site had numerous flaws that have resulted in unreliable information on baseline conditions and Project impacts.

The Applicant's consultant concluded that three sensitive plant species have a "moderate" potential to occur on the Project site. The sensitive plant surveys were limited to a search for those three species.<sup>53</sup> The "list approach" implemented by the Applicant's consultant is not an accepted technique for disclosing and analyzing the impacts of a project. Indeed, the CDFW specifically advises against the "list approach" for botanical inventories. Its survey guidance states:

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<sup>49</sup> DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, p. 2. and Exhibit 5.

<sup>50</sup> *Ibid*, pp. 4.4-26 and -27.

<sup>51</sup> CDFG. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at:  
[http://www.dfg.ca.gov/wildlife/nongame/survey\\_monitor.html#Plants](http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants).

<sup>52</sup> DEIR, Figure 4.4-1.

<sup>53</sup> *Ibid*, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, p. 1.

This list [of special-status plants with potential to occur within a particular region] can serve as a tool for the investigators and facilitate the use of reference sites; however, special status plants on site might not be limited to those on the list. Field surveys and subsequent reporting should be comprehensive and floristic in nature and *not restricted to or focused only on this list*...“Focused surveys” that are limited to habitats known to support special status species or are restricted to lists of likely potential species are not considered floristic in nature and **are not adequate** to identify all plant taxa on site to the level necessary to determine rarity and listing status.<sup>54</sup>

As the survey report acknowledges, “[t]he focused plant survey...is not considered a comprehensive botanical survey to record all observed species within the survey areas.”<sup>55</sup>

According to the survey report, the 2010 surveys were conducted within the known flowering period of the special-status species potentially occurring within the Project footprint.<sup>56</sup> However, the phenology of plants can vary considerably within the known flowering period depending on environmental conditions. Contrary to guidance issued by the CDFW, the Applicant’s biologist did not visit reference sites to determine the phenology of the target species and to confirm they were identifiable at the time of the surveys.<sup>57</sup>

The sensitive plant surveys were limited to seven man-hours, during which time the biologist was also searching for burrowing owls.<sup>58</sup> In my opinion, it would have been impossible for the biologist to reliably survey the four drainages for burrowing owls and sensitive plants during such a short period of time.

Due to the issues described above, the DEIR lacks reliable information on existing conditions, and it is not possible for the City of Moreno Valley

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<sup>54</sup> CDFG. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: [http://www.dfg.ca.gov/wildlife/nongame/survey\\_monitor.html#Plants](http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants). [emphasis added].

<sup>55</sup> DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, p. 9.

<sup>56</sup> *Ibid.*

<sup>57</sup> CDFG. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: [http://www.dfg.ca.gov/wildlife/nongame/survey\\_monitor.html#Plants](http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants).

<sup>58</sup> DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Sensitive Plant Focused Survey: Highlands Specific Plan, Table 3. See *also* DEIR, Appendix E. Michael Brandman Associates. 2010 Dec 13. Burrowing Owl Focused Survey: Highlands Specific Plan, Table 2.

("City") to conclude special-status plant species are absent from the Project site.

(Exhibit 2, pp. 7-9.)

## **5. The DEIR's Baseline Fails to Account for All Special-Status Species.**

The DEIR fails to account for the presence of all special-status species, including Northwestern San Diego Pocket Mouse, San Diego Desert Woodrat, American Badger, Western Yellow Bat, Bell's Sage Sparrow, Grasshopper Sparrow, White-tailed Kite, and Ferruginous Hawk and Merlin. Therefore, the DEIR's biological resources baseline fails to account for such special-status species and as a result, fails to analyze the Project's impacts on such species. More specifically, according to Mr. Cashen,

### Northwestern San Diego Pocket Mouse

The Northwestern San Diego pocket mouse is a state listed Species of Special Concern. According to the DEIR, the Northwestern San Diego pocket mouse has a low potential of occurring in the Project area.<sup>59</sup> This conclusion is incorrect. The Applicant's consultant captured seven Northwestern San Diego pocket mice during its 2010 trapping surveys on the Project site.<sup>60</sup> Development of the Project will have an adverse effect on the Northwestern San Diego pocket mouse. The City must disclose, analyze, and provide mitigation for this potentially significant impact.

### San Diego Desert Woodrat

The San Diego Desert woodrat is a state listed Species of Special Concern. The Applicant's consultant captured eight San Diego desert woodrats during its trapping surveys on the Project site.<sup>61</sup> The DEIR does not disclose the presence of San Diego desert woodrats on the Project site, nor does it analyze potentially significant impacts to the (sub)species.

### American Badger

The American badger is a state listed Species of Special Concern that is not covered under the MSHCP. The DEIR incorrectly states that the Project area does not contain habitat for the American badger.<sup>62</sup> The

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<sup>59</sup> DEIR, Table 4.4.D.

<sup>60</sup> *Ibid*, Appendix E. Michael Brandman Associates. 2010 Dec 13. Focused Los Angeles Pocket Mouse Survey Report: Highlands Specific Plan, Table 2.

<sup>61</sup> *Ibid*. Michael Brandman Associates. 2005 Sep 26. Focused Los Angeles Pocket Mouse Survey Report for the 1,778-acre Bel Lago Property, Table 1.

<sup>62</sup> *Ibid*, p. 4.4-27.

American badger occurs in herbaceous, shrub, and open stages of most habitats with dry, friable soils.<sup>63</sup> American badgers have the potential to occur on the Project site, especially in the patches of habitat that have not been subject to periodic discing. As a result, the City must disclose, analyze, and provide mitigation for potentially significant Project impacts to the American badger.

### Western Yellow Bat

The western yellow bat is a state listed Species of Special Concern that is not covered under the MSHCP. The DEIR states there is no suitable habitat for the species in the Project area even though (a) no bat surveys were conducted for the Project; and (b) the species has been documented occurring in the Project region.<sup>64</sup>

The western yellow bat is a “tree-roosting” species commonly found roosting in the skirt of dead fronds in both native and non-native palm trees.<sup>65</sup> It is believed to form small maternity groups in trees and palms, including in ornamental plantings in residential areas and orchards.<sup>66</sup> One of the primary threats to the species in the U.S. is the cosmetic trimming of palm fronds.<sup>67</sup> Palms occur in the Project area and presumably may be impacted by the Project.<sup>68</sup>

Bats are very vulnerable to disturbance.<sup>69</sup> Construction activities associated with the Project have the potential to cause bats to abandon roosts and maternity colonies. The DEIR does not disclose, assess, or provide mitigation for this potentially significant impact.

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<sup>63</sup> California Department of Fish and Game. California Interagency Wildlife Task Group. 2005. California Wildlife Habitat Relationships version 8.1 personal computer program. Sacramento, California.

<sup>64</sup> California Natural Diversity Database, Biogeographic Data Branch, Department of Fish and Game. 2012 Feb 7 (Version 3.1.0). See also DEIR, p. 4.4-27.

<sup>65</sup> Western Bat Working Group. 2005 [updated]. Species accounts. Available at: [http://www.wbwg.org/species\\_accounts](http://www.wbwg.org/species_accounts).

<sup>66</sup> California Wildlife Habitat Relationships System. 2005. California Department of Fish and Game. California Interagency Wildlife Task Group. CWHR version 8.1 personal computer program. Sacramento (CA). See also Western Bat Working Group. 2005 [updated]. Species accounts. Available at: [http://www.wbwg.org/species\\_accounts](http://www.wbwg.org/species_accounts).

<sup>67</sup> Western Bat Working Group. 2005 [updated]. Species accounts. Available at: [http://www.wbwg.org/species\\_accounts](http://www.wbwg.org/species_accounts).

<sup>68</sup> DEIR, Appendix E.

<sup>69</sup> Western Bat Working Group. 2005 [updated]. Species accounts. Available at: [http://www.wbwg.org/species\\_accounts](http://www.wbwg.org/species_accounts).

### Bell's Sage Sparrow

The Bell's sage sparrow is a U.S. Fish and Wildlife Service ("USFWS") Bird of Conservation Concern, a CDFW Watch List species, and a MSHCP Group 2 species. The DEIR states there is no suitable habitat for the Bell's sage sparrow within the Project area.<sup>70</sup> The DEIR fails to acknowledge that the subspecies was detected during small mammal trapping surveys on the Project site.<sup>71</sup> As a result, the City must disclose and analyze potentially significant Project impacts to the Bell's sage sparrow.

### Grasshopper Sparrow

The grasshopper sparrow is a state listed Species of Special Concern. The species is not covered by the MSHCP because the species-specific conservation objectives defined in the MSHCP have not yet been met.<sup>72</sup> The grasshopper sparrow was detected on the Project site.<sup>73</sup> However, the DEIR does not disclose, analyze, or provide mitigation for potentially significant Project impacts to the species.

### White-tailed Kite

The DEIR concludes "[n]o suitable nesting habitat for white-tailed kite or American peregrine falcon occurs within the area due to historic agricultural activities, regular disking of the site, and dominance of sparse, non-native low-quality vegetation."<sup>74</sup> This conclusion conflicts with scientific information. White-tailed kites are known to nest in a variety of different tree species.<sup>75</sup> Furthermore, agricultural habitat, especially dryland field crops (e.g., wheat and barley), may play an important role as foraging habitat for nesting white-tailed kites because the fields are known to provide prey for foraging raptors. The City must disclose and analyze potentially significant Project impacts to the white-tailed kite.

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<sup>70</sup> DEIR, p. 4.4-27.

<sup>71</sup> *Ibid*, Appendix E. Michael Brandman Associates. 2005 Sep 26. Focused Los Angeles Pocket Mouse Survey Report for the 1,778-acre Bel Lago Property, Appendix A: Floral and Faunal Compendia.

<sup>72</sup> MSHCP, Vol II-B, Species Accounts: Birds. See also MSHCP 2011 Annual Report, Table 25. Available at: <http://www.wrc-rca.org/library.asp>

<sup>73</sup> DEIR, Table 4.4.D.

<sup>74</sup> *Ibid*, p. 4.4-26.

<sup>75</sup> Niemela CA. 2007. Landscape characteristics surrounding white-tailed kite nest sites in Southwestern California. MS Thesis, Humboldt State University, Arcata, California.



### Ferruginous Hawk and Merlin

The ferruginous hawk is a USFWS Bird of Conservation Concern and a CDFW Watch List species. The merlin is a CDFW Watch List species. The DEIR states the Project site provides suitable foraging habitat for these two species, but no suitable nesting habitat.<sup>76</sup> Both the ferruginous hawk and merlin are known to occur in the Project region.<sup>77</sup>

It is well established that ferruginous hawks and merlins do not nest in California, and that the special-status designations for these two species apply to birds on their *wintering* grounds. Therefore, the lack of nesting habitat on the Project site is irrelevant to the potential for Project impacts under CEQA. As a result, the City must disclose and analyze Project impacts to the ferruginous hawk and merlin, and it must identify how potentially significant impacts to the two species would be mitigated.

(Exhibit 2, pp. 10-12.)

## **6. The DEIR Inaccurately Characterizes the Jurisdictional Status of Drainages of the Project area.**

According to Mr. Cashen,

The DEIR states the drainage features in the Project area are not subject to the jurisdiction of the CDFW.<sup>78</sup> This statement is inconsistent with information provided in the Jurisdictional Delineation report, which identifies portions of Drainages 7 and 9 as being jurisdictional under 1600 of the Fish and Game Code.<sup>79</sup>

The DEIR states that the Project site does not contain any features under the jurisdiction of the Regional Water Quality Control Board (“RWQCB”).<sup>80</sup> This statement appears to be based on the false impression that features not under the jurisdiction of the U.S. Army Corps of Engineers are also not under the jurisdiction of the RWQCB.<sup>81</sup>

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<sup>76</sup> DEIR, p. 4.4-27.

<sup>77</sup> eBird. 2011. eBird: An online database of bird distribution and abundance [web application]. Version 2. eBird, Ithaca, New York. Available: <http://www.ebird.org>. (Accessed: 2013 Feb 2).

<sup>78</sup> DEIR, p. 4.4-51.

<sup>79</sup> *Ibid*, Appendix E. Michael Brandman Associates. 2012 Apr 23. Assessment of Jurisdictional Waters and Wetlands, p. 42.

<sup>80</sup> *Ibid*, p. 4.4-59.

<sup>81</sup> *For example*, see: DEIR, Appendix E. Michael Brandman Associates. 2012 Apr 23. Assessment of Jurisdictional Waters and Wetlands, p. 32.

The jurisdictional reach of Porter-Cologne Water Quality Control Act (i.e., RWQCB) extends to all “waters of the state.”<sup>82</sup> That term is defined as “any surface water or groundwater, including saline waters, within the boundaries of the state.”<sup>83</sup> Because Porter-Cologne applies to any water and the federal Clean Water Act only applies to certain waters, California’s jurisdictional reach is broader and more comprehensive than the federal government’s.<sup>84</sup>

(Exhibit 2, p. 13.)

In sum, the DEIR failed to adequately investigate and identify in sufficient detail the existence of all sensitive biological resources at the Project site. Consequently, the DEIR established a skewed biological resources baseline, ultimately resulting in the DEIR’s failure to analyze and mitigate the Project’s potential impacts on sensitive plants and wildlife. A revised DEIR must conduct the necessary surveys and investigations to establish an accurate baseline for biological resources.

#### **V. THE DEIR FAILS TO ANALYZE AND MITIGATE ALL POTENTIALLY SIGNIFICANT IMPACTS.**

An EIR must disclose all potentially significant adverse environmental impacts of a project. (Pub. Resources Code, § 21100(b)(1); CEQA Guidelines, § 15126(a); *Berkeley Jets*, 91 Cal. App. 4th 1344, 1354.) CEQA requires that an EIR must not only identify the impacts, but must also provide “information about how adverse the impacts will be.” (*Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831). The lead agency may deem a particular impact to be insignificant only if it produces rigorous analysis and concrete substantial evidence justifying the finding. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692 (“*Kings County*”).)

CEQA requires public agencies to avoid or reduce environmental damage when “feasible” by requiring mitigation measures. (CEQA Guidelines, § 15002(a)(2) and (3); See also, *Berkeley Jets*, *supra*, 91 Cal. App. 4th at p. 1354; *Citizens of Goleta Valley*, *supra*, 52 Cal.3d at p. 564.) The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to “identify ways that environmental damage can be avoided or significantly reduced.” (CEQA Guidelines, §15002(a)(2).) If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has “eliminated or substantially lessened all significant effects on the environment where feasible” and that

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<sup>82</sup> State Water Resources Control Board. 2013 Jan 28. PRELIMINARY DRAFT: WATER QUALITY CONTROL POLICY for Wetland Area Protection and Dredged or fill Permitting, p. 4. Available at: [http://www.waterboards.ca.gov/water\\_issues/programs/cwa401/docs/wrapp/policy\\_draft.pdf](http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/wrapp/policy_draft.pdf)

<sup>83</sup> *Ibid.*

<sup>84</sup> *Ibid.*

any unavoidable significant effects on the environment are “acceptable due to overriding concerns.” (Pub. Resources Code, § 21081; CEQA Guidelines, § 15092(b)(2)(A) & (B).)

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

CEQA requires the lead agency to adopt feasible mitigation measures that will substantially lessen or avoid the Project’s potentially significant environmental impacts (Pub. Resources Code, §§ 21002, 21081(a)), and describe those mitigation measures in the CEQA document. (Pub. Resources Code, § 21100(b)(3); CEQA Guidelines, § 15126.4.) A public agency may not rely on mitigation measures of uncertain efficacy or feasibility. (*Kings County, supra*, 221 Cal.App.3d at p. 727 (finding groundwater purchase agreement inadequate mitigation measure because no record evidence existed that replacement water was available).) “Feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (CEQA Guidelines, § 15364.) To demonstrate economic infeasibility, “evidence must show that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project.” (*Citizens of Goleta Valley v. Board of Supervisors* (1988) 197 Cal.App.3d 1167, 1181.) The EIR must provide evidence and analysis to show project cannot be economically implemented. (*Kings County, supra*, 221 Cal.App.3d at pp. 734-737.) This requires not just cost data, but also data showing insufficient income and profitability. (See *Burger v. County of Mendocino* (1975) 45 Cal.App.3d 322, 327 (infeasibility claim unfounded absent data on income and expenditures showing project unprofitable); *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656, 694 (upholding infeasibility finding based on analysis of costs, projected revenues, and investment requirements).) Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments. (CEQA Guidelines, § 15126.4, subd. (a)(2).)

A lead agency may not conclude that an impact is significant and unavoidable without requiring the implementation of all feasible mitigation measures to reduce the impacts of a project to less than significant levels. (CEQA Guidelines, §§ 15126.4, 15091.)

**A. THE DEIR FAILS TO ADEQUATELY MITIGATE FOR THE LOSS OF FARMLAND.**

**1. Preservation is an Appropriate Mitigation Measure for the Loss of Agricultural Resources.**

Preservation can be used as a tool to mitigate impacts of urbanizing land and it is encouraged and supported by legislative pronouncements and case law. For example,

[s]ee the following legislative pronouncements to the effect that conversion of agricultural land is of significant concern, and that the preservation of agricultural land is significant goal of the state. Gov. Code, § 51220 (Williamson Act findings that agricultural preservation is valuable and necessary); Civ. Code, § 815 (legislative declaration that preservation of agricultural lands “is among the most important environmental assets of California”); Pub. Resources Code, § 10200 *et seq.* (California Farmland Conservancy Program Act (formerly the Agricultural Land Stewardship Program of 1995), promoting the establishment of agricultural easements as a means to preserve agricultural land); Pub. Resources Code, §§ 21031.1, 21061.2, 21095 (CEQA provisions requiring the Resources Agency to take steps it to ensure that the environmental effects of agricultural land conversion are quantitatively and consistently considered in the environmental review process); Stats. 1993, ch. 812, § 1, subd. (d) (declaring a legislative intent that CEQA should play an important role in the preservation of agricultural lands).

In *Mira Mar [Mobile Community v. City of Oceanside]* (4th Dist. 2004) 119 Cal. App. 4th 477 [14 Cal. Rptr. 3d 176]], the court heard a challenge to the City of Oceanside’s approval of a condominium project on 7.5 acres of private property. The project would cause the loss of about .86 acres of coastal sage scrub, which was identified as a significant impact to a sensitive resource. The EIR required the applicant to mitigate for this loss at a ratio of 3 to 1 (or 2.58 acres of mitigation for .86 acres of lost habitat). In implementing this mitigation measure, the city required the preservation of .65 acres of undisturbed coastal sage scrub, the restoration and preservation of 2.3 acres of disturbed coastal sage scrub, and the creation of .63 acres of new coastal sage scrub on site. Petitioners argued that this mitigation was inadequate because *preservation* of coastal sage scrub does not mitigate for lost habitat, making the measure “illusory and inadequate.” 119 Cal. App. 4th 477, 495. The Court of Appeal disagreed, citing CEQA Guidelines section 15370, as well as the opinions of various resource agencies, for the proposition that preservation can be a feasible means of reducing or eliminating the impact of lost habitat.

While the *Mira Mar* case deals specifically with biological and habitat resources, the reasoning of this case seems to have more general applicability to mitigation for lost resources, including agricultural resources.

(Guide to CEQA, Michael H. Remy, et. al., eleventh edition, p. 549-550.)

## **2. The City Should Preserve Agricultural Land To Prevent Continual and Systematic Losses of Such Land.**

According to Mr. Gregory House, an agricultural expert, there are many reasons to preserve agricultural land in the City of Moreno Valley:

— Moreno Valley, including the subject property has many physical advantages for agricultural production including a benign climate, good soils and sufficient [*sic*] water at a cost competitive in southern California and many areas of the Central Valley of California.

— Moreno Valley's location creates huge marketing opportunities for direct marketing of agricultural produce to the four-county area of Los Angeles, Orange, Riverside and San Bernardino urban area.

— Moreno Valley's location also creates a cost of transportation advantage for commodity crops and products needing processing, such as fresh milk in the nearby metropolitan areas. For several years California dairies have participated in a price pooling that attempts to standardize raw milk prices to milk processors throughout the state. Since the cost of transporting the raw milk to the bottling plants is a significant cost, the farther the milk source is from the plants, the higher the transportation cost charged to the dairyman. With the increasing costs of fuel for transport, milk processors south of the Techacapi Mountains are finding it increasingly difficult to source adequate amounts of raw milk. The situation is a growing problem without an immediate solution.<sup>85</sup> This creates an opportunity for Riverside County dairyman that a decade ago did not exist.

— Agriculture is a vibrant industry that is very adaptable and quickly changes to meet new challenges and opportunities. New opportunities on the horizon include dry farming of biofuel crops; urban farming and direct marketing of high value food crops such as fruits, vegetables, eggs and honey; and changing economics in milk production. Moreno Valley has potential in all of these agricultural opportunities.

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<sup>85</sup> See *Milk must move farther to serve south-state plants*, Ag Alert, March 27, 2013.

— There is a huge and growing interest in urban agriculture and small farming among people of all ages, but especially young people under 30 years of age. The Secretary of Agriculture recently called for the development of 100,000 new farmers during his tenure at USDA, most of whom are acknowledged to be, and intended to be, young persons. USDA has implemented many new programs to effect this sea-change, including a new program of low-interest micro-loans for new and beginning farmers.

— Growing interest in sustainable urban planning is examining the importance of local agriculture to the long term food security and resilience of local economies. With the inevitable increases in food transportation costs, it is incumbent upon the City of Moreno Valley to plan for its long term sustainability. As food is essential, so is agriculture to a sustainable and vibrant local economy.

(Exhibit 3, pp. 11-12.)

### **3. The DEIR Fails to Adequately Mitigate the Loss of Farmland.**

The Project proposes to convert vast acres of farmland to industrial uses. Over 90 percent of the Project site is designated farmland – 25 acres designated as Unique Farmland and 3,389 acres of Farmland of Local Importance. (DEIR, p. 4.2-7.) 97%, or 3,238 acres, of the Project site is currently used for dry farming. Not surprisingly, the DEIR admits that the loss of approximately 3,500 acres of active and designated farmland will result in significant impacts on agricultural resources. (DEIR, pp. 4.2-16 ~20, 4.4-4, 4.8-2.)

For reasons set forth below, the DEIR fails to adequately mitigate the Project's significant impacts to valuable agricultural resources.

#### **(a) The DEIR's Conclusion that it is Economically Infeasible to Mitigate the Significant Loss of Farmland is Unsupported.**

The DEIR cites to the decline of agricultural industry in the Inland Empire to conclude that any mitigation that would artificially preserve or prolong agricultural activities on the Project site would be infeasible and unnecessary. (DEIR, p. 4.2-17.) However, the DEIR fails to offer any concrete analysis of the economic feasibility of agricultural production in the Project area. Moreover, the DEIR blatantly ignores the important fact that over 90% of the Specific Plan site is currently farmed and contributing to the local economy.

Mr. House agrees:

The studies do not offer any tangible analysis of the economics of agricultural production in the area, however, and this is a serious deficiency of the “significant and unavoidable impact” finding of the DEIR. How can the DEIR conclude no agriculture is viable without an analysis of its feasibility? The very fact that agriculture in the form of dry farmed wheat continues on the subject property begs the question that if it is not economically remunerative, why does it continue?

Information is available to conduct a well documented, considered feasibility study of agricultural enterprises in the Moreno Valley area. The University of California Cooperative Extension (UCCE) publishes an extensive collection of studies on the costs, income and profitability of hundreds of crops. A brief view of the archives for the Southeast Interior area of California, which includes Riverside County, lists indicates that UCCE studies are available on the profitability of such crops as alfalfa, avocados, barley, beans, broccoli, cabbage, cantaloupes, carrots, corn, grain, grapefruit, lemons, lettuce, melons and wine grapes. Any real attempt to analyze the feasibility of agriculture in Moreno Valley would reference these studies and examine them for relevant information concerning the viability of agriculture in the Moreno Valley area.

While it is clear that local trends are reducing agriculture in the area, what is not been examined is any new trends that might affect the viability of agriculture in the Moreno Valley area. For instance, the price of most agricultural commodities has risen substantially, some 30 to 50 percent, in the last several years. The Riverside County Agricultural Commissioner reports for 2011:

This year's report represents a total gross valuation of \$1,282,256,116, an increase of \$188.6 million (17.2%) over the 2010 value and a new record for Riverside County. Agricultural crops rose 15.4% to \$990,225,736, while Livestock and Poultry production increased nearly 24% to \$202,030,380.

This does not sound like a dying industry.

In that previous mentioned economic feasibility study of a small property in Moreno Valley which we conducted last October, We concluded that the operation, which would utilize irrigation water from Eastern Municipal Water District (EMWD), would likely produce an annual net profit of approximately \$60,000 per acre, after all expenses were paid.

(Exhibit 3, pp. 8-9.)

The DEIR's conclusion that mitigating the loss of farmland is economically infeasible is not supported by substantial evidence. (See CEQA Guidelines, § 15364; *Citizens of Goleta Valley, supra*, 197 Cal.App.3d at p. 1181; *Kings County, supra*, 221 Cal.App.3d at pp. 734-737.) On the contrary, evidence supports a finding that such mitigation is not only economically feasible but could actually be economically beneficial for the City.

**(b) The DEIR's Conclusion that an Agricultural Mitigation Bank is Infeasible is Not Supported by Substantial Evidence.**

The DEIR hastily considers contributing to an agricultural mitigation bank (or agricultural conservation easements) to mitigate the loss of farmland and just as quickly dismisses it. (DEIR, p.4.2-17.) The DEIR rationalizes that since Riverside County had deemed mitigation banks infeasible, it would be infeasible to carry out such a mitigation measure on a citywide basis. (*Id.*) However, Riverside County's dismissal of mitigation banks back in 2003 is not sufficient evidence to support a finding that agricultural mitigation bank for this Project is infeasible for the City for this Project in this instance.

According to Mr. House, countless cities have demonstrated that agricultural mitigation is feasible at the municipal level:

There are numerous examples of cities in California that have chosen to conserve their agricultural resources independently of local county policies. The City of Davis, for instance, where we live, established an agricultural land mitigation requirement in 1995 and in 2007 increased the mitigation ratio such that 2 acres of farmland are conserved for every one acre converted to urban uses.

Numerous other cities in California also have agricultural mitigation requirements, including Stockton, Lathrop, Manteca, and Tracy in San Joaquin County; Brentwood in Contra Costa County; Elk Grove in Sacramento County; and Woodland in Yolo County. Bakersfield in Kern County in 2007 began requiring mitigation of agricultural land loss in 2007, Salinas in Monterey County has used agricultural conservation easements to limit its urban growth, and the City of Morgan Hill in Santa Clara County, a rapidly urbanizing area within Silicon Valley, is in the process of establishing an agricultural mitigation program that will utilize agricultural conservation easements paid for by developers.<sup>86</sup>

(Exhibit 3, pp. 9-10.)

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<sup>86</sup> Gregory House, co-author of this report is consultant to Morgan Hill on the creation of this program



Additionally, conservation easements are widely accepted as a feasible way to mitigate a project's impacts to agricultural resources. Agricultural conservation easements can be accomplished in two ways: (1) by permanently preserving farmland or (2) by requiring conservation fees from developers. According to Mr. House,

Conservation easements have been used for decades to conserve agricultural land where it is threatened by conversion to other uses. The American Farmland Trust has recently written a paper entitled Saving Farmland, Growing Cities which describes conservation easements in easy to understand terms.

Conservation easements area means of permanently preserving farmland under legal covenants voluntarily agreed to by landowners. Their purchase provides compensation to landowners who want to recover equity from their property while continue to farm it, something that would be impossible if they were to sell the land for non-agricultural purposes. Not only does this provide an innovative solution that recognizes private property rights, but it also provides an injection of capital into the agricultural economy.

...Funding for conservation easements can come from many sources...

An increasingly popular alternative is to require developers who convert farmland to pay a fee to preserve a comparable amount of land or to acquire the land itself for preservation.

This can also satisfy the requirement that environmental impacts of development be offset or mitigated [u]nder the California Environmental Quality Act."

(Exhibit 3, p. 10.)

Mr. House also provides details on ways to implement such agricultural conservation easements:

The California cities mentioned above have a variety of strategies to implement their agricultural preservation programs. Some have opted for a in-lieu mitigation fee (which will later be used by the city to purchase a conservation easement), others require the develop to purchase a conservation easement directly. The ratio of land conserved to land converted is typically 1:1 although the City of Davis has a 2:1 requirement. The latter method of requiring developers to purchase the conservation easements, utilized by both Yolo County and the City of Davis, has several advantages: low administration costs, the cost of the easement is current market value for the developer, and there is less likely to be a

closed or fixed market of available properties as easement sources; the former method, a mitigation in-lieu fee, involves greater administrative costs by the governing agency, and can lead to a price floor on the purchase price of the conservation easements such as experienced in Elk Grove in the late 2000's.

A successful strategy to keep the price of the conservation easements affordable for developers (who typically plan to factor the cost of the easements into their overall finished home or commercial real estate product sales price) is for the municipality to permit the conserved agricultural land to be some distance from the city limits, thus reducing speculative influence on the price of the easement. Simply put, it is common to find property that is second or third tier from the city limits to be less costly than property immediately adjacent. Since the principal effect of the agricultural conservation easement is to extinguish any current or future potential subdivision or urban development rights, the further a property is from development in space and time, the less costly will be the price of the conservation easement.

We recently conducted a study of 25 conservation easements in northern and central California which supports the observation that the farther from existing development the lower the cost of the easement. Our study, which included easements in seven counties from Merced to Yolo and several urban areas with high land costs (agricultural land values at \$30,000 to \$50,000 per acre), indicated there is a wide range in the cost of the easement relative to the fee value of the land. The range (of the cost of the agricultural conservation easement as a percent of the fee value of the property) spanned from a low of 15 percent in Monterey County in 2000 to a high of 73 percent in Solano County in 2006. At the high end were properties immediately adjacent to urban areas, freeways, etc. At the low end were properties in largely rural areas, much less or not at all affected by real estate speculation on urban development.

Agricultural land-conversion mitigation is feasible and being conducted by numerous cities, as well many counties in California. It is a serious lack of the DEIR that it does not examine any of the current mechanisms being employed in so many parts of California, nor attempt to consider the feasibility of implementing an agricultural mitigation program.

(Exhibit 3, pp. 10-11.)

Therefore, the DEIR's conclusion that agricultural mitigation bank is infeasible is unsupported by sufficient analysis and evidence. (See CEQA Guidelines, § 15364; *Citizens of Goleta Valley, supra*, 197 Cal.App.3d at p. 1181; *Kings County, supra*, 221 Cal.App.3d at pp. 734-737.)

**(c) The DEIR's Mitigation Measure to Dedicate 5-acres to Heritage Farming is Inadequate.**

In lieu of implementing the more appropriate agricultural mitigation bank, the DEIR provides one mitigation measure to address the loss of over 3,400 acres of active farmland.<sup>87</sup> (DEIR, p. 4.2-17.) The mitigation measure proffers to dedicate meager 5-acres to "heritage farming." (*Id.*) However, at a minimum, the acceptable mitigation ratio is 1:1, conserving 1 acre of farmland for 1 acre lost. (See *Citizens for Open Gov't v. City of Lodi* (2012) 205 Cal.App.4th 296, 323.) Mr. House corroborates that the typical mitigation ratio is 1:1, with the City of Davis demonstrating that 2:1 is also feasible. (Exhibit 3, pp. 10-11.) Thus, 5 acres for "heritage farming" falls vastly short of the 1:1 minimum ratio and is insufficient to mitigate the permanent loss of almost 3,500 acres of active and designated farmland at the Project site.

**(d) The DEIR Overlooks the Development of Irrigation as a Potential, Feasible Mitigation Measure.**

According to Mr. House, a potential, feasible way to mitigate the sweeping loss of farmland at the Project site is to develop irrigation on the highly rated soils of farmland in the Project's vicinity. Mr. House states:

If Moreno Valley is serious about conserving agricultural land, it might consider requiring as a mitigation measure the development of irrigation on the very highly rated soils of the nearby dry land farming areas. This could be done with the recycled irrigation water discussed in the Agricultural Resource Assessment prepared by Parsons Brinckerhoff for the DEIR, which notes that "EMWD plans to continue to extending the distribution infrastructure for recycled water." Nothing would be more supportive of agriculture in the area than to increase the availability of irrigation water, and then place a conservation easement on that land which prohibits urban development.

(Exhibit 3, p. 11.)

Mr. House's comments are premised on the fact that recycled water could be used to irrigate a wide variety of crops:

The DEIR presents conflicting information concerning the price and availability of water for crops and livestock in Moreno Valley. The Agricultural Resources Assessment prepared by Parsons Brinckerhoff in section 1.4 states that the cost of agricultural water is \$53 per acre-foot in

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<sup>87</sup> Although the DEIR mentions another mitigation measure in the Agricultural Resources section, Mitigation Measure 4.2.6.1B, it is not detailed in the DEIR and appears to have been mentioned in error.

the winter and \$90 per acre foot in the summer. It later states in section 2.2.2 that the cost of recycled water varies from \$38 per acre foot to \$250 per acre foot, and that additional pipeline would be required to service the project site with recycled water bring the cost of the water to well over \$100 per acre foot.

The same study summarily states that the “cost of irrigation Water makes the production of irrigated crops economically infeasible in the Moreno Valley area.” This is unsupported, and easily refuted by inquiry into the cost of water in such areas as the Central Valley of California. For instance, the water cost in the Arvin Edison Water Storage District (southern Kern County), the cost per acre foot of irrigation Water is \$130,<sup>88</sup> in Westlands Water District (Fresno County) the cost per acre foot is \$100 to \$400,<sup>89</sup> in the Del Puerto Water District (Merced County), irrigation water costs \$55 to \$225 per acre foot,<sup>90</sup> and in the Fallbrook Water District (San Diego County), irrigation water costs \$1,400 per acre foot.<sup>91</sup> From this we discern that the stated EMWD rates for irrigation water would not be excessive relative to many highly productive agricultural areas of California, and do not pose a substantial competitive disadvantage for Moreno Valley agriculture especially for the higher value crops such as fruits and vegetables suitable for growing in Moreno Valley as described in section 4.1.1, above.

The Agricultural Resources Assessment prepared by Parsons Brinckerhoff also states, again without support, “Commonly, in a low-rainfall area like Moreno Valley, a crop requires three acre feet of water per year and the profit from a majority of crops in California ranges from \$0 to \$500 per acre per year.” This supposition does not take into account the wide variation in water usage by the many different crops that could be grown in Moreno Valley (see section 4.1.1 above) nor the timing of planting and harvest of such crops, nor rainfall that becomes stored soil moisture and thus contributes to crop evapotranspiration needs; nor advances in irrigation technology that could be utilized in Moreno Valley agriculture such as drip irrigation that reduce total irrigation water needs of crops.

We have recently (October, 2012) conducted a economic feasibility study of a 4-acre property in Moreno Valley that a local farmer wishes to use for the production of certified organic fruits and vegetables for sale to local stores and at farmers’ markets. As part of that analysis we investigated

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<sup>88</sup> source: personal files of AEWSD water bills

<sup>89</sup> source: (<http://science.kqed.org/quest/2012/05/04/q-a-with-jason-peltier-of-wwd/>) and Notice to Landowners of Proposed Water Rates, Charges and Land-Based Charges, Westlands Water District, January 4, 2013

<sup>90</sup> source: personal communication with landowner and water user, 2013

<sup>91</sup> source: As Water prices rise, farmers face the ‘tipping point’, Ag Alert, June 8, 2011

water sources and concluded that water from Eastern Municipal Water District (EMWD) was the most reliable source. We calculated the crop water needs based on local Riverside area evapotranspiration data available from the University of California and the California Irrigation Management Information Service.<sup>92</sup> From this we concluded that the wide variety of fruits and vegetables intended to be grown on the property would require approximately 1.7 acre feet of applied irrigation water per year using drip irrigation, only about half of the 3 acre feet supposed in the Parsons Brinckerhoff report.

As an aside, it should be noted that a wide variety of crops can be grown with recycled water; the DEIR correctly notes there are strict guidelines for its use and prohibition for use in growing food crops; however this does not affect feed crops, fiber crops, biofuel crops, and high value crops such as vegetable seeds.

(Exhibit 3, pp. 7-8.)

In conclusion, the DEIR fails to adequately analyze all feasible ways to adequately mitigate the loss of extensive agricultural land. Moreover, the fact remains that the very cause of the decline of agricultural industry in the Inland Empire, and within the City, is projects like the current one, which have converted or seek to convert valuable farmland to urban uses without adequate mitigation. As the City would have it, its continued failure to preserve farmland to make way for urbanization will eventually result in the complete eradication of all farmland within the City limits. To prevent such a catastrophic result, the DEIR must sufficiently analyze all potential mitigation measures and implement them to the extent feasible.

Thus, a supplemental EIR is required to analyze and require implementation of these feasible mitigation measures to reduce the Project's impacts on agricultural land.

## **B. AIR QUALITY IMPACTS HAVE NOT BEEN ADEQUATELY ANALYZED OR MITIGATED.**

### **1. The DIER Fails to Mitigate Significant Particulate Matter Emissions from Project Construction to the Extent Feasible.**

The DEIR recognizes that the impacts from emissions of particulate matter (PM10) during project construction will be significant. To mitigate such impacts, the DEIR requires compliance with regional rules, including portions of SCAQMD Rule 403, and adoption of Mitigation Measures 4.3.6.2A through 4.3.6.2D. The DEIR then concludes that despite mitigation, the Project's PM10 emissions will be significant and unavoidable (DEIR, p. 4.3-57.) However, the DEIR's conclusion of significant and

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<sup>92</sup> ([www.ipm.ucdavis.edu/weather](http://www.ipm.ucdavis.edu/weather))

unavoidable PM10 impact is flawed because it ignores other applicable and feasible mitigation measures. (*Id.*)

According to Mr. Hagemann,

Additional mitigation for particulate matter should be incorporated

Particulate matter (PM10) emissions from Project construction will exceed the South Coast Air Quality Management District (SCAQMD) thresholds throughout the construction period (DEIR, p. 4.3-55). The DEIR discusses SCAQMD Rule 403, established to reduce fugitive dust emissions, and provides the following four measures from Rule 403 as mitigation for the Project's significant emissions of PM10:

- all clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour per SCAQMD guidelines in order to limit fugitive dust emissions;
- the contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day;
- cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meter (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicular Code Section 23114; and
- the contractor shall ensure that traffic speeds on unpaved roads and project site areas are 15 miles per hour or less to reduce fugitive dust haul road emissions (DEIR, p. 4.3-55).

Mitigation measures 4.3.6.2A through 4.3.6.2D also address PM10 emissions. However, the Project's PM10 emissions will be significant even after mitigation (DEIR, 4.3-57). Additional mitigation measures to reduce fugitive dust emissions are identified in Rule 403 but not in the DEIR. These measures should be identified in a revised DEIR to ensure that all applicable and feasible measures will be implemented to reduce Project emissions, to include:

- limiting fugitive dust emissions from any active operation, open storage pile, or disturbed surface area if the dust emission exceeds 20 percent opacity;
- prohibiting track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift; and

- not disturbing an area of five or more acres, or with a daily import or export of 100 cubic yards or more of material, without utilizing at least one of the following measures at each vehicle driveway from the site to a paved public road:
  - installation of gravel pads;
  - pave any surface extending at least 100 feet and at least 20 feet wide;
  - utilize a wheel shaker and wheel washer to remove dirt and mud from tires and vehicles before they exit the site.<sup>93</sup>

Rule 403 also states that active operations cannot be conducted unless all applicable best available control measures included in Table 1 are included.<sup>94</sup> Table 1 provides mitigation measures for trenching, cut-and-fill, truck loading, road maintenance, and earth-disturbing activities.<sup>95</sup> Project construction will require these types of activities. Review of the DEIR shows that not all measures listed in Table 1 are included as mitigation. A revised DEIR should be prepared that includes all applicable measures in Table 1. The Project, defined as a large operation<sup>96</sup> under Rule 403, should also follow all the applicable dust control measures listed in Table 2.<sup>97</sup>

(Exhibit 1, pp. 5-6.)

## **2. The DEIR Fails to Mitigate Significant Localized Construction and Operational Air Quality Impacts to the Extent Feasible.**

The DEIR also recognizes that the construction and operation of the proposed Project has the potential to exceed localized thresholds that may affect sensitive receptors. (DEIR, p. 4.3-58.) However, the DEIR erroneously concludes, despite the availability of additional feasible mitigation measures, that such localized air quality impacts are significant and unavoidable.

According to Mr. Hagemann:

Air dispersion modeling shows that localized concentrations of PM10 emissions also exceed SCAQMD thresholds (DEIR, p. 4.3-66). Significant localized PM10 emissions will pose adverse health risks to nearby residents and construction workers. The DEIR, however, only states that

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<sup>93</sup> South Coast Air Quality Management District, Rule 403. Fugitive Dust.  
<http://www.aqmd.gov/rules/reg/reg04/r403.pdf>, pp. 403-6 – 403-7.

<sup>94</sup> *Ibid.*, p. 403-6.

<sup>95</sup> *Ibid.*, p. 403-13.

<sup>96</sup> *Ibid.*, p. 403-3.

<sup>97</sup> *Ibid.*, p. 403-19.

air quality impacts remain “significant and unavoidable” in the absence of feasible mitigation (DEIR, p. 4.3-66).

We have identified additional feasible mitigation measures that can further reduce PM10 emissions and mitigate these impacts to the extent feasible. For example, a recent ruling by the California Attorney General for construction of an industrial project in Jurupa Valley, a city located 17 miles west of the Project site, required the following measures:

- installation of air filtration systems in home of adjacent residents;
- air quality monitoring in surrounding area; and
- a “green” project site, including a 100kW capacity solar photovoltaic system, LEED Silver certified project buildings, and electric vehicle charging stations.<sup>98</sup>

The press release accompanying the settlement<sup>99</sup> notes that Riverside County is home to numerous warehouse projects whose associated truck trips are negatively impacting resident health. Because the above-referenced mitigation measures were required for a similar project in a nearby city, it seems reasonable that these measures are feasible and should be implemented by the Applicant to protect resident health and local air quality.

Other mitigation, such as use of newer technology, should also be implemented to ensure that all feasible mitigation measures are being used to reduce emissions. Tier 4 technology, which applies to diesel engines used for off-road equipment,<sup>100</sup> uses new higher pressure fuel injection systems and electronic engine controls<sup>101</sup> and can reduce PM10 emissions by 90% as compared to older technology.<sup>102</sup> The DEIR discusses this technology but states that it will not be required until 2013 (DEIR, p. 4.3-57) and allow for the use of older Tier 3 technology in mitigation measure 4.3.6.2A (DEIR, p. 4.3-56). However, review of 40 CFR Part 1039, which establishes regulation about emissions standards, shows that Tier 4 technology will be phased in starting in 2011.<sup>103</sup> The

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<sup>98</sup> State of California Department of Justice, Office of the Attorney General. Attorney General Kamala D. Harris Announces Settlement to Protect Public Health in Jurupa Valley. <http://oag.ca.gov/news/press-releases/attorney-general-kamala-d-harris-announces-settlement-protect-public-health>

<sup>99</sup> *Ibid.*

<sup>100</sup> Clean Diesel Technology for Off-Road Engines and Equipment: Tier 4 and More. [http://www.aem.org/AllDocuments/AEM/SRT/SRTTopics/DTF\\_Tier4WP\\_FIN.pdf](http://www.aem.org/AllDocuments/AEM/SRT/SRTTopics/DTF_Tier4WP_FIN.pdf), p. 2.

<sup>101</sup> *Ibid.*, p. 3.

<sup>102</sup> U.S. EPA, Nonroad Engines, Equipment, and Vehicles. Nonroad Diesel Engines. <http://www.epa.gov/otaq/nonroad-diesel.htm>

<sup>103</sup> See <http://www.epa.gov/otaq/standards/nonroad/nonroadci.htm>; and <http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=0a57ac29b59ade8455648e60e739a181&rqn=div5&view=text&node=40:34.0.1.1.5&idno=40#40:34.0.1.1.5.1.2>



U.S. EPA has recommended the use of Tier 4 technology on other projects under CEQA review.<sup>104</sup> Because Project emissions are still significant even after mitigation, equipment used for the Project should meet Tier 4 standards to achieve maximum reduction in emissions.

The Project is located in the South Coast Air Basin, which is designated non-attainment for PM10. Because the air basin suffers from poor air quality from PM10, significant emissions of PM10 can worsen regional air quality. Because the Project will result in significant PM10 emissions, all feasible mitigation measures should be implemented to reduce emissions to the maximum extent feasible to ensure that Project construction will not contribute to a degradation of air quality. A revised DEIR should be prepared to implement all recommended mitigation measures, to include air filtration systems in residents' homes, equipment with Tier 4 technology, and all applicable Rule 403 measures.

(Exhibit 1, pp.6-7.)

Pursuant to Mr. Hagemann's findings and conclusions, a revised DEIR should be prepared to implement all applicable and feasible mitigation measures to address localized air quality impacts to sensitive receptors.

### **3. The DIER Fails to Analyze or Mitigate Significant Indirect Source Pollution.**

CEQA requires analysis of both direct and indirect environmental impacts. "Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects." (CEQA Guidelines, § 15126.2, subd. (a).) The Project will be a major source of indirect pollution since it will attract thousands of diesel trucks to the area. The emissions from these trucks will result in significant levels of diesel particulate matter, nitrogen oxides (NOx), reactive organic compounds (ROCs), greenhouse gases (GHGs) and other pollutants.

The EIR should analyze a requirement that the Project be required to implement mitigation measures similar to those required by San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 9510 – the Indirect Source Rule ("ISR"). Rule 9510 requires large sources of indirect air pollution to implement measures to reduce particulate matter and NOx pollution by approximately 50%.

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<sup>104</sup> U.S. EPA Detailed Comments on the Draft Environmental Impact Statement for the Proposed Alta East Wind Project, Kern County, California, September 27, 2012.  
<http://www.epa.gov/region9/nepa/letters/blm/ca/alta-east-wind-project-kern-county-deis.pdf>, p. 2.

Although the Project is not located in the San Joaquin Air Basin, and the SCAQMD does not have a similar rule, there is no question that the rule is “feasible,” which is the standard under CEQA. The fact that the rule is being implemented just over the county line in the SJVAPCD indicates that it is “feasible.” (See, *Hall v. U.S. Environmental Protection Agency* (9th Cir. 2001) 263 F.3d 926.) The rule has been upheld in court as within the Air District’s powers. There is no legal or technological reason that the rule could not be enforced as a CEQA mitigation measure as a way to reduce pollution from the Project by up to 50%.

The San Joaquin Air District promulgated Rule 9510, the “Indirect Source Rule,” on December 15, 2005. EPA approved SJVAPCD Rule 9510 as part of the California State Implementation Plan (“SIP”) May 9, 2011. (76 Fed. Reg. 26609 (May 9, 2011); 40 C.F.R. §52.220(c)(348)(i)(A)(3).) Industry groups challenged Rule 9510, but the District Court, Ninth Circuit Court, and California Courts upheld the rule. (*Cal. Bldg. Indus. Ass’n. v. San Joaquin Valley Air Pollution Control Dist.* (“*CBIA v. SJVAPCD*”) (2009) 178 Cal.App.4th 120, 126-127; *NAHB v. SJVAPCD*, 2008 U.S. Dist. LEXIS 70931 (E.D.Cal. 2008); *Nat’l Ass’n of Home Builders v. San Joaquin Valley Unified Air Pollution Control Dist.*, 627 F.3d 730 (9<sup>th</sup> Cir. 2010).) In upholding Rule 9510, the Court stated:

The District determined that increase in indirect source emissions, including new residential and commercial development, nullified emissions reductions achieved from other regulations...

In short, Rule 9510 targets indirect sources of air pollution. Rule 9510 sets target reductions for emissions associated with construction (“construction emissions”) and future operation of development projects (“operational emissions”). For construction, Rule 9510’s target is to reduce PM10 emissions by 45 percent and NOx by 20 percent as compared to emissions generated using “average” construction equipment in California. For future operation, Rule 9510’s target is to incorporate mitigation measures into project design to reduce emissions that would be otherwise indirectly caused by the project (e.g., increased traffic) over a 10-year period. The PM10 target is to reduce unmitigated operational emissions by 50 percent. The NOx target is to reduce emissions by 33.3 percent.

(*NAHB, supra*, US. Dist. LEXIS 70931, at \*13-14.)

Rule 9510 defines an indirect source as “any facility, building, structure, or installation, or combination thereof, which attracts or generates mobile source activity that results in emissions of any pollutant, or precursor thereof, for which there is a state ambient standard.” (Rule 9510, §3.17; see also 42 U.S.C. §7410(a)(5)(C).)

Rule 9510 provides that any heavy industrial facility of 100,000 square feet or larger in size must apply for an Indirect Source Rule or “ISR” permit, Rule 9510 §2.1.4, prior to receiving final discretionary approval for its project. *Id.* at §5.0. The Rule

requires the Air District to formulate a list of site-specific pollution reduction measures to reduce construction emissions by 20% for nitrogen oxides (“NOx”) and 45% for particulate matter under 10 microns in diameter (“PM10”). (Rule 9510 at §6.1.) It also requires the Air District to formulate a list of site-specific measures to reduce operational emissions by 33% for NOx and 50% for PM10. (*Id.* at §6.2.)

A facility subject to Rule 9510 may achieve all or part of its emission reductions by paying a fee that the Air District must use to achieve pollution reductions elsewhere in the air basin. Rule 9510 §3.24 states, “Off-Site Fees shall only apply to off-site emission reductions required, and shall only be used for funding off-site emission reduction projects.” Off-site reductions achieved through the fee must be “obtained reasonably contemporaneous with emissions increases associated with the project.” (*Id.* at §5.5.) Rule 9510 contains a complex formula intended to achieve equivalent emission reductions off-site as would have occurred through direct compliance on-site, based on the average statewide cost of emission reductions. (*Id.* at §7.0.) The current cost of off-site pollution reductions is over \$9000 per ton. (*Id.* at §7.2.)

The DEIR should analyze and implement requirements similar to those set forth in Rule 9510, in an effort to mitigate the Project’s impacts of indirect source pollution. The rule is feasible as is evidenced by the fact that it is being implemented in the adjacent county. Requiring the Project to comply with the rule would reduce pollution by almost 50%.

### **C. THE DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE IMPACTS TO BIOLOGICAL RESOURCES.**

It is the policy of the State of California to “[p]revent the elimination of fish and wildlife species due to man’s activities, insure that fish and wildlife populations do not drop below certain self-perpetuating levels, and preserve for future generations representations of all plant and animal communities.” (Pub. Resources Code, § 21001, subd. (c).)

As discussed below, the DEIR contravenes the state preservation policy and fails to adequately assess the Project’s impacts to wildlife, especially sensitive species and native plants. As a result, the DEIR did not adequately mitigate the potential impacts to the extent feasible. The DEIR must be revised to analyze and evaluate all potential impacts to biological resources and, where appropriate, propose adequate mitigation measures with definite terms and verifiable performance standards.

#### **1. The DEIR Fails to Adequately Analyze the Full Extent of the Project’s Impacts Due to lack of Survey Data.**

Due to the inaccurate biological resources baseline (see Part IV.C, *supra*), the DEIR fails to adequately analyze the Project’s impacts to such resources. According to Mr. Cashen,

For reasons previously discussed, project impacts to the burrowing owl, Los Angeles pocket mouse, and special-status plants cannot be sufficiently assessed due to the lack of comprehensive survey data. The lack of comprehensive survey data on burrowing owls is especially problematic because it is a MSHCP “Group 3” species (with additional survey needs and procedures), and because the species is known to occur on the Project site.

### Burrowing Owl

Burrowing owls have been documented occurring on the Project site.<sup>105</sup> As a result, the Project is likely to have significant direct and indirect impacts on burrowing owl resources (including burrows, foraging habitat, and individual owls). However, the extent and magnitude (e.g., number of afflicted owls) cannot be fully evaluated and mitigated until surveys that comply with CDFW’s 2012 survey requirements have been conducted. Moreover, it is not possible to rule out the potential for the Project to significantly impact burrowing owls until surveys that adhere to the protocol have been conducted.

(Exhibit 2, pp. 13-14.)

## **2. The DEIR Fails to Sufficiently Analyze Impacts to Raptor Habitat.**

According to Mr. Cashen,

The City’s analysis of Project impacts to raptor foraging habitat is limited to the following statements:

The WLCSP [World Logistics Center Specific Plan] and off-site facilities contain flat, open areas with sparse vegetation, which could be considered foraging habitat for some raptor species. Due to the regular, heavy disturbance associated with the various agricultural activities in the WLCSP and off-site facilities resulting in a rather limited prey base, and the limited size of the site in relation to the expansive foraging habitat in the near vicinity including both the CDFW Conservation Buffer Area and the SJWA[San Jacinto Wildlife Area], LSSRA [Lake Perris State Recreation Area] and the extensive Badlands to the east, the foraging habitat on site is considered marginally suitable and an adverse but not significant impact to raptor foraging habitat is anticipated.<sup>106</sup>

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<sup>105</sup> DEIR, Appendix E, p. 46.

<sup>106</sup> *Ibid*, p. 4.4-75.

These statements are not supported by actual analysis.

First, neither the Applicant nor the City conducted any studies to quantify the prey base for raptors. Whereas agricultural activities can reduce the prey base, certain activities (e.g., harvesting, discing, mowing, flood irrigation, and burning) increase hunting efficiency by reducing cover or otherwise increasing the exposure of prey to foraging raptors. Indeed, some raptor species (e.g., Swainson's hawk) have learned to exploit the abundance of prey made available by agricultural activities. For example, Estep (1989) reported that Swainson's hawks in the Central Valley spent 52.8% of their foraging time hunting in apparent response to harvesting, discing, mowing, or irrigation.<sup>107</sup>

Second, the Project site cannot be characterized as being of "limited size" in relation to the expansive foraging habitat in the vicinity. Indeed, the Applicant's consultant identified the study area as containing "extensive raptor foraging habitat."<sup>108</sup> The consultant also concluded that impacts to the large amount of raptor foraging habitat on the site may be a significant impact under CEQA.<sup>109</sup>

Whereas I do not contest that there is a considerable amount of foraging habitat in the Project vicinity, it is overly simplistic for the City to conclude that the loss of over 2,700 acres of foraging habitat would not have a significant impact on raptors. Some raptor species are intolerant of even small amounts of urban development.<sup>110</sup> For example, Berry et al. (1998) concluded that even small amounts of urbanization usually rendered *whole landscapes* unacceptable to bald eagles, ferruginous hawks, rough-legged hawks, and prairie falcons.<sup>111</sup> In addition, raptors that are displaced from the Project site to suboptimal habitats would likely experience reduced survivorship. Thus, the City's analysis of Project impacts to raptors must consider (a) the size and configuration of remnant foraging habitat in relation to urbanization; and (b) the quality and carrying capacity of the habitat remaining in the region.

(Exhibit 2, pp. 14-15.)

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<sup>107</sup> Estep JA. 1989. Biology, movements, and habitat relationships of the Swainson's Hawk in the Central Valley of California, 1986-87. Calif. Dept. Fish and Game, Nongame Bird and Mammal Sec. Rep., 52 pp. Available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentVersionID=70479>

<sup>108</sup> DEIR, Appendix E, p. 3.

<sup>109</sup> *Ibid.*

<sup>110</sup> Berry ME, CE Bock, SL Haire. 1998. Biodiversity of open space grasslands at a suburban/agricultural interface, Part III: Abundance of diurnal raptors on open space grasslands in an urbanized landscape. Final report to the Biological Resources Division, U.S. Geological Survey and Department of Open Space/Real Estate, City of Boulder. Contract No. 1445-CA09-96-0025. Available at: <http://www.bouldercolorado.gov/> (Attachment C).

<sup>111</sup> *Ibid.*

### **3. The DEIR Fails to Disclose, Analyze, or Mitigate Biological Resources Impacts Associated with the Proposed Relocation.**

According to Mr. Cashen,

The DEIR indicates burrowing owls, Los Angeles pocket mice, and perhaps other sensitive species may be “relocated” to the 250-foot setback zone along the southern boundary of the Project site. Relocating sensitive wildlife to the setback zone defeats its intent, which is to provide a buffer between the Project and sensitive biological resources. Moreover, relocating wildlife outside of the construction area does not ensure impacts are mitigated.

In a comprehensive review of translocation projects involving birds and mammals, Griffith et al. (1989) concluded overall success rates were apparently dependent on a variety of ecological factors, including the quality of the habitat where animals were released.<sup>112</sup> When an animal is moved to an unfamiliar location, it has no knowledge of the habitat resources essential for its survival (e.g., food, water, and cover). The lack of cover in an unfamiliar setting makes a prey species (e.g., Los Angeles pocket mouse) an easy target for predators. In addition, many animals exhibit an intrinsic homing response that is energetically taxing, and that may preclude procurement of food and cover resources. Elevated stress hormone levels an organism generates when it is handled and moved may synergistically interact with increased energetic demands to further reduce possibility of survival. Even if the translocated animal is placed in an area with readily available resources, aggressive competitors may prevent the displaced animal from accessing the resources, and from mating.

#### *Burrowing owl-*

Consistent with CDFW guidelines, passive relocation is a potentially significant impact under CEQA that must be analyzed.<sup>113</sup> Specifically, the temporary or permanent closure of burrows may result in: (a) significant loss of burrows and habitat for reproduction and other life history requirements; (b) increased stress on burrowing owls and reduced reproductive rates; (c) increased depredation; (d) increased energetic costs; and (e) risks posed by having to find and compete for available burrows.<sup>114</sup> The City must thoroughly analyze the effects of passive relocation if it may be implemented at the Project site.

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<sup>112</sup> Griffith B, JM Scott, JW Carpenter, C Reed. 1989. Translocation as a species conservation tool: status and strategy. *Science* 245:477-480. (Attachment D).

<sup>113</sup> CDFG. 2012. Staff Report on Burrowing Owl Mitigation, p. 10.

<sup>114</sup> *Ibid.*

The need for full analysis of potential impacts from passive relocation is further supported by research that indicates most translocation projects have resulted in fewer breeding pairs of burrowing owls at the mitigation site than at the original site, and that translocation projects generally have failed to produce self-sustaining populations.<sup>115</sup> Investigators attribute the limited success of translocation to: (a) strong site tenacity exhibited by burrowing owls, and (b) potential risks associated with forcing owls to move into unfamiliar and perhaps less preferable habitats.<sup>116</sup>

Each of these issues exemplifies the need for the Applicant to prepare a detailed translocation plan that is approved by the resource agencies before translocation occurs. At a minimum, the plan should contain:

1. an assessment of potential release sites, with special attention dedicated to estimating the size of the receiving population.
2. an assessment of threats at the release site (e.g., predators, pesticide use, land management activities), and a discussion of how these threats have been (or will be) mitigated.
3. a detailed description of the monitoring and adaptive management measures that will be implemented after animals are released.

(Exhibit 2, pp. 15-16.)

#### **4. The DEIR Fails to Establish Adequate Buffers to Mitigate Potentially Significant Impacts of Air Pollution on Biological Resources.**

The DEIR admits that buffer zones, or setbacks, are necessary to adequately mitigate the Project's potentially significant air pollution impacts to biological resources. (DEIR, pp. 4.4-62~72.) The South Coast Air Quality Management District ("SCAQMD") and the California Air Resources Board ("CARB") both recommend that a project's setbacks to sensitive receptors should be 1,000 ft.<sup>117</sup> Contrary to such recommendation, the DEIR concludes that 250 ft setbacks would suffice. (*Id.* at p. 4.4-71.)

The DEIR's proposed 250 ft setback is inadequate for the following reasons: (1) the setback zones are insufficient to adequately mitigate the Project's air pollution impacts to biological resources, (2) the DEIR erroneously concludes that the

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<sup>115</sup> Smith BW, JR Belthoff. 2001. Burrowing owls and development: short-distance nest burrow relocation to minimize construction impacts. *J. Raptor Research* 35:385-391. (Attachment E).

<sup>116</sup> *Ibid.*

<sup>117</sup> SCAQMD's Review of the Draft Specific Plan for the Proposed World Logistics Center Project, p. 3, available at <http://www.aqmd.gov/ceqa/igr/2012/May/DSPworldlogistics.pdf>

recommended 1,000 ft setbacks are not necessary, and (3) the DEIR fails to explain why the recommended 1,000 ft setbacks are infeasible.

First, Mitigation Measure 4.4.6.1A's 250 ft setbacks are inadequate to serve their purpose of "buffering" biological resources from the Project's significant air pollution impacts. Mr. Cashen agrees:

According to the DEIR, "[t]he most significant potential environmental impact on local wildlife (i.e., within the SJWA and Badlands) may be exposure to vehicular exhaust and especially diesel particulates and toxic air contaminants from truck exhaust as the WLCSP project builds out. New development will produce *significant amounts* of diesel-related air pollutants that will be released into the atmosphere, including gases and particles of various sizes."<sup>118</sup> Nevertheless, the City has concluded "[t]he 250-foot setback identified in Mitigation Measure 4.4.6.1A, and the presence of the CDFW Conservation Buffer Area, will effectively mitigate potential indirect impacts of air pollutants, including diesel particulate matter, on wildlife within the SJWA."<sup>119</sup>

The DEIR fails to establish a monitoring and reporting program to ensure the proposed buffer mitigates the effects of air pollution on wildlife, vegetation, and aquatic resources. Moreover, information provided in the DEIR does not support the City's conclusion that a 400-foot buffer is sufficient to mitigate Project impacts to a less-than-significant level. Specifically, the DEIR cites research by the California Air Resources Board ("CARB") that indicates 80 percent of the particulates generally settle out of the atmosphere within 1,000 feet of the emission source.<sup>120</sup> Analyses by both the CARB and the South Coast Air Quality Management District indicate that providing a buffer of 1,000 feet would substantially reduce diesel PM concentrations and public exposure downwind of a distribution center.<sup>121</sup> Because wildlife may be more susceptible to air pollutant impacts than humans, one can infer that a buffer of at least 1,000 feet is needed to protect wildlife from air pollutants.<sup>122</sup>

(Exhibit 2, pp. 17-18.)

Additionally, the DEIR admits that burrowing owls, Los Angeles pocket mice, and perhaps other sensitive species may be "relocated" to the 250-foot setback zone along

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<sup>118</sup> DEIR, Appendix E, p. 128. [emphasis added].

<sup>119</sup> *Ibid*, p. 4.4-72.

<sup>120</sup> *Ibid*, p. 4.4-70.

<sup>121</sup> California Air Resources Board (CARB) and California Environmental Protection Agency (CEPA). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. Available at: <http://www.arb.ca.gov/ch/landuse.htm>

<sup>122</sup> DEIR, Appendix E, p. 129.



the southern boundary of the Project site. (DEIR, pp. 4-71~72.) However, as Mr. Cashen notes, relocating sensitive wildlife to the setback zone eviscerates the very purpose of establishing setbacks, which is to provide a buffer between the Project and sensitive biological resources. (See Exhibit 2, p. 15.) Therefore, the relocation component of Mitigation Measure 4.4.6.1A renders the setbacks, regardless of amount, ineffective to mitigate the Project's air pollution impacts on biological resources.

Second, the DEIR appears to conclude that the recommended 1,000 ft setbacks are not necessary. The DEIR rationalizes that the CDFW Conservation Buffer Area would function as an additional buffer to the 250 ft setback along the Project's southern boundary. (DEIR, pp. 4.4-69~70.) However, such rationale overlooks the fact that the CDFW Conservation Buffer Area may support the very wildlife that the setbacks are intended to protect. (DEIR, p. 4.4-11 [the DEIR admitting that the CDFW Conservation Buffer Area may support wintering raptors and game birds].) Therefore, the CDFW Conservation Buffer Area cannot be used in place of establishing the recommended 1,000 ft setback.

Finally, the DEIR does not provide sufficient reasons as to why the recommended 1,000 ft setbacks are infeasible. Accordingly, a revised DEIR must (1) revise Mitigation Measure 4.4.6.1A to prohibit the relocation of any impacted biological resources to setback zones and (2) adequately analyze the feasibility of 1000 ft setbacks to mitigate air pollution impacts to sensitive biological resources.

## **5. The DEIR Fails to Adequately Mitigate Project's Impacts to Special-Status Plant Species.**

According to Mr. Cashen,

Mitigation proposed by the City for Project impacts to special-status plant species includes:

Prior to the approval of any Plot Plans for development within the project area, the applicant shall submit a biological assessment of the proposed development site prepared by a qualified biologist to identify if any of the following sensitive plants (i.e., Coulter's goldfields, smooth tarplant, or thread-leaved brodiaea) are present on the proposed development site. If plants are found in the proposed development area, they may be relocated to the 250-foot clear setback area outlined in the Specific Plan and discussed in Mitigation Measure 4.4.6.1A. Alternatively, an appropriate impact fee may be paid to the Western Riverside County Regional Conservation Authority (RCA) or other appropriate conservation organizations to offset for the loss of these species on the WLC project site.<sup>123</sup>

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<sup>123</sup> *Ibid*, pp. 4.4-74 and -75.

The proposed measures do not ensure Project impacts to special-status plant species are mitigated to a less-than-significant level.

First, Coulter's goldfields, smooth tarplant, and thread-leaved brodiaea are MSHCP Group 3 species. As a result, if any of these species occur within a proposed development area, the City must require the project proponent to conform to the procedures listed in Section 6.3.2 in the MSHCP. Section 6.3.2 states: "[f]or locations with positive survey results, 90% of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species are met."<sup>124</sup>

Second, the special-status plant species with the potential to occur in the Project area are not limited to the three species identified in the mitigation measure.<sup>125</sup> In accordance with CDFW guidelines, the City must require surveys that are floristic in nature, meaning that every plant taxon that occurs on site is identified to the taxonomic level necessary to determine rarity and listing status.<sup>126</sup>

Third, the DEIR suggests mitigation may be limited to relocating plants to the buffer area. Although salvage and relocation have some merits as a last resort, it is generally not an effective means of mitigating impacts. Fiedler (1991) conducted a thorough review of mitigation-related transplantation, relocation and reintroduction attempts involving special-status plants in California.<sup>127</sup> The author reported only 8 of the 53 (15%) attempts reviewed in her study should be considered fully successful.<sup>128</sup> Although Fiedler reported several causes for the failed attempts, the common result was that the plants died. Unless the City can provide evidence that potentially impacted plants can be transplanted and/or propagated successfully, it must require fee payment to the Regional Conservation Authority.

Fourth, the City must identify the specific mitigation measure (or suite of potential measures) that will be required if a sensitive plant or animal

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<sup>124</sup> MSHCP, Vol I, Section 6.3.2. Available at: <http://www.wrc-rca.org/library.asp>

<sup>125</sup> *Ibid*, Table 4.4.D.

<sup>126</sup> CDFG. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: [http://www.dfg.ca.gov/wildlife/nongame/survey\\_monitor.html#Plants](http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants).

<sup>127</sup> Fiedler PL. 1991. Mitigation-related transplantation, relocation and reintroduction projects involving endangered and threatened, and rare plant species in California. Final Report. Available at: [nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=3173](http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=3173).

<sup>128</sup> *Ibid*.

species that is not covered under the MSHCP is detected within a proposed development area.

(Exhibit 2, pp. 18-19.)

## **6. The DEIR Fails to Adequately Mitigate Impacts to Burrowing Owls.**

According to Mr. Cashen,

The conservation goals established in the MSHCP have not yet been met for the burrowing owl, and thus sites with burrowing owls appear to be subject to the provisions listed in Section 6.3.2 in the MSHCP.<sup>129</sup> Because the burrowing owl was recently (2012) detected on the Project site, the City needs to clarify whether the Project is subject to the provisions of MSHCP Section 6.3.2. If the Project is subject to those provisions, the City must identify how the Project will be capable of avoiding 90% of those portions of the site that provide for the long-term conservation value for the burrowing owl.

Burrowing owls have the potential to occupy the Project site prior to development.<sup>130</sup> The DEIR indicates “[t]his is a potentially significant impact requiring mitigation.”<sup>131</sup> However, it fails to define the impact(s) or provide any mitigation to offset the impact(s). Instead, it simply requires a pre-construction survey, establishment of buffer zones around active burrows, and the exclusion of owls from their burrows during the non-breeding season (which in itself is a potentially significant impact).

### Pre-construction Survey

The DEIR requires a pre-construction survey for burrowing owls no more than 30 days prior to initiation of ground-disturbing activities.<sup>132</sup> This condition is not consistent with CDFW guidelines, which recommend an initial preconstruction survey within the 14 days prior to ground disturbance, followed by a subsequent survey within 24 hours prior to ground disturbance.<sup>133</sup> As the CDFW’s 2012 Staff Report acknowledges, “burrowing owls may re-colonize a site after only a few days.”<sup>134</sup> As a

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<sup>129</sup> MSHCP 2011 Annual Report, Table 25. Available at: <http://www.wrc-rca.org/library.asp>

<sup>130</sup> DEIR, p. 4.4-77.

<sup>131</sup> *Ibid.*

<sup>132</sup> *Ibid.*

<sup>133</sup> CDFG. 2012. Staff Report on Burrowing Owl Mitigation. Available at: [www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf](http://www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf), pp. 29-30.

<sup>134</sup> *Ibid.*, p. 30.

result, a single pre-construction survey up to 30 days in advance of construction is insufficient to avoid and minimize take of burrowing owls.

The City must clarify that “take avoidance” (i.e., pre-construction) surveys for the burrowing owl are not a substitute for the four surveys required to assess Project impacts and formulate appropriate mitigation. The City must require the Applicant to conduct the protocol surveys described by CDFW, and the results of those surveys need to be released in a revised DEIR.<sup>135</sup>

### Buffers

The DEIR provides inconsistent information on the buffer distance required around active burrows (i.e., 250 feet or 500 feet).<sup>136</sup> Furthermore, the CDFW no longer uses the default standard of 250-foot buffers during the breeding season and 160-foot buffers during the non-breeding season. Instead, CDFW indicates that indirect impacts and appropriate mitigation should be determined through site-specific analyses that incorporate the wide variation in natal area, home range, foraging area, and other factors influencing burrowing owls and burrowing owl population persistence in a particular area.<sup>137</sup> CDFW guidelines indicate buffers may need to be up to 500 meters, depending on the level of disturbance.<sup>138</sup>

### Burrow Exclusion

In accordance with CDFW guidelines, burrowing owls should not be excluded from burrows unless or until the Applicant:

1. develops a Burrowing Owl Exclusion Plan that is approved by the CDFW;
2. secures off-site compensation habitat and constructs artificial burrows in close proximity (< 100 m) to the eviction sites;
3. mitigates the impacts of temporary exclusion according to the methods outlined by CDFW;
4. conducts site monitoring prior to, during, and after exclusion of burrowing owls from their burrows; and, documents excluded burrowing owls using artificial or natural burrows on an adjoining mitigation site.<sup>139</sup>

(Exhibit 2, pp. 19-21.)

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<sup>135</sup> *Ibid*, Appendix D.

<sup>136</sup> DEIR, p. 4.4-79.

<sup>137</sup> CDFG. 2012 Mar 7. Staff Report on Burrowing Owl Mitigation. Available at: [www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf](http://www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf). p. 12.

<sup>138</sup> *Ibid*, p. 9.

<sup>139</sup> *Ibid*, pp. 10 and 11.

**D. THE DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE THE PROJECT'S GREENHOUSE GAS EMISSIONS.**

The DEIR also recognizes that greenhouse gas emissions ("GHG") from the construction and operation of the proposed Project are potentially significant. (DEIR, pp. 4.7.29~31.) However, the DEIR fails to adequately mitigate the significant impacts from greenhouse gas emissions.

**1. The DEIR Underestimates the Project's Operational GHG Emissions and Fails to Mitigate the Actual Extent of GHG Impacts.**

According to Mr. Hagemann:

Operational emissions

The DEIR estimates project operational emissions to be 752,000 mt CO<sub>2</sub>e/year, more than 75 times the SCAQMD's significance threshold of 10,000 mt CO<sub>2</sub>e per year. The DEIR correctly concludes that emissions are significant (p. 4.7-30) and provides mitigation. Even after mitigation, operational GHG emissions are nearly 70 times greater than the thresholds (Table 4.7.1). As high as these emissions remain, even after mitigation, the estimate of post-mitigation GHG emissions is based on incorrect assumptions. If correct estimates of long-haul truck trips were used, estimates of GHG emissions would even be higher. Because emissions are so high, a revised DEIR should be prepared to identify additional mitigation measure to attempt to reduce GHG impacts.

Underestimating the GHG emissions in the DEIR stems largely from incorrectly estimating long haul truck trip distances which make up more than half of all Project operational emissions (DEIR, p. 4.7-30). The DEIR states that long-haul trucks travel an average of 50 miles per trip (p. 4.7-30). No basis for making this estimate of long-haul travel distances is provided in the DEIR.

The DEIR states the project would be haul cargo containers from the Port of Los Angeles or the Port of Long Beach (p. 4.7-43). Google maps show routes to the Project average about 80 miles from the Ports of Los Angeles Long Beach, a distance 60% greater than the 50 mile distance estimated in the DEIR (Attachment C). Long-haul trips, even as underestimated in the DEIR, constitute the biggest component of operational emissions, by far, from Project operation (DEIR, p. 4.7-30).

The Project operational emissions are so significant, they constitute significant majority of the entire City of Moreno Valley's GHG emissions

estimates for the year 2020. The DEIR states that the City of Moreno Valley's mitigated GHG emissions in 2020 will be 798,000 mt CO<sub>2</sub>e/year (DEIR, p.4.7-9). In 2020, Project's emissions, after mitigation, are estimated to be 612,000 mt CO<sub>2</sub>e/year (DEIR, p, 4.7-35), or 77% of the entire business as usual estimate for the City of Moreno Valley.

Because emissions vastly exceed thresholds, additional mitigation, in the form of offsets, should be included in a revised DEIR. The Project applicant should obtain emission reduction credits, or carbon offsets, to reduce the Project's emissions to a less than significant level. Offsets should be chosen in a revised DEIR to show that offsets are verifiable and efficient. The DEIR should not be certified until the Applicant discloses that the Project's GHG emissions are significant during the construction period and mitigates emissions through the purchase of carbon offsets.

(Exhibit 1, pp. 9-10.)

The Project should be required to implement all of the GHG reductions measures set forth in the Greenhouse Gas reduction guidelines published by the California Attorney General. (Exhibit 5.) These measures are feasible and would help reduce the Project's GHG impacts.

## **2. The DEIR Fails to Mitigate Significant Construction GHG Emissions.**

The DEIR acknowledges that there would be significant GHG emissions during the Project's construction. (DEIR, pp. 4.7-29~30, Table 4.7.E.) However, the DEIR fails to mitigate such significant GHG emissions in any way. According to Mr. Hagemann:

### Construction emissions

Construction GHG emissions from 2013 to 2021 are estimated to total 434,126 mt CO<sub>2</sub>e. The DEIR uses an amortization technique for a 30 year period to estimate emissions of 14,000 mt CO<sub>2</sub>e (p. 4.7-30). The emissions are significant in that they exceed the threshold of South Coast AQMD threshold of 10,000 mt CO<sub>2</sub>e.<sup>140</sup>

The DEIR does not identify any mitigation measures for construction GHGs in excess of thresholds. Many mitigation measures for construction GHGs are commonly recommended by the South Coast AQMD in their review of DEIRs.<sup>141</sup> A revised DEIR should be prepared to include all mitigation measures that would be feasible in reducing GHG emissions. If

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<sup>140</sup> <http://www.aqmd.gov/ceqa/handbook/signthres.pdf>

<sup>141</sup> <http://www.aqmd.gov/ceqa/igr/2012/December/DEIRglenarm.pdf>, p. 3

these measures are not sufficient, carbon offsets should be purchased to reduce emissions to reduce GHG emissions to below the threshold.

(Exhibit 1, p. 10.)

The Project should be required to implement all of the GHG reductions measures set forth in the Greenhouse Gas reduction guidelines published by the California Attorney General. (Exhibit 5.) These measures are feasible and would help reduce the Project's GHG impacts.

**E. STORMWATER IMPACTS ON WATER QUALITY HAVE NOT BEEN ADEQUATELY ANALYZED OR MITIGATED.**

**1. Construction-Related Stormwater Impacts Have Not Been Adequately Analyzed.**

The DEIR admits that during Project construction, storm runoff containing large volumes of sediment may cause significant water quality impacts to adjacent waterways. (DEIR, p. 4.9-31.) The DEIR also recognizes that such storm runoff from the Project site would ultimately reach Lake Elsinore. (DEIR, p. 4.9-2.) However, the DEIR fails to disclose that Lake Elsinore is impaired for sedimentation and sedimentation toxicity. (DEIR, p. 4.9-5.) As a result, the DEIR fails to analyze how the storm runoff containing sediment would further degrade the water quality at Lake Elsinore.

According to Mr. Hagemann,

Project construction will require extensive grading, vegetation removal, and excavation. Approximately 42 million cubic yards of cut-and-fill will be required to grade the entire site (DEIR, p. 3-61). Project construction may lead to erosion of site soils. The DEIR states that pollutants associated with the Project include sediments, nutrients, bacteria, toxic organic compounds, and pesticides (DEIR, p. 4.9-34). During periods of rainfall, water that washes over eroded soil can entrain these contaminants and discharge into adjacent waterways.

The DEIR states that Project runoff from the western portion flows into the Perris Valley storm drain while runoff from the eastern portion flows into Mystic Lake and the San Jacinto River (DEIR, p. 4.9-22) which is located ten miles south of the Project site. From the San Jacinto River, flow ultimately reaches Lake Elsinore (DEIR, p. 4.9-2). The DEIR identifies that Lake Elsinore is listed under the California Regional Water Quality Control Board's 303(d) List of Impaired Water Bodies for nutrients, low dissolved oxygen, and PCBs (DEIR, p. 4.9-5). The DEIR, however, does not disclose that Lake Elsinore is also impaired for sedimentation and

sediment toxicity.<sup>142</sup> If rainfall washes over disturbed soil stockpiled on site during Project construction, contaminated sediment and runoff can eventually drain to Lake Elsinore, further degrading water quality.

(Exhibit 1, p. 4.)

## **2. The DEIR Fails to Adequately Mitigate Construction-Related Soil Erosion and Storm Runoff Impacts on Water Quality.**

The DEIR also fails to adequately mitigate the Project's construction-related impacts of soil erosion and storm runoff on water quality. Based on current and historical uses of the Project site, there is a high potential for the presence of OCPs and other pesticides in the soil. Despite the high potential, the DEIR fails to include any feasible best management practices (BMPs) or mitigation measures to address these potentially significant water quality impacts on adjacent waterways.

According to Mr. Hagemann,

The DEIR states that during operational activities, stormwater runoff can carry trace metals such as zinc, copper, lead, cadmium, and iron and that treatment controls will be based on these pollutants (DEIR, pp. 4.9-33-4.9-34). However, the DEIR does not consider the possibility that ground-disturbing activities during Project construction can also lead to erosion and transport of these contaminants deposition to adjacent waterways.

The DEIR states that a SWPPP will be prepared and identifies measures that will be implemented to reduce impacts from soil erosion (DEIR, p. 4.6-13). Mitigation measure 4.9.6.3A lists best management practices (BMPs) that will be implemented to reduce water quality impacts (DEIR, p. 4.9-37). However, no measures or BMPs are provided that specifically identify that OCPs and other pesticides, which may exist from previous uses of the site, can flow into the adjacent waterways. To ensure that Project construction will not result in significant impacts to hydrological resources, the SWPPP should be prepared prior to Project construction to include BMPs such as erosion control and treatment measures specifically designed to address OCPs and other pesticides.

(Exhibit 1, pp. 4-5.)

Pursuant to Mr. Hagemann's conclusions, the DEIR should be revised to require the preparation of a SWPPP to address the potentially significant impacts of soil erosion and storm runoff to valuable hydrological resources. The SWPPP should be included

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<sup>142</sup> Search for Elsinore, Lake at [http://www.waterboards.ca.gov/water\\_issues/programs/tmdl/2010state\\_ir\\_reports/category5\\_report.shtml](http://www.waterboards.ca.gov/water_issues/programs/tmdl/2010state_ir_reports/category5_report.shtml)



as a mitigation measure in a recirculated DEIR so that the public and decisionmakers may analyze the SWPPP to determine its adequacy.

## **VI. THE DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE CUMULATIVE IMPACTS.**

### **A. LEGAL STANDARDS**

An EIR must discuss significant cumulative impacts. (CEQA Guidelines, § 15130(a).) This requirement flows from Public Resources Code section 21083, which requires a finding that a project may have a significant effect on the environment if “the possible effects of a project are individually limited but cumulatively considerable... ‘Cumulatively considerable’ means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” “Cumulative impacts” are defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” (CEQA Guidelines, § 15355(a).) “[I]ndividual effects may be changes resulting from a single project or a number of separate projects.” (CEQA Guidelines, § 15355(a).)

“The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.” (*CBE v. CRA*, *supra*, 103 Cal.App.4<sup>th</sup> at p. 117.) A legally adequate cumulative impacts analysis views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable probable future projects whose impacts might compound or interrelate with those of the project at hand. “Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.” (CEQA Guidelines, § 15355(b).)

As the court stated in *CBE v. CRA*, 103 Cal. App. 4th at p. 114:

Cumulative impact analysis is necessary because the full environmental impact of a proposed project cannot be gauged in a vacuum. One of the most important environmental lessons that has been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact.

(Citations omitted.)

In *Kings County, supra*, 221 Cal.App.3d at p. 718, the court concluded that an EIR inadequately considered an air pollution (ozone) cumulative impact. The court said: “The EIR concludes the project’s contributions to ozone levels in the area would be immeasurable and, therefore, insignificant because the [cogeneration] plant would emit relatively minor amounts of [ozone] precursors compared to the total volume of [ozone] precursors emitted in Kings County. The EIR’s analysis uses the magnitude of the current ozone problem in the air basin in order to trivialize the project’s impact.” The court concluded: “[t]he relevant question to be addressed in the EIR is not the relative amount of precursors emitted by the project when compared with preexisting emissions, but whether any additional amount of precursor emissions should be considered significant in light of the serious nature of the ozone problems in this air basin.”<sup>143</sup> The *Kings County* case was reaffirmed in *CBE v. CRA*, 103 Cal.App.4th at 116, where the court rejected cases with a narrower construction of “cumulative impacts.”

Similarly, in *Friends of Eel River v. Sonoma County Water Agency*, (2003) 108 Cal. App. 4th 859, the court held that the EIR for a project that would divert water from the Eel River had to consider the cumulative impacts of the project together with other past, present and reasonably foreseeable future projects that also divert water from the same river system. The court held that the EIR even had to disclose and analyze projects that were merely proposed, but not yet approved. The court stated, CEQA requires “the Agency to consider ‘past, present, and probable future projects producing related or cumulative impacts . . . .’” (Guidelines, § 15130, subd. (b)(1)(A).) The Agency must interpret this requirement in such a way as to ‘afford the fullest possible protection of the environment.’” (*Friends of Eel River, supra*, at pp. 867, 869.) The court held that the failure of the EIR to analyze the impacts of the project together with other proposed projects rendered the document invalid. “The absence of this analysis makes the EIR an inadequate informational document.” (*Id.*, at p. 872.)

The Court in *Citizens to Preserve the Ojai v. Bd. of Supervisors*, 176 Cal.App.3d 421 (1985), held that an EIR prepared to consider the expansion and modification of an oil refinery was inadequate because it failed to consider the cumulative air quality impacts of other oil refining and extraction activities combined with the project. The court held that the EIR’s use of an Air District Air Emissions Inventory did not constitute an adequate cumulative impacts analysis. The court ordered the agency to prepare a new EIR analyzing the combined impacts of the proposed refinery expansion together with the other oil extraction projects.

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<sup>143</sup> *Los Angeles Unified v. City of Los Angeles*, 58 Cal.App.4<sup>th</sup> at pp. 1024-1026 found an EIR inadequate for concluding that a project’s additional increase in noise level of another 2.8 to 3.3 dBA was insignificant given that the existing noise level of 72 dBA already exceeded the regulatory recommended maximum of 70 dBA. The court concluded that this “ratio theory” trivialized the project’s noise impact by focusing on individual inputs rather than their collective significance. The relevant issue was not the relative amount of traffic noise resulting from the project when compared to existing traffic noise, but whether any additional amount of traffic noise should be considered significant given the nature of the existing traffic noise problem.

In sum, an EIR's cumulative impacts analyses are critical in taking a project out of its artificial vacuum. By evaluating the true extent of a project's environmental impacts, taking into consideration all relevant past, present, and probable future projects in the project's vicinity, the EIR could serve its informational purpose adequately.

**B. THE DEIR'S ENTIRE CUMULATIVE IMPACTS ANALYSES ARE IMPROPERLY BASED ON OUTDATED AND INACCURATE SUMMARY OF PROJECTIONS.**

The CEQA Guidelines set forth two methods for satisfying the cumulative impacts analysis requirement: the list-of-projects approach and the summary-of-projections approach. (CEQA Guidelines, § 15130(b).) But either way, an EIR must analyze a project's cumulative impacts in conjunction with other related past, present, and reasonably foreseeable future projects whose impacts might compound or interrelate with those of the project at hand. (Pub. Resources Code, § 21083, subd. (b); CEQA Guidelines, §§ 15130, 15355; *San Joaquin Raptor/Wildlife Rescue Center*, *supra*, 27 Cal.App.4th at pp. 739-741.)

At the outset, the DEIR explains that it would rely solely on the summary-of-projections method in analyzing the Project's cumulative impacts. (DEIR, p. 2-22.) The DEIR's summary-of-projections consists of the growth projections contained in the Moreno Valley General Plan and regional growth projections based on Regional Transportation Plan. (DEIR, p. 2-22, 2-23.) Using these projections, the DEIR analyzes cumulative impacts for each environmental topic in the respective sections (EIR Sections 4.1 through 4.16.)

Courts have recognized that the use of the summary-of-projections method can be problematic. "Use of a planning document does not preclude challenge to the accuracy or sufficiency of the cumulative impacts analysis. As recognized in a respected CEQA treatise, '[t]he summary-of-projections approach may present problems if the projections in the general plan or related planning document are inaccurate or outdated.'" (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1217 [emphasis added].) In this instance, the growth projections that the DEIR utilizes are both outdated and inaccurate because they are based on the 2006 General Plan which does not account for the recent influx of similar warehouse projects in the City.

The Inland Empire is home to the nation's biggest concentration of warehouses. In recent years, the City has been setting aggressive economic goals to pursue new development in logistics and distribution.<sup>144</sup> The City has followed through with those goals and the latest Economic Development Summary highlights the multitude of

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<sup>144</sup> Moreno Valley Economic Development Action Plan 1/18/2012, p. 11, available at [http://www.moreno-valley.ca.us/city\\_hall/departments/econ-dev/pdfs/forum/CITY-PPT.pdf](http://www.moreno-valley.ca.us/city_hall/departments/econ-dev/pdfs/forum/CITY-PPT.pdf)

recent, large scale warehouse projects. (Exhibit 4, Moreno Valley Economic Development Summary 3/2013, pp. 5-7.) The following is a list of 20 similar projects in the City that are approved, undergoing environmental review, in construction or have recently opened:

<b><u>Logistics-Warehouse Projects in Moreno Valley, CA</u></b>				
	<b>Name</b>	<b>Size</b>	<b>Description</b>	<b>Location</b>
<b>Recently Opened</b>				
<b>1</b>	Highland Fairview Corporate Park (HFCP)/Skechers Distribution Center	1.82 million sq. ft.	Highland Fairview, the Project's developer, has recently opened a large scale distribution center for Skechers USA.	Just northwest of the Project site, between Redlands Boulevard and Theodore Street.
<b>2</b>	Ross Stores Moreno Valley Distribution Center	1.58 million sq. ft	Second phases added 612,000 sq. ft., plus additional 285,000 sq. ft. mezzanine to the existing 686,000 sq. ft. building.	17800 Perris Blvd, Moreno Valley
<b>3</b>	United Natural Foods Inc. Distribution Center	613,174 sq. ft.	An expansion of the distribution facility for United Natural Foods Inc.	Goldencrest Drive
<b>In Planning/Pending Environmental Review</b>				
<b>4</b>	Prologis Eucalyptus Industrial Park	2,224,419 sq. ft.	This project would include the construction of a warehouse facility comprising six buildings and is currently undergoing environmental review.	South of Highway 60 to Eucalyptus Avenue between Pettit and Quincy streets
<b>5</b>	Westridge Commerce Center	943,800 sq. ft.	The proposed project is currently on hold, pending a challenge to the EIR by Sierra Club in Riverside Superior Court.	Located just west of the Project site, at north of Eucalyptus Avenue and Redlands Boulevard.
<b>Approved/In Plan Check</b>				
<b>6</b>	Inland Empire Global Logistics Center	1.56 million sq. ft.	Distribution center developed by Panattoni Development Company	SWC of Indian St. and Iris Ave.
<b>7</b>	Lowe's Distribution Center	746,340 sq. ft	A Lowe's distribution center by Alere Property Group.	Located on the east side of Heacock St. north of Cardinal Way.

<b>8</b>	San Michele Distribution Center	423,015 sq. ft.	A distribution center by Alere Property Group.	Indian St. and San Michele Rd.
<b>9</b>	First Apache Warehouse	569,200 sq ft.	Industrial complex warehouse facilities by First Industrial Realty Trust	Perris and Storm Channel
<b>10</b>	Harbor Freight Tools at Centerpointe Business Park	1.28 million sq. ft.	Currently occupies 779,016 sq. ft. with plans to expand by 507,720 sq. ft. totaling 1.28 million sq. ft.	NWC of Cactus Ave. and Graham St.
<b>11</b>	Distribution/warehouse facility at Centerpointe Business Park	607,430 sq. ft.	A distribution/ warehouse facility located at Centerpointe Business Park	NWC of Brodiaea Ave. and Graham St.
<b>12</b>	Nandina Distribution Center – Building A	413,598 sq. ft.	Part of a two building complex with total of 1.82 million sq. ft.	NWC of Nandina Ave. and Indian St.
<b>13</b>	Komar	283,100 sq. ft.	Industrial/distribution building on 13.75 acres.	SEC of Heacock Ave. and San Michele Rd.
<b>14</b>	Rados – Warehouse distribution center	409,598 sq. ft.	Part of a seven building project with total of 619,127 sq. ft.	NEC of Heacock St. and Iris Ave.
<b>15</b>	Vogel Engineers Inc/Sares-Regis warehouse distribution building	1.62 million sq. ft.	A warehouse distribution building on 71.15 acres.	North of Oleander Storm Drain between Indian St. and Perris Blvd.
<b>16</b>	March Business Center	1.48 million sq. ft.	Four buildings total, three of which (1.32 million sq. ft.) would be used for warehouse distribution uses.	SEC of Iris Ave. and Heacock St.
<b>Under Construction</b>				
<b>17</b>	First Inland Logistics Center	865,960 sq. ft.	An industrial/distribution facility in two buildings. Tenant improvements underway.	Located on the north side of Nandina Ave., west of Perris Blvd.
<b>18</b>	Nandina Distribution Center – Building B	769,320 sq. ft.	Part of a two building complex with total of 1.82 million sq. ft.	NWC of Nandina Ave. and Indian St.
<b>19</b>	Centerpointe Logistics Center	522,774 sq. ft.	Logistics-distribution building on 25.9 acres developed by Overton Moore Properties.	NWC of Cactus Ave. and Frederick St.
<b>20</b>	I-215 Logistics Center	1.25 million sq. ft.	Industrial warehouse in two buildings developed by Trammell Crow Company.	Heacock St. and San Michele Rd.

(Exhibit 4, Moreno Valley Economic Development Summary 3/2013, pp. 5-7.)

To accommodate the recent surge of large warehouse projects within the City, the City's General Plan was amended multiple times. For example, ProLogis Eucalyptus Industrial Park Project is currently undergoing environmental review and requires amendments to the City's General Plan and zoning designations to the Project Site from Residential to Business Park.<sup>145</sup> A recently-approved March Business Center Project also included an adoption of a General Plan Amendment.<sup>146</sup> These are mere examples of the numerous amendments to the General Plan that have occurred or will occur to make way for the warehouse projects in the City.

The General Plan amendments that postdate the 2006 Update are not accounted for in the growth projections contained in the general plan.<sup>147</sup> Thus, the General Plan fails to account for the City's recent growth spurt in the warehouse industry and contains outdated and inaccurate growth projections. (See *Bakersfield Citizens for Local Control, supra*, 124 Cal.App.4th at pp. 1217-1218.) The DEIR's use of inaccurate growth projections means that the resultant cumulative impacts analyses are underinclusive.

Proper cumulative impacts analysis is absolutely critical to meaningful environmental review. The DEIR's cumulative impact analyses are inadequate in their entirety because they did not take into account the environmental impacts of other past, present and reasonably foreseeable projects in the Project's vicinity. As a result, the cumulative impacts analyses are underinclusive and misleading. The DEIR must revise its cumulative impacts analyses for each and every environmental issue (DEIR Sections 4.1 through 4.16) using updated and accurate growth projections or a list-of-projects approach, or a combination of both. (CEQA Guidelines, § 15130(b).)

### **C. THE DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE CUMULATIVE AGRICULTURAL RESOURCE IMPACTS.**

In addition to using inaccurate projections, the DEIR's cumulative agricultural resources impacts analysis fails to consider other related present and reasonably foreseeable future projects. The DEIR only focuses on past projects, primarily relying on past inventories of farmland in Riverside County from 2000 to 2010, which illustrate a steady loss of farmland. (DEIR, p. 4.2-21, Tables 4.2B, 4.2.C.) Relying on these past inventories, the DEIR concludes that the countywide decline in farmland will continue and rationalizes the Project's removal of over 3,500 acres of Important Farmland and the lack of any mitigation efforts. (DEIR, pp. 4.2-20~21.)

As previously noted, an EIR must analyze a project's cumulative impacts in conjunction with other related past, present, and reasonably foreseeable future projects

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<sup>145</sup> ProLogis Draft EIR, at p. 1-2, available at <http://www.moval.org/misc/pdf/prologis/ProLogis%20DEIR-min.pdf>

<sup>146</sup> March Business Center Final EIR, at p. S-3, available at <http://www.moval.org/misc/pdf/march/MBCDraftEIR04-26-12.pdf>

<sup>147</sup> Moreno Valley General Plan, Final Program EIR, pp. 3-8, 3-9, available at [http://www.moreno-valley.ca.us/city\\_hall/general-plan/06gpfinal/ieir/eir-tot.pdf](http://www.moreno-valley.ca.us/city_hall/general-plan/06gpfinal/ieir/eir-tot.pdf)

whose impacts might compound or interrelate with those of the project at hand. (Pub. Resources Code, § 21083, subd. (b); CEQA Guidelines, §§ 15130, 15355 [emphasis added].) The DEIR admits that the cumulative area for agricultural resource impacts is Riverside County. (DEIR, p. 4.2-21.) Therefore, the DEIR's cumulative agricultural resource analysis is inadequate and fails to analyze the Project's agricultural resource impacts in conjunction with other related present and reasonably foreseeable future projects within Riverside County.

Moreover, the DEIR fails to mitigate the significant cumulative agricultural impacts in any way. (DEIR, pp. 4.2-20~21.) Such failure is improper for the same reasons as provided in Part V.A.3, *supra* (discussing the DEIR's failure to mitigate the Project's significant agricultural impacts.)

#### **D. THE DEIR FAILS TO ADEQUATELY ANALYZE AND MITIGATE CUMULATIVE IMPACTS TO BIOLOGICAL RESOURCES.**

The DEIR fails to provide any analysis on how the Project, in combination with all relevant past, present and potential future projects, can cause cumulative impacts to biological resources. According to Mr. Cashen,

The DEIR provides virtually no analysis of the Project's contribution to cumulative impacts to sensitive biological resources. It simply concludes: "the regional (cumulative) implications of the project can be addressed through the fee payment program of the MSHCP because it provides a regional and comprehensive approach to conservation planning," and that "no significant cumulative effect on biological resources would result from the development of the proposed uses with implementation of the identified program mitigation measures."<sup>148</sup>

The City's justification fails to consider the Project's contribution to potentially significant impacts to species not covered by the MSHCP. Indeed, the Final EIR/EIS for the MSHCP states: "implementation of the MSHCP will result in cumulatively significant impacts on the Non-Covered Species because the issuance of incidental take permits will remove an impediment to development outside of the MSHCP Conservation Area. Non-Covered Species would receive little or no protection outside the reserves under existing ordinances and regulations."<sup>149</sup> In my opinion, the Project may contribute to cumulatively considerable impacts to Non-Covered Species, and those impacts would not be mitigated by the measures proposed by the City.

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<sup>148</sup> DEIR, p. 4.4-81.

<sup>149</sup> MSHCP, p. 5.1-7. [emphasis added].

Many assumptions were incorporated into the MSHCP. The assumptions pertain to biological conditions (and relationships), development within the plan area, and actual implementation of the MSHCP. Some of the assumptions that were incorporated into the MSHCP have proven to be incorrect. For example, the MSHCP has been unsuccessful in the conservation of burrowing owls within the plan area.<sup>150</sup> This example highlights the flaws with the City's conclusion that the MSHCP will eliminate any potential for cumulative impacts.

Ultimately, the Project's contribution to cumulative impacts cannot be analyzed because the City has not identified the other projects within the cumulative effects analysis area. At a minimum, the City must identify the other projects may contribute to cumulatively considerable impacts to raptors, jurisdictional waters, the Northwestern San Diego pocket mouse, and other sensitive biological resources in the Project region.

(Exhibit 2, pp. 16-17.)

**E. THE DEIR FAILS TO ADEQUATELY MITIGATE CUMULATIVE AIR IMPACTS.**

The DEIR also fails to adequately mitigate significant cumulative air quality impacts to human health. According to Mr. Hagemann:

Cumulative air impacts are inadequately mitigated

The DEIR predicts cumulative impacts to human health from the Project and other nearby projects to exceed risk thresholds set by the SQAQMD. The DEIR (p. 4.3-88) includes modeling results that estimate health impacts as follow:

**Table 4.3.AC: Comparison of Cancer Risk Values**

Receptor Location	Cancer Risk (risk per million)		
	Project Increment	Cumulative	MATES-III
Maximum affected receptor located outside of the boundaries of the WLC Specific Plan	45 <sup>1</sup>	193 <sup>1</sup>	1,029 <sup>2</sup>
Maximum affected sensitive receptor located within of the boundaries of the WLC Specific Plan	76.8	121.1	496
Existing residences located across Redlands Boulevard	20.9	45.9	496

<sup>150</sup> *Ibid*, Burrowing Owl Survey Report 2011. Available at: <http://www.wrc-rca.org/library.asp> See also Wilkerson RL and RB Siegel. 2010. Assessing changes in the distribution and abundance of burrowing owls in California, 1993-2007. Bird Populations 10: 1-36. (Attachment F).



The table shows that the incremental impacts from the Project range from 20.9 to 76.8 cancer risks which greatly exceed the SCAQMD threshold of 10 additional cancer risks in a population of one million.<sup>151</sup> The table also shows that a sensitive receptor who already faces a risk level well in excess of the SCQAQMD threshold (496 in a million) will have that risk increased by an increment of 121 in a population of a million (or 12 in a population of 100,000), a 24% increase, from cumulative project construction. Existing residences across Redlands Blvd. will see cumulative risk levels increase 9% (existing cancer risk of 45.9/MATES III risk of 496 = 9.3%).

Cancer risks that residents currently face in the area of the Project are primarily driven by diesel particulate matter (DEIR, 4.3-87). The California Air Resources Board has classified diesel particulate matter as a toxic air contaminant for both its cancer and non-cancer health effects.<sup>152</sup> In addition the California Office of Environmental Health Hazard Assessment found that exposure to diesel particulate resulted in an increased risk of cancer and an increase in chronic non-cancer health effects including a greater incidence of cough, labored breathing, chest tightness, wheezing, bronchitis, and asthma.<sup>153</sup>

Emissions of diesel particulate matter from cumulative project emissions will increase, driven by an increase in truck traffic from the Project and from other cumulative projects in the area. The DEIR offers no mitigation for diesel particulate matter emissions. Because current cancer risks greatly exceed thresholds, and will get significantly worse from cumulative impacts, all feasible mitigation should be considered for nearby residents, especially sensitive receptors. The mitigation should target reductions in diesel particulates, the most significant contributor to health risks.

Other projects, where risks from diesel particulates are as high as those estimated in the DEIR, have instituted mitigation that is considered to be Best Available Control Technologies for Toxics and which are capable of reducing potential cancer and non-cancer risks to an acceptable level. These Best Available Control Technologies and other mitigation measures include:

- Installation of Minimum Efficiency Reporting Value (MERV) filters rated at 13 or better at all residential units where incremental cancer risk exceeds one in one hundred thousand<sup>154</sup>;

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<sup>151</sup> <http://www.aqmd.gov/ceqa/handbook/signthres.pdf>

<sup>152</sup> [http://www.oehha.ca.gov/public\\_info/facts/dieselfacts.html](http://www.oehha.ca.gov/public_info/facts/dieselfacts.html)

<sup>153</sup> Ibid.

<sup>154</sup> [http://cityplanning.lacity.org/EIR/CornfieldArroyo/RDEIR/RP-DEIR\\_Volume%20I.pdf](http://cityplanning.lacity.org/EIR/CornfieldArroyo/RDEIR/RP-DEIR_Volume%20I.pdf),  
[http://www.ci.berkeley.ca.us/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Redevelopment\\_Agency/West%20Berkeley%20MMP.pdf](http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Redevelopment_Agency/West%20Berkeley%20MMP.pdf)

- Plant tiered vegetation along the project site boundaries -- laboratory studies show that cedar trees can remove some of the fine particulate matter emitted from traffic under low wind speeds<sup>155</sup>;
- Providing notification to nearby residents in areas of estimated cumulative risk that exceeds one in one hundred thousand population that operation of the project may have detrimental health impacts as noted by California Air Resources Board and the South Coast Air Quality Management District.

A revised DEIR should be prepared to identify additional mitigation to reduce cancer risks from diesel particulates from cumulative project construction. The DEIR should include all feasible mitigation and should include modeling estimates to show risk reduction to levels less than the SCAQMD threshold of one in a million cancer risk.

(Exhibit 1, pp. 7-9.)

## **VII. THE DEIR FAILS TO PROVIDE ADEQUATE ALTERNATIVES ANALYSIS AND FAILS TO IMPLEMENT THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE 1.**

### **A. LEGAL STANDARDS**

One of CEQA's fundamental requirements is that the DEIR must identify the "environmentally superior alternative," and require implementation of that alternative unless it is infeasible. (CEQA Guidelines, §15126.6(e)(2); Kostka & Zischke, *Practice Under the California Environmental Quality Act* §15.37 (Cont. Educ. Of the Bar, 2008).) Typically, a DEIR identifies the environmentally superior alternative, which is analyzed in detail, while other project alternatives receive more cursory review.

The analysis of project alternatives must contain an accurate quantitative assessment of the impacts of the alternatives. In *Kings County, supra*, 221 Cal.App.3d at pp. 733-735, the court found the EIR's discussion of a natural gas alternative to a coal-fired power plant project to be inadequate because it lacked necessary "quantitative, comparative analysis" of air emissions and water use.

Additionally, when project objectives are defined too narrowly, the EIR's alternatives analysis may be inadequate. (*City of Santee v. San Diego* (1989) 214 Cal.App.3d 1438; *Preservation Action Council v. San Jose* (2006) 141 Cal.App.4th 1336.)

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<sup>155</sup> [http://www.ci.berkeley.ca.us/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Redevelopment\\_Agency/West%20Berkeley%20MMP.pdf](http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Redevelopment_Agency/West%20Berkeley%20MMP.pdf), p. 3

A “feasible” alternative is one that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (Pub. Res. Code, § 21061.1; CEQA Guidelines, § 15364.) California courts provide guidance on how to apply these factors in determining whether an alternative or mitigation measure is economically feasible.

The lead agency is required to select the environmentally preferable alternative unless it is infeasible. As explained by the Supreme Court, an environmentally superior alternative may not be rejected simply because it is more expensive or less profitable:

The fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible. What is required is evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project.

(*Citizens of Goleta Valley, supra*, 197 Cal.App.3d at pp. 1180-81; see also, *Burger, supra*, 45 Cal.App.3d 322 [county’s approval of 80 unit hotel over smaller 64 unit alternative was not supported by substantial evidence].)

As discussed below, the DEIR fails to meet the legal standards for an adequate CEQA alternatives analysis.

**B. THE DEIR IMPROPERLY DISMISSES THE LESS ENVIRONMENTALLY DAMAGING AND FEASIBLE REDUCED DENSITY ALTERNATIVE (ALTERNATIVE 1).**

The DEIR considers the Reduced Density Alternative (Alternative 1) as an alternative to the proposed Project. Alternative 1 would decrease logistics use by 28 percent, which would result in corresponding decreases in environmental impacts. For one, Alternative 1 would reduce the operational emissions all across the board, including approximately 30% reductions for CO, VOC, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>.<sup>156</sup> (DEIR, Table 6.L.) Traffic impacts would also decrease by 30% under Alternative 1. (DEIR, pp.6-25, 6-26.)

The DEIR admits that Alternative 1 is “environmentally superior” to the proposed Project. As such, the environmentally superior Alternative 1 must be selected unless it is infeasible. (*Citizens of Goleta Valley, supra*, 197 Cal.App.3d at 1180-81; see also, *Burger, supra*, 45 Cal.App.3d 322.) Instead, the DEIR improperly dismisses it as not meeting “most of the major goals of the proposed project mainly because of the reduced total square footage by 30 percent....” (DEIR, pp.6-22, 6-44.) Such reasoning, or lack

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<sup>156</sup> The DEIR contains a calculation error which in effect downplays the reduction of NO<sub>x</sub> emissions for Alternative 1 from the Proposed project. Table 6.L provides the net change in emissions of NO<sub>x</sub> from the proposed project (3,059) and Alternative 1 (2,141) as -645 when it should in fact be -918. (DEIR, Table 6.L.)

thereof, does not amount to substantial evidence to support a conclusion that Alternative 1 is infeasible. To put it simply, a reduced scale alternative cannot be rejected solely because it is reduced in scale. Such circular reasoning makes a mockery of the alternatives analysis.

Furthermore, the DEIR downplays the significant environmental benefits of Alternative 1 by illogically concluding that despite the 30 percent reduction in operational emissions, the impacts from emissions would be significant and unavoidable in “approximately the same manner as the proposed project.” (DEIR, p. 6-24.) Similarly, the DEIR deemphasizes Alternative 1’s 30 percent decrease in traffic as being similar to those impacts identified for the Proposed Project. (DEIR, pp. 6-25, 6-26.) On the whole, the DEIR dismisses Alternative 1’s substantial reductions of environmental impacts by concluding that all impacts identified as significant and unavoidable under the Proposed Project would still be significant under Alternative 1 in “approximately the same and/or in the same exact manner as the proposed project.” (DEIR, p. 6-28.) However, it is puzzling how 30 percent decreases in emissions and traffic under Alternative 1 would be “the same” as no reduction at all under the proposed Project. If anything, the logical conclusion of this reasoning is that the City must consider an even smaller reduced scale alternative.

Thus, the DEIR fails to provide substantial evidence to support the dismissal of the environmentally superior alternative because it does not meet the project objectives “to the same degree as the proposed project.” (DEIR, Table 6.M.) Such logic is insufficient to support a conclusion that Alternative 1 is infeasible. Additional analysis is required to consider this environmentally superior alternative before the Board may reject it. (Pub. Res. Code, §21002; *Sierra Club v. Gilroy City Council* (1990) 220 Cal.App.3d 30, 31.)

### **C. THE DEIR ERRONEOUSLY CONCLUDES THAT THERE ARE NO FEASIBLE ALTERNATIVE SITES NEAR THE PROJECT AREA.**

Additionally, the DEIR summarily concludes that all of the alternative sites near the project area are infeasible. However, the DEIR’s conclusion of infeasibility is based on extremely narrow project objectives, which the DEIR sums up as including “a contiguous 2,635-acre site for 41 million square feet of high-cube logistics warehouse uses.” (DEIR, pp. 6-2, 6-38.) These narrow objectives effectually eliminated from consideration all potential “feasible” sites which could have served the Project’s broader purpose of providing warehouses, though not in the same scale as the Project.

The DEIR’s application of extremely narrow project objectives of securing an alternative site similar in scale as the Proposed Project renders the Alternative Sites Analysis inadequate. For example, the DEIR ignored all potential sites within the City by focusing only on the large scale and concluding that “there are no sites available within the City that have nearly that amount of vacant land planned [as the Project site] or designated for industrial-related uses.” (DEIR, Table 6.R.) Therefore, the DEIR did

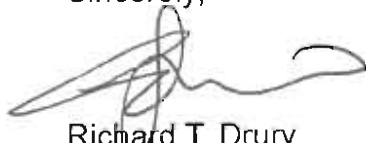
not consider any smaller sites within the City which could have been less environmentally damaging than the Project and perhaps some distance away from active farmland and/or from sensitive receptors like the San Jacinto Wildlife Area. (See id.)

In sum, the DEIR's improper dismissal of the "environmentally superior" Alternative 1 and its erroneous conclusion that no feasible alternative sites exist near the project area violates the mandates of CEQA. The revised DEIR must select the environmentally superior alternative, Alternative 1, and adequately analyze potential alternative sites in the Project's vicinity without focusing solely on fulfilling the Project's narrow objective of constructing a logistics warehouse similar in scale to the proposed Project.

### **VIII. CONCLUSION**

For the foregoing reasons, LIUNA Local Union No. 1184 and its members living in the City of Moreno Valley and the surrounding areas, urge the City to continue the matter for future consideration pending completion of a supplemental EIR addressing the Project's significant impacts and mitigation measures. Thank you for your attention to these comments. Please include this letter and all attachments hereto in the record of proceedings for this project.

Sincerely,



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Attorneys for LIUNA Local Union No. 1184

# **EXHIBIT 1**



Technical Consultation, Data Analysis and  
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March 25, 2013

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Oakland, CA 94607

**Subject:           Comments on the Draft Environmental Impact Report for the World Logistics Center,  
                          Riverside County, California**

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Dear Mr. Drury:

We have reviewed the February 2013 Draft Environmental Impact Report (DEIR) and associated documents for the World Logistics Center Project (Project). The Project proposes to build a 41.6 million square foot warehouse on 2,710 acres of a 3,198 acre parcel in the City of Moreno Valley in Riverside County. The site is currently used for wheat farming. Seven residences currently exist on Project site. San Diego Gas & Electric operates a natural gas compressor plant on 19 acres of the Project site and Southern California Gas Company operates a metering and pipe cleaning facility on 1.5 acres on the south central portion of the site.

We reviewed the DEIR for issues associated with hazards and hazardous materials, hydrology and water quality, and air quality. Project construction and operation may result in potentially significant impacts to workers, nearby residents, and surrounding hydrological features that are not adequately evaluated by the DEIR. A revised DEIR should be prepared to fully analyze and disclose impacts and provide appropriate mitigation to ensure that the Project will not result in significant impacts.

**HAZARDS AND HAZARDOUS MATERIALS**

Eighteen Phase I Environmental Site Assessments (“Phase I ESAs”) were completed for the site from May 2003 to January 2013 and are included as Appendix I to the DEIR. The January 2013 Phase I ESA, which includes a summary of the findings of the previous Phase I ESAs, states that past uses of the site included a chicken ranch, three dairies, and agriculture (2013 Phase I ESA, p. 1).

The 2013 Phase I ESA states that there are no recognized environmental conditions (RECs)<sup>1</sup> associated with the Project site (2013 Phase I ESA, p. 35). Our review shows that the Phase I ESA and the DEIR do not thoroughly evaluate current soil conditions at the site. Failure to adequately disclose baseline conditions at the Project site that may result in significant impacts to construction workers and nearby residents.

#### Inadequate sampling of pesticides in Project site soils from past uses

Currently, the Project site is used for dry farming and wheat is typically grown on the Project site (DEIR, p. 4.2-2). The DEIR states that dry farming does not typically use pesticides (DEIR, p. 4.8-4) but our review of data for the Project site from the California Department of Pesticide Regulation (CDPR) shows that pesticides such as 2,4-D, 2-ethylhexyl ester were used on the site for wheat cultivation (see Attachment A).

The 2013 Phase I ESA, however, does not mention recent pesticide usage. The 2013 Phase I does include sampling results for organochlorine pesticides (OCPs). The ESA notes that OCP sampling results were below regulatory levels (2013 Phase I ESA, p. 2). However, only 52 samples were collected from the Project site in previous investigations.

The “Interim Guidance for Sampling Agricultural Properties” prepared by the Department of Toxic Substances Control (DTSC) recommends that, when testing for OCPs, samples for sites over 50 acres should be collected at over 60 locations.<sup>2</sup> The Project site, at 2,710 acres, is well over 50 acres. Therefore, the 52 samples collected over the last ten years<sup>3</sup> are likely insufficient to provide an accurate assessment of the Project site’s soil conditions and collecting such a limited number of samples may not reliably disclose current environmental concerns associated with Project site soils. In addition, because these samples were collected a minimum of eight years ago, sampling results are outdated and cannot be used to baseline conditions.

The Project site has been used for agricultural purposes since at least 1948 (2013 Phase I ESA, p. 15). OCPs such as DDT and DDE were used starting in 1940s.<sup>4</sup> Although their use was banned in the 1970s, these compounds can persist in soil for hundreds of years.<sup>5</sup>

The limited number of samples collected on the Project site may not fully show the total extent of OCP concentrations throughout the Project site. The Applicant should disclose how many acres of the 2,710-acre site were historically and currently used for agricultural activities and

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<sup>1</sup> A REC is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. See <http://www.astm.org/Standards/E1527.htm>

<sup>2</sup> Department of Toxic Substances Control, Interim Guidance for Sampling Agricultural Properties (Third Revision). <http://www.dtsc.ca.gov/Schools/upload/Ag-Guidance-Rev-3-August-7-2008-2.pdf>, p. 8

<sup>3</sup> 42 samples were collected in 2003, 9 samples were collected in 2004, and one sample was collected in 2005.

<sup>4</sup> U.S. EPA, DDT – A Brief History and Status. <http://www.epa.gov/pesticides/factsheets/chemicals/ddt-brief-history-status.htm>

<sup>5</sup> *Ibid.*, p. 3



should collect 60 soil samples per 50-acre portion. For example, if 100 acres of the Project site was used for agriculture, 60 samples on each 50-acre portion should be collected for a total of 120 samples.

The Project site is currently used for wheat cultivation but no samples were collected in association with the 2013 Phase I ESA. Because the Project site is still used for agricultural purposes, relying on sampling results from eight years ago will not reflect pesticide residuals that may exist in site soils from agricultural use of the site from 2005 to present-day. Additional pesticide sampling, to include 2, 4-D, 2-ethylhexyl ester and any other pesticides that may have been used for wheat farming, should be conducted.

Project construction will require grading, excavation, vegetation removal, and trenching. Construction workers can be exposed, via inhalation and dermal contact, to pesticides in soil that can become airborne during these ground-disturbing activities. Exposure to these pesticides can pose significant health risks. Oral exposure to 2, 4-D, 2-ethylhexyl ester can result in vomiting, diarrhea, headache, confusion, and bizarre behavior. Dermal exposure can result in irritation and inhalation exposure can lead to coughing and burning sensations in the upper respiratory tract and chest.<sup>6</sup> Exposure to DDT can result in headaches, nausea, and convulsions<sup>7</sup> as well as damage the liver, nervous, and reproductive system.<sup>8</sup>

There are seven residences located onsite (DEIR, p. 4.5-12) and residences are also located directly adjacent to the Project site along the western boundary of the Project site (DEIR, Figure 3.8). These residents may also be adversely affected from exposure to pesticide-containing soil during Project construction. Inhalation of pesticide-contaminated soil has been linked to asthma in recent research.<sup>9</sup> A report prepared by the California Department of Health identifies pesticides as an asthma trigger.<sup>10</sup>

Limited soil sampling was conducted on the Project site eight years ago. Sampling did not target pesticides used for wheat cultivation, such as 2, 4-D, 2-ethylhexyl ester. Project soils should be tested for all pesticides that may have been used on the site. All sampling results should be compared to appropriate human health regulatory levels<sup>11</sup> as well as construction worker thresholds<sup>12</sup> to determine if the Project may pose significant health risks. A revised DEIR should

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<sup>6</sup> National Pesticide Information Center. 2, 4-D Technical Fact Sheet. <http://npic.orst.edu/factsheets/2,4-DTech.pdf>, p. 2.

<sup>7</sup> U.S. EPA, DDE. <http://www.epa.gov/ttnatw01/hlthef/dde.html>

<sup>8</sup> U.S. EPA, DDT. <http://www.epa.gov/pbt/pubs/ddt.htm>

<sup>9</sup> U.S. National Library of Medicine, Pesticides and Asthma. <http://www.ncbi.nlm.nih.gov/pubmed/21368619>

<sup>10</sup> California Department of Public Health, Strategic Plan for Asthma in California, 2008-2012. <http://www.cdph.ca.gov/programs/caphi/Documents/AsthmaStrategicPlan.5-5-08.pdf>, p. 22.

<sup>11</sup> See California Human Health Screening Levels: <http://www.calepa.ca.gov/brownfields/documents/2005/CHHSLsGuide.pdf>

<sup>12</sup> See Table K-2 of the February 2013 San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels: [http://www.waterboards.ca.gov/rwqcb2/water\\_issues/programs/ESL/Lookup\\_Tables\\_Feb\\_2013.pdf](http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/Lookup_Tables_Feb_2013.pdf)

be prepared to disclose sampling results and any mitigation, if necessary, to ensure that the Project will not result in significant public health impacts.

Entire Project site has not been evaluated

Our review of the areas evaluated in the 18 Phase I ESAs shows that an approximately 50-acre portion of the Project site located south of Alessandro Blvd., east of Merwin St., and north of Brodiaea Ave has not been surveyed (see Attachment B). The land use map in the DEIR shows that this area will be used for logistics development (DEIR, Figure 3.8).

Project construction will occur in areas that have not been surveyed by the Phase I ESA. Therefore, conclusions in the DEIR about the absence of environmental concerns on the Project site are not completely substantiated. If environmental hazards exist on this portion of the site, Project construction may pose significant risks to workers and other site personnel.

A new Phase I ESA should be prepared to survey, identify and disclose baseline conditions of the entire Project site, to be included with a revised DEIR. If hazardous conditions are found, all appropriate mitigation measures should be identified to prevent the exposure of workers to conditions that would present health risks during construction and operation of the Project.

## **HYDROLOGY AND WATER QUALITY**

Project construction will require extensive grading, vegetation removal, and excavation. Approximately 42 million cubic yards of cut-and-fill will be required to grade the entire site (DEIR, p. 3-61). Project construction may lead to erosion of site soils. The DEIR states that pollutants associated with the Project include sediments, nutrients, bacteria, toxic organic compounds, and pesticides (DEIR, p. 4.9-34). During periods of rainfall, water that washes over eroded soil can entrain these contaminants and discharge into adjacent waterways.

The DEIR states that Project runoff from the western portion flows into the Perris Valley storm drain while runoff from the eastern portion flows into Mystic Lake and the San Jacinto River (DEIR, p. 4.9-22) which is located ten miles south of the Project site. From the San Jacinto River, flow ultimately reaches Lake Elsinore (DEIR, p. 4.9-2). The DEIR identifies that Lake Elsinore is listed under the California Regional Water Quality Control Board's 303(d) List of Impaired Water Bodies for nutrients, low dissolved oxygen, and PCBs (DEIR, p. 4.9-5). The DEIR, however, does not disclose that Lake Elsinore is also impaired for sedimentation and sediment toxicity.<sup>13</sup> If rainfall washes over disturbed soil stockpiled on site during Project construction, contaminated sediment and runoff can eventually drain to Lake Elsinore, further degrading water quality.

The DEIR states that during operational activities, stormwater runoff can carry trace metals such as zinc, copper, lead, cadmium, and iron and that treatment controls will be based on these pollutants (DEIR, pp. 4.9-33-4.9-34). However, the DEIR does not consider the possibility that ground-disturbing activities

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<sup>13</sup> Search for Elsinore, Lake at [http://www.waterboards.ca.gov/water\\_issues/programs/tmdl/2010state\\_ir\\_reports/category5\\_report.shtml](http://www.waterboards.ca.gov/water_issues/programs/tmdl/2010state_ir_reports/category5_report.shtml)

during Project construction can also lead to erosion and transport of these contaminants deposition to adjacent waterways.

The DEIR states that a SWPPP will be prepared and identifies measures that will be implemented to reduce impacts from soil erosion (DEIR, p. 4.6-13). Mitigation measure 4.9.6.3A lists best management practices (BMPs) that will be implemented to reduce water quality impacts (DEIR, p. 4.9-37). However, no measures or BMPs are provided that specifically identify that OCPs and other pesticides, which may exist from previous uses of the site, can flow into the adjacent waterways. To ensure that Project construction will not result in significant impacts to hydrological resources, the SWPPP should be prepared prior to Project construction to include BMPs such as erosion control and treatment measures specifically designed to address OCPs and other pesticides.

## **AIR QUALITY**

### Additional mitigation for particulate matter should be incorporated

Particulate matter (PM10) emissions from Project construction will exceed the South Coast Air Quality Management District (SCAQMD) thresholds throughout the construction period (DEIR, p. 4.3-55). The DEIR discusses SCAQMD Rule 403, established to reduce fugitive dust emissions, and provides the following four measures from Rule 403 as mitigation for the Project's significant emissions of PM10:

- all clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour per SCAQMD guidelines in order to limit fugitive dust emissions;
- the contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day;
- cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meter (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicular Code Section 23114; and
- the contractor shall ensure that traffic speeds on unpaved roads and project site areas are 15 miles per hour or less to reduce fugitive dust haul road emissions (DEIR, p. 4.3-55).

Mitigation measures 4.3.6.2A through 4.3.6.2D also address PM10 emissions. However, the Project's PM10 emissions will be significant even after mitigation (DEIR, 4.3-57). Additional mitigation measures to reduce fugitive dust emissions are identified in Rule 403 but not in the DEIR. These measures should be identified in a revised DEIR to ensure that all applicable and feasible measures will be implemented to reduce Project emissions, to include:

- limiting fugitive dust emissions from any active operation, open storage pile, or disturbed surface area if the dust emission exceeds 20 percent opacity;

- prohibiting track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift; and
- not disturbing an area of five or more acres, or with a daily import or export of 100 cubic yards or more of material, without utilizing at least one of the following measures at each vehicle driveway from the site to a paved public road:
  - installation of gravel pads;
  - pave any surface extending at least 100 feet and at least 20 feet wide;
  - utilize a wheel shaker and wheel washer to remove dirt and mud from tires and vehicles before they exit the site.<sup>14</sup>

Rule 403 also states that active operations cannot be conducted unless all applicable best available control measures included in Table 1 are included.<sup>15</sup> Table 1 provides mitigation measures for trenching, cut-and-fill, truck loading, road maintenance, and earth-disturbing activities.<sup>16</sup> Project construction will require these types of activities. Review of the DEIR shows that not all measures listed in Table 1 are included as mitigation. A revised DEIR should be prepared that includes all applicable measures in Table 1. The Project, defined as a large operation<sup>17</sup> under Rule 403, should also follow all the applicable dust control measures listed in Table 2.<sup>18</sup>

Air dispersion modeling shows that localized concentrations of PM10 emissions also exceed SCAQMD thresholds (DEIR, p. 4.3-66). Significant localized PM10 emissions will pose adverse health risks to nearby residents and construction workers. The DEIR, however, only states that air quality impacts remain “significant and unavoidable” in the absence of feasible mitigation (DEIR, p. 4.3-66).

We have identified additional feasible mitigation measures that can further reduce PM10 emissions and mitigate these impacts to the extent feasible. For example, a recent ruling by the California Attorney General for construction of an industrial project in Jurupa Valley, a city located 17 miles west of the Project site, required the following measures:

- installation of air filtration systems in home of adjacent residents;
- air quality monitoring in surrounding area; and
- a “green” project site, including a 100kW capacity solar photovoltaic system, LEED Silver certified project buildings, and electric vehicle charging stations.<sup>19</sup>

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<sup>14</sup> South Coast Air Quality Management District, Rule 403. Fugitive Dust.

<http://www.aqmd.gov/rules/reg/reg04/r403.pdf>, pp. 403-6 – 403-7.

<sup>15</sup> *Ibid.*, p. 403-6.

<sup>16</sup> *Ibid.*, p. 403-13.

<sup>17</sup> *Ibid.*, p. 403-3.

<sup>18</sup> *Ibid.*, p. 403-19.

<sup>19</sup> State of California Department of Justice, Office of the Attorney General. Attorney General Kamala D. Harris Announces Settlement to Protect Public Health in Jurupa Valley. <http://oag.ca.gov/news/press-releases/attorney-general-kamala-d-harris-announces-settlement-protect-public-health>

The press release accompanying the settlement<sup>20</sup> notes that Riverside County is home to numerous warehouse projects whose associated truck trips are negatively impacting resident health. Because the above-referenced mitigation measures were required for a similar project in a nearby city, it seems reasonable that these measures are feasible and should be implemented by the Applicant to protect resident health and local air quality.

Other mitigation, such as use of newer technology, should also be implemented to ensure that all feasible mitigation measures are being used to reduce emissions. Tier 4 technology, which applies to diesel engines used for off-road equipment,<sup>21</sup> uses new higher pressure fuel injection systems and electronic engine controls<sup>22</sup> and can reduce PM10 emissions by 90% as compared to older technology.<sup>23</sup> The DEIR discusses this technology but states that it will not be required until 2013 (DEIR, p. 4.3-57) and allow for the use of older Tier 3 technology in mitigation measure 4.3.6.2A (DEIR, p. 4.3-56). However, review of 40 CFR Part 1039, which establishes regulation about emissions standards, shows that Tier 4 technology will be phased in starting in 2011.<sup>24</sup> The U.S. EPA has recommended the use of Tier 4 technology on other projects under CEQA review.<sup>25</sup> Because Project emissions are still significant even after mitigation, equipment used for the Project should meet Tier 4 standards to achieve maximum reduction in emissions.

The Project is located in the South Coast Air Basin, which is designated non-attainment for PM10. Because the air basin suffers from poor air quality from PM10, significant emissions of PM10 can worsen regional air quality. Because the Project will result in significant PM10 emissions, all feasible mitigation measures should be implemented to reduce emissions to the maximum extent feasible to ensure that Project construction will not contribute to a degradation of air quality. A revised DEIR should be prepared to implement all recommended mitigation measures, to include air filtration systems in residents' homes, equipment with Tier 4 technology, and all applicable Rule 403 measures.

#### Cumulative air impacts are inadequately mitigated

The DEIR predicts cumulative impacts to human health from the Project and other nearby projects to exceed risk thresholds set by the SCAQMD. The DEIR (p. 4.3-88) includes modeling results that estimate health impacts as follow:

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<sup>20</sup> *Ibid.*

<sup>21</sup> Clean Diesel Technology for Off-Road Engines and Equipment: Tier 4 and More. [http://www.aem.org/AllDocuments/AEM/SRT/SRTTopics/DTF\\_Tier4WP\\_FIN.pdf](http://www.aem.org/AllDocuments/AEM/SRT/SRTTopics/DTF_Tier4WP_FIN.pdf), p. 2.

<sup>22</sup> *Ibid.*, p. 3.

<sup>23</sup> U.S. EPA, Nonroad Engines, Equipment, and Vehicles. Nonroad Diesel Engines. <http://www.epa.gov/otag/nonroad-diesel.htm>

<sup>24</sup> See <http://www.epa.gov/otag/standards/nonroad/nonroadci.htm>; and <http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=0a57ac29b59ade8455648e60e739a181&rgn=div5&view=text&node=40:34.0.1.1.5&idno=40#40:34.0.1.1.5.1.1.2>

<sup>25</sup> U.S. EPA Detailed Comments on the Draft Environmental Impact Statement for the Proposed Alta East Wind Project, Kern County, California, September 27, 2012. <http://www.epa.gov/region9/nepa/letters/blm/ca/alta-east-wind-project-kern-county-deis.pdf>, p. 2.

**Table 4.3.AC: Comparison of Cancer Risk Values**

Receptor Location	Cancer Risk (risk per million)		
	Project Increment	Cumulative	MATES-III
Maximum affected receptor located outside of the boundaries of the WLC Specific Plan	45 <sup>1</sup>	193 <sup>1</sup>	1,029 <sup>2</sup>
Maximum affected sensitive receptor located within of the boundaries of the WLC Specific Plan	76.8	121.1	496
Existing residences located across Redlands Boulevard	20.9	45.9	496

The table shows that the incremental impacts from the Project range from 20.9 to 76.8 cancer risks which greatly exceed the SCAQMD threshold of 10 additional cancer risks in a population of one million.<sup>26</sup> The table also shows that a sensitive receptor who already faces a risk level well in excess of the SCQAQMD threshold (496 in a million) will have that risk increased by an increment of 121 in a population of a million (or 12 in a population of 100,000), a 24% increase, from cumulative project construction. Existing residences across Redlands Blvd. will see cumulative risk levels increase 9% (existing cancer risk of 45.9/MATES III risk of 496 = 9.3%).

Cancer risks that residents currently face in the area of the Project are primarily driven by diesel particulate matter (DEIR, 4.3-87). The California Air Resources Board has classified diesel particulate matter as a toxic air contaminant for both its cancer and non-cancer health effects.<sup>27</sup> In addition the California Office of Environmental Health Hazard Assessment found that exposure to diesel particulate resulted in an increased risk of cancer and an increase in chronic non-cancer health effects including a greater incidence of cough, labored breathing, chest tightness, wheezing, bronchitis, and asthma.<sup>28</sup>

Emissions of diesel particulate matter from cumulative project emissions will increase, driven by an increase in truck traffic from the Project and from other cumulative projects in the area. The DEIR offers no mitigation for diesel particulate matter emissions. Because current cancer risks greatly exceed thresholds, and will get significantly worse from cumulative impacts, all feasible mitigation should be considered for nearby residents, especially sensitive receptors. The mitigation should target reductions in diesel particulates, the most significant contributor to health risks.

Other projects, where risks from diesel particulates are as high as those estimated in the DEIR, have instituted mitigation that is considered to be Best Available Control Technologies for Toxics and which are capable of reducing potential cancer and non-cancer risks to an acceptable level. These Best Available Control Technologies and other mitigation measures include:

- Installation of Minimum Efficiency Reporting Value (MERV) filters rated at 13 or better at all residential units where incremental cancer risk exceeds one in one hundred thousand<sup>29</sup>;

<sup>26</sup> <http://www.aqmd.gov/ceqa/handbook/signthres.pdf>

<sup>27</sup> [http://www.oehha.ca.gov/public\\_info/facts/dieselfacts.html](http://www.oehha.ca.gov/public_info/facts/dieselfacts.html)

<sup>28</sup> Ibid.

<sup>29</sup> [http://cityplanning.lacity.org/EIR/CornfieldArroyo/RDEIR/RP-DEIR\\_Volume%20I.pdf](http://cityplanning.lacity.org/EIR/CornfieldArroyo/RDEIR/RP-DEIR_Volume%20I.pdf),  
[http://www.ci.berkeley.ca.us/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Redevelopment\\_Agency/West%20Berkeley%20MMP.pdf](http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Redevelopment_Agency/West%20Berkeley%20MMP.pdf)

- Plant tiered vegetation along the project site boundaries -- laboratory studies show that cedar trees can remove some of the fine particulate matter emitted from traffic under low wind speeds<sup>30</sup>;
- Providing notification to nearby residents in areas of estimated cumulative risk that exceeds one in one hundred thousand population that operation of the project may have detrimental health impacts as noted by California Air Resources Board and the South Coast Air Quality Management District.

A revised DEIR should be prepared to identify additional mitigation to reduce cancer risks from diesel particulates from cumulative project construction. The DEIR should include all feasible mitigation and should include modeling estimates to show risk reduction to levels less than the SCAQMD threshold of one in a million cancer risk.

## **GREENHOUSE GAS EMISSIONS REQUIRE ADDITIONAL MITIGATION**

### Operational emissions

The DEIR estimates project operational emissions to be 752,000 mt CO<sub>2</sub>e/year, more than 75 times the SCAQMD's significance threshold of 10,000 mt CO<sub>2</sub>e per year. The DEIR correctly concludes that emissions are significant (p. 4.7-30) and provides mitigation. Even after mitigation, operational GHG emissions are nearly 70 times greater than the thresholds (Table 4.7.I). As high as these emissions remain, even after mitigation, the estimate of post-mitigation GHG emissions is based on incorrect assumptions. If correct estimates of long-haul truck trips were used, estimates of GHG emissions would even be higher. Because emissions are so high, a revised DEIR should be prepared to identify additional mitigation measure to attempt to reduce GHG impacts.

Underestimating the GHG emissions in the DEIR stems largely from incorrectly estimating long haul truck trip distances which make up more than half of all Project operational emissions (DEIR, p. 4.7-30). The DEIR states that long-haul trucks travel an average of 50 miles per trip (p. 4.7-30). No basis for making this estimate of long-haul travel distances is provided in the DEIR.

The DEIR states the project would be haul cargo containers from the Port of Los Angeles or the Port of Long Beach (p. 4.7-43). Google maps shows routes to the Project average about 80 miles from the Ports of Los Angeles Long Beach, a distance 60% greater than the 50 mile distance estimated in the DEIR (Attachment C). Long-haul trips, even as underestimated in the DEIR, constitute the biggest component of operational emissions, by far, from Project operation (DEIR, p. 4.7-30).

The Project operational emissions are so significant, they constitute significant majority of the entire City of Moreno Valley's GHG emissions estimates for the year 2020. The DEIR states that the City of Moreno Valley's mitigated GHG emissions in 2020 will be 798,000 mt CO<sub>2</sub>e/year (DEIR, p.4.7-9). In 2020, Project's emissions, after mitigation, are estimated to be 612,000 mt CO<sub>2</sub>e/year (DEIR, p. 4.7-35), or 77% of the entire business as usual estimate for the City of Moreno Valley.

<sup>30</sup> [http://www.ci.berkeley.ca.us/uploadedFiles/Planning\\_and\\_Development/Level\\_3\\_-\\_Redevelopment\\_Agency/West%20Berkeley%20MMP.pdf](http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Redevelopment_Agency/West%20Berkeley%20MMP.pdf), p. 3

Because emissions vastly exceed thresholds, additional mitigation, in the form of offsets, should be included in a revised DEIR. The Project applicant should obtain emission reduction credits, or carbon offsets, to reduce the Project's emissions to a less than significant level. Offsets should be chosen in a revised DEIR to show that offsets are verifiable and efficient. The DEIR should not be certified until the Applicant discloses that the Project's GHG emissions are significant during the construction period and mitigates emissions through the purchase of carbon offsets.

#### Construction emissions

Construction GHG emissions from 2013 to 2021 are estimated to total 434,126 mt CO<sub>2</sub>e. The DEIR uses an amortization technique for a 30 year period to estimate emissions of 14,000 mt CO<sub>2</sub>e (p. 4.7-30). The emissions are significant in that they exceed the threshold of South Coast AQMD threshold of 10,000 mt CO<sub>2</sub>e.<sup>31</sup>

The DEIR does not identify any mitigation measures for construction GHGs in excess of thresholds. Many mitigation measures for construction GHGs are commonly recommended by the South Coast AQMD in their review of DEIRs.<sup>32</sup> A revised DEIR should be prepared to include all mitigation measures that would be feasible in reducing GHG emissions. If these measures are not sufficient, carbon offsets should be purchased to reduce emissions to reduce GHG emissions to below the threshold.

Sincerely,



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

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<sup>31</sup> <http://www.aqmd.gov/ceqa/handbook/signthres.pdf>

<sup>32</sup> <http://www.aqmd.gov/ceqa/igr/2012/December/DEIRglenarm.pdf>, p. 3





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**Matthew F. Hagemann, P.G., C.Hg., QSD, QSP**

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

**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 Certification:**

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 – present;
- 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).

**Partner, SWAPE:**

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of numerous environmental impact reports under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions and geologic hazards.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Technical assistance and litigation support for vapor intrusion concerns.
- 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 currently teaches Physical Geology (lecture and lab) to students at Golden West College in Huntington Beach, California.

### **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.

**Hagemann, M.F.**, 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

**Hagemann, M.F.**, 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

**Hagemann, M.F.**, 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

**Hagemann, M.F.**, and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

**Hagemann, M.F.**, 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

**Hagemann, M.F.**, 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

**Hagemann, M.F.**, and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

**Hagemann, M.F.**, Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

**Hagemann, M. F.**, Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

**Hagemann, M.F.**, 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

**Hagemann, M.F.** and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

**Hagemann, M.F.**, 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

**Hagemann, M.F.**, 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

**Other Experience:**

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



# **Attachment A**

Query returned the following data:

There are -1 records returned.

YEAR	DATE	COUNTY NAME	COMTRS	SITE NAME	PRODUCT NAME	POUNDS PRODUCT APPLIED	CHEMICAL NAME	POUNDS CHEMICAL APPLIED	AMOUNT TREATED	UNIT TREATED	AERIAL GROUND INDICATOR
2010	17-MAR-10	RIVERSIDE	33S03S03W13	WHEAT, GENERAL	NUFARM WEEDONE LV6 EC BROADLEAF HERBICIDE	69.3833	2,4-D, 2-ETHYLHEXYL ESTER	60.0859378	89	A	G
2010	18-MAR-10	RIVERSIDE	33S03S03W12	WHEAT, GENERAL	NUFARM WEEDONE LV6 EC BROADLEAF HERBICIDE	64.6793	2,4-D, 2-ETHYLHEXYL ESTER	56.0122738	82	A	G

See/Save tab-delimited text file [here](#)

Query returned the following data:

There are -1 records returned.

YEAR	DATE	COUNTY NAME	COMTRS	SITE NAME	PRODUCT NAME	POUNDS PRODUCT APPLIED	CHEMICAL NAME	POUNDS CHEMICAL APPLIED	AMOUNT TREATED	UNIT TREATED	AERIAL GROUND INDICATOR
2010	03-AUG-10	RIVERSIDE	33S03S02W07	CUCUMBER (PICKLING, CHINESE, ETC.)	PY GANIC CROP PROTECTION EC 5.0	.6405	PYRETHRINS	.032025	2	A	G
2010	21-SEP-10	RIVERSIDE	33S03S02W07	CUCUMBER (PICKLING, CHINESE, ETC.)	PY GANIC CROP PROTECTION EC 5.0	2.0496	PYRETHRINS	.10248	2	A	G
2010	29-AUG-10	RIVERSIDE	33S03S02W07	CUCUMBER (PICKLING, CHINESE, ETC.)	SUCCESS	.4295	SPINOSAD	.097926	2	A	G
2010	30-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	AGRI-DEX	3.664	N/A	N/A	1	A	G
2010	27-APR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	AGRI-DEX	3.664	N/A	N/A	1	A	G
2010	30-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	AGRI-DEX	3.664	N/A	N/A	1	A	G
2010	27-APR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	AGRI-DEX	3.664	N/A	N/A	1	A	G
2010	27-APR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	AGRI-DEX	3.664	N/A	N/A	1	A	G
2010	30-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	AGRI-DEX	3.664	N/A	N/A	1	A	G
2010	30-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	AGRI-DEX	3.664	N/A	N/A	1	A	G
2010	27-APR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	AGRI-DEX	3.664	N/A	N/A	1	A	G
2010	05-AUG-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	BAYTHROID XL	.2507	BETA-CYFLUTHRIN	.0318389	1.3	A	G

2010	04-AUG-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	BAYTHROID XL	1.1937	BETA-CYFLUTHRIN	.1515999	5.67	A	G
2010	03-AUG-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	BAYTHROID XL	1.3263	BETA-CYFLUTHRIN	.1684401	6.25	A	G
2010	06-APR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	CSC WETTABLE OR DUSTING SULFUR	15	SULFUR	13.5	5.67	A	G
2010	02-APR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	CSC WETTABLE OR DUSTING SULFUR	6	SULFUR	5.4	.8	A	G
2010	27-MAY-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	CSC WETTABLE OR DUSTING SULFUR	6	SULFUR	5.4	2.15	A	G
2010	15-JUN-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	CSC WETTABLE OR DUSTING SULFUR	18	SULFUR	16.2	4.67	A	G
2010	02-JUN-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	CSC WETTABLE OR DUSTING SULFUR	3	SULFUR	2.7	1	A	G
2010	16-JUN-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	CSC WETTABLE OR DUSTING SULFUR	24	SULFUR	21.6	6.25	A	G
2010	09-APR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	CSC WETTABLE OR DUSTING SULFUR	18	SULFUR	16.2	6.25	A	G
2010	24-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	DUPONT MATRIX SG HERBICIDE	.0938	RIMSULFURON	.02345	1	A	G
2010	22-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	DUPONT MATRIX SG HERBICIDE	.0938	RIMSULFURON	.02345	1	A	G
2010	11-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	DUPONT MATRIX SG HERBICIDE	.0938	RIMSULFURON	.02345	1	A	G
2010	27-APR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	DUPONT MATRIX SG HERBICIDE	.0938	RIMSULFURON	.02345	1	A	G
2010	18-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	DUPONT MATRIX SG HERBICIDE	.1875	RIMSULFURON	.046875	2	A	G

2010	03-MAY-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	DUPONT MATRIX SG HERBICIDE	.0938	RIMSULFURON	.02345	1	A	G
2010	30-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	DUPONT MATRIX SG HERBICIDE	.0938	RIMSULFURON	.02345	1	A	G
2010	02-APR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ENTRUST	.1875	SPINOSAD	.15	1.35	A	G
2010	09-APR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ENTRUST	.5625	SPINOSAD	.45	6.25	A	G
2010	06-APR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ENTRUST	.5	SPINOSAD	.4	5.67	A	G
2010	03-AUG-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	FLINT FUNGICIDE	1.5625	TRIFLOXYSTROBIN	.78125	6.25	A	G
2010	04-AUG-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	FLINT FUNGICIDE	1.375	TRIFLOXYSTROBIN	.6875	5.67	A	G
2010	05-AUG-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	FLINT FUNGICIDE	.315	TRIFLOXYSTROBIN	.1575	1.3	A	G
2010	21-JUL-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	RALLY 40W AGRICULTURAL FUNGICIDE IN WATER SOLUBLE POUCHES (WITHDRAWN)	.1306	MYCLOBUTANIL	.05224	1.35	A	G
2010	12-JUL-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	RALLY 40W AGRICULTURAL FUNGICIDE IN WATER SOLUBLE POUCHES (WITHDRAWN)	.5	MYCLOBUTANIL	.2	4	A	G
2010	16-JUL-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	RALLY 40W AGRICULTURAL FUNGICIDE IN WATER SOLUBLE POUCHES (WITHDRAWN)	.75	MYCLOBUTANIL	.3	6.25	A	G
2010	08-JUL-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ROUNDUP POWERMAX HERBICIDE	11.328	GLYPHOSATE, POTASSIUM SALT	5.516736	1	A	G
2010	30-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ROUNDUP POWERMAX HERBICIDE	11.328	GLYPHOSATE, POTASSIUM SALT	5.516736	1	A	G
2010	24-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ROUNDUP POWERMAX HERBICIDE	11.328	GLYPHOSATE, POTASSIUM SALT	5.516736	1	A	G
	22-						GLYPHOSATE,				

2010	MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ROUNDUP POWERMAX HERBICIDE	11.328	POTASSIUM SALT	5.516736	1	A	G
2010	18-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ROUNDUP POWERMAX HERBICIDE	22.6559	GLYPHOSATE, POTASSIUM SALT	11.0334233	2	A	G
2010	11-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ROUNDUP POWERMAX HERBICIDE	11.328	GLYPHOSATE, POTASSIUM SALT	5.516736	1	A	G
2010	27-APR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ROUNDUP POWERMAX HERBICIDE	11.328	GLYPHOSATE, POTASSIUM SALT	5.516736	1	A	G
2010	19-FEB-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ROUNDUP POWERMAX HERBICIDE	5.664	GLYPHOSATE, POTASSIUM SALT	2.758368	.5	A	G
2010	24-FEB-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ROUNDUP POWERMAX HERBICIDE	11.328	GLYPHOSATE, POTASSIUM SALT	5.516736	1	A	G
2010	18-FEB-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	ROUNDUP POWERMAX HERBICIDE	2.832	GLYPHOSATE, POTASSIUM SALT	1.379184	.5	A	G
2010	24-FEB-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	7.4778	NONANOIC ACID	4.262346	1	A	G
2010	18-FEB-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	1.8695	NONANOIC ACID	1.065615	.5	A	G
2010	19-FEB-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	3.7389	NONANOIC ACID	2.131173	.5	A	G
2010	11-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	11.2168	NONANOIC ACID	6.393576	1	A	G
2010	18-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	18.6946	NONANOIC ACID	10.655922	2	A	G
2010	22-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	11.2168	NONANOIC ACID	6.393576	1	A	G
2010	24-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	11.2168	NONANOIC ACID	6.393576	1	A	G
2010	30-MAR-	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	11.2168	NONANOIC ACID	6.393576	1	A	G

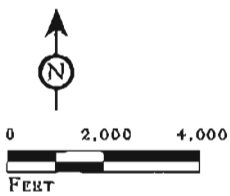
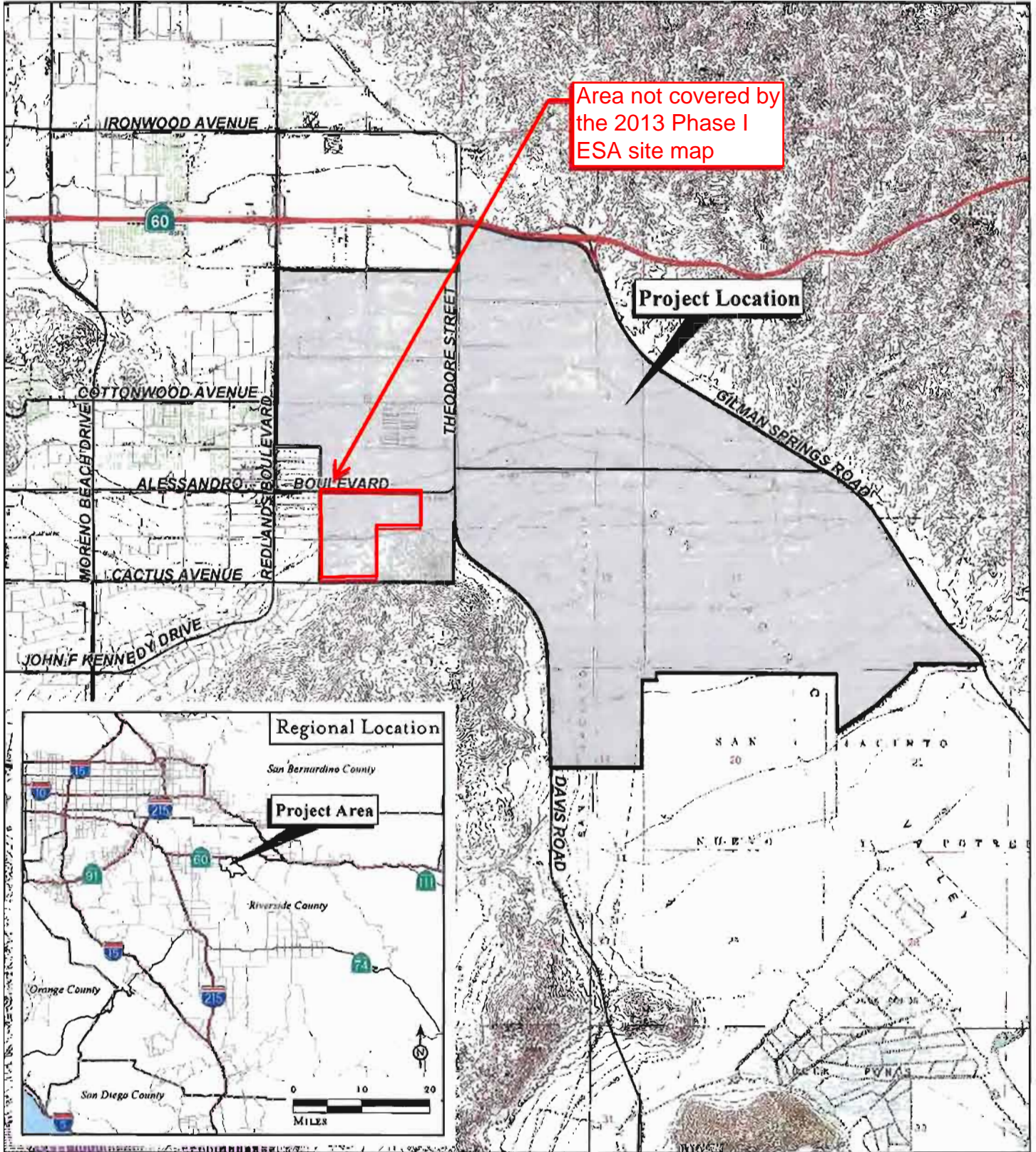
	10										
2010	24-FEB-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	7.4778	NONANOIC ACID, OTHER RELATED	.224334	1	A	G
2010	18-FEB-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	1.8695	NONANOIC ACID, OTHER RELATED	.056085	.5	A	G
2010	19-FEB-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	3.7389	NONANOIC ACID, OTHER RELATED	.112167	.5	A	G
2010	30-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	11.2168	NONANOIC ACID, OTHER RELATED	.336504	1	A	G
2010	11-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	11.2168	NONANOIC ACID, OTHER RELATED	.336504	1	A	G
2010	18-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	18.6946	NONANOIC ACID, OTHER RELATED	.560838	2	A	G
2010	22-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	11.2168	NONANOIC ACID, OTHER RELATED	.336504	1	A	G
2010	24-MAR-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SCYTHE	11.2168	NONANOIC ACID, OTHER RELATED	.336504	1	A	G
2010	02-JUN-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SERENADE ASO	6.3737	QST 713 STRAIN OF DRIED BACILLUS SUBTILIS	.08540758	1	A	G
2010	16-JUN-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SERENADE ASO	25.4948	QST 713 STRAIN OF DRIED BACILLUS SUBTILIS	.34163032	6.25	A	G
2010	15-JUN-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SERENADE ASO	25.4948	QST 713 STRAIN OF DRIED BACILLUS SUBTILIS	.34163032	4.67	A	G
2010	27-MAY-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SERENADE ASO	12.7474	QST 713 STRAIN OF DRIED BACILLUS SUBTILIS	.17081516	2.15	A	G
2010	16-JUN-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SONATA	26.0946	BACILLUS PUMILUS, STRAIN QST 2808	.36010548	6.25	A	G
2010	27-MAY-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SONATA	13.0473	BACILLUS PUMILUS, STRAIN QST 2808	.18005274	2.15	A	G

2010	02-JUN-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SONATA	6.5236	BACILLUS PUMILUS, STRAIN QST 2808	.09002568	1	A	G
2010	15-JUN-10	RIVERSIDE	33S03S02W06	GRAPES, WINE	SONATA	26.0946	BACILLUS PUMILUS, STRAIN QST 2808	.36010548	4.67	A	G
2010	18-MAR-10	RIVERSIDE	33S03S02W06	WHEAT, GENERAL	NUFARM WEEDONE LV6 EC BROADLEAF HERBICIDE	14.1119	2,4-D, 2-ETHYLHEXYL ESTER	12.2209054	18	A	G
2010	15-MAR-10	RIVERSIDE	33S03S02W07	WHEAT, GENERAL	NUFARM WEEDONE LV6 EC BROADLEAF HERBICIDE	520.0218	2,4-D, 2-ETHYLHEXYL ESTER	450.3388788	660	A	G
2010	15-MAR-10	RIVERSIDE	33S03S02W07	WHEAT, GENERAL	NUFARM WEEDONE LV6 EC BROADLEAF HERBICIDE	65.3967	2,4-D, 2-ETHYLHEXYL ESTER	56.6335422	83	A	G
2010	16-MAR-10	RIVERSIDE	33S03S02W17	WHEAT, GENERAL	NUFARM WEEDONE LV6 EC BROADLEAF HERBICIDE	520.0218	2,4-D, 2-ETHYLHEXYL ESTER	450.3388788	660	A	G
2010	16-MAR-10	RIVERSIDE	33S03S02W18	WHEAT, GENERAL	NUFARM WEEDONE LV6 EC BROADLEAF HERBICIDE	91.727	2,4-D, 2-ETHYLHEXYL ESTER	79.435582	117	A	A
2010	16-MAR-10	RIVERSIDE	33S03S02W18	WHEAT, GENERAL	NUFARM WEEDONE LV6 EC BROADLEAF HERBICIDE	423.1086	2,4-D, 2-ETHYLHEXYL ESTER	366.4120476	660	A	G
2010	16-MAR-10	RIVERSIDE	33S03S02W17	WHEAT, GENERAL	NUFARM WEEDONE LV6 EC BROADLEAF HERBICIDE	40.1835	2,4-D, 2-ETHYLHEXYL ESTER	34.798911	51	A	G
2010	12-MAR-10	RIVERSIDE	33S03S02W17	WHEAT, GENERAL	NUFARM WEEDONE LV6 EC BROADLEAF HERBICIDE	415.7234	2,4-D, 2-ETHYLHEXYL ESTER	360.0164644	530	A	A
2010	16-MAR-10	RIVERSIDE	33S03S02W18	WHEAT, GENERAL	NUFARM WEEDONE LV6 EC BROADLEAF HERBICIDE	114.2472	2,4-D, 2-ETHYLHEXYL ESTER	98.9380752	145	A	G

See/Save tab-delimited text file [here](#)



# **Attachment B**



# **Attachment C**



Directions to Alessandro Blvd & Theodore St, Moreno Valley, CA 92555  
78.5 mi – about 1 hour 18 mins

