

MEMORANDUM

To: Tiffany Barnick, Kautz Properties #2, LLC
From: Adam Poll, Dudek
Subject: Refined Health Risk Assessment for the Betteravia Chevron
Date: December 6, 2022
Attachments: A – Modeling Protocol Tables for HRA Report
B – Emission Calculations
C – AERMOD and HARP Modeling Files

1 Introduction

1.1 Purpose

Dudek prepared a health risk assessment (HRA) modeling analysis to estimate health risk impacts on proximate sensitive receptors from exposure to toxic air contaminant (TAC) emissions from operation of the proposed Betteravia Chevron project (proposed project) located at the northeast corner of Betteravia Road and Walker Avenue, Santa Maria, CA 93455. The project is currently in the design review phase with the City of Santa Maria (City). This analysis was prepared at the request of the City's Community Development Department.

The analysis in this HRA uses air dispersion modeling methodology to evaluate potential public health risks associated with the project. Results of the modeling analysis are compared with the most recent significance thresholds established by the Santa Barbara County Air Pollution Control District (SBCAPCD) in accordance with the SBCAPCD's *Modeling Guidelines for Health Risk Assessments (APCD-15i)* (SBCAPD 2020).

1.2 Facility Information

Stationary Source Name: Betteravia Chevron

Stationary Source Identification Number (SSID): NA

Location: northeast corner of Betteravia Road and Walker Avenue, Santa Maria

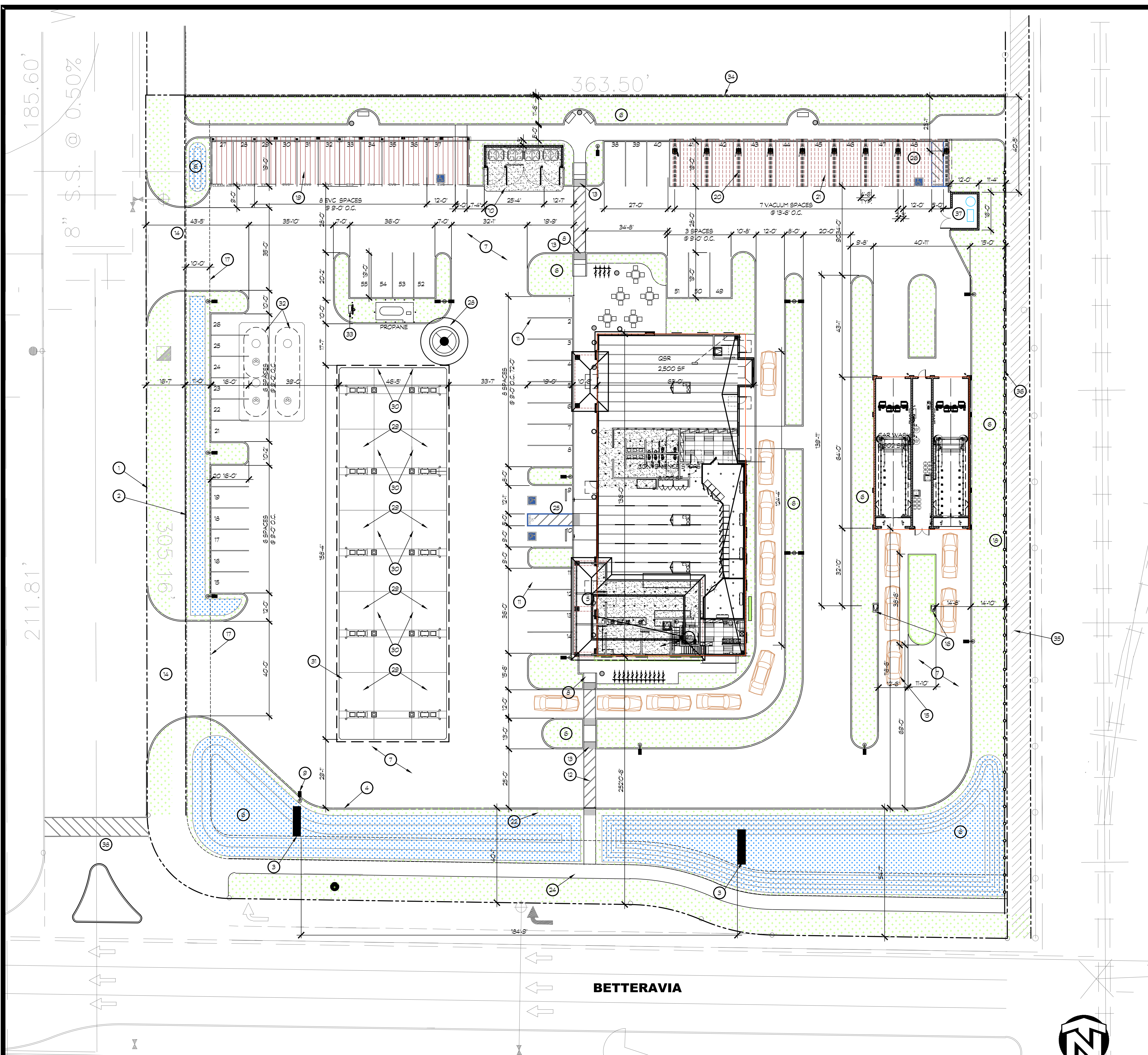
All facility names and facility identification numbers (FIDs) associated with the stationary source: NA

Location (street address and UTM coordinates, including datum): northeast corner of Betteravia Road and Walker Avenue, Santa Maria, CA 93455; (733324.97m E, 3867266.34m N); WGS84.

The boundary locations for the facility are provided in Attachment A. The property boundary coordinates were used to set up the receptor grid for dispersion modeling.

Description of stationary source operations: The proposed project consists of a convenience store, fueling pumps, car wash, and quick-serve restaurant. The fueling station includes 10 dispensers with 20 fueling positions, dispensing regular and supreme grades of gasoline and diesel.

Plot plan of stationary source: See Figure 1 for the plot plan and the aerial map Figure 2 for the project site.



SITE PLAN KEYNOTES

- 1 PROPERTY LINE
- 2 SETBACK
- 3 MONUMENT SIGN, BY OWNER
- 4 6" HIGH CONCRETE CURB
- 5 CONCRETE WALK
- 6 LANDSCAPING, SEE LANDSCAPING DRAWINGS
- 7 A/C PAVING
- 8 ACCESSIBLE CURB RAMP
- 9 SITE YARD LIGHT, WITH CONCRETE BASE SHALL HAVE A DRY SACK FINISH, TYPICAL
- 10 TRASH ENCLOSURE AND CONC. APPROACH APRON
- 11 4" WIDE PAINT STRIPING, WHITE, UNLESS NOTED OTHERWISE
- 12 4" WIDE PAINT STRIPING, WHITE, AT 3'-0" O.C. TYP.
- 13 DETECTABLE WARNING SURFACE
- 14 NEW DRIVEWAY - SEE CIVIL DWGS
- 15 VEHICLE STACKING
- 16 PAY STATION
- 17 10' WIDE LANDSCAPE SETBACK
- 18 CASHIER PAY STATION
- 19 9' EVC, WITH SOLAR CANOPY
- 20 VACUUM STANCHION WITH SOLAR CANOPY
- 21 CAR WASH CANOPY WITH SOLAR
- 22 CAR WASH ENTRY SIGN
- 23 ACCESSIBLE POLE MOUNTED SITE SIGN
- 24 ACCESSIBLE POLE MOUNTED P.O.T. DIRECTIONAL SIGN
- 25 ACCESSIBLE VAN PARKING STALL
- 26 ACCESSIBLE VACUUM PARKING STALL
- 27 CLASS II RACK FOR 12 BICYCLES, INSTALL PER MFR. SPECIFICATIONS
- 28 UNDERGROUND OIL WELL
- 29 MULTI-PRODUCT FUEL DISPENSER
- 30 CANOPY COLUMN
- 31 DASHED LINE OF CANOPY ABOVE
- 32 UNDERGROUND FUEL STORAGE TANKS
- 33 FUEL VENT LINES
- 34 SPLIT FACE CMU WALL - 7'-0" HIGH ALONG THIS PROPERTY LINE
- 35 BIKE PATH
- 36 CHAIN-LINK FENCE
- 37 VACUUM PRODUCER AND COLLECTOR IN A CMU ENCLOSURE WITH METAL ROOF
- 38 NEW CROSSWALK, COORDINATE WITH CIVIL AND SIDEWALK ON OTHER SIDE. MUST MISS THE REQUIRED PORCHOP.

SITE LEGEND

- AC OR CONCRETE PAVING
- NEW LANDSCAPING
- B/O SWALE, DETENTION
- TRASH CAN, SEE
- PLANTER BOX, SEE
- BENCH

ALL WALKWAYS AND SIDEWALKS ALONG ACCESSIBLE ROUTES OF TRAVEL (1) ARE CONTINUOUS, (2) ACCESSIBLE, (3) HAVE A MAXIMUM 1/2" CHANGE IN ELEVATION, (4) ARE MINIMUM 48" IN WIDTH, (5) HAVE A MAXIMUM 2% CROSS SLOPE, AND (6) WHERE NECESSARY TO CHANGE ELEVATION AT A SLOPE EXCEEDING 5% (I.E., 120") SHALL HAVE RAMPS COMPLYING WITH 2016 CBC, SECTION 11B-405 OR 11B-406 AS APPROPRIATE. WHERE A WALK CROSSES OR ADJOINS A VEHICULAR WAY, AND THE WALKING SURFACES ARE NOT SEPARATED BY CURBS, RAILINGS OR OTHER ELEMENTS BETWEEN THE PEDESTRIAN AREAS AND VEHICULAR AREAS SHALL BE DEFINED BY A CONTINUOUS DETECTABLE WARNING WHICH IS 36" WIDE, COMPLYING 2016 CBC, SECTION 11B-705.12.5.

--- PATH OF TRAVEL



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CONSULTANTS:
 CONTRACTOR:

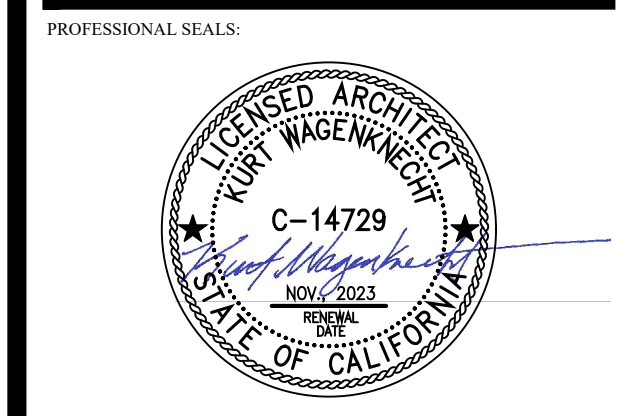
PROJECT:
BETTERAVIA CHEVRON

CONVENIENCE STORE, FUELING CANOPY & CAR WASH

**Betteravia Road,
 Santa Maria, California 93454**

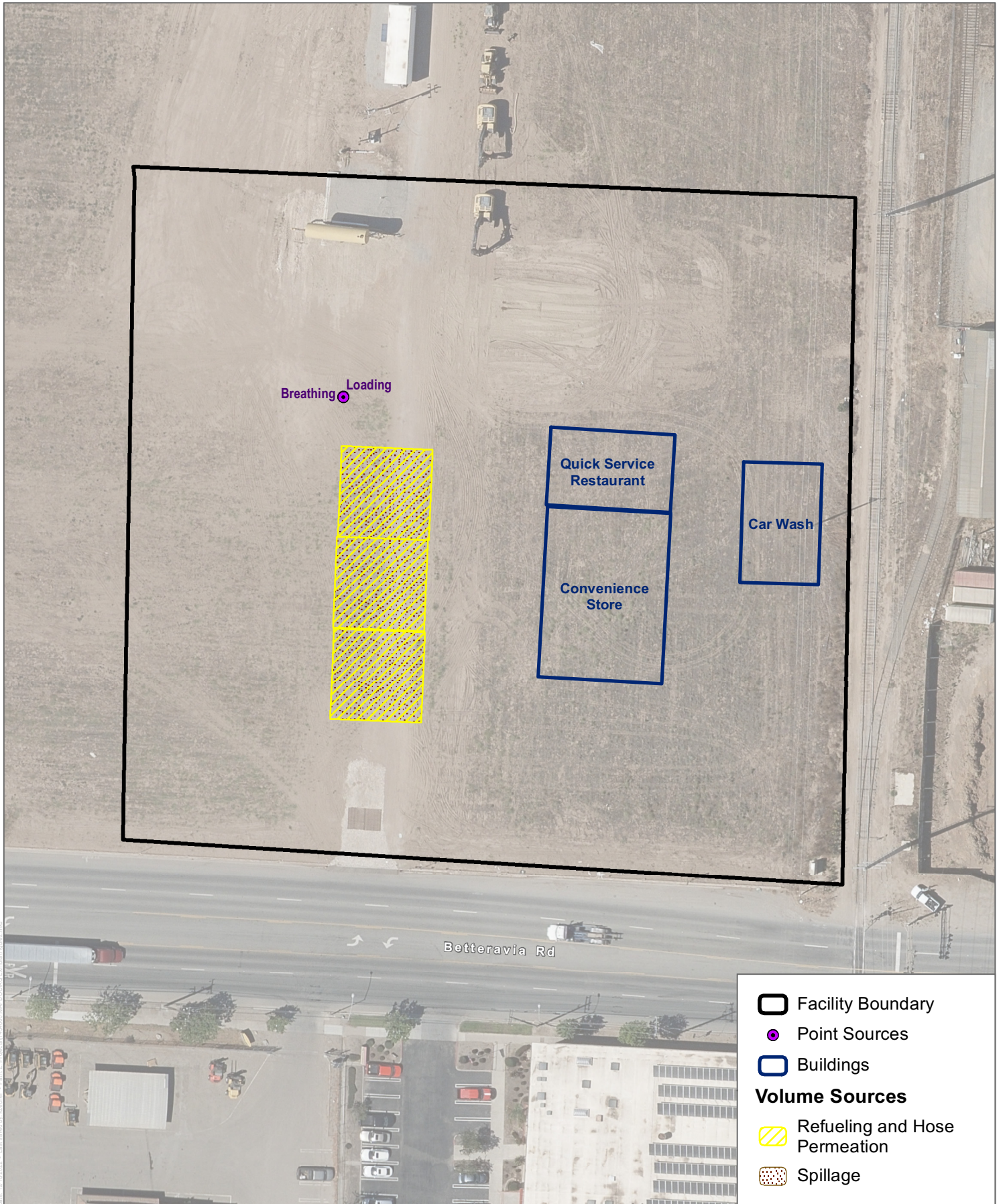
DEVELOPER:
**KAUTZ
 1284 N. GRAND AVE
 GROVER BEACH, CA 93433**

REVISIONS:
 DESIGN REVIEW CHANGES 3-31-22



PROJECT NUMBER: 20-041 PROJECT DATE: 09-17-21

SHEET CONTENTS:
SITE PLAN



SOURCE: Sanborn 2020

FIGURE 2
Aerial Photograph

2 Source and Emission Inventory Information

The SBCAPCD's *Modeling Protocol Tables for HRA Report* (Attachment A) provides the AERMOD Options Table, Source Parameters Table, Building Parameters Table, HARP2 Options Table, Receptor Table, TAC Device Table, and Device Schedule Table.

2.1 Emissions Inventory

The emissions from the proposed project were estimated using the ROC and toxic emissions factors from Attachment A of SBCAPCD's Form-25T (SBCAPCD 2022). ROC emissions were estimated for loading, breathing, refueling, spillage, and hose permeation. It was assumed that the proposed project would have an assist controlled with EVR hose type. The annual and maximum hourly emissions were estimated using the toxic weight percentages in Tables A2 and A3 of Form-25T. As the proposed project would have an annual throughput of less than 1 million gallons per year, the Phase II hourly throughput of 500 gallons per hour was assumed. Table 1 shows the estimated annual and maximum hourly emissions for the project by source. Detailed emission calculations are provided in Attachment B. It should be noted that only toxic air contaminants with an acute reference exposure level were estimated for maximum hourly emissions.

Table 1. Emissions Inventory

| Source | Annual Emissions (lb/year) | | | | | | | |
|--------------------------|----------------------------|----------|---------------|----------|-------------|-----------|----------|----------|
| | ROC | Benzene | Ethyl Benzene | n-Hexane | Naphthalene | Propylene | Toluene | Xylenes |
| Loading | 5.25E+01 | 2.40E-01 | 5.62E-02 | 9.56E-01 | 9.56E-01 | 1.89E-03 | 5.83E-01 | 2.15E-01 |
| Breathing | 8.40E+00 | 3.84E-02 | 8.99E-03 | 1.53E-01 | 3.74E-05 | 3.02E-04 | 9.32E-02 | 3.44E-02 |
| Refueling | 1.25E+02 | 5.69E-01 | 1.33E-01 | 2.27E+00 | 5.54E-04 | 4.48E-03 | 1.38E+00 | 5.10E-01 |
| Spillage | 8.40E+01 | 5.94E-01 | 1.08E+00 | 1.56E+00 | 1.46E-01 | 1.02E-04 | 4.73E+00 | 5.54E+00 |
| Hose Permeation | 1.88E+01 | 8.59E-02 | 2.01E-02 | 3.42E-01 | 8.37E-05 | 6.76E-04 | 2.09E-01 | 7.69E-02 |
| Hourly Emissions (lb/hr) | | | | | | | | |
| Loading | 7.50E-02 | 4.12E-04 | NA | NA | NA | NA | 1.01E-03 | 3.82E-04 |
| Breathing | 1.20E-02 | 6.59E-05 | NA | NA | NA | NA | 1.62E-04 | 6.11E-05 |
| Refueling | 1.78E-01 | 9.77E-04 | NA | NA | NA | NA | 2.40E-03 | 9.06E-04 |
| Spillage | 1.20E-01 | 8.42E-04 | NA | NA | NA | NA | 6.96E-03 | 8.29E-03 |
| Hose Permeation | 1.67E-03 | 9.15E-06 | NA | NA | NA | NA | 2.25E-05 | 8.48E-06 |

Source: Attachment B.

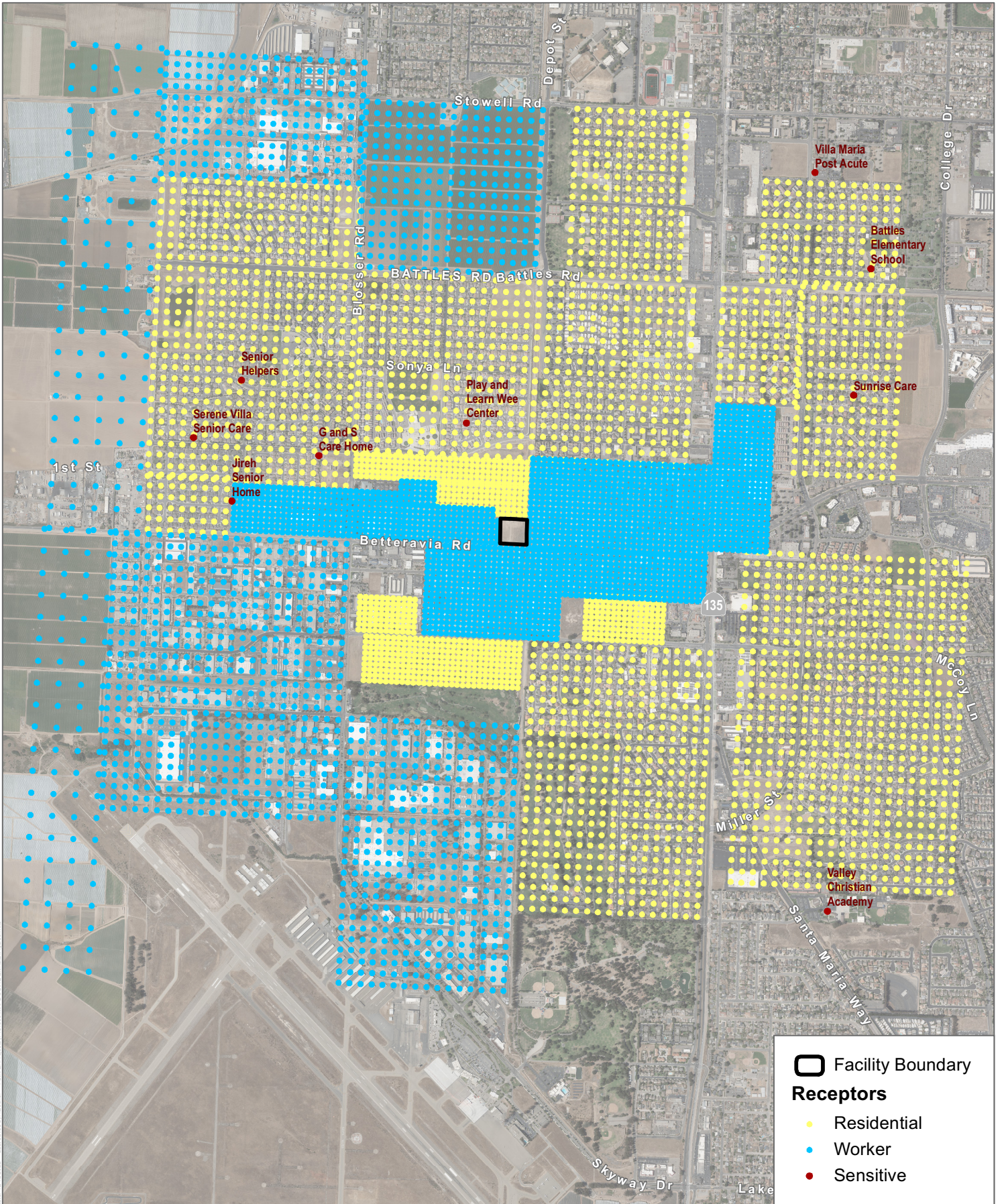
Notes: lb/hr = pound per hour; lb/year = pound per year; NA = not applicable.

3 Modeling Methodology

The dispersion modeling was performed using American Meteorological Society/U.S. Environmental Protection Agency Regulatory Model (AERMOD) View Version 11.2.0, which is the model SBCAPCD recommends for atmospheric dispersion of emissions. AERMOD is a steady-state Gaussian plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of surface and elevated sources, building downwash, and simple and complex terrain (EPA 2017). The health database version 22118 was used in HARP2. The SBCAPCD Form-15i dated June 2020 was used to prepare this assessment. The modeling parameters from Attachment B of SBCAPCD Form-25T were followed. All available electronic input and output files associated with the AERMOD and HARP2 modeling was included in Attachment C.

4 Receptors Used for Evaluating Modeled Impacts

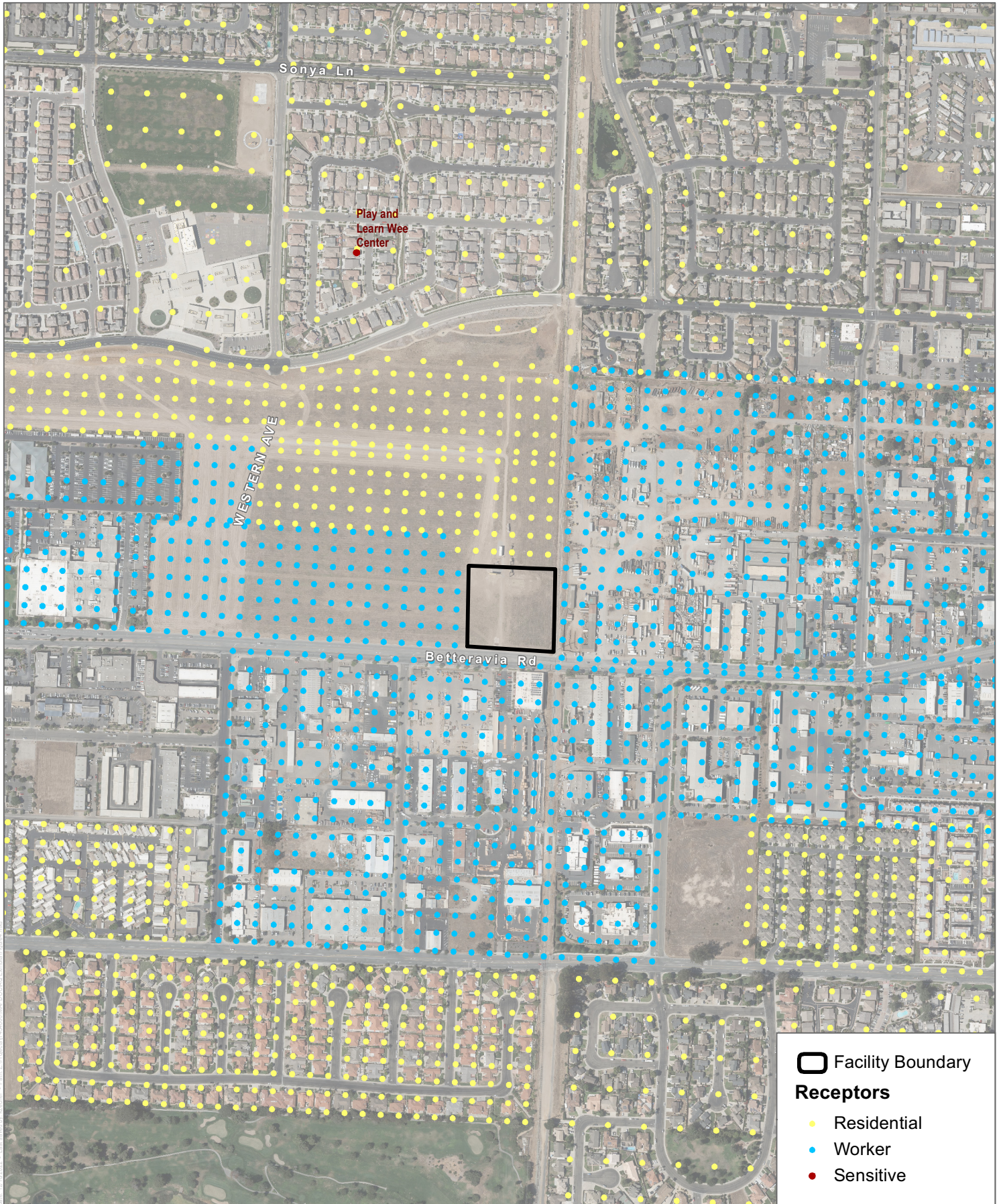
Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air-pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). SBCAPCD considers schools, daycare centers, hospitals, and care facilities (adult/elderly) within 2 kilometers (1.2 miles) of the facility as sensitive receptor land uses (SBCAPCD 2020). The closest sensitive receptor to the project site are future residences adjacent to the property. The site is located within a residential and commercial area and the predominant receptor type is residential within 2 kilometers. There are also worker receptors within 2 kilometers of the site. A fence line grid of 5 meter spacing was created out to 100 meters; 25 meter spacing out to 200 meters, 50 meter spacing out to 500 meters; and 100 meter spacing out to 2,000 meters. Additional uniform cartesian grids were placed over residential and worker receptors of 25 meter spacing out to 200 meters from the property; 50 meter spacing up to 500 meters; and 100 meter spacing up to 2,000 meters. The following sensitive receptors were identified within 2 kilometers of the site: Play and Learn Wee Center; G and S Care Home; Jireh Senior Home; Senior Helpers; Serene Villa Senior Care; Sunrise Care; Battles Elementary School; Villa Maria Post Acute; and Valley Christian Academy. Onsite receptors were also placed on the property as it would be open to the public 24 hours per day, 365 days per year. The type and location of the residential and worker receptors are included in Attachment A. Figure 3 shows the residential, worker, and sensitive receptors within 2,000 meters of the site. Figure 4 shows the receptors modeled within 2,000 feet of the project site.



SOURCE: Sanborn 2020

FIGURE 3

Receptors within 2,000 Meters of the Project Site



SOURCE: Sanborn 2020

FIGURE 4

Receptors within 2,000 Feet of the Project Site

5 Summary of Results

A summary of the results of the HRA are provided in Tables 2 through 5. The risk driver tables were not included for the HRA in accordance with Attachment B of SBCAPCD Form-25T. AERMOD and HARP 2 outputs are contained in Attachment C.

Table 2. Summary of Cancer Health Risk Results

| Receptor Type | Receptor Number | UTME (m) | UTMN (m) | Cancer Risk (in a million) | Significance Threshold (in a million) |
|---------------------------|-----------------|-----------|-------------|----------------------------|---------------------------------------|
| Offsite PMI | 23823 | 733261.79 | 3867301.53 | 0.9 | NA |
| Onsite PMI | 601 | 733305.91 | 3867288.72 | 5.1 | NA |
| MEIR | 7840 | 733269.11 | 3867338.79 | 0.6 | ≥10 |
| MEIW | 8014 | 733256 | 3867314.08 | <0.1 | ≥10 |
| Play and Learn Wee Center | 8610 | 733084.62 | 3867754.37 | <0.1 | ≥10 |
| G and S Care Home | 9152 | 732422.96 | 3867573.85 | <0.1 | ≥10 |
| Jireh Senior Home | 9468 | 732039.30 | 3867348.55 | <0.1 | ≥10 |
| Senior Helpers | 9681 | 732054.72 | 3867899.41 | <0.1 | ≥10 |
| Serene Villa Senior Care | 9832 | 731850.85 | 3867627.91 | <0.1 | ≥10 |
| Sunrise Care | 14233 | 734833.86 | 3867968.62 | <0.1 | ≥10 |
| Battles Elementary School | 14719 | 734881.91 | 3868547.42 | <0.1 | ≥10 |
| Villa Maria Post Acute | 14917 | 734608.82 | 3868969.72 | <0.1 | ≥10 |
| Valley Christian Academy | 19345 | 734831.44 | 3865622.232 | <0.1 | ≥10 |

Source: Attachment C.

Notes: PMI = point of maximum impact; m = meters; MEIR = maximally exposed individual resident; MEIW = maximally exposed individual worker; UTME = Universal Transverse Mercator East; UTMN = Universal Transverse Mercator North.

Table 3. Summary of Chronic Non-Cancer Health Risk Results

| Receptor Type | Receptor Number | UTME (m) | UTMN (m) | Chronic HI | Health Endpoint(s) | Significance Threshold (HI) |
|---------------|-----------------|-----------|------------|------------|---|-----------------------------|
| Offsite PMI | 23853 | 733334.12 | 3867218.01 | <0.1 | Central nervous system; kidney; alimentary; reproductive; | NA |

Table 3. Summary of Chronic Non-Cancer Health Risk Results

| Receptor Type | Receptor Number | UTME (m) | UTMN (m) | Chronic HI | Health Endpoint(s) | Significance Threshold (HI) |
|---------------------------|-----------------|-----------|------------|------------|--|-----------------------------|
| | | | | | respiratory; eye; endocrine; blood | |
| Onsite PMI | 386 | 733313.93 | 3867261.91 | <0.1 | Central nervous system; kidney; alimentary; reproductive; respiratory; eye; endocrine; blood | NA |
| MEIR | 7840 | 733269.11 | 3867338.79 | <0.1 | Central nervous system; kidney; alimentary; reproductive; respiratory; eye; endocrine; blood | >1 |
| MEIW | 7997 | 733256 | 3867295.13 | <0.1 | Central nervous system; kidney; alimentary; reproductive; respiratory; eye; endocrine; blood | >1 |
| Play and Learn Wee Center | 8610 | 733084.62 | 3867754.37 | <0.1 | Central nervous system; kidney; alimentary; reproductive; respiratory; eye; endocrine; blood | >1 |
| G and S Care Home | 9152 | 732422.96 | 3867573.85 | <0.1 | Central nervous system; kidney; alimentary; reproductive; respiratory; eye; endocrine; blood | >1 |
| Jireh Senior Home | 9468 | 732039.30 | 3867348.55 | <0.1 | Central nervous system; kidney; alimentary; reproductive; respiratory; eye; endocrine; blood | >1 |
| Senior Helpers | 9681 | 732054.72 | 3867899.41 | <0.1 | Central nervous system; kidney; alimentary; reproductive; respiratory; eye; endocrine; blood | >1 |
| Serene Villa Senior Care | 9832 | 731850.85 | 3867627.91 | <0.1 | Central nervous system; kidney; | >1 |

Table 3. Summary of Chronic Non-Cancer Health Risk Results

| Receptor Type | Receptor Number | UTME (m) | UTMN (m) | Chronic HI | Health Endpoint(s) | Significance Threshold (HI) |
|---------------------------|-----------------|-----------|-------------|------------|--|-----------------------------|
| | | | | | alimentary; reproductive; respiratory; eye; endocrine; blood | |
| Sunrise Care | 14233 | 734833.86 | 3867968.62 | <0.1 | Central nervous system; kidney; alimentary; reproductive; respiratory; eye; endocrine; blood | >1 |
| Battles Elementary School | 14719 | 734881.91 | 3868547.42 | <0.1 | Central nervous system; kidney; alimentary; reproductive; respiratory; eye; endocrine; blood | >1 |
| Villa Maria Post Acute | 14917 | 734608.82 | 3868969.72 | <0.1 | Central nervous system; kidney; alimentary; reproductive; respiratory; eye; endocrine; blood | >1 |
| Valley Christian Academy | 19345 | 734831.44 | 3865622.232 | <0.1 | Central nervous system; kidney; alimentary; reproductive; respiratory; eye; endocrine; blood | >1 |

Source: Attachment C.

Notes: PMI = point of maximum impact; HI = hazard index; m = meters; MEIR = maximally exposed individual resident; MEIW = maximally exposed individual worker; UTME = Universal Transverse Mercator East; UTMN = Universal Transverse Mercator North.

Table 4. Summary of 8-Hour Chronic Non-Cancer Health Risk Results

| Receptor Type | Receptor Number | UTME (m) | UTMN (m) | Chronic HI | Health Endpoint(s) | Significance Threshold (HI) |
|---------------------------|-----------------|-----------|-------------|------------|--------------------|-----------------------------|
| Offsite PMI | 23853 | 733334.12 | 3867218.01 | <0.1 | Eye, blood | NA |
| Onsite PMI | 386 | 733313.93 | 3867261.91 | <0.1 | Eye, blood | NA |
| MEIW | 7997 | 733256 | 3867295.13 | <0.1 | Eye, blood | >1 |
| Play and Learn Wee Center | 8610 | 733084.62 | 3867754.37 | <0.1 | Eye, blood | >1 |
| G and S Care Home | 9152 | 732422.96 | 3867573.85 | <0.1 | Eye, blood | >1 |
| Jireh Senior Home | 9468 | 732039.30 | 3867348.55 | <0.1 | Eye, blood | >1 |
| Senior Helpers | 9681 | 732054.72 | 3867899.41 | <0.1 | Eye, blood | >1 |
| Serene Villa Senior Care | 9832 | 731850.85 | 3867627.91 | <0.1 | Eye, blood | >1 |
| Sunrise Care | 14233 | 734833.86 | 3867968.62 | <0.1 | Eye, blood | >1 |
| Battles Elementary School | 14719 | 734881.91 | 3868547.42 | <0.1 | Eye, blood | >1 |
| Villa Maria Post Acute | 14917 | 734608.82 | 3868969.72 | <0.1 | Eye, blood | >1 |
| Valley Christian Academy | 19345 | 734831.44 | 3865622.232 | <0.1 | Eye, blood | >1 |

Source: Attachment C.

Notes: PMI = point of maximum impact; HI = hazard index; m = meters; MEIR = maximally exposed individual resident; MEIW = maximally exposed individual worker; UTME = Universal Transverse Mercator East; UTMN = Universal Transverse Mercator North.

Table 5. Summary of Acute Non-Cancer Health Risk Results

| Receptor Type | Receptor Number | UTME (m) | UTMN (m) | Acute HI | Health Endpoint(s) | Significance Threshold (HI) |
|---------------------------|-----------------|-----------|------------|----------|--|-----------------------------|
| Offsite PMI | 23809 | 733305.7 | 3867330.97 | <0.1 | Immune system, reproductive, respiratory, eye, blood | NA |
| Onsite PMI | 601 | 733305.91 | 3867288.72 | 0.2 | Immune system, reproductive, respiratory, eye, blood | NA |
| MEIR | 7842 | 733319.19 | 3867338.79 | <0.1 | Immune system, reproductive, respiratory, eye, blood | >1 |
| MEIW | 7997 | 733256 | 3867295.13 | <0.1 | Immune system, reproductive, respiratory, eye, blood | >1 |
| Play and Learn Wee Center | 8610 | 733084.62 | 3867754.37 | <0.1 | Immune system, reproductive, respiratory, eye, blood | >1 |
| G and S Care Home | 9152 | 732422.96 | 3867573.85 | <0.1 | Immune system, reproductive, respiratory, eye, blood | >1 |
| Jireh Senior Home | 9468 | 732039.30 | 3867348.55 | <0.1 | Immune system, reproductive, respiratory, eye, blood | >1 |
| Senior Helpers | 9681 | 732054.72 | 3867899.41 | <0.1 | Immune system, reproductive, respiratory, eye, blood | >1 |
| Serene Villa Senior Care | 9832 | 731850.85 | 3867627.91 | <0.1 | Immune system, reproductive, respiratory, eye, blood | >1 |
| Sunrise Care | 14233 | 734833.86 | 3867968.62 | <0.1 | Immune system, reproductive, respiratory, eye, blood | >1 |
| Battles Elementary School | 14719 | 734881.91 | 3868547.42 | <0.1 | Immune system, reproductive, respiratory, eye, blood | >1 |

Table 5. Summary of Acute Non-Cancer Health Risk Results

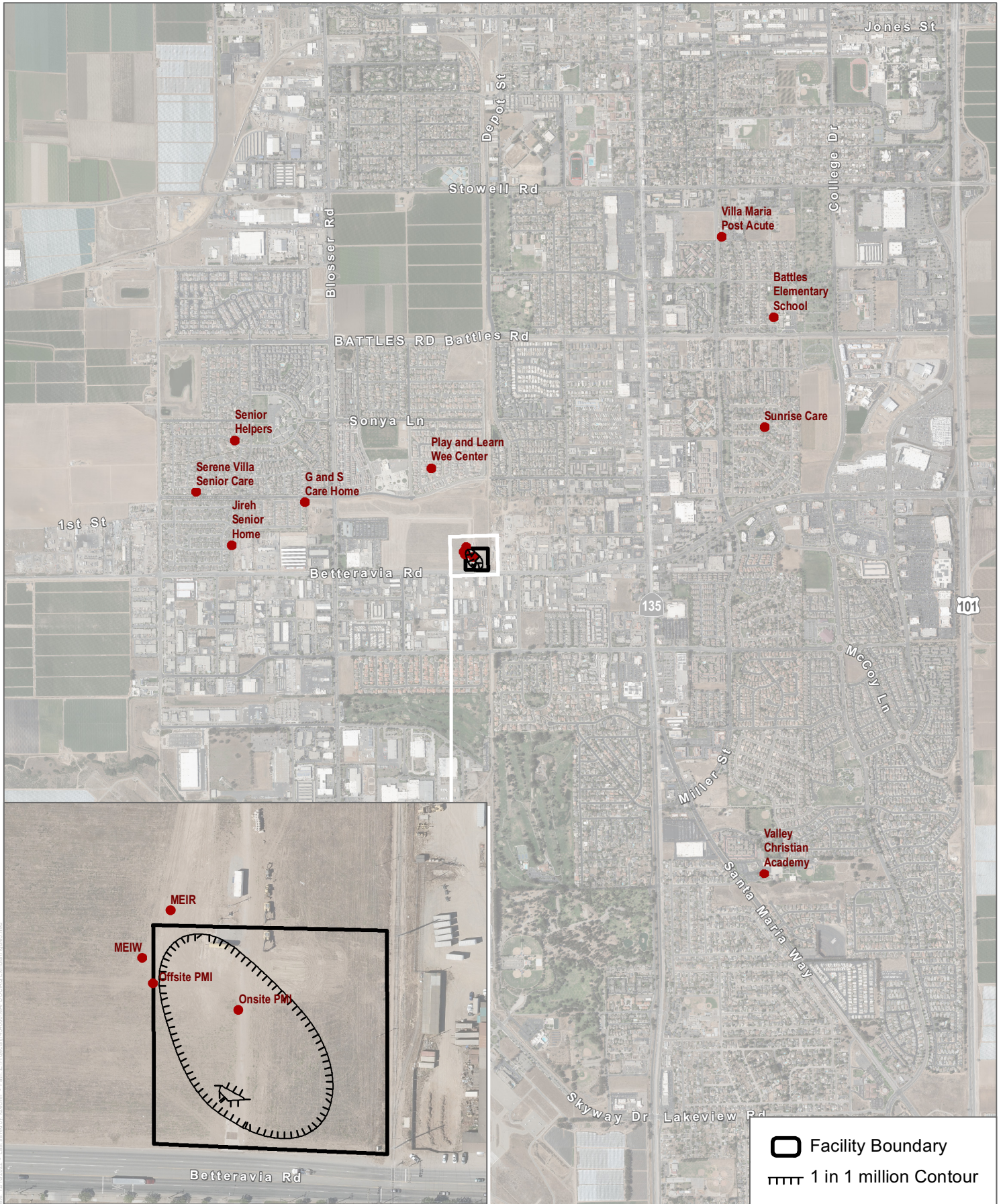
| Receptor Type | Receptor Number | UTME (m) | UTMN (m) | Acute HI | Health Endpoint(s) | Significance Threshold (HI) |
|--------------------------|-----------------|-----------|-------------|----------|--|-----------------------------|
| Villa Maria Post Acute | 14917 | 734608.82 | 3868969.72 | <0.1 | Immune system, reproductive, respiratory, eye, blood | >1 |
| Valley Christian Academy | 19345 | 734831.44 | 3865622.232 | <0.1 | Immune system, reproductive, respiratory, eye, blood | >1 |

Source: Attachment C.

Notes: PMI = point of maximum impact; HI = hazard index; m = meters; MEIR = maximally exposed individual resident; MEIW = maximally exposed individual worker; UTME = Universal Transverse Mercator East; UTMN = Universal Transverse Mercator North.

6 Isopleth Maps and Aerial Photos

In accordance with SBCAPCD Form 15-i, isopleths are only provided for cancer if the risk exceeds 1 or 10 in a million and non-cancer risk exceeds 0.1 and 1.0. As shown in Tables 2 through 5 in Section 5, the non-cancer risk (chronic and 8-hour chronic) did not exceed 0.1. The cancer risk exceeded 1 in 1 million and the acute non-cancer risk exceeded 0.1. As such, an isopleth for cancer risk over 1 in 1 million is shown in Figure 5 and acute non-cancer risk over 0.1 is provided below as Figure 6.



SOURCE: Sanborn 2020



FIGURE 5
Cancer Risk Isopleth Greater than 1 in 1 Million



SOURCE: Sanborn 2020



FIGURE 6
Acute Non-Cancer Risk Isopleth Greater than 0.1

 Facility Boundary
 0.1 Contour

7 Conclusions

As shown in Section 5, the results of the HRA are less than significant for the operation of the proposed project. The AERMOD and HARP 2 outputs are contained in Attachment C. Based on this analysis, the residential and worker receptors in close proximity to the project would not be exposed to TACs at levels above significance thresholds established by SBCAPCD.

The results determined in this analysis reflect reasonable estimates of source emissions and exhaust characteristics, available meteorological data near the project site, and the use of currently approved air quality models. Given the limits of available tools for such an analysis, the actual impacts may vary from the estimates in this assessment. However, the combined use of the AERMOD dispersion model and the health impact calculations required by OEHHA and SBCAPCD tend to over-predict impacts such that they produce conservative (i.e., health-protective) results. Accordingly, the health impacts are not expected to be higher than those estimated in this assessment.

As such, the proposed project would not result in significant impacts to proximate residential and worker receptors.

Sincerely,



Adam Poll, QEP, LEED AP BD+C
Senior Air Quality Specialist

8 References Cited

CARB (California Air Resources Board). 2015. Hotspots Analysis and Reporting Program Version 2 (HARP 2) Risk Assessment Standalone Tool (RAST), Version 19121. Accessed April 2020. <http://www.arb.ca.gov/toxics/harp/rast.htm>.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments*. February 2015. Accessed October 2017. http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

SBCAPCD (Santa Barbara County Air Pollution Control District). 2020. "Modeling Guidelines for Health Risk Assessments, Form 15i." June. Accessed July 2022. <https://www.ourair.org/wp-content/uploads/apcd-15i.pdf>.

SBCAPCD. 2022. Gasoline Station Health Risk Assessment Application Form-25T. March 29. Accessed July 2022. <https://www.ourair.org/wp-content/uploads/apcd-25T.pdf>.

Attachment A

Modeling Protocol Tables for HRA Report

Attachment B

Emission Calculations

Attachment C

AERMOD and HARP Modeling Files