



# **Second Partial Recirculated Draft Environmental Impact Report Cumulative Toxic Air Contaminant Impact Analysis Only Visalia Walmart Expansion Project**

**State Clearinghouse No. 2008121133**



**City of Visalia • May 2015**



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**Second Partial Recirculated  
Draft Environmental Impact Report  
Visalia Walmart Expansion Project  
City of Visalia, Tulare County, California  
Cumulative Toxic Air Contaminant Impact Analysis Only  
State Clearinghouse No. 2008121133**

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May 2015

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## SECTION 1: OVERVIEW

### 1.1 - Project Background

The City of Visalia (City), as lead agency under the California Environmental Quality Act, Public Resources Code Section 21000, et seq. (CEQA), has prepared this Second Partial Recirculated Draft Environmental Impact Report (Second PRDEIR) pursuant to CEQA Guidelines Section 15088.5 to address the one remaining potential environmental impact of the proposed 54,076-square-foot expansion of the existing Walmart store located at 1819 East Noble Avenue in Visalia, California (Project) that was not adequately addressed in previous environmental documentation, consistent with the decision of the Tulare County Superior Court issued on October 1, 2013 (“2013 Ruling”). The 2013 Ruling is attached as Appendix N.

Walmart first sought approval of the Project from the City in 2007. The City certified an Environmental Impact Report (EIR) (State Clearinghouse No. 2008121133) for the Project on June 20, 2011 (2011 EIR).<sup>1</sup> Following the City’s approval of the Project, the Visalia Smart Growth Coalition (Petitioners) filed a CEQA action alleging that the EIR failed to adequately analyze a number of the Project’s potential environmental impacts. On April 12, 2012, the Court upheld the adequacy of the 2011 EIR in all but one discrete area related to potential impacts caused by cumulative toxic air contaminants (TAC) (“2012 Ruling”). The Court ordered the City to set aside certification of the 2011 EIR and the Project approvals, and remanded the EIR to the City for reconsideration of the sole issue of the cumulative significance of the Project’s TAC emissions.

In response to the Court’s 2012 Ruling, a Partially Recirculated Draft EIR (First PRDEIR) was prepared, which endeavored to address the TAC issues as directed by the Court. The First PRDEIR provided risk estimates for the actual existing and planned probable sources of TAC impacts within a 1,500-foot radius from the Project site, and assessed the cumulative TAC risk based on a TAC cumulative threshold approach developed by the Bay Area Air Quality Management District (BAAQMD). The First PRDEIR was certified by the City on March 25, 2013. Thereafter, the City and Walmart filed a Return to Peremptory Writ of Mandate.

In the 2013 Ruling, the Court denied the Return to Peremptory Writ of Mandate and refused to discharge the Writ, on the basis that the TAC analysis in the First PRDEIR failed to take into account the existing ambient air quality in the Visalia region when determining whether there was a cumulatively significant TAC impact.

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<sup>1</sup> The 2010 Draft EIR will be referred to herein as the 2010 DEIR. It should be noted that references to the 2011 EIR include the 2010 DEIR and the Final EIR volume, which includes the written responses to public comments on the 2010 DEIR. Together, they constitute the EIR prepared for the Project and certified by the City on June 20, 2011.

The Court held that, by considering only the cumulative TAC sources within 1,500 feet surrounding the Project site, the City erred in finding the existing cumulative TAC risk less than significant. Instead, the Court found that, to determine whether there was a cumulatively significant impact, the City should have considered the existing background, ambient air quality in the Visalia area and the entire San Joaquin Valley region as a whole, rather than considering only a list of specifically defined, sited sources within a 1,500-foot radius. “The threshold must relate to the entire actual existing air quality, and the threshold is related to whether that, with the project, is cumulatively significant” (2013 Ruling at 6:9-10).

All environmental impacts associated with the development of the Project have been analyzed within the 2011 EIR and the First PRDEIR, and with exception of the single remaining issue of the Project’s cumulative TAC impacts, all other portions of the EIR were found to be adequate and were upheld by the Court. Pursuant to the Court’s 2013 Ruling, the City has prepared this second PRDEIR (Second PRDEIR), which analyzes the Project’s cumulative TAC impacts in light of the Court’s decisions.

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## **1.2 - Project Description**

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The Project description remains unchanged from the description contained in the 2011 EIR and the First PRDEIR.<sup>2</sup> In brief, the Project involves the expansion and remodeling of the existing Walmart store and site located at 1819 East Noble Avenue between Ben Maddox Way and Pinkham Street in east-central Visalia, California. The Project would increase the existing store by 54,076 square feet, for a total floor area of 187,282 square feet. The existing 14.55-acre Walmart site would increase to include 3.8 acres of adjacent land for a total site area of 18.35 acres.

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## **1.3 - CEQA Standards for Recirculation**

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### **1.3.1 - Overview**

CEQA Guidelines Section 15088.5 establishes that a lead agency is required to recirculate an EIR when significant new information is added to the EIR after it is released for public review. Significant new information is defined as “changes in the project or environmental setting as well as additional data or other information” that results in the disclosure of:

- A new significant environmental impact;
- A substantial increase in the severity of an environmental impact; or
- A feasible project alternative or mitigation measure considerably different from others previously analyzed [that] would clearly lessen the environmental impacts of the project.

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<sup>2</sup> The 2011 EIR is hereby incorporated by reference. It may be viewed at the City of Visalia offices or online at [www.ci.visalia.ca.us](http://www.ci.visalia.ca.us).



CEQA Guidelines Section 15088.5 also establishes that recirculation may be triggered by the Draft EIR being so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. In this case, the Court’s 2012 Ruling found that the 2011 EIR’s analysis of impacts related to cumulative toxic air contaminant emissions was inadequate; in its 2013 Ruling, the Court further found that the First PRDEIR did not address the deficiency to the Court’s satisfaction. Thus, the City has prepared this Second PRDEIR.

### **Standards for Partial Recirculation**

CEQA Guidelines Section 15088.5(c) establishes that if revisions to the Draft EIR are limited to only a few chapters of the document, the lead agency need only recirculate the portions that have been modified. This is known as partial recirculation. The City is partially recirculating the Visalia Walmart Expansion Project Draft EIR for public and agency review pursuant to the Court’s 2012 2013 Rulings in the matter of *Visalia Smart Growth Coalition v. the City of Visalia*.

### **1.3.2 - Basis for Partial Recirculation of the Visalia Walmart Expansion Project Draft EIR**

The 2012 Ruling required the 2011 EIR to be remanded to the City for reconsideration of the sole issue of the significance of cumulative TAC emissions. As a result, the First PRDEIR was prepared to address the cumulative TAC emissions issue. The 2013 Ruling required the City more specifically to consider the appropriate threshold to use when evaluating existing background air quality in a cumulative TAC impacts analysis. Thus, this Second PRDEIR has been prepared to address the appropriate application of the threshold of significance for evaluating cumulative TAC emissions. A partial recirculation of the EIR most effectively complies with the Court’s Rulings and with CEQA Guidelines Section 15088.5, which sets forth the criteria and process for undertaking a partial recirculation. As noted, this Second PRDEIR is limited to the discussion of the significance of cumulative TAC emissions. The remainder of the 2011 EIR was affirmed by the Court, and therefore has not been revised or recirculated. The changes made to the First PRDEIR by this partial recirculation are described in detail in Section 1.4, Summary of Changes.

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## **1.4 - Summary of Changes**

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CEQA Guidelines Section 15088.5(g) requires that Partial Recirculated Draft EIRs provide a summary of the revisions made to the Draft EIR. The revisions made in the First PRDEIR were limited to portions of one section of the Draft EIR: The cumulative TAC analysis that was included in Section II, Environmental Setting, Impacts and Mitigation Measures, Subsection I, Air Quality. The First PRDEIR replaced the discussion of TAC emissions as contained in that section of the original Draft EIR and the Air Quality Report (Appendix I) with a new project-level and cumulative TAC assessment and its technical appendix (Appendix J) that includes the Cumulative Health Risk Assessment and Cumulative Toxic Air Contaminant Threshold Document. The First PRDEIR did not change the impact conclusions or propose new mitigation measures from those contained in the original 2010 Draft EIR.

This Second PRDEIR also revises and replaces the cumulative TAC analysis that was contained in Section II, Environmental Setting, Impacts and Mitigation Measures, Subsection 1, Air Quality of the original 2010 Draft EIR. It also does not change the impact conclusions or propose new mitigation measures from those contained in the original 2010 Draft EIR. Therefore, no changes to the Executive Summary, Project Alternatives, Other CEQA Considerations sections or any other sections of the original 2010 Draft EIR were required or made.

#### **1.4.1 - Changes to the First PRDEIR**

As noted above, the current revisions to the First PRDEIR contained in this Second PRDEIR are limited to the discussion of existing cumulative impacts and application of the cumulative threshold to include the average cancer risk from background TAC sources and the sources near the Project site to determine whether the existing cumulative TAC impact without the Project is significant.

By using the 100-in-a-million threshold and the risk from the average background sources, combined with the past, present and reasonably foreseeable TAC emissions near the project, approach used in this Second PRDEIR more accurately discloses the impact from *all* TAC sources contributing to cumulative impacts in the vicinity of the Project site, consistent with the Court's 2013 Ruling. The risk from average background sources, combined with sources within 1,500 feet of the Project site (which may have a greater impact on localized sensitive receptors) exceed the 100-in-a-million cumulative threshold, resulting in a significant cumulative impact. Since the threshold is exceeded without the Project, this Second PRDEIR compares the Project's risk with the cumulative contribution threshold identified in the First PRDEIR to determine if the Project's contribution is cumulatively considerable.

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#### **1.5 - Public Review of the Second Partial Recirculated Draft EIR**

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The statutory 45-day review of this Second PRDEIR will begin on May 20, 2015 and end on July 6, 2015. Notice of availability of the Second PRDEIR for public review was published in the Visalia Times-Delta newspaper on May 20, 2015. The City has filed a Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this Second PRDEIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of this Second PRDEIR in accordance with Public Resources Code Section 21092(b)(3).

During the public review period, this Second PRDEIR, including the technical appendices, is available for review at the City of Visalia offices as well as on the City's website, [www.ci.visalia.ca.us](http://www.ci.visalia.ca.us), and at the Tulare County Library, Visalia Main Branch. The address for each location is provided below.

City of Visalia  
Community Development Department  
315 Acequia Avenue  
Visalia, CA 93291  
Hours:  
Monday–Friday: 8 a.m. to 5 p.m.

Tulare County Library, Visalia Main Branch  
200 West Oak Avenue  
Visalia, CA 93291  
Hours:  
Tuesday–Thursday: 9 a.m. to 8 p.m.  
Friday: 12 p.m. to 6 p.m.  
Saturday: 9 a.m. to 5 p.m.

Pursuant to Section 15088.5, the City is recirculating this Second PRDEIR and will respond to written public comments on it. Alterations to the First PRDEIR are limited to the cumulative TAC threshold discussion and significance findings. The remainder of the 2011 EIR has not been altered, and the Tulare Superior Court rejected all other prior challenges to its legal adequacy. Accordingly, and consistent with CEQA Guidelines Section 15088.5, the City will provide a written response only to those comments received during the public review period on this Second PRDEIR. Comments regarding the adequacy of the First PRDEIR or the 2011 EIR will not receive a written response. The City will prepare a Final Second PRDEIR following the closure of the 45-day public comment period that will include written responses to public comments received on this Second PRDEIR during the 45-day public review period.

Written comments on the Second PRDEIR should be submitted before close of the public comment period to the City of Visalia at the following address:

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City of Visalia  
Community Development Department  
315 Acequia Avenue  
Visalia, CA 93291  
Phone: 559.713.4369  
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Email: [pscheibel@ci.visalia.ca.us](mailto:pscheibel@ci.visalia.ca.us)

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## **SECTION 2: TOXIC AIR CONTAMINANTS**

### **2.1 - Introduction**

This Second Partial Recirculated Draft Environmental Impact Report (Second PRDEIR) analyzes the remaining issue of the significance of the Project's contribution to the cumulative toxic air contaminant (TAC) impact existing in the Visalia area from sources within the San Joaquin Valley region, including those in Visalia and beyond that contribute TAC emissions to the cumulative impact.

The content and in-depth analysis found in Appendix A to the Health Risk Assessment (HRA) (consisting of the Cumulative Toxic Air Contaminant Threshold Document) and Appendix B (Cumulative HRA) is not repeated in this document, but it is incorporated by reference as though fully set forth herein or summarized.

This Second PRDEIR provides revisions to the cumulative threshold discussion and approach provided in the previous environmental documents, as required to comply with the Court's 2013 Ruling. The Toxic Air Contaminant Cumulative Contribution Threshold Supplementary Review is provided as Appendix M of this Second PRDEIR. The assessment contained in this Second PRDEIR primarily relies on information referenced from the First PRDEIR, and restates information from the First PRDEIR as needed to provide context and a logical framework for the discussion.

### **2.2 - Environmental Setting**

The Project is located in the City of Visalia, which is located in the San Joaquin Valley Air Basin (Air Basin). Regional and local air quality is impacted by topography, dominant airflows, atmospheric inversions, location, and season. The Project is in an urban setting with a combination of commercial, retail, industrial, public, and residential land uses that provide a complex mix of sources of TACs and of land uses considered sensitive to these pollutants. There is an existing commercial retail shopping center adjacent to the Project to the west, beyond which is a series of automobile dealerships along Ben Maddox Way to the southwest. There is a new Social Security Administration office building on property adjacent to and northeast of the Project site along Noble Avenue. The land uses along the south side of Noble Avenue east to Pinkham Street consist of commercial service, church, and office uses. The lands to the east and south of the Project site largely consist of residential uses, with the exception of one vacant 2.0-acre parcel, adjacent to the southeast portion of the Project site, which fronts onto Pinkham Street to the east. The State Route 198 (SR-198) freeway corridor runs in an east-west direction just north of Noble Avenue, and beyond the freeway, there are various commercial and light industrial uses along Mineral King Avenue. Exhibit 2-1 provides an aerial view of the local vicinity.

Additional descriptions of the environmental setting can be found in Section 2.2 of the First PRDEIR.

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## 2.3 - Toxic Air Contaminants

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A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air. However, their high toxicity may pose a threat to public health even at very low concentrations.

Exposure to TACs is usually evaluated in terms of health risks, expressed as the number of people in a population of one million who might be expected to get cancer over a 70-year lifetime.

In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, some degree of adverse health impacts may occur with even the most minute amount of carcinogenic TACs assumed to produce some risk of cancer. The amount of risk varies among the individual TACs based on potency and concentration. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the state and federal governments have set ambient air quality standards.

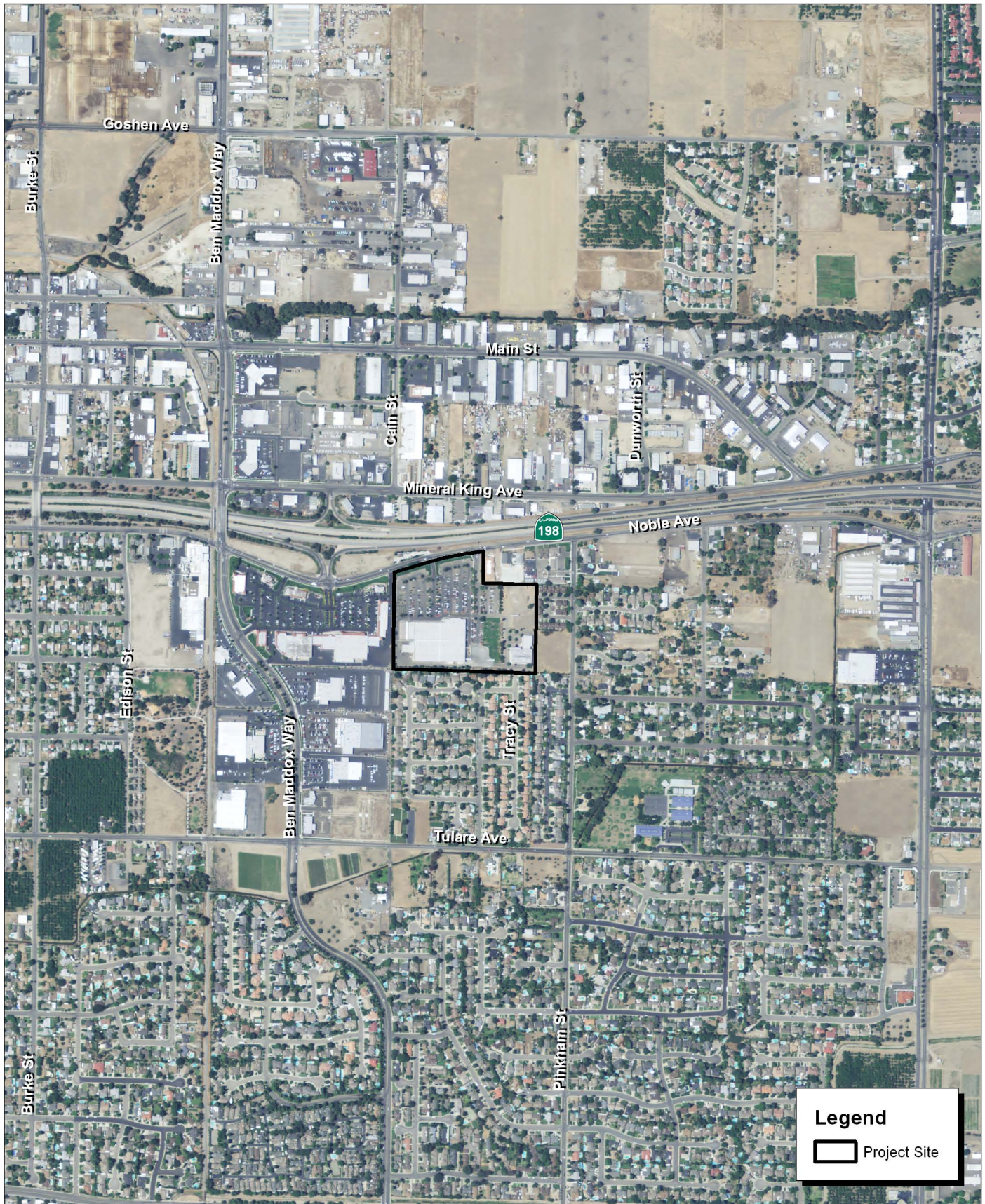
The California Air Resources Board (ARB) has designated nearly 200 different chemicals as TACs; however, relatively few TACs comprise most of the health risk. The ARB Almanac identifies the ten most important TACs in terms of risks to public health: acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM).

Particulate matter from diesel exhaust—DPM—is the predominant TAC in urban air and is estimated to represent about two-thirds the cancer risk from TACs (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. Some chemicals in diesel exhaust include benzene and formaldehyde, both listed as carcinogens either under State Proposition 65 or under the Federal Hazardous Air Pollutants programs (2010 DEIR, pp. 236–237).

DPM is of particular concern because the primary sources (diesel trucks and equipment) are distributed throughout the region, thus leading to widespread public exposure.

The particles emitted by diesel engines are coated with organic and inorganic chemicals, many of which have been identified by the United States Environmental Protection Agency (EPA) as hazardous air pollutants and by the ARB as TACs. Diesel engines emit particulate matter (PM) at a rate 20 times greater than comparable gasoline engines. The vast majority of diesel exhaust particles (over 90 percent) consist of PM<sub>2.5</sub>, which are the particles that can be inhaled deep into the lung. As with other particles of this size, a portion may eventually become trapped within the lung, possibly leading to adverse health effects. Locations with concentrations of diesel trucks such as distribution centers and freeways are of particular concern because people living near those facilities are exposed to higher concentrations of DPM than the regional average and experience higher than average health risks.





Source: Tulare County NAIP, 2009. County of Tulare.



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## Exhibit 2-1 Local Vicinity Map Aerial Base



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Diesel exhaust is considered a major source of ambient PM pollution in urban environments. A 2002 report from the Office of Environmental Health Hazard Assessment (OEHHA) entitled “Health Effects of Diesel Exhaust Report” noted that numerous studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems (OEHHA 2002). The National Toxicology Program in its 2014 Report on Carcinogens, Thirteenth Edition states that exposure to diesel exhaust is reasonably anticipated to be a human carcinogen, based on limited evidence from studies in humans and supporting evidence from studies in experimental animals and mechanistic studies (NTP 2014).

### 2.3.1 - TAC Data and Measurements

The ARB has published information on TAC measurements taken at various times and locations in the San Joaquin Valley. From 1990 through 2007, the ARB monitored outdoor concentrations for various TACs at six sites in the San Joaquin Valley Air Basin. The only monitoring stations in the San Joaquin Valley that currently monitor TAC emissions are in Fresno, Bakersfield, and Stockton. No TAC monitoring is performed at the Visalia monitoring site, located on North Church Street, which is limited to monitoring the criteria pollutants ozone, fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and nitrogen dioxide. The most recent TAC risk data is published in the 2009 ARB Almanac (ARB 2009); however, this data did not include the risk attributable to DPM for years later than 2000. The 2009 ARB Almanac reported an estimated risk of 390 in a million from DPM alone for the year 2000. DPM was estimated using receptor modeling techniques since a method to directly measure DPM has not been established.

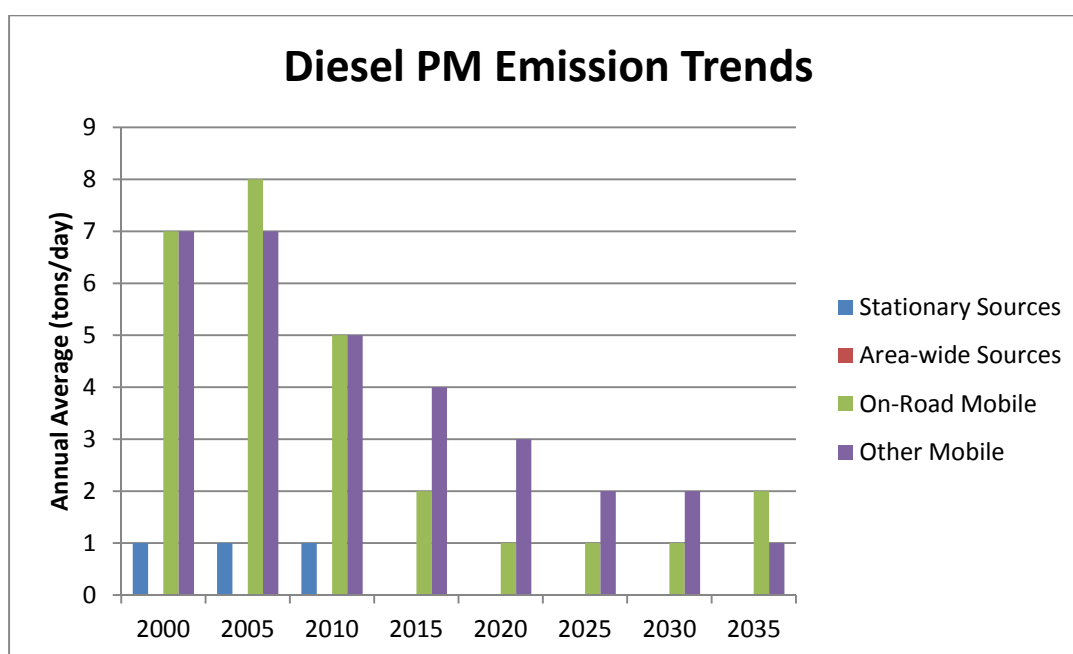
The 2013 ARB Almanac, which is the most recent published by the ARB, does not provide health risk estimates for TAC emissions and no other more recent data was located; however, the 2013 ARB Almanac does include DPM emission inventory trends and forecasts for the Air Basin. The Almanac shows that DPM emissions declined from 16 tons per day in 2000 to an expected 6 tons per day in 2015. DPM emissions are forecasted to further decline to 3 tons per day by 2035. Table 2-1 provides a table and chart from the 2013 ARB Almanac that illustrates the decline in DPM emissions. The average DPM concentration would be roughly proportional to the DPM emission inventory. The inventory declined by 62.5 percent between 2000 and 2015, so a similar decline in DPM concentration would be expected (ARB 2013).

**Table 2-1: Diesel PM Emission Trends in the San Joaquin Valley Air Basin**

Emission Sources	2000	2005	2010	2015	2020	2025	2030	2035
<i>All Sources</i>	<b>16</b>	<b>16</b>	<b>11</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>3</b>
<b>Stationary Sources</b>	1	1	1	0	0	0	0	0
<b>Area-wide Sources</b>	0	0	0	0	0	0	0	0
<b>On-Road Mobile</b>	7	8	5	2	1	1	1	2

**Table 2 1 (cont.): Diesel PM Emission Trends in the San Joaquin Valley Air Basin**

Emission Sources	2000	2005	2010	2015	2020	2025	2030	2035
Gasoline Vehicles	0	0	0	0	0	0	0	0
Diesel Vehicles	7	8	5	2	1	1	1	2
<b>Other Mobile</b>	7	7	5	4	3	2	2	1
Gasoline Fuel	0	0	0	0	0	0	0	0
Diesel Fuel	7	7	5	4	3	2	2	1
Other Fuel	0	0	0	0	0	0	0	0
Source: 2013 ARB Almanac page 4-28								

**Figure 2-1: Diesel PM Emission Trends in the San Joaquin Valley Air Basin**

Source: 2013 ARB Almanac page 4-28

The other source of TAC data available for the San Joaquin Valley is from a special study conducted by the ARB to identify the impacts of TAC emissions on children. The Community Air Quality Monitoring: Special Studies Fresno, Fremont Elementary School, published in May 2006, assessed TAC monitoring data collected at the Fresno First Street monitoring station and at a temporary monitoring site located at Fremont Elementary School. The study did not assess the impacts associated with DPM emissions (which are not directly measurable), but focused on those TAC emission compounds that are directly measurable. The combined risk from eight TAC compounds was 156 in a million at the Fremont School in Fresno and 139 in a million at the Fresno First Street monitoring station based on data collected in 2003 and 2004. The researchers thought that the

difference in risk at the two sites resulted from the closer proximity of the school to emissions from motor vehicle traffic on State Route 99 located less than one half mile from the school site (ARB 2006).

### **2.3.2 - Localized and Regional TAC Impacts**

TAC emissions have both localized and regional impacts. Sensitive receptors located near a source of TAC emissions are exposed to higher concentrations of TACs than those located farther from the source, due to the effects of dispersion in the atmosphere. According to the ARB, concentrations of TAC emissions decline by approximately 80 percent within 1,000 feet from the source of emissions. Dispersion models are used to estimate pollutant concentrations with distance from the source. Project-level TAC thresholds are based on impacts to the maximally exposed individual sensitive receptor from the project, which is normally the receptor closest to the project. More distant receptors would experience fewer impacts because the TAC emissions are more widely dispersed and lower in concentration.

TAC emissions are removed from the atmosphere by deposition on surfaces such as the ground, trees, and buildings; chemical conversion in the atmosphere to other compounds; transport out of the area; and precipitation. TAC emissions include hundreds of different compounds that are subject to different removal processes based on their chemical composition, size, weight, and atmospheric conditions. A portion of some TAC emissions can remain air borne for days and, under stagnant weather conditions, can occasionally or periodically result in elevated TAC concentrations throughout an urban area and regionally.

The regional concentrations of existing TAC emissions are not well defined because of the difficulty in measuring the individual compounds that comprise TAC emissions and the scarcity of the monitoring network (as noted, only three sites currently monitor TAC emissions in the entire Air Basin). As stated earlier, the largest TAC component, DPM, cannot be measured directly so estimates are based on concentrations of other pollutants such as NO<sub>2</sub> and PM<sub>10</sub> as a surrogate for DPM. The ARB has made estimates in the past for total TAC cancer risk in the San Joaquin Valley using monitoring data from the monitoring sites, the inventory of TAC sources, and source/receptor modeling techniques to develop average cancer risk estimates for the entire SJVAB that are published in the ARB Almanac. The 2009 ARB Almanac provides the last comprehensive estimate of average risk available for the Air Basin, but the last year that includes DPM is 2000. In addition, neither the ARB nor the San Joaquin Valley Air Pollution Control District (SJVAPCD) have conducted city scale modeling in the San Joaquin Valley that would identify heavily impacted areas in a community. Because of these limitations, the average background concentrations at any given location cannot be accurately determined. However, the latest ARB TAC risk estimates for non-DPM sources from the 2009 Almanac combined with risk estimates based on surrogates for DPM (oxides of nitrogen (NO<sub>x</sub>) and PM<sub>10</sub>) provides the best available estimate of background risk for the City of Visalia (489 in a million). This risk estimation approach provides the most conservative results and was used in this analysis.

Note that the SJVAPCD provided an estimate in its 2015 Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) that today's cancer risk in the Air Basin is under 200 in a million (SJVAPCD 2015), which is substantially lower than the estimate based on monitoring data of 489 in a million presented in the First Final PREIR. This new SJVAPCD estimate is based on the assumption that reductions in the TAC emission inventory would result in proportional reductions in ambient TAC concentrations. The estimate represents average risk in the San Joaquin Valley and not a specific location with the Valley such as the City of Visalia. The data used to support the new estimate has not been released by the SJVAPCD. Therefore, the 489 in a million background risk estimate remains the best available and most conservative estimate.

In order to provide a complete picture of a project's cumulative TAC impacts, it is appropriate to add the risk from localized sources near the project to the background risk. Here, the cumulative analysis added the risk from sources within 1,500 feet of the Project site of 23.9 in a million to ensure that localized sources that create a higher than average risk are addressed. Beyond 1,500 feet, emissions from individual sources would not be distinguishable from background emissions, due to the effects of dispersion. The risk from background and sources within 1,500 feet totals 513 in a million.

### **2.3.3 - Sensitive Receptors**

Certain populations, such as children, the elderly, and persons with pre-existing respiratory or cardiovascular illness are particularly sensitive to the health impacts of air pollution. For CEQA purposes, the SJVAPCD considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The location of sensitive receptors impacted by the Project is shown in Exhibit 2-2.

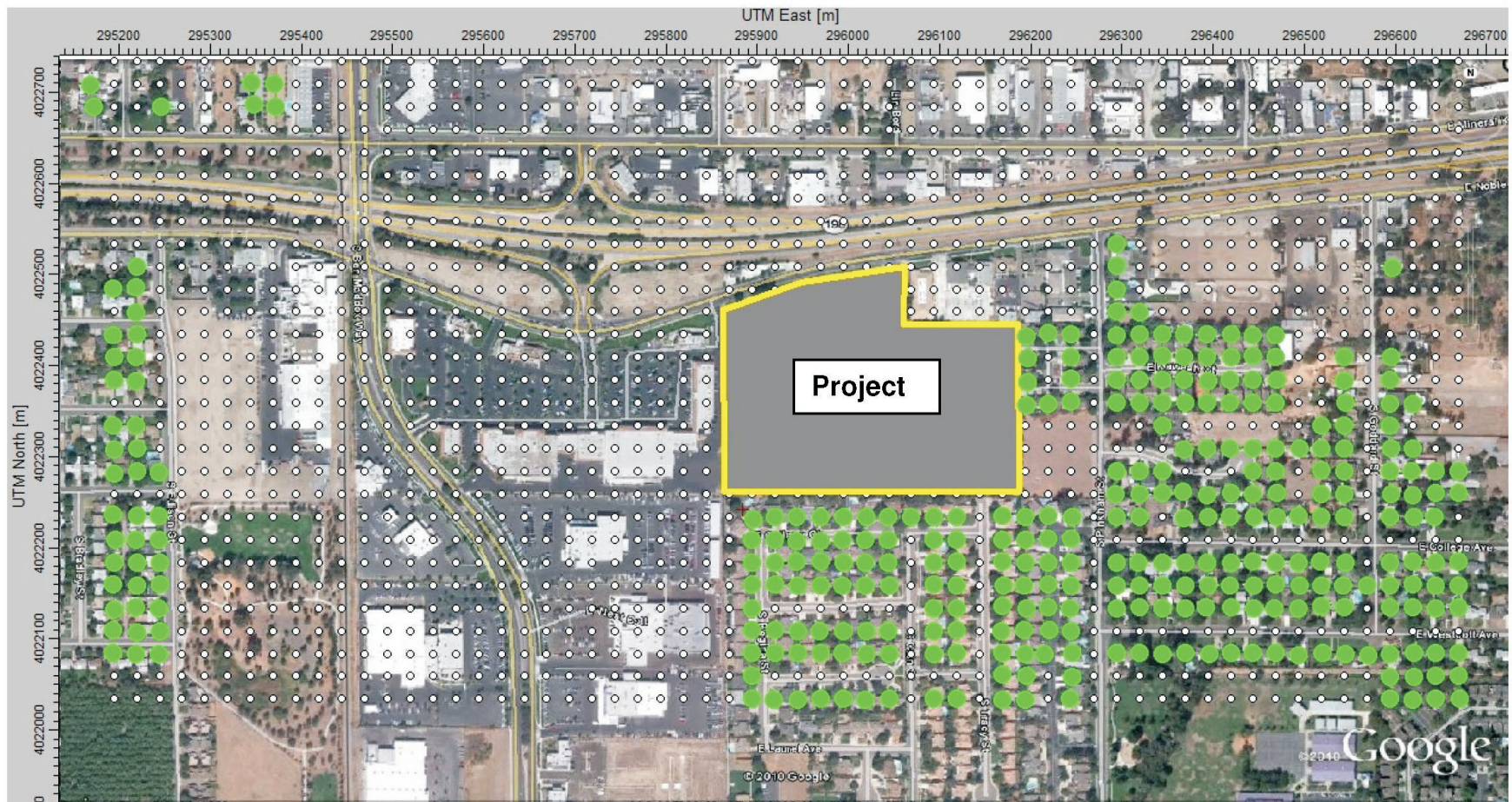
The closest sensitive receptors to the Project are a number of residences located to the south along East College Court along the Project's southern property line. Additional residences are located to the east along Pinkham Street. The closest school to the project is the Pinkham Elementary School, located 0.27 mile southeast of the Project.

### **2.3.4 - Toxic Air Contaminant Regulations**

TAC emissions in the San Joaquin Valley are primarily regulated by the ARB and the SJVAPCD. California has adopted comprehensive regulations on industrial and mobile sources of TAC emissions that have reduced aggregate risk by 60 percent since the early 1990s.<sup>1</sup> The most important source of TAC risk, DPM, is predicted to decrease by 85 percent between the year 2000 and 2020 through implementation of its Diesel Risk Reduction Plan (ARB 2000). The ARB continues to pursue additional regulations to reduce DPM and other TACs. The SJVAPCD requires new industrial and commercial sources of TAC emissions to comply with Toxic Best Available Control Technology as part of compliance with new and modified source permitting regulations.

<sup>1</sup> For more information regarding regulations adopted to reduce the impact of TAC emissions, see First PRDEIR, Section 2.2.





**Sensitive/Residential  
Receptor Location**



**Non-Residential Receptor  
Locations**



Michael Brandman Associates

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## Exhibit 2-2 Locations of Sensitive Receptors

CITY OF VISALIA • WALMART EXPANSION PROJECT  
SECOND PARTIAL RECIRCULATED ENVIRONMENTAL IMPACT REPORT

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## **Air Resources Board Plans and Regulations**

The ARB is responsible for developing statewide programs and strategies to reduce the emission of TACs and other pollutants generated by mobile sources. These include both on- and off-road sources such as passenger cars, motorcycles, trucks, buses, heavy-duty construction equipment, recreational vehicles, marine vessels, lawn and garden equipment, and small utility engines. The key regulations that provide the most reductions are described below.

**Diesel Risk Reduction Plan (DRRP).** The ARB adopted the DRRP in September 2000. The goal of the DRRP is to reduce DPM emissions and the associated health risk by 75 percent in 2010 and 85 percent by 2020 throughout the State.<sup>2</sup>

The primary provisions of the DRRP measures accomplish the following:

- Establish more stringent emission standards for new diesel-fueled engines and vehicles;
- Establish particulate trap retrofit requirements for existing engines and vehicles where traps are determined to be technically feasible and cost-effective;
- Require the sulfur content of diesel fuel to be reduced to enable the use of advanced DPM emission controls; and
- Evaluate alternatives for diesel-fueled engines and vehicles.

**California's Low Emission Vehicle Program.** The ARB reports that a new 1965 car produced about a ton of smog-forming hydrocarbons during 100,000 miles of driving. With the implementation of California's low emission vehicle (LEV) standards, an average new car in 2010 would produce only about 10 pounds in 100,000 miles. Hydrocarbons include components that are TACs such as benzene. The LEV program completed its third update in 2012, with LEV III standards providing substantial reductions in emissions from new cars sold from 2015 and later. The ARB expects LEV III to further reduce reactive organic gas emissions by 34 percent by 2035.

**California Off-Road Vehicle Emissions Regulations.** The ARB expects that with the adoption of the last round of amendments to the off-road regulations, DPM emissions from off-road diesel vehicles will have dropped over 40 percent from 2010 levels by 2020, and by 2030, they will have dropped more than 75 percent from 2010 levels.

**ARB Final Regulation Order, Requirements to Reduce Idling Emissions from New and In-Use Trucks Truck Idling Regulation.** This regulation requires that new 2008 and subsequent model-year heavy-duty diesel engines be equipped with a system that automatically shuts down the engine after specified timeframes (generally 5 minutes).

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<sup>2</sup> ARB 2000. Final Diesel Risk Reduction Plan. September. Website: <http://www.arb.ca.gov/diesel/documents/rrpapp.htm>. Accessed June 8, 2014.

**ARB Regulation for In-Use Off-Road Diesel Vehicles.** This regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale.

**Statewide Truck and Bus Rule.** This rule requires the installation of PM filters, and retrofit of older engines with engines 2010 or newer on a phased schedule.

**Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 horsepower and Greater.** Effective February 19, 2011, this regulation requires each fleet to comply with weighted reduced PM emission fleet averages by specified dates.

### **San Joaquin Valley Air Pollution Control District Regulations**

**Rule 2201 – New and Modified Stationary Source Review.** The rule requires stationary sources meeting applicability thresholds to implement Best Available Control Technology for Toxics (T-BACT). Projects that exceed an increased cancer risk of 10 in one million will not be approved.

The regulations adopted by the ARB and the various air districts to control TAC emissions have substantially reduced TAC impacts throughout the State, as evidenced by the reduction in risk between 1980 and 2000 as shown in Table 2-2, and by the ARB's estimates of the benefits of individual regulations implemented as part of the Diesel Risk Reduction Plan of 85 percent by 2020. Thus, regulations currently are in place that have proven effect at substantially reducing significant impacts from TAC emissions. The primary sources of TAC impacts from the Project are diesel trucks and equipment, which are subject to state regulations that will result in declining Project emissions and related impacts over time.

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## **2.4 - Methodology**

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CEQA Guidelines Section 15130 sets forth the appropriate methodology for evaluating a project's potential to result in a significant cumulative impact. In general, the significance of an activity depends upon the setting (CEQA Guidelines, § 15064(b)). Under CEQA, a project's contribution to an existing significant cumulative impact is significant if it is "cumulatively considerable" (CEQA Guidelines Section 15065(a)(3)). In making this determination, a lead agency considers whether 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 effect of probable future projects" (CEQA Guidelines Sections 15065(a)(3) and 15130).

Courts have interpreted these Guidelines to require the threshold established to reflect the severity of the existing cumulative condition.<sup>3</sup> The Tulare County Superior Court summarized CEQA's

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<sup>3</sup> Kings County Farm Bureau v. City of Hanford, 221 Cal.App.3d 692, 718 (1990); Los Angeles Unified School District v. City of Los Angeles, 58 Cal.App.4th 1019 (1997); and Communities for a Better Environment v. California Resources Agency, 103 Cal. App. 4th 98 (2002).



requirements for an adequate cumulative impact analysis in its 2012 and 2013 Rulings. According to the 2012 Ruling:

There is a two-step process. Step [o]ne is to identify and quantify all existing impacts; then to add the project's new impacts, then to add the impacts of any other potential (probable) projects. The next action in step one is to establish and justify a threshold of significance for the total of all such impacts. If the cumulative total impacts are below this threshold, a finding of non-significance can be made. If the total impacts exceed the threshold, then they are cumulatively significant and step two comes into play. Obviously, if the existing condition, without the project, is already at a significant level, then there is cumulative significance even if the project contributes nothing. Hence the need for a second step with such a finding.

Step two is to determine whether the contributions of the project alone are cumulatively "considerable." The cases recognize that it is not necessarily the case that a project's contribution is automatically significant if it adds anything to an already significant existing condition, but they do point out that the higher the impact of the existing condition the less it takes for any additional impact to be significant. If a project adds nothing, then it is obviously not a considerable contributor. If it adds anything, then [the] agency must make a justified finding of significance, or not. The purpose of this analysis is to recognize that the project does not stand alone, it adds to whatever is there. Thus the need to identify and quantify whatever is already there to evaluate the effect of the new impact (2012 Ruling, pp. 4:25–5:16).

In its 2013 Ruling, the Court set aside the cumulative TAC impact analysis contained in the First PRDEIR. The Court held that the First PRDEIR's quantification of cumulative TAC impacts existing without the Project failed to include TAC risk levels present in the ambient Visalia area air, explaining as follows:

The purpose of the cumulative affects analysis is to avoid considering projects in a vacuum . . . The relevant question to be addressed is not the relative amount of project emissions compared with pre-existing conditions, but whether any additional amount should be considered significant in light of an already serious condition (*Kings County Farm Bureau*). It is not correct that the worse the existing condition, the less significance the project has (*Kings County Farm Bureau*).  
[ . . . ]

The decision makers here were told that "if an average or area wide or TAC related health risk estimate was meant to serve as or be factored into quantifying 'existing condition' the cumulative threshold would be exceeded before the project is even considered (AR 1366).

That is precisely the point of the step 2 analysis. It is a recognition that conditions such as here do exist, where there is a significant impact from previous development even before the project is considered.

[ . . . ]

The threshold must relate to the entire actual existing air quality, and the threshold is related to whether that, with the project, is cumulatively significant.

The Court does not imply that the threshold number which was analyzed and adapted is improper. That analysis appears to have been proper. The error is only as to how the threshold was applied (2013 Ruling, pp. 4:311, 27-30; 5:1-3; 6:9-13).

Based on these considerations and CEQA’s well-settled methodology for evaluating a project’s potential cumulative impacts, this Second PRDEIR evaluates the potential for the Project to result in a significant cumulative TAC impact. In doing so, the Second PRDEIR identified the TAC-related health risk estimates from existing ambient air quality affecting the Visalia area for comparison with a cumulative threshold of significance and then determined whether the Project would make a significant cumulative contribution to an existing adverse impact. The thresholds of significance used for this purpose are described below.

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## 2.5 - Thresholds of Significance

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The CEQA statutes encourage a lead agency to establish significance thresholds for any potential environment impact, including air pollutants. There is, however, no obligation for lead agencies to do so. Nevertheless, in accordance with the California Air Pollution Control Officers Association’s (CAPCOA’s) guidance document, the absence of a threshold does not relieve agencies of their obligations to address impacts, including impacts caused by a project’s toxic air contaminants.

If the air district’s governing board has adopted specific risk thresholds, the lead agency may choose to use them to determine acceptable risk levels.<sup>4</sup> Air districts have historically recommended CEQA thresholds for air pollutants in the context of the air districts’ clean air attainment plans, or (in the case of toxic air pollutants) within the framework of a rule or policy that manages risks and exposures that are due to toxic pollutants (CAPCOA 2009).

The City of Visalia relies upon thresholds adopted by the SJVAPCD for the evaluation of project-level and cumulative air quality impacts—when they are available. For example, the SJVAPCD has adopted both project-specific and cumulative impact thresholds for criteria pollutants. With regard to TACs, however, SJVAPCD has adopted only an individual project-level threshold of significance for TACs of 10 in a million. This threshold is based upon the Assembly Bill 2588 Air Toxic Hot Spots Program and widely adopted by California air districts to determine project-level significance of TAC

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<sup>4</sup> See CAPCOA *Health Risk Assessments for Proposed Land Use Projects Guidance Document* (“CAPCOA HRA Guidance 2009”), pp. 11-12 (noting that the majority of air districts have set a project-level TAC threshold at 10 in a million).

emissions. SJVAPCD has not, however, adopted a *cumulative* threshold for evaluating the significance of a project's contribution of TAC emissions to the existing environment. The SJVAPCD's "Guidance for Assessing and Mitigating Air Quality Impacts" (2015 GAMAQI) does not provide a cumulative threshold to determine if existing, planned and probable future emission sources plus the project would result in a significant cumulative TAC impact. The ARB also has not adopted standards or thresholds for TAC cancer risk that could serve as a CEQA threshold of significance.

Nevertheless, even in the absence of an existing or established threshold of significance for cumulative impacts, the lead agency must determine an appropriate threshold. Before doing so, as the Court stated in its 2012 Ruling in explaining Step One of the process, the existing TAC risk levels must first be quantified to determine whether the Project would be contributing to an existing significant condition. In other words, without knowing the severity of existing TAC related cancer risk levels, it is not possible to determine whether the SJVAPCD's project-level threshold of 10 in a million is appropriate.

It should be noted that the SJVAPCD's 2015 GAMAQI recommends use of the same 10 in a million project-level significance threshold to determine if a project's impacts are cumulatively considerable. However, since the SJVAPCD does not yet identify what level of TAC risks constitute a significant cumulative impact, the City is required to identify and adopt appropriate thresholds for evaluating the proposed Project's potential to result in a significant cumulative impact, considering all available information on this topic.

### 2.5.1 - Step One Threshold

**First PRDEIR:** In preparing the First PRDEIR, the City established a threshold of 100 additional cancer cases in a million to determine if a significant cumulative TAC impact existed without the Project. The 100 in a million (Step One) threshold is based on EPA guidance for conducting air toxics analyses and making risk-management decisions at the facility and community-scale level.

The Court did not question the adequacy of the Step One threshold (100 in a million) itself, stating: "The Court does not imply that the threshold number which was analyzed and adopted is improper. The analysis appears to have been proper. The error is only as to how the threshold was applied." (2013 Ruling at p. 6:11–13). The Court found the approach inadequate because the calculation of existing background TAC levels did not include all sources affecting the ambient air quality in the Visalia area. In other words, while the First PREIR (and to a lesser extent the 2010 Draft EIR), disclosed background ambient TAC emissions levels estimated in various regions of the San Joaquin Valley, Fresno and Visalia area, the analyses did not use the background risk from the San Joaquin Valley region as a whole, together with the risk from sources near the Project site, for comparison with the Step One threshold.

The First PRDEIR calculated a 27.2 in a million cancer risk to the Maximally Exposed Individual (MEI) within a 1,500-foot radius of the Project. This number includes existing impacts of 23.9 cancer cases from existing and planned emission sources within a 1,500-foot radius of the Project, plus the increased cancer risk attributed to the expansion Project alone (3.3 per million). As Table 2-3 in the First PRDEIR demonstrated, most of the cumulative risk derives from the State Route 198 (SR-198) freeway located approximately 600 feet from the Project site and the major roadways near the Project site, which account for approximately 55 percent of the total risk. The First PRDEIR's cumulative impact of 27.2 fell well below the 100 in a million cumulative significance threshold, and the City determined that a significant cumulative impact did not exist. However, as noted, the First PRDEIR did not add this number to the existing background TAC levels affecting the ambient air quality in the Visalia area.

The First Final PREIR identified a range of estimates of the average background risk in the Visalia area, the highest of which is 489 in a million. As discussed in Section 2.3, above, obtaining a precise number for the background risk is difficult, given the lack of comprehensive, current data, and the assumptions that must be extrapolated from the available information. Nevertheless, the First Final PREIR derived the 489 in a million number by using the latest risk reported by the ARB for non-DPM TAC emissions and risks estimated from surrogates to DPM ( $\text{NO}_x$  and  $\text{PM}_{10}$ ) that are measured at the Visalia monitoring station.  $\text{PM}_{10}$  measured at monitoring stations contains a fraction that is DPM emitted from diesel vehicles and equipment. The South Coast Air Quality Management District (SCAQMD) developed a scaling factor for use in its Multiple Air Toxics Exposure Study (MATES III) to convert  $\text{PM}_{10}$  concentrations to DPM concentrations, based on the average amounts of elemental carbon collected on monitoring sample filters and elemental carbon's predicted relationship to total DPM (SCAQMD 2008). The ARB developed a scaling factor to convert  $\text{NO}_x$  concentrations to DPM concentrations based on two year-long and several short-term source apportionment modeling studies with co-located  $\text{NO}_x$  measurements (ARB 2010).

The 489 in a million risk estimate used for Step One of the analysis represents a conservative assumption because it is the highest estimate of risk for DPM under the SCAQMD method. Further, as explained above, the number is conservative because TAC risk levels are anticipated to be reduced in coming years (and already are estimated to be substantially below 489 in a million) as the implementation of DPM and TAC reduction programs continues.

**Second PRDEIR:** The 100 in a million cumulative significance threshold established in the First PRDEIR remains a suitable and conservative threshold for determining if a significant cumulative TAC impact exists. A 100 in a million risk represents the amount EPA considers an acceptable amount of risk from TAC emissions as described in the preamble to the benzene National Emissions Standards for Hazardous Air Pollutants (NESHAP) rulemaking (54 Federal Register 38044, September 14, 1989) and is incorporated by Congress for EPA's residual risk program under Clean Air Act (CAA) section 112(f). EPA states that in protecting public health with an ample margin of safety, EPA strives to provide maximum feasible protection against risks to health from hazardous air

pollutants (HAPs) by limiting risk to a level no higher than the one in ten thousand (100 in a million) estimated risk that a person living near a source would be exposed to at the maximum pollutant concentrations for 70 years.

The cumulative TAC risk levels in the Visalia area exceed the 100 in a million cumulative significance threshold. When ambient background TAC risk levels of 489 excess cases per million are added to the 23.9 cases per million inventoried from emission sources located within 1,500 feet of the Project, existing cumulative TAC risk in the Visalia area increases to 513 in a million as the highest risk amount in the range, and a significant cumulative impact exists without the Project. Thus, a Step Two analysis is required by CEQA to determine whether the Project's contribution to the existing average background risk is cumulatively considerable.

## **2.5.2 - Step Two Threshold**

### **First PRDEIR**

In the First PRDEIR, the City reviewed thresholds for the evaluation of TACs in the CEQA context adopted by other California air pollution control districts and air quality management districts. Aside from the Bay Area Air Quality Management District (BAAQMD) and San Luis Obispo County Air Pollution Control District (SLOAPCD) with its "Type B" threshold that applies to new sensitive receptors constructed near existing cumulative sources, none has adopted a cumulative significance threshold and no district to date has adopted a Step Two cumulatively considerable threshold, including BAAQMD and SLOAPCD. Nevertheless, as noted above, the absence of a threshold does not relieve agencies of their obligations to address toxic emissions from projects under CEQA (CAPCOA 2009).

To determine the appropriate cumulative threshold, the City reviewed regulatory guidance from CAPCOA and other sources, as described in the First PRDEIR in the Cumulative Toxic Air Contaminant Threshold Document. Based upon this information, the City determined that a project's cumulative contribution of 10 in a million was a reasonable threshold in light of the cumulative threshold of 100 in a million for cumulative risk from sources within an area of influence of 1,500 feet.

Following BAAQMD guidance, the cumulative impact analysis in the First PRDEIR compared cancer risk impacts from sources within 1,500 feet to the 100 in a million cumulative threshold to determine if there was a significant cumulative impact. The cumulative risk identified in the First PRDEIR was less than significant. The Court ruled that this approach was incorrect because it excluded background risk from all sources within the Bay Area, the San Joaquin Valley, Fresno, Tulare County, or Visalia that contribute to air quality at the project site in the determination of cumulative significance. The threshold must relate to the entire actual existing air quality, and the threshold is to relate whether that, together with the project, is cumulatively significant.

## Second PRDEIR

The lead agency must identify a specific amount of risk that constitutes a cumulatively considerable contribution to an existing significant cumulative impact. As shown in Table 2-1, below, this Second PRDEIR evaluates the significance of the Project's contribution of 3.3 additional cancer cases per million in light of the existing significant cumulative TAC impact of 513 cases in a million as the highest risk amount in the range. To do so, the City has considered the appropriateness of using a cumulatively considerable threshold of 10 in a million as used in the First PRDEIR in light of CEQA's requirements and the Court Rulings.

In setting a Step Two threshold, the Court observed that “[t]he relevant question to be addressed is not the relative amount of project emissions compared with pre-existing conditions, but whether any additional amount should be considered significant in light of an already serious condition (*Kings County Farm Bureau* [ 2013 Ruling, p. 4:6–9]). The Court observed that this does not necessarily mean that any incremental contribution to an existing cumulatively significant environmental condition, no matter how small, must always be treated as a significant cumulative impact, and reminded that the one-additional-molecule rule is not the law.

As the Court noted, CEQA requires a lead agency to select a cumulative contribution threshold that reflects the severity of the existing cumulative conditions. The worse the existing conditions, the smaller a project's contribution need be before being found “cumulatively considerable” and thus “significant” (*See* 2013 Ruling, p. 6:17-19; 7:3-5).

In considering whether the existing cumulative TAC risk levels of 513 cases per million are at a level that justifies reducing the cumulative contribution threshold, and in the absence of direct guidance on this topic from the air districts, the City is again required to rely on its own experts, the information and analysis set forth in the First PRDEIR, and research regarding practices of other air districts that was conducted for the Second PRDEIR. After considering all available information on this topic, the City has determined that five (5) additional cancer cases per million represents a cumulatively considerable contribution to the Visalia area's significant existing cumulative TAC risk levels, for this Project under these conditions. The basis for the City's determination is set forth below.

### Additional Review of Air District Thresholds.

A supplementary review of air district guidance documents and communication with air district staff was performed to determine if other sources of information are available to support a different cumulative contribution threshold than the 10 in a million threshold used in the First PRDEIR. The complete results of the review are presented in Appendix M. A summary of the review is provided below.

The supplementary review identified three air districts that specifically recommend application of a 10 in a million project threshold as a cumulative threshold. The air districts that utilize this approach include the SJVAPCD, the SCAQMD and the Sacramento Metropolitan Air Quality Management

District. Under the method all three districts follow, if a project's contribution falls below 10 in a million, it has neither a significant project-level impact nor a significant cumulative impact. Under this approach, differences in background risk in a region or a city are not considered. The air districts apply the 10 in a million project level threshold as a cumulative contribution threshold as if an existing significant cumulative impact exists without defining the risk level that would be considered a significant cumulative impact. No air district has set a threshold for use in determining whether a project makes a cumulatively considerable contribution to an *existing* significant cumulative TAC impact. The project threshold is considered adequately protective in all areas, so it is applied uniformly regardless of background risk and exposure from local sources. No air district was found to use a threshold other than a 10 in a million threshold for project or cumulative analysis. The practice of these air districts does not assist the City in considering and setting an appropriate cumulatively considerable threshold that fulfills the two-step approach as required by the Court, for circumstances where a significant cumulative TAC impact exists even without the project.

BAAQMD is the only air district that has performed a quantitative assessment of the existing cumulative TAC risk levels for comparison with an adopted significance threshold of 100 excess cases in a million. Under the BAAQMD cumulative threshold approach, if cancer risk from a project plus cumulative sources within 1,000 feet of a new source would exceed the established 100 in a million threshold, the project would have a significant cumulative impact (BAAQMD CEQA Guidelines 2011).<sup>5</sup> (When analyzing the cumulative impacts of a project, the BAAQMD considers sources within 1,000 feet of a proposed project to determine whether the project, in addition to those sources within 1,000 feet of the project, exceeds a 100 in a million cumulative threshold.) The BAAQMD does not consider the background baseline or ambient conditions outside of this radius in making a determination regarding the cumulative TAC impact of a project.

The BAAQMD threshold approach does not explicitly address the issue of projects proposed in areas with ambient background risks that exceed 100 in a million without the project. The BAAQMD specifically considered and rejected the use of a 10 in a million project-level TAC threshold as a cumulative contribution threshold presented to the Board as the Incremental Risk Approach (see BAAQMD, Revised Draft Options and Justification Report Oct. 2009 at p. 25). BAAQMD instead adopted a 100 in a million cumulative TAC significance threshold that was presented as Board Option 2 – Absolute Risk Approach, under which a significant cumulative TAC impact was found if emissions from all cumulative sources within 1,000 feet from the project exceeded 100 cases in a million.

The BAAQMD CEQA Air Quality Guidelines (BAAQMD 2011) include the following adopted thresholds for cumulative TAC impacts:

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<sup>5</sup> While enforceability of the BAAQMD CEQA Thresholds must await resolution of a court case filed to ensure that BAAQMD considered the environmental impacts of adopting the CEQA Guidelines, lead agencies may still consider the BAAQMD's Guidelines for information and guidance regarding the health impacts of air pollutants.

A project would have a cumulative significant impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000 foot radius (or beyond where appropriate) from the fence line of a source, or from the location of a receptor, plus the contribution from the project, exceeds the following:

- An excess cancer risk levels of more than 100 in one million or a chronic hazard index greater than 10 for TACs; or
- $0.8 \mu\text{g}/\text{m}^3$  annual average  $\text{PM}_{2.5}$ .

Within impacted communities identified under BAAQMD's [Community Air Risk Evaluation] CARE program, the Lead Agency is encouraged to develop and adopt a Community Risk Reduction Plan. To determine whether a new source is located in an impacted community, the Lead Agency should refer to Figure 5-1 and the CARE webpage.

As the First PRDEIR's Cumulative Toxic Air Contaminant Threshold Document noted, the BAAQMD also considered a project-level significance threshold of 5.0 in a million to have applied in Impacted Areas to reflect the greater TAC risk exposures to the populations residing there. A project-level significance threshold of 10 in a million would apply in non-impacted areas. However, the lower 5.0 in a million threshold was found unnecessary and was ultimately not adopted. According to the BAAQMD,

The justification for the Tiered Thresholds Option threshold of 5.0 in one million for new sources in an impacted community is that in these areas the cancer risk burden is higher than in other parts of the Bay Area; the threshold at which an individual source becomes significant is lower for an area that is already at or near unhealthy levels. However, even without a tiered approach [and its lower 5/million project-level threshold for impacted areas,] the recommended thresholds [100 in a million for sources within 1,000 feet and CARE program] already address the burden of impacted communities via the cumulative thresholds: specifically, if an area has many existing TAC sources near receptors, then the cumulative threshold will be reached sooner than it would in another area with fewer TAC sources.

The BAAQMD cumulative threshold must be viewed in the context of its 1,000-foot analysis radius for determining cumulative significance and its emphasis on localized impacts. The BAAQMD concluded that having many sources that combine to exceed a cancer risk of 100 in a million within 1,000 feet of the project is an appropriate measure of cumulative impact in both impacted communities and areas not considered heavily impacted. Projects that are proposed in areas that are not in impacted communities would have fewer existing sources and are less likely to exceed the cumulative threshold. Projects that are proposed in impacted areas would likely have many sources that could exceed the threshold and would result in a significant cumulative impact and trigger the requirement to mitigate impacts. The BAAQMD approach does not provide a two-step cumulative



analysis that includes a cumulative contribution threshold that would apply when existing sources exceed the 100 in a million threshold. However, projects proposed in areas that are pre-defined as CARE areas are considered to have an existing significant cumulative impact where the Lead Agency is encouraged to prepare a Community Risk Reduction Plan (CRRP) to reduce cumulative impacts, the mitigation requirements of which the project must comply.

The BAAQMD CEQA Air Quality Guidelines indicate that the average risk at that time from DPM alone was 400 in a million, and no populated area of the BAAQMD had an estimated risk below 100 in a million. According to the most recent reports prepared by the BAAQMD, average regional risk has dropped from 625 in a million in 2001 to 300 in a million in 2012. Rural and non-urban areas comprising approximately half of the land area in the region are shown in the updated mapping to experience a risk of less than 100 in a million. The BAAQMD has updated its mapping of these areas in 2013 and its April 2014 report shows considerable improvement in TAC risk levels throughout its entire jurisdiction.<sup>6</sup> The significance of this information is that the regulations that are resulting in improvement in the Bay Area also apply to the San Joaquin Valley and would be expected to result in similar levels of improvements.

#### ***Justification for the Cumulative Contribution Threshold***

The City considered the following information when adopting a 5 in a million threshold for this Project to determine whether the project's contribution is cumulatively considerable:

- The severity of the pre-existing cumulative TAC risk condition as estimated from monitoring data at the nearest monitoring stations and from local sources inventoried within 1,500 feet of the Project site (489 in a million plus 23.9 in a million totals 513 excess cases in a million.
- Whether existing impacts and impacts from sources near the Project site would warrant a lower cumulatively considerable threshold due to its location near large sources of TAC emissions. The Project site is approximately 600 feet from the SR-198 freeway, which accounts for 55 percent of the total TAC risk levels inventoried within 1,500 feet of the Project site. A rail line and other businesses near the Project contribute additional localized risk beyond background risk contributing a total risk of 23.9 in a million at the most impacted receptor location.
- The absence of guidance on suitable thresholds from other agencies. No other local jurisdiction or air quality agency has adopted a Step Two cumulative contribution threshold that is directly applicable to the Project.

<sup>6</sup> See BAAQMD's March 2014 document titled Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area, Version 2 (March 2014), p. 17, Figure 3 (showing approximately half of the areas under BAAQMD jurisdiction with cumulative TAC risk levels below 100 in a million); see also BAAQMD April 2014: Community Air Risk Evaluation (CARE) Program Retrospective & Path Forward (2004–2013) at pp. 2–3, Figures ES2 and ES-3).

- The existence of plans or regulations to reduce existing ambient TAC emissions, which will in turn reduce the severity of the significant existing cumulative impact. (For example, the ARB has implemented a robust regulatory strategy to reduce DPM TAC emissions by 85 percent by 2020, which is already proving to be effective.)

Comparison of the 5 in a million cumulative contribution threshold to existing risk in the Visalia area as well as to the EPA's threshold for acceptable risk for facilities and communities provides additional information for consideration:

- The 10 in a million cumulative contribution threshold used in the First PRDEIR is about 2 percent of the 489 in a million risk estimated in the First PRDEIR for the City of Visalia. Five in a million is about 1 percent of the 489 in a million risk estimate and provides a more stringent threshold by half.
- The 10 in a million cumulative contribution threshold used in the First PRDEIR is 10 percent of the EPA threshold for acceptable risk for facilities and communities of 100 in a million. A 5 in a million cumulative contribution threshold is 5 percent of the EPA threshold and is more stringent by half.

To summarize, the City in selecting its cumulative contribution threshold must consider and weigh the fact that the existing impact from TAC emissions is already unacceptably high (which would lead it to choose a lower threshold), together with the fact that a strong regulatory program is in place that results in a reduced cumulative risk (which would lead it to choose a less stringent threshold). Guidance from expert agencies points to using a 10 in a million cumulative contribution, but the expert agencies do not consider variations in background risk and location-specific impacts, leading the City to conclude that a lower threshold in areas with higher impacts may be appropriate in this instance.

The City's selection of 5 in a million as its cumulative contribution threshold is a policy decision based on the amount of increased cancer risk deemed acceptable after review of the factors described throughout this document, including: (1) existing, ambient air quality (which has been shown to be steadily improving, due to increased air quality regulations); (2) the fact that State Route 198 is located approximately 600 feet from the Project site, which accounts for 55 percent of the total risk to nearby sensitive receptors; and (3) the fact that the Project will involve sources of diesel exhaust, which is the primary source of TAC risk.

Specifically, the expansion Project will result in an additional eight medium-heavy duty and six heavy-heavy duty truck trips to and from the site because of increased delivery of groceries and other new items. These new truck trips and the resulting DPM emissions will account for nearly all of the increased risk of 3.3 in a million that is attributable to the Project. Additionally, as a result of the new delivery truck access route and new truck docking area (which has been relocated because of site

constraints along the eastern boundary of the project site), trucks serving the Project would now be located somewhat closer to sensitive receptors.

Although TAC emissions are declining throughout the State and in Visalia, the cumulative risk levels will remain in excess of the 100 in a million cumulative threshold for some years to come. The Project's location in proximity to a freeway, rail line, and other mobile and stationary sources may provide justification for adopting a contribution threshold more stringent than the 10 in a million threshold found acceptable by air districts and local agencies, while other projects located further away from such sources or with different characteristics may warrant the application of a different threshold. Although science comes into play in determining the concentration of pollutants and in estimating the cancer risk from breathing those pollutant concentrations over a lifetime, the level of acceptable risk is strictly a policy decision. Others may conclude that a higher or lower risk is acceptable, but in the absence of a regulation or standard that defines acceptable risk, it remains the purview of the Lead Agency to set this threshold.

### 2.5.3 - Project-Level Health Risk Significance Thresholds

The threshold used for the Project analysis in the First PRDEIR remains unchanged. For more detail regarding the Project cancer and non-cancer risk, refer to the First PRDEIR, Appendix J: Health Risk Assessment. In accordance with the thresholds contained within the SJVAPCD GAMAQI, the following Project-level significance health risk thresholds were applied:

- A cancer risk level of 10 in one million
- A non-cancer hazard index of 1.0

A project that contributes a cancer risk in excess of 10 in a million or a non-cancer hazard index of greater than 1.0 would be considered to have a significant project-level impact.

### 2.5.4 - Cumulative Health Risk Significance Thresholds

The following thresholds have been revised from the First PRDEIR to comply with the Court's 2013 Ruling regarding proper analysis of cumulative toxic air emissions for the project:

- **Step One: Cumulative Cancer Risk to Maximally Exposed Individual (MEI).** Cumulative TAC impacts resulting from ambient background emission sources impacting the Visalia area, the proposed Project and cumulative emission sources as inventoried in the First PRDEIR in an approximately 1,500-foot radius from the Project site are subject to a significance threshold of 100 in one million.
- **Step Two: Cancer Risk to MEI in Areas with a Significant Cumulative Impact without the Project.** When existing background emissions exceed a cancer risk of 100 in one million, a project contribution of 5 in one million or more is a cumulatively considerable contribution to the significant cumulative impact.

- **Non-Cancer Risk to MEI.** Cumulative sources of risks or hazards would be subject to a significance threshold of a chronic or acute Hazard Index of greater than 10.0.

## 2.6 - Impact Analysis

This section assesses first the incremental health risk impacts of the Project's own TAC emissions, followed by a determination of the significance of the Project's contribution to the Visalia area's existing cumulative TAC risk levels. Next, the cumulative impacts of the Project in relation to health risk impacts contributed by adding all background sources, plus existing, planned, and probable future sources of TAC emissions within an approximate 1,500-foot radius of the Project. The incremental and cumulative impacts are then compared with the significance thresholds adopted for this assessment. The assessment of Project impacts on sensitive receptors is unchanged from the First PRDEIR but is provided here for information.

### Project Toxic Air Contaminants

**Impact 1:** The project would not expose sensitive receptors to substantial pollutant concentrations.

### Impact Analysis

The project-level TAC impacts were assessed using methodology recommended by the SJVAPCD. See the First PRDEIR, *Appendix J: Cumulative Health Risk Assessment* for a full discussion of the analysis and modeling results.

### Assessment of the Project's Incremental Health Risk Impacts

See the First PRDEIR for a detailed discussion of the analysis prepared to assess the Project's incremental health risk impacts.

### Results of the Project-Level Health Risks Assessment

Table 2-2 summarizes the project-level cancer and non-cancer risks.

**Table 2-2: Project-Level Cancer and Non-Cancer Risks**

Receptor	Receptor Location	Project Cancer Risk (risk/million)	SJVAPCD Significance threshold (risk/million)	Significant Project-Level Impact?
Location of the maximally exposed receptor from the Project's TAC emissions	Residents located at the southeast corner of the Walmart property near the intersection of East College Avenue and South Tracy Street	3.3	10.0	No
		Project Non-Cancer Risk (hazard index)	SJVAPCD Significance threshold (hazard index)	Significant Project-Level Impact?
		0.002	1.0	No

The Project's individual contribution of 3.3 in one million largely results from: (1) the incremental increase in truck deliveries required to serve the expanded Walmart store; and (2) the location of the delivery truck access route along the eastern boundary of the Project site, the only viable location. The existing TAC-related risk from the larger existing Walmart store is 1.7 in a million. The Project presents a higher risk than the larger existing store because the revised access route and new truck docking area bring emission sources somewhat closer to sensitive receptors. However, the impact of the Project on the closest sensitive receptor to the Project site's highest concentration of TAC emissions is less than significant.

The Project's highest non-cancer hazard index at any receptor was modeled at 0.002, which is far below the threshold of a 1.0 hazard index.

*Significance of Project-Level Emissions of TACs on Cancer Risk and Non-Cancer Risk*

On a project-level basis, the TAC emissions from the Project would not exceed the project-level cancer risk significance threshold of 10 in one million or the non-cancer hazard index of 1.0 established by the SJVAPCD.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation measures are required.

**Cumulative Toxic Air Contaminant Impact Analysis**

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<b>Impact AIR-2:</b>	<b>The project would not expose sensitive receptors to a cumulatively considerable contribution of toxic air contaminant emissions.</b>
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**Impact Analysis**

For this Second PRDEIR, the analysis cumulative TAC health risk impacts required the following actions:

1. Estimation of existing background TAC emissions impacting the Visalia area, as measured at the nearest air monitoring station and through special studies of basin-wide background TAC emission levels conducted by the ARB;
2. Estimation of the TAC emissions from the Project and from existing and reasonably foreseeable emission sources within a 1,500-foot zone of influence;
3. Identification of receptor locations surrounding the emission source(s) where the health risk impacts are calculated;
4. Application of an air dispersion model and attendant meteorological data to describe the rate of transport and magnitude of the air quality impacts of the estimated emissions from sources

within 1,500 feet to determine emission concentrations at the maximally exposed receptors which are then added to the existing background TAC risk levels; and

5. Comparison of the resulting health risk impact from background emissions and localized emissions with the relevant significance thresholds.

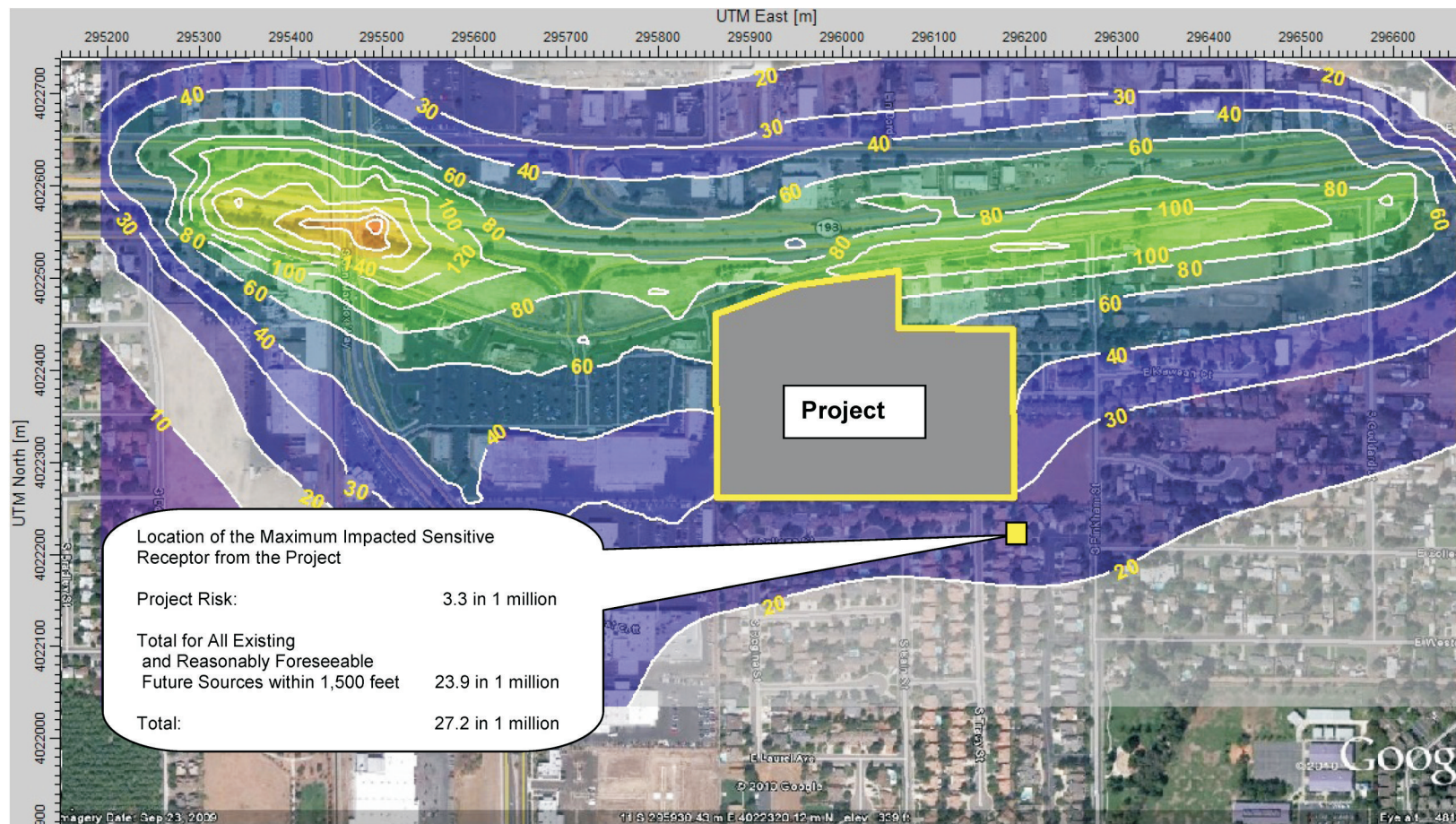
The City has determined that the cumulative TAC threshold is a cancer risk of 100 in a million. As previously noted, the total cumulative TAC impacts are 513 in a million, over five times the cumulative significance threshold of 100 in a million. This total includes: (i) the existing background TAC emissions conservatively estimated using monitoring data from the nearest monitoring stations (489 in a million); (ii) the existing, planned and probable future TAC emission sources located within 1,500 feet of the project (23.9 in a million); and (iii) the Project's individual contribution to the existing cumulative impact (3.3 in a million). Since the cumulative impact exceeds the 100 in a million threshold, a significant cumulative TAC impact exists, and the City must evaluate whether the Project's contribution of 3.3 excess cases in one million is cumulatively considerable, as reported under Impact AIR-1.

#### *Sources of Existing and Reasonably Foreseeable Toxic Air Contaminant Emissions*

As described in Section 2.3, the background risk represents the combined impact of emissions from sources distant from the Project site and within the general Visalia area as measured at the nearest monitoring station. The estimated background risk has a high degree of uncertainty, due to limited TAC monitoring conducted in the San Joaquin Valley and lack of a technique for directly measuring the largest component of cancer risk, DPM. The SJVAPCD provided an estimate in its Draft 2015 GAMAQI that today's cancer risk is under 200 in a million (SJVAPCD 2015), which is substantially lower than the estimate based on monitoring data of 489 in a million. The Second PRDEIR analysis continues to rely on the higher risk assessment value until such a time as a detailed assessment is adopted by the SJVAPCD documenting their new estimate.

Table 2-3 summarizes the cumulative cancer risk from the operation of the Project, from existing background emissions, and from existing, planned, and probable future emission sources, compared with the cumulative toxic threshold. As Table 2-3 demonstrates, most of the cumulative risk from sources within 1,500 feet of the project derives from the SR-198 freeway and the major roadways near the Project site. These mobile sources make up about 55 percent of the total risk from localized sources.

Exhibit 2-3 illustrates the importance of distance between a sensitive receptor and these mobile TAC sources, and the associated decrease in risk. The cumulative TAC-related health risk immediately adjacent to the SR-198/Ben Maddox Way interchange exceeds 100 in a million, while the risk drops to 27.2 in a million at the maximally exposed project receptor approximately 980 feet from the freeway but within 50 feet of the project site.



## Exhibit 2-3 Contours of Cumulative Cancer Risk – Sources Within 1,500 Feet

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**Table 2-3: Cumulative Cancer Risk at the Maximally Exposed Project Receptor**

Receptor Location	Emission Source Category	Cancer Risk (risk per million)
Located in the Residential Area along the Walmart Southern Property Line	Existing Walmart DPM	1.7
	SR-198 DPM	12.0
	Local Street DPM	2.9
	Rail Line DPM	0.4
	Restaurants, Auto Dealers Gas Station, Food Related DPM	2.1
	Subtotal of All Existing DPM	19.1
	Existing Mobile Total Organic Compounds	2.5
	Existing Restaurant Cooking, Gas Station Evaporation, and Auto Body Spray Painting TAC Emissions	2.3
	Total for All Existing Sources within 1,500 ft.	23.9
	Existing Average Background Risk	489
	Total for Existing Sources, planned probable sources, and Background Emissions	513
	<b>Cumulative Significance Threshold</b>	<b>100</b>
	Cumulative significant impact?	Yes
	<b>Cumulative Contribution Threshold</b>	<b>5</b>
	Project's Cumulative Contribution	3.3
	Cumulatively Considerable Impact?	No
Note: DPM = diesel particulate matter Source: see First PREIR, Appendix J.		

CEQA requires a project to implement mitigation only for impacts that are caused in whole or in part by the project. The existing significant cumulative TAC impact exists without the Project, and the Project's contribution to that impact is not cumulatively considerable. Accordingly, no mitigation is required.

#### *Non-Cancer Risk Analysis*

The analysis also examined the cumulative non-cancer risk. No data reporting average background non-cancer risk was available. However, the cumulative non-cancer risk from existing, planned, and probable future TAC sources combined with the Project did not exceed the cumulative non-cancer risk threshold of a health index of 10.0. The results of the analysis provided in Appendix J found a cumulative non-cancer health index of 0.03 compared with the cumulative threshold, which is based on a non-cancer health index of 10.0. The non-cancer risk of 0.03 is one-three hundredths of the threshold. Therefore, the operation of the project would have a less than significant impact relative to non-cancer impacts on both a project-level and a cumulative basis.

*Significance of Cumulative Emissions of TACs on Cancer Risk and Non-Cancer Risk*

As demonstrated utilizing the two-step analysis outlined below, the existing, ambient air quality within the Visalia area exceeds the 100 in a million risk threshold without the Project. When evaluating the significance of the Project's individual contribution, the impact falls below the adopted 5 in a million threshold and thus is not considered cumulatively considerable.

*Actions to Reduce Significant Cumulative TAC Impacts*

As discussed in Section 2.3 of this Second PRDEIR and presented in more detail in the First PRDEIR Section 2-2 on page 2-7, regulations adopted by the ARB to implement its Diesel Risk Reduction Plan are anticipated to reduce emissions from diesel engines by 85 percent between 2000 and 2020. Achieving this goal would reduce risk from DPM in the San Joaquin Valley from 390 in a million in 2000 as reported in the ARB 2009 Almanac (ARB 2009) to 58.5 in a million by 2020.

No forecasts were available for the decrease in risk of the other TAC emissions subject to SJVAPCD stationary source regulations and ARB Air Toxic Control Measures and regulations on mobile sources of emissions. However, the SJVAPCD's 2015 GAMAQI includes an estimate of current cancer risk from all sources of under 200 in a million (SJVAPCD 2015).

Although not required as mitigation, the following design features have been incorporated into the Project to further reduce TAC emissions to the extent feasible:

- Walmart trucks equipped with automatic shut-off after 3 minutes of idling (Draft EIR Section 1 Project Description, page 22).
- Signs will be posted advising truck drivers of State law that prohibits idling for more than 5 minutes.
- Although not a project design feature, the Walmart heavy-duty truck fleet that will service the site is newer than the statewide average and produces lower than average PM emissions.

In summary, the Project's impacts are less than cumulatively considerable. New regulations are expected to reduce the existing significant cumulative impact substantially through 2020 and beyond with continued reductions occurring as older, high-emitting vehicles and equipment are retired or retrofitted, resulting in a dramatic reduction in DPM emissions. Moreover, because there has been no change in the proposed development of the site, impacts of the Project will be identical to those previously analyzed in the EIR, and the Project will not result in any new or additional significant impacts for which mitigation is required.

*Level of Significance Before Mitigation*

Less than significant impact.

***Mitigation Measures***

No mitigation measures are required.

***Level of Significance After Mitigation***

Less than significant impact.

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### SECTION 3: REFERENCES

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