Exhibit J

E202210000123

CITY OF FRESNO

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

Filed with the
FRESNO COUNTY CLERK
2220 Tulare Street, Fresno, CA 93721

FILED
MAY 20 2022 TIME 9:59am
FRESNO COUNTY CLERK
By Jessica Munoz DEPUTY

ENVIRONMENTAL ASSESSMENT NO. P22-00958/T-6410

Vesting Tentative Tract Map No. 6410

Planned Development Permit Application No. P22-00958

APPLICANT:

Jerome Keene
Century Communities, Inc.
7330 N Palm Ave, Suite 106
Fresno, CA 93711

PROJECT LOCATION:

Located on the north side of East Church Avenue, east of South Peach Avenue in the City and County of Fresno, California

APN: 481-020-60S

Site Latitude: 36°42'57.02" N & Site Longitude: 119°42'59.08" W

Mount Diablo Base & Meridian, Township 14S, Range 21E, Section 17

The full Initial Study and the Fresno General Plan Program Environmental Impact Report (PEIR) are on file in the Planning and Development Department, Fresno City Hall, 3rd Floor, Room 3043, 2600 Fresno Street, Fresno, CA 93721.

E202210000123

PROJECT DESCRIPTION:

Vesting Tentative Tract Map No. 6410 and Planned Development Permit Application No. P22-00958 were filed by Century Communities, Inc. and pertains to approximately 11.23 acres of property. Vesting Tentative Tract Map No. 6410 proposes to subdivide the subject property into a 73-lot single-family residential development. Planned Development Permit Application No. P22-00958 proposes to allow for a density transfer, pursuant to Fresno Municipal Code Section 15-310.C. In addition to the density transfer, Planned Development Permit Application No. P22-00958 also proposes to allow for the entirety of the proposed subdivision to be developed consistent with the RS-5 zone district development standards.

The project will also require dedications for public street rights-of-way and utility easements as well as the construction of public facilities and infrastructure in accordance with the standards, specifications, and policies of the City of Fresno in order to facilitate the proposed development of the subject property.

The subject property is located within the boundaries of the Fresno General Plan and Roosevelt Community Plan.

The City of Fresno has prepared an Initial Study of the above-described project and proposes to adopt a Mitigated Negative Declaration. The environmental analysis contained in the Initial Study is tiered from the PEIR State Clearinghouse No. 2019050005 prepared for the Fresno General Plan pursuant to CEQA Guidelines § 15152 and incorporates the PEIR by reference pursuant to CEQA Guidelines § 15150.

Pursuant to the California Public Resources Code (PRC) §§ 21093 and 21094 and California Environmental Quality Act (CEQA) Guidelines §§ 15070 to 15075, 15150, and 15152, this project has been evaluated with respect to each item on the attached Appendix G/Initial Study Checklist to determine whether this project may cause any additional significant effect on the environment, which was not previously examined in the PEIR. After conducting a review of the adequacy of the PEIR pursuant to PRC § 21157.6(b)(1) and CEQA Guidelines §§ 15151 and 15179(b), the Planning and Development Department, as lead agency, finds that no substantial changes have occurred with respect to the circumstances under which the PEIR was certified and that no new information, which was not known and could not have been known at the time that the PEIR was certified as complete, has become available.

E202210000123

The completed Appendix G/Initial Study Checklist, its associated narrative, technical studies and mitigation measures reflect applicable comments of responsible and trustee agencies and research and analyses conducted to examine the interrelationship between the proposed project and the physical environment. The information contained in the project application and its related environmental assessment application, responses to requests for comment, checklist, Initial Study narrative, and any attachments thereto, combine to form a record indicating that an Initial Study has been completed in compliance with the State CEQA Guidelines and the CEQA.

All new development activity and many non-physical projects contribute directly or indirectly toward cumulative impacts on the physical environment. It has been determined that the incremental effect contributed by this project toward cumulative impacts is not considered substantial or significant in itself and/or that cumulative impacts accruing from this project may be mitigated to less than significant with application of feasible mitigation measures.

With mitigation imposed under the PEIR and project specific mitigation, there is no substantial evidence in the record that this project may have additional significant, direct, indirect or cumulative effects on the environment that are significant and that were not identified and analyzed in the PEIR. The Planning and Development Department, as lead agency, finds that no substantial changes have occurred with respect to the circumstances under which the PEIR was certified and that no new information, which was not known and could not have been known at the time that the PEIR was certified as complete has become available.

Based upon the evaluation guided by the Appendix G/Initial Study Checklist,it was determined that there are project specific foreseeable impacts which require project level mitigation measures.
The Initial Study has concluded that the proposed project will not result in any adverse effects, which fall within the "Mandatory Findings of Significance" contained in § 15065 of the State CEQA Guidelines. The finding is, therefore, made that the proposed project will not have a significant adverse effect on the environment.

Public notice has been provided regarding staff's finding in the manner prescribed by § 15072 of the CEQA Guidelines and by § 21092 of the PRC Code (CEQA provisions).

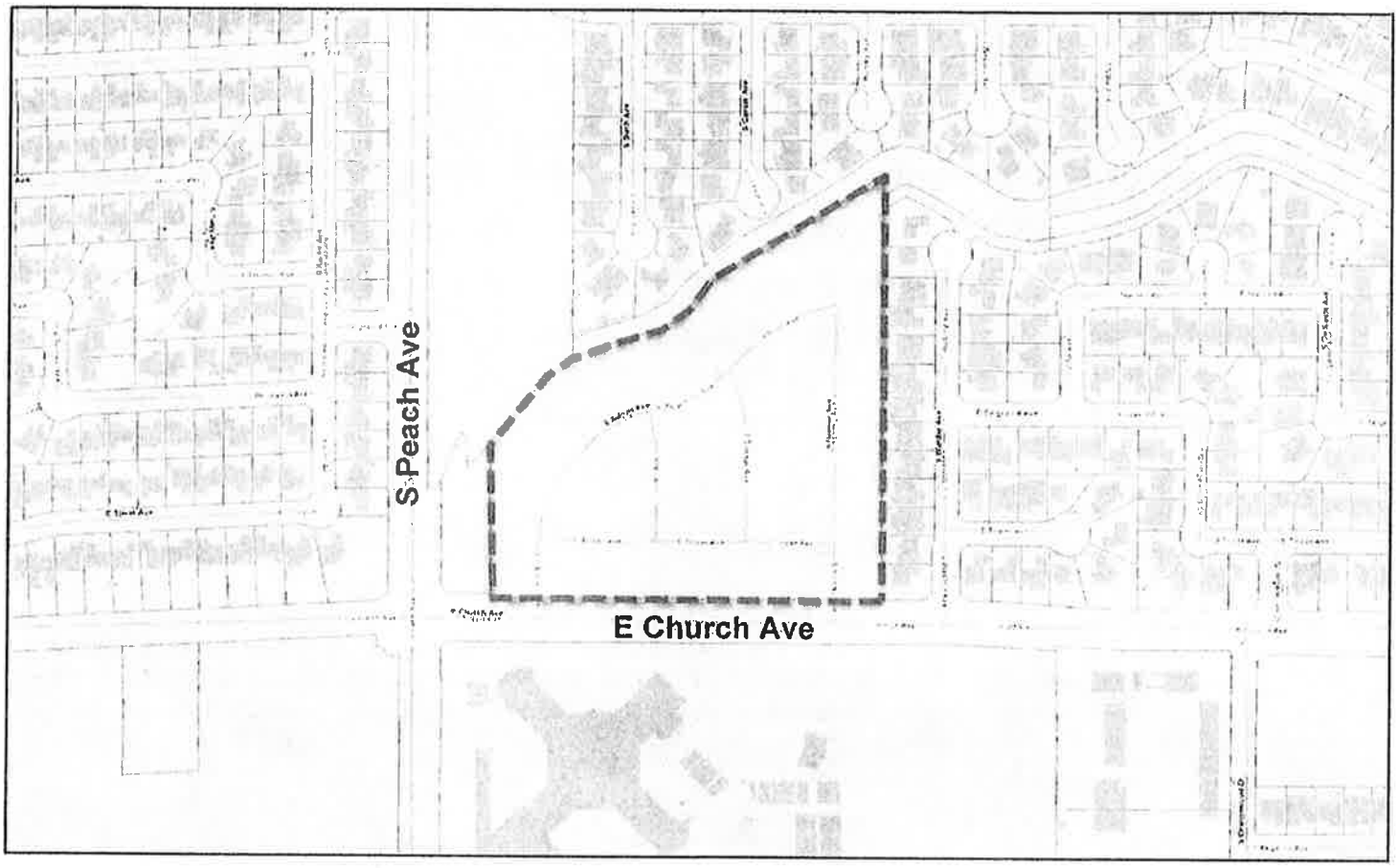
Additional information on the proposed project, including the PEIR, proposed environmental finding of a Mitigated Negative Declaration and the Initial Study may be obtained from the Planning and Development Department, Fresno City Hall, 2600 Fresno Street, 3rd Floor, Room 3043, Fresno, California 93721 3604. Please contact Rob Holt at (559) 621-8056 or via email at Robert.Holt@fresno.gov for more information.

ANY INTERESTED PERSON may comment on the proposed environmental finding. Comments must be in writing and must state (1) the commentor's name and address; (2) the commentor's interest in, or relationship to, the project; (3) the environmental determination being commented upon; and (4) the specific reason(s) why the proposed environmental determination should or should not be made. Any comments may be submitted at any time between the publication date of this notice and close of business on June 10, 2022. Please direct comments to Rob Holt, Planner III, City of Fresno Planning and Development Department, City Hall, 2600 Fresno Street, Room 3043, Fresno, California, 93721-3604; or by email to Robert.Holt@fresno.gov.

E20221000123

INITIAL STUDY PREPARED BY: Rob Holt, Planner III	SUBMITTED BY: Israel Trejo, Supervising Planner CITY OF FRESNO PLANING AND DEVELOPMENT DEPARTMENT
DATE: May 20, 2022	
Attachments: Exhibit A – Vicinity Map	

Exhibit A – Vicinity Map E202210000123



LEGEND

Subject Property

APPENDIX G/INITIAL STUDY FOR A MITIGATED NEGATIVE DECLARATION

Environmental Checklist Form for:
Environmental Assessment No. P22-00958/T-6410

1.	**Project title:** Planned Development Permit Application No. P22-00958 and Vesting Tentative Tract Map No. 6410 (P22-00771)
2.	**Lead Agency name and address:** City of Fresno Planning and Development Department 2600 Fresno Street Fresno, CA 93721
3.	**Contact person and phone number:** Robert Holt, Planner III City of Fresno Planning and Development Department (559) 621-8056
4.	**Project location:** Located on the north side of East Church Avenue, east of South Peach Avenue in the City and County of Fresno, California Site Latitude: 36.71547719227085 Site Longitude: -119.7169014611138 Mount Diablo Base & Meridian, Township 14S, Range 21E, Section 17 Assessor's Parcel Number(s): 481-020-60s
5.	**Project sponsor's name and address:** Jerome Keene Century Communities 7330 N Palm Avenue, Suite 106 Fresno, CA 93711
6.	**General & Community plan land use designation:** Medium Low Density Residential and Medium Density Residential (City of Fresno General Plan)
7.	**Zoning:** RS-4/RS-5/UGM (Residential Single-Family, Medium Low Density/Residential Single-Family, Medium Density/Urban Growth Management)

8.	**Description of project:** Planned Development Permit Application No. P22-00958 and Tentative Tract Map No. 6410 (P22-00771) was filed by Century Communities. The applicant proposes to subdivide approximately 11.97 acres of property into a 73-lot subdivision to include the associated road and utility improvements consistent with the General Plan designation of Medium Low Density Residential and Medium Density Residential. The Project also includes trail dedication to the City along the north property boundary for future trail connection (Outlots A & B) and approximately 6,000 square feet of Open Space in the northwest corner of the subdivision. The Primary access will be access points along Church Avenue and through the trail abutting Peach Avenue The applicant also proposes a planned development to allow for a Density Transfer, per Section 15-310.C, which states, "The number of units per acre prescribed in the applicable plans for an existing or proposed zone district shall not be transferred to another existing or proposed zone district, unless a transfer is approved through the processing of a Planned Development Permit which includes all zone districts involved in the proposed transfer." In order for the Project to be constructed, approval of the following actions is required: • Tentative Tract Map 6410 Construction will take 12 months, with total buildout of the homes in November 2023. It is anticipated that the following pieces of equipment will be used during construction activities: • Roller • Large bulldozer • Loaded trucks • Excavator • Generator • Service truck • Air compressor

9. **Surrounding land uses and setting:**

	Planned Land Use	Existing Zoning	Existing Land Use
North	Medium Low Density Residential & Medium Density Residential	RS-4/RS-5/CC/UGM (Residential Single-Family, Medium Low Density/Residential Single-Family, Medium Density/Commercial – Community/Urban Growth Management)	Conventional Single-Family Residential Neighborhood and Vacant Commercial Land
East	Medium Low Density Residential	RS-4/UGM (Residential Single-Family, Medium Low Density/Urban Growth Management)	Conventional Single-Family Residential Neighborhood
South	Public & Institutional - Elementary School	PI/UGM (Public & Institutional/Urban Growth Management)	Elementary School
West	Medium Density Residential	RS-5/UGM (Residential Single-Family, Medium Density/Urban Growth Management)	Conventional Single-Family Residential Neighborhood

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

Planning and Development Department, Building & Safety Services Division; Department of Public Works; Department of Public Utilities; County of Fresno, Department of Community Health; County of Fresno, Department of Public Works and Planning; City of Fresno Fire Department; Fresno Metropolitan Flood Control District; Fresno Irrigation District; and, San Joaquin Valley Air Pollution Control District.

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) Section 21080.3.1? If so, has consultation begun?**

The State requires lead agencies to consider the potential effects of proposed projects and consult with California Native American tribes during the local planning process for the purpose of protecting Traditional Tribal Cultural Resources through the California Environmental Quality Act (CEQA) Guidelines. Pursuant to PRC Section 21080.3.1, the Lead Agency shall begin consultation with the California Native American tribe that

	is traditionally and culturally affiliated with the geographical area of the proposed project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Historic Register or local historic register or, the Lead Agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a)(1-2)). According to the most recent census data, California is home to 109 currently recognized Indian tribes. Tribes in California currently have nearly 100 separate reservations or Rancherias. Fresno County has a number of Rancherias such as Table Mountain Rancheria, Millerton Rancheria, Big Sandy Rancheria, Cold Springs Rancheria, and Squaw Valley Rancheria. These Rancherias are not located within the city limits. Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See PRC Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality. Currently, the Table Mountain Rancheria Tribe and the Dumna Wo Wah Tribe have requested to be notified pursuant to Assembly Bill 52 (AB 52). A certified letter was mailed to the aforementioned tribes on April 15, 2022. The 30-day comment period ended on May 16, 2022. Both tribes did not request consultation.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources
☐	Air Quality	☐	Biological Resources
☐	Cultural Resources	☐	Energy
☐	Geology/Soils	☐	Greenhouse Gas Emissions
☐	Hazards and Hazardous Materials	☐	Hydrology/Water Quality
☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population/Housing
☐	Public Services	☐	Recreation

☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire
☐	Mandatory Findings of Significance		

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

___	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
_X_	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
___	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.
___	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An EIR is required, but it must analyze only the effects that remain to be addressed.
___	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Robert Holt

_____ 05/20/2022 _____

Planner Name, Title Date

EVALUATION OF ADDITIONAL ENVIRONMENTAL IMPACTS NOT ASSESSED IN PROGRAM ENVIRONMENTAL IMPACT REPORT SCH NO. 2019050005 PREPARED FOR THE APPROVED FRESNO GENERAL PLAN (GP PEIR):

Note to preparer: For projects that are consistent with the Fresno General Plan and Zoning (or where the zoning will be changed only for the purposes of achieving consistency with the General Plan), tiering pursuant to CEQA Guidelines Section 15152

may be used. If tiering will be used, please comply with the requirements of Section 15152(g).

For projects that are not completely consistent with the Fresno General Plan and Zoning (i.e., projects that include a General Plan Amendment and/or Rezone), the provisions of CEQA Guidelines Section 15152 do not apply. However, the GP PEIR and its analysis may still be incorporated by reference to provide a basis for the project's initial study, to address regional influences, secondary effects, cumulative impacts, and broad alternatives pursuant to CEQA Guidelines 15168(d).

1. For purposes of this Initial Study, the following answers have the corresponding meanings:

    a. "No Impact" means the specific impact category does not apply to the project or that the record sufficiently demonstrates that project-specific factors or general standards applicable to the project will result in no impact for the threshold under consideration.

    b. "Less Than Significant Impact" means there is an impact related to the threshold under consideration, but that impact is less than significant.

    c. "Less Than Significant with Mitigation Incorporated" means there is a potentially significant impact related to the threshold under consideration; however, with the mitigation incorporated into the project, the impact is less than significant. For purposes of this Initial Study, "mitigation incorporated into the project" means mitigation originally described in the GP PEIR and applied to an individual project, as well as mitigation developed specifically for an individual project.

    d. "Potentially Significant Impact" means there is substantial evidence that an effect may be significant related to the threshold under consideration.

2. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

3. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

4. Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

5. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (6) below, may be cross-referenced).

6. Earlier analyses may be used where, pursuant to the tiering, Program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a. Earlier Analysis Used. Identify and state where they are available for review.

   b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in the PEIR or another earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

7. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

8. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

9. The explanation of each issue should identify:

   a. The significance criteria or threshold, if any, used to evaluate each question; and

   b. The mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in PRC Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock out-croppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized areas, substantially degrade the existing visual character or quality public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		X		

DISCUSSION

a) Have a substantial adverse effect on a scenic vista?

The City's General Plan has not identified or designated scenic vistas within its General Plan. The River bluffs provide distant views of the San Joaquin River as well as areas north of the River. However, the majority of these views are from private properties. There are limited views of the San Joaquin River from Weber Avenue, Milburn Avenue, McCampbell Drive, Valentine Avenue, Palm Avenue, State Route (SR) 41, Friant Road, and Woodward Park.

The Project site is located within an area designated for residential zoning and land use designation within the City of Fresno and is outside of the San Joaquin River bluffs and not near the Downtown Fresno area. Properties further to the north, east, south, and west of the site have been developed with single-family residential neighborhoods. The subject Project site is currently undeveloped. The existing topography of the Project site is nearly flat. As there are no identified scenic vistas within the Project area, the Project will have *no impact.*

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Scenic resources include landscapes and features that are visually or aesthetically pleasing and contribute positively to a distinct community or region. The scenic resources within the City include landscaped open spaces, such as parks and golf courses. Additional scenic resources within the City include areas along the San Joaquin River (River) due to the topographic variation in the relatively flat San Joaquin Valley. The River bluffs provide a unique geological feature in the San Joaquin Valley. Historic structures in Downtown Fresno buildings also represent scenic resources because they provide a unique skyline. The Project is devoid of buildings, trees, or rock outcroppings.

The Project site is not within the vicinity of a State designated scenic highway. Therefore, the Project would have no impact associated with substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. The Project will have *no impact*.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Project will not damage nor will it degrade the visual character or quality of the Project site and its surroundings, given that the Project site is primarily vacant, and in an area generally planned for and developed with residential uses. As such, impacts to the visual character or quality of the site would be less than significant due to the development improving the existing character of the site and the surrounding properties being of similar use. The Project will have *less than significant impact.*

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The Project will introduce new sources of light to the area with the construction of new residential units that may use outdoor lighting, which may be a significant impact. The Project site is within an area where development has already occurred with residential

uses, which already affects day and nighttime views in the Project site to a certain degree, and the Project would include lighting of a similar nature

The Project would be subject to the applicable mitigation measures pertaining to light and glare included as GP PEIR AES-4.1 and AES-4.2. AES- 4.1 requires lighting to include shields to direct light to the roadway and AES-4.2 requires lighting systems of low intensity and shields to minimize light trespass onto neighboring properties. Furthermore, through the entitlement process, staff will ensure that lights are located in areas that will minimize light sources to the neighboring properties.

In conclusion, with mitigation measures incorporated, the Project will not result in any additional impacts related to aesthetics beyond GP PEIR MM AE-4.1 and AES-4.2. The Project impacts are considered *less than significant with mitigation incorporated*.

Mitigation Measures

The proposed Project shall implement and incorporate the aesthetic related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated May 20, 2022.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

DISCUSSION

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Based on the State of California Department of Conservation California Important Farmland Finder, the Project site and the surrounding area is designated "Farmland of Local Importance." However, the Project area is within an urban developed area and is not currently used for agricultural purposes. Under the current General Plan, the Project site and surrounding areas are designated for residential uses and school facilities. Additionally, the Project site is zoned for Residential use. As such, the City has already accounted for the conversion of this area from agricultural use to residential. Therefore, the proposed Project would have *less than significant impact.*

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

The Project site is not subject to a Williamson Act agricultural land conservation contract. The proposed Project on the subject site will not affect existing agriculturally zoned or Williamson Act contract parcels. Therefore, the proposed Project will have *no impact* on agricultural uses or Williamson Act contracts.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

The Project site is not considered forest land or timberland. Therefore, the proposed Project will not conflict with any forest land or Timberland Production or result in any loss of forest land. Therefore, the Project will have *no impact*.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

The Project site is not considered forest land and is located within the urban bounds of the City of Fresno and is surrounded by development. Therefore, the proposed Project will not result in the loss of any forest land or result in the conversion of forest land to non-forest uses. The Project will have *no impact.*

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

The Project site is not within proximity of agricultural uses or farmland. The implementation of the Project would not result in other changes in the existing environment that would impact agricultural land outside of the Project site or Planning Area. Therefore, the Project would result in *no impact* on farmland or forest land involving other changes in the existing environment.

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan (*e.g.*, by having potential emissions of regulated criterion pollutants which exceed the San Joaquin Valley Air Pollution Control Districts (SJVAPCD) adopted thresholds for these pollutants)?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		X		
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

The analysis below is based on a Small Project Analysis Level Assessment (SPAL) prepared for the Project (Trinity Consultants, 2022). The SPAL is attached as Appendix A.

DISCUSSION

a) Conflict with or obstruct implementation of the applicable air quality plan?

The Project site is located within the San Joaquin Valley Air Basin (SJVAB), which is regulated by the San Joaquin Valley Air Pollution Control District (SJVAPCD). This region has had chronic non-attainment of federal and State clean air standards for ozone/oxidants and particulate matter due to a combination of topography and climate. The San Joaquin Valley (Valley) is surrounded by mountain ranges, with prevailing winds carrying pollutants and pollutant precursors from urbanized areas to the north (and, in turn, contributing pollutants and precursors to downwind air basins). The Mediterranean climate of this region, with a high number of sunny days and little or no measurable precipitation for several months of the year, fosters photochemical reactions in the atmosphere, creating ozone and particulate matter. Regional factors affect the accumulation and dispersion of air pollutants within the SJVAB.

The SJVAPCD considered basin-wide cumulative impacts to air quality when developing its significance thresholds. The SJVAPCD's air quality significance thresholds represent the maximum emissions from a Project that are not expected to conflict with the SJVAPCD's air quality plans and is not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standards. These are developed based on the ambient concentrations of the pollutant for each source. Because the Project would not exceed the air quality significance thresholds on the project level and would not otherwise conflict with the SJVAPCD's air quality plans, the cumulative emissions would not be a significant contribution to a cumulative impact.

Consistency with Air Quality Plans (AQPs)

A measure for determining if the Project is consistent with the air quality plans is if the Project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. Regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Individual projects are generally not large enough to contribute measurably to an existing violation of air quality standards.

To meet Federal Clean Air Act (CAA) requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

- 2016 Ozone Plan
- 2007 PM10 Maintenance Plan and Request for Redesignation
- 2016 PM2.5 Plan

As discussed below, emissions of ROG, NOX, PM10, and PM2.5 associated with the construction and operation of the Project would not exceed the District's significance thresholds. As shown in impact (b) below, the Project would not result in CO hotspots

that would violate CO standards. Therefore, the Project would not contribute to air quality violations.

Compliance with Applicable Control Measures

The AQP contains a number of control measures, which are enforceable requirements through the adoption of rules and regulations. A description of rules and regulations that apply to this Project is provided below.

SJVAPCD Rule 9510 - Indirect Source Review (ISR) is a control measure in the 2006 PM10 Plan that requires NOX and PM10 emission reductions from development projects in the San Joaquin Valley. The NOX emission reductions help reduce the secondary formation of PM10 in the atmosphere (primarily ammonium nitrate and ammonium sulfate) and also reduce the formation of ozone. Reductions in directly emitted PM10 reduce particles such as dust, soot, and aerosols. Rule 9510 is also a control measure in the 2016 Plan for the 2008 8-Hour Ozone Standard. Developers of Projects subject to Rule 9510 must reduce emissions occurring during construction and operational phases through on-site measures or pay off-site mitigation fees. The Project is required to comply with Rule 9510.

Regulation VIII - Fugitive PM10 Prohibitions is a control measure that is one main strategy from the 2006 PM10 for reducing the PM10 emissions that are part of fugitive dust. Projects over 10 acres are required to file a Dust Control Plan (DCP) containing dust control practices sufficient to comply with Regulation VIII. The Project is required to prepare a DCP to comply with Regulation VIII.

Other control measures that apply to the Project are Rule 4641 - Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operation, which requires reductions in VOC emissions during paving, and Rule 4601 - Architectural Coatings, which limits the VOC content of all types of paints and coatings sold in the San Joaquin Valley. These measures apply at the point of sale of the asphalt and the coatings, so project compliance is ensured.

The Project would comply with all applicable SJVAPCD rules and regulations and applicable control measures of the AQP. The Project complies with this criterion and would not conflict with or obstruct the implementation of the applicable air quality attainment plan. Based on the information above, the impacts are *less than significant*.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Regional Emissions

Air pollutant emissions have both regional and localized effects. This analysis assesses the regional effects of the Project's criteria pollutant emissions compared to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the Project. Localized emissions from Project construction and operation are assessed under Impact c) below using concentration-based thresholds that determine if the Project would result in a localized exceedance of any ambient air quality standards or would make a cumulatively considerable contribution to an existing exceedance.

The SJVAPCD GAMAQI adopted in 2015 contains thresholds for CO, NOX, ROG, SOX, PM10, and PM2.5. Reduction of these pollutants during any future development construction activities as a result of the approved Project will be required.

Ozone is a secondary pollutant that can be formed miles from the source of emissions through reactions of ROG and NOX emissions in the presence of sunlight. Therefore, ROG and NOX are termed ozone precursors. The Air Basin often exceeds the state and national ozone standards. Therefore, if the Project emits a substantial quantity of ozone precursors, the Project may contribute to an exceedance of the ozone standard. The Air Basin also exceeds air quality standards for PM10 and PM2.5; therefore, substantial Project emissions may contribute to an exceedance for these pollutants. The District's annual emission significance thresholds used for the Project define the substantial contribution for both operational and construction emissions as follows:

- 100 tons per year CO
- 10 tons per year NOX
- 10 tons per year ROG
- 27 tons per year SOX
- 15 tons per year PM10
- 15 tons per year PM2.5

The SJVAPCD Air Impact Assessment (AIA) applications for residential development projects include 50 or more dwelling units. Therefore, the proposed 73-unit single-family residential development is subject to District Rule 9510 (Indirect Source Review), and an AIA application is required. Upon further development of the Project, the developer will be required to reduce any project-specific criteria pollutant emissions to have a less than significant impact.

The SJVAPCD Small Project Analysis Level (SPAL) process established review parameters to determine whether a project qualifies as a "small project." A project that is found to be "less than" the established parameters, according to the SPAL review parameters, has "no possibility of exceeding criteria pollutant emissions thresholds (SJVAPCD, 2015)."

As shown in Table 3-1, the proposed Project would not exceed the established SPAL thresholds for single-family units. Trips were estimated using a rate of 9.44 for single-family residences using trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition) and the ITE Trip Generation Handbook (3rd Edition). Based on the above information, this Project qualifies for a limited air analysis applying the SPAL guidance to determine air quality impacts, and impacts would be *less than significant.*

Table 3-1
Small Project Analysis Level – Units in Residential

Land Use Category –Residential	Project Size (dwelling unit)	ATD 1-way
Single Family Threshold	155	800
Proposed Project – Single Family	73	699
SPAL Exceeded?	**No**	**NO**

Source: (Trinity Consultants, 2022) ATD—Average Trips Daily

As shown in Table 3-2, the Project's emissions during temporary construction activities would not exceed thresholds. Therefore, construction emissions were found to be less than significant, and no further evaluation is required.

Table 3-2
Project Construction Emissions

Emissions Source	Pollutant					
	ROG	Nox	CO	Sox	PM_{10}	$PM_{2.5}$
	(tons/year)					
2022 Construction Emissions	0.20	1.89	1.74	0.00	0.21	0.13
2023 Construction Emissions	0.21	1.88	2.19	0.12	0.12	0.09
SJVAPCD Construction Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Operation of the Project would also create additional criteria pollutants, particularly as a result of increased mobile emissions in the project area. However, these impacts also would not exceed thresholds as shown in Table 3-3.

Table 3-3
Total Project Operational Emissions

Emissions Source	Pollutant					
	ROG	Nox	CO	Sox	PM10	PM2.5
	(tons/year)					
Unmitigated						
Operational Emissions	1.40	0.62	7.62	0.02	1.52	0.95
SJVAPCD Operational Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded Before Mitigation?	No	No	No	No	No	No
Mitigated						
Operational Emissions	0.90	0.46	2.93	0.01	0.70	0.20
SJVAPCD Operational Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	No	No	No	No	No	No

The long-term operational emissions associated with the proposed Project would be less than SJVAPCD significance threshold levels and would, therefore, not significantly impact criteria air pollutants.

The PEIR for the Fresno General Plan, MM AIR-2.1, requires applicants for new development projects to incorporate measures, where applicable, into construction plans to reduce air pollutant emissions during construction activities, such as restricting idling of construction equipment, limiting grading operations to reduce disturbed areas, encouraging the removal of vegetation only when necessary. AIR-2.2 requires new development projects to incorporate mitigation measures to reduce air pollutant emissions during operational activities, to the extent feasible. AIR-2.2 maximizes the use of solar energy on rooftops, the planting of trees in landscaping, the use of light-colored roofing, the use of electric lawn mowers, high efficiency appliances and the use of low volatile organic compound (VOC) cleaning products. By implementing the mitigation measures as identified in the PEIR, the Project impacts would be less than significant with mitigation incorporated. Therefore, by implementing the mitigation measures identified in the GP PEIR as applicable to the Project, Project impacts are considered to be *less than significant with mitigation incorporated*.

c) Expose sensitive receptors to substantial pollutant concentrations?

See Impact III b, above.

Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illnesses. SJVAPCD considers a sensitive receptor in 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 closest off-site sensitive receptors are existing residences located adjacent to the Project site to the east, south, and west. The closest schools are Edith B. Storey Elementary, approximately 0.01 miles to the south, Phoenix Secondary School, approximately 0.10 miles southeast, Juan Felipe Herrera Elementary School, approximately 0.28 miles southwest, Terronez Middle School, approximately 0.54 miles west, Oak Park Senior Villas, approximately 0.68 miles southwest, Hillside Swim School, approximately 0.75 miles northeast, James Royal Kids WeeCare, approximately 0.81 miles northeast, Ayer Elementary School, approximately 0.85 miles north, Twilight Haven Senior Living, approximately 0.98 miles northwest, Sunnyside High School, approximately 0.98 miles north, Aynesworth Elementary School, approximately 1.04 miles southwest, David L. Greenberg Elementary School, approximately 1.13 miles northwest, Balderas Elementary School, approximately 1.31 miles west, Convalescent Hospital, approximately 1.39 miles south, Cambridge High School, approximability 1.47 miles northwest, Lane Elementary School, approximately 1.50 miles northwest, Olmos Elementary School, approximately 1.71 miles northwest, Easterby Elementary School, approximately 1.79 miles north, Kings Canyon Middle School, approximately 1.82 miles northwest and Sanger High School – West Campus, approximately 1.89 miles southeast.

Off-site Sensitive Receptors

Impacts to receptors located outside the Project boundaries would occur primarily during Project construction. Construction emissions commence in the year 2022 and continue until Project buildout. Construction activities are expected to occur over several years as the subdivision is gradually built out; however, most emissions are expected to occur during the initial site preparation and grading activities and, to a lesser extent, during ground-up construction. For criteria pollutants, impacts to receptors located outside of the Project are based on emissions during the highest emissions during any construction year. Therefore, this impact would be *less than significant*.

SJVAPCD identifies some common types of facilities that have been known to produce odors in the SJVAB, such as wastewater treatment facilities, sanitary landfills, transfer stations, composting facilities, petroleum refinery, asphalt batch plants, chemical manufacturing plants, fiberglass manufacturing, paint/coating operations, food processing facilities, feed lot/dairy, and rendering plants (SJVAPCD, 2015). These can be used as a screening tool to qualitatively assess a Project's potential to adversely affect area receptors.

On-site Sensitive Receptors

The Project is not a significant source of Toxic Air Contaminant (TAC) emissions. Construction activities produce short-term emissions that would not contribute substantially to cancer risk.

The acute (short-term) health effects of workers' direct exposure to asphalt fumes include irritation of the eyes, nose, and throat. Other effects include respiratory tract symptoms and pulmonary function changes. The studies were based on occupational exposure to fumes. Residents are not in the immediate vicinity of the fumes; therefore, they would not be subjected to concentrations high enough to evoke a negative response. In addition, the restrictions that are placed on asphalt in the San Joaquin Valley reduce ROG emissions from asphalt and exposure. The impact to nearby sensitive receptors from ROG during construction would be *less than significant*.

Localized Pollutant Screening Analysis

Emissions occurring at or near the Project have the potential to create a localized impact, also referred to as an air pollutant hotspot. Localized emissions are considered significant if, when combined with background emissions, they would result in the exceedance of any health-based air quality standard. The impact from localized pollutants is based on the impact to the nearest sensitive receptor.

The SJVAPCD's GAMAQI includes screening thresholds for identifying Projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after compliance with Rule 9510 and implementation of all enforceable mitigation measures would require preparation of an ambient air quality analysis. The criteria pollutants of concern for localized impact in the SJVAB are PM10, PM2.5, NOX, and CO. There is no localized emission standard for ROG, and most types of ROG are not toxic and have no health-based standard; however, ROG was included for informational purposes only.

Operation: ROG

During operation, ROG would be emitted primarily from motor vehicles. Direct exposure to ROG from Project motor vehicles would not result in health effects because the ROG would be distributed across miles and miles of roadway and in the air. The concentrations would not be great enough to result in direct health effects.

Operation: PM10, PM2.5, CO, NO2

As shown in Table 3-3, localized emissions of PM10, PM2.5, CO, and NO2 would not exceed the SJVAPCD screening thresholds at full Project build-out. Residential development is an insignificant source of these pollutants, except for Projects that allow woodburning devices that emit PM10 and PM2.5 in wood smoke. The Project will include only natural gas-fueled fireplaces and inserts that are insignificant sources

of PM2.5 and PM10. Therefore, the Project would not expose sensitive receptors to substantial criteria air pollutant concentrations during operation.

Carbon Monoxide Hot Spot Analysis

Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The SJVAPCD provides screening criteria to determine when to quantify local CO concentrations based on impacts to the level of service (LOS) of intersections in the Project vicinity.

A sensitivity analysis using the CALINE4 CO Hotspot model was run for the General Plan PEIR to determine the volume of trips that would be required to exceed the most stringent CO standard. At triple the predicted peak for General Plan buildout of 36,000 peak-hour trips, the hourly concentration was 7.5 ppm and an 8-hour concentration of 6.0 ppm. Based on this analysis, it is extremely unlikely that a CO hotspot will occur in the Plan Area. CO emissions are predicted to continue to decline as old vehicles are retired, and cleaner new motor vehicles take their place.

Therefore, no CO hotspot modeling is required for new projects during General Plan buildout unless intersection volumes exceed 36,000 peak-hour trips, which is not anticipated to occur with the Project as discussed under XVII. TRANSPORTATION.

Results of the HRA prepared for the Project indicated that the maximum predicted cancer risk, chronic health hazard, and acute health hazard for residences and on-site/off-site workplaces are below the significance threshold of 10 in one million for cancer risks and 1.0 for non-cancer health risks. Therefore, the Project's health risk impacts are considered *less than significant* (Trinity Consultants, 2022).

According to the analysis provided in Appendix A, the Project would not exceed SJVAPCD localized emission daily screening levels for any criteria pollutant. The Project is not a significant source of TAC emissions during construction or operation. The Project is not in an area with suitable habitat for Valley fever spores and is not in area known to have naturally occurring asbestos. Therefore, impacts are considered to be *less than significant*.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc., warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

The proposed Project is a residential community located near other residential neighborhoods and public facility land uses. The Project will not generate odorous

emissions given the nature or characteristics of the Project. The intensity of an odor source's operations and its proximity to sensitive receptors influence the potential significance of odor emissions.

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. According to the CBIA v. BAAQMD ruling (Alameda Superior Court Case No. RGI0548693), impacts of existing sources of odors on the Project are not subject to CEQA review (California Building Association v Bay Area Air Quality Management District, 2015). Therefore, the analysis to determine if the Project would locate new sensitive receptors near an existing source of odor is provided for information only. The SJVAPCD has determined the common land use types that are known to produce odors in the Air Basin.

Project as a Generator

During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and would not likely be noticeable for extended periods of time beyond the Project's site boundaries. The potential for diesel odor impacts would therefore be *less than significant*.
Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feedlots, coffee roasters, asphalt batch plants, and rendering plants. The Project would not engage in any of these activities. Therefore, the Project would not be considered a generator of objectionable odors during operations.

The Project will not generate odorous emissions given the nature or characteristics of the Project. The intensity of an odor source's operations and its proximity to sensitive receptors influence the potential significance of odor emissions. The SJVAPCD has identified some common types of facilities that have been known to produce odors in the SJVAB. The types of facilities that are known to produce odors are discussed above, along with a reasonable distance from the source within which the degree of odors could possibly be significant. Therefore, impacts are considered to be *less than significant*.

Project as a Receiver

With the CBIA v. BAAQMD ruling, analysis of odor impacts on receivers is not required for CEQA compliance. Therefore, the following analysis is provided for information only. As a residential development, the Project has the potential to place sensitive receptors near existing odor sources. However, there are no major odor-generating sources within screening distance of the site.

The intensity of an odor source's operations and its proximity to sensitive receptors influence the potential significance of odor emissions. The SJVAPCD has identified some common types of facilities that have been known to produce odors in the SJV Air Basin. The types of facilities that are known to produce odors are shown in the discussion above, along with a reasonable distance from the source within which the degree of odors could possibly be significant. Therefore, impacts are considered to be *less than significant*.

Mitigation Measures

The proposed project shall implement and incorporate the related mitigation measures for air quality as identified in the attached Project Specific Mitigation Monitoring Checklist dated May 20, 2022.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

The analysis below is based on a Biological Resources Evaluation (BRE) prepared for the Project (QK, 2022a) included as Appendix B.

DISCUSSION

A biological reconnaissance survey and database review were completed by qualified biologists to characterize the existing conditions on site and determine the potential for special-status plant and wildlife species and other sensitive biological resources to occur onsite and be impacted by the Project. The Project site and a 250-foot buffer (survey area), when feasible, were surveyed.

Protocol surveys for specific special-status wildlife species were not conducted. Locational data were documented using the Esri ArcGIS Collector application installed on an iPad. Photographs were taken to document the existing landscape and any sensitive biological resources. Plant and wildlife species and current site conditions were recorded while conducting the survey.

General Site Conditions

The Project site is on relatively flat, level terrain at an approximate elevation of 305 feet above mean sea level. Most of the Project site has been previously disturbed by historical agriculture and maintenance activities, and historical aerial imagery shows the land has been farmed and used for agricultural purposes since at least 1962.

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

The Project site occurs within an area of urban development and has been repeatedly degraded from historical land uses, mainly for agricultural operations and continual disking, and the adjacent lands have been equally disturbed for agricultural and residential uses. The site supports mostly non-native grasses and other ruderal or ornamental species and is predominately surrounded by residential and commercial development.

The literature and database search indicated that there is potential for several special-status species to be present on or in the vicinity of the Project site. An evaluation of each of the potential special-status species, which included habitat requirements, the likelihood of required habitat to occur within the Project vicinity, and a comparison to the CNDDB records, was conducted. The results of this evaluation concluded that 16 plant species and two wildlife species with special status have a reasonable potential to occur on or near the Project site.

Special-Status Species

Special-Status Plants Species

No special-status plant species were observed within the survey area. Although the field survey did not coincide with the optimum blooming survey period for all sensitive plant species, there is no habitat present on the Project site or within the survey area that would support special-status plant species. The Project site is degraded from historical land uses, mainly for agricultural operations and continual disking, and the adjacent lands have been equally disturbed for agricultural and residential uses.

Special-Status Wildlife Species

No special-status wildlife species or their sign were observed within the survey area. The Project site is highly disturbed and contains no habitat that would support most of the special-status wildlife species.

Some special-status wildlife species could be present at the Project from time to time, but the available habitat only marginally fulfills the requirements of the San Joaquin kit fox, Swainson's hawk, American badger, and western burrowing owl. The potential for these species to occur on the Project site, even as transients, is unlikely, especially because the Project is surrounded by urban development. The kit fox and badger are both unlikely to occur on or near the Project, so Project activities are unlikely to affect these two species. There are no suitable nesting trees for Swainson's hawk in the vicinity of the Project, and although the species may forage from time to time on the Project, loss of this habitat would be minimal, and Project activities are unlikely to affect this species. Ground squirrel burrows scattered on the Project site and in the Central Canal could provide suitable burrowing habitat for burrowing owls. No observations or sign was observed during the site survey of burrowing owls. If

burrowing owls become established, there is a potential to impacts to individual owls. No special-status wildlife species or diagnostic signs of special-status wildlife species were present on the Project site, and the disturbed condition and urban location of the site would tend to preclude special-status wildlife species with the possible exception of burrowing owls.

The San Joaquin kit fox is unlikely to occur on the Project site. The nearest CNDDB occurrence for San Joaquin kit fox is mapped in Sanger, approximately 8.2 miles east of the Project site, where an injured fox was observed in 1992 (EONDX 70606). The Project site consists of fallow agricultural land that is now vegetated with non-native grasses and forbs. No San Joaquin kit fox or diagnostic signs of the species (e.g., tracks, dens, scat, prey remains) were found during the field survey. Although adequate prey species are present within the BSA, surrounding land use and habitat conditions make it unlikely that the San Joaquin kit fox would be present other than as a transient forager.

The American badger has similar habitat requirements to the San Joaquin kit fox and also is unlikely to occur within the BSA other than a transient. The nearest American badger CNDDB occurrence is approximately 5.1 miles north of the Project from 1987 (EONDX 56616). Project activities would be very unlikely to affect these species.

The Swainson's hawk is unlikely to occur on the Project. The nearest Swainson's hawk CNDDB occurrence is from 1956 and is only approximately mapped as "near Fresno" (EONDX 91594). The next nearest Swainson's hawk CNDDB occurrence is from 2016 and approximately 3.4 miles southwest of the Project site in an active nest located in a pasture (EONDX 106840). Although there is limited foraging habit on the Project site, there are no suitable nesting trees or structures in the immediate vicinity, and the disturbances from human activity in the area further limit the likelihood for nesting Swainson's hawks. California ground squirrels were observed on-site, so there is some potential for the Swainson's hawk to be present from time to time as a transient forager.

There is potential for burrowing owl to occur on or near the Project site. The nearest CNDDB occurrence is approximately 4.7 miles north of the Project site at the northwest end of the Fresno Yosemite International Airport. Three breeding pairs were observed between 1981 and 1990 (EONDX 103145). No burrowing owls or their sign (whitewash, feathers, pellets) were observed during the survey, and a limited prey base was observed for the species (small mammal burrows, beetles). Because burrowing owls use existing burrows excavated by small mammals, including California ground squirrels, there is a potential for burrowing owls to become established on or near the Project site. There is also potential for burrowing owls to forage or become established in the agricultural property's northwest and southwest and along the Central Canal. The species is not likely to be present on the residential properties or the elementary school on the lands surrounding the Project site.

It was concluded that two special-status species San Joaquin kit fox and American badger, could potentially be present at the Project site, but their potential for occurrence, even as transients, is very unlikely. Project activities would have no effect on these species. No potential nests of the Swainson's hawk were present on the Project site or within the survey area. No special-status wildlife species or diagnostic signs of special-status wildlife species were observed on the Project site, and the degraded condition of the site would tend to preclude those species from occurring.

Therefore, the Project is anticipated to have no impact to special-status wildlife species. However, the Project must comply with the biological Mitigation Measures for the Fresno General Plan BIO-1.1, which includes avoidance and minimization measures for special-status species, BIO 1.2 for the avoidance of direct or incidental take of any State or federally listed species, BIO 1.4,regarding construction during nesting season and related precautions, and BIO 2.1 which requires a pre-construction biological survey prior to construction to determine if the Project site supports any special-status species. These measures will reduce Project impacts to biological resources to a less than significant level. Therefore, impacts are considered to be *less than significant with mitigation* incorporated.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Natural communities of special concern are those that are of limited distribution, distinguished by significant biological diversity, home to special-status plant and animal species, of importance in maintaining water quality or sustaining flows, etc. Examples of natural communities of special concern in the San Joaquin Valley could include open, ruderal/non-native grassland habitat, which is infrequently disturbed, vernal pools, and various types of riparian forest. No natural communities of special concern were identified on the subject site.

There are no riparian habitats or any other sensitive natural communities identified by CDFW or the USFWS located on the Project site. Therefore, the Project will have *no impact*.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The United States Army Corps of Engineers (USACE) has regulatory authority over the Clean Water Act (CWA), as provided for by the EPA. The USACE has established specific criteria for the determination of wetlands based upon the presence of wetland hydrology, hydric soils, and hydrophilic vegetation. There are no federally protected wetlands or vernal pools that occur within the Project.

No State or federally protected wetlands or other water features are located on the subject site. The National Hydrography database (NHD) and National Wetlands Inventory (NWI) shows one stream feature, the Central Canal. The canal is a manmade feature and has no hydrologic connection with the Project site. The Project will not impact the Central Canal during construction or operation. Therefore, impacts to wetlands or water features would be *less than significant*.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Wildlife migratory corridors are described as a narrow stretch of land that connects two open pieces of habitat that would otherwise be unconnected. These routes provide shelter and sufficient food supplies to support wildlife species during migration. Movement corridors generally consist of riparian, woodlands, or forested habitats that span contiguous acres of undisturbed habitat and are important elements of resident species' home ranges.

The proposed Project would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. Therefore, the Project's impacts would be *less than significant*

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Project must comply with the biological Mitigation Measures of the City of Fresno PEIR by a required pre-construction biological survey prior to construction to determine if the Project site supports any special-status species (BIO-2.1). If a special-status species is determined to occupy any portion of a project site, avoidance and minimization measures shall be incorporated into the construction phase of a project to avoid direct or incidental take of a listed species to the greatest extent feasible. The City of Fresno Municipal code 13-305 references tree preservation, pursuant to the policy the Project site is a vacant lot devoid of trees and will have no impact on this policy. The proposed Project shall implement and incorporate, as applicable, the biological resource-related mitigation measures as identified in the PEIR Mitigation Monitoring and Reporting Program dated May 20, 2022. In addition, the Project will comply with General Plan Policy POSS-5-b, for protecting biological resources, and habitat for rare, threated and endangered species. Therefore, the proposed Project would have *less than significant impact with mitigation incorporated.*

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Project is not located within any Natural Community Conservation Plan or any other local, regional, or State Conservation Plan. The Project site is located within an area covered by the PG&E San Joaquin Valley Operation and Maintenance Habitat Conservation Plan (HCP). That HCP only applies to maintenance and operations of PG&E facilities and does not apply to this Project. The subject site nor the immediate vicinity occur in any other habitat conservation plans or natural community conservation plans pertaining to natural resources within the region. Therefore, the Project will have *no impact*.

Mitigation Measures

The proposed Project shall implement and incorporate the biological resources related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated May 20, 2022.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

DISCUSSION

The analyses presented in this section are based on a Cultural Resources Technical Memorandum prepared for the Project (QK, 2022b) included as Appendix C.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

A cultural resources records search (#22-006) was conducted at the Southern San Joaquin Valley Information Center (IC), CSU Bakersfield to determine whether the proposed Project would impact cultural or historical resources. A Sacred Lands File request was also submitted to the Native American Heritage Commission, and a response indicates negative results. The records search indicated that the subject property had previously been surveyed for cultural resources. No cultural resources were identified on the property as a result of that study, and it was recommended that no further cultural resource work was warranted (QK, 2022b).

There are no structures that exist within the Project area that are listed in the National or Local Register of Historic Places, and the subject site is not within a designated historic district.

Four historic cultural resource properties have been recorded within a half-mile of the Project. These include the Central Canal, a portion of which runs along the northern edge of the Project; the Washington Colony Canal; the route of the Southern Pacific

Railroad; and the USDA Horticultural Field Station. However, the Project will not impact any of these cultural resources. It should be noted however, that lack of surface evidence of historical resources does not preclude the subsurface existence of archaeological resources. During excavation activities, there is always the potential to discover historical resources. In the event historical resources are found, construction will halt, and a qualified historical resources specialist will be contacted and will make recommendations to the City. Implementation of the City of Fresno PEIR Mitigation Measure CUL-1.1 will result in a *less than significant impact with mitigation incorporated*.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

See Response V (a), above. There are no known archaeological resources that exist within the Project site. Nevertheless, there is some possibility that a buried site may exist in the area and be obscured by vegetation, fill, or other historic activities, leaving no surface evidence. Therefore, with implementation of the City of Fresno PEIR Mitigation Measure CUL-1.1 and CUL-1.2, impacts are considered to be *less than significant with mitigation incorporated*.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Although cultural resources are not anticipated onsite, like most projects in the State, the possibility exists that these resources could be found during construction; therefore, mitigation would be required to reduce this impact to a less than significant level. Therefore, due to the ground-disturbing activities that will occur as a result of the Project, the measures within the City of Fresno PEIR Mitigation Monitoring and Reporting Program to address archaeological resources and human remains will be employed to guarantee that should archaeological and/or historic artifacts be encountered during Project excavations, then work shall stop immediately; and, that qualified professionals in the respective field are contacted and consulted in order to ensure that the activities of the proposed Project will not involve physical demolition, destruction, relocation, or alteration of historical, archaeological, or paleontological resources. In conclusion, with the City of Fresno PEIR Mitigation Measures CUL-1.1, CUL 1.2, CUL-2, and CUL-3 incorporated, the proposed Project will not result in any cultural resource impacts. Therefore, impacts would be *less than significant with mitigation incorporated.*

Mitigation Measures

The proposed Project shall implement and incorporate the cultural resources related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated May 20, 2022.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

The following analysis is based on the Small Project Analysis Level Assessment (SPAL) (Trinity Consultants, 2022) prepared for the Project (Appendix A) and available energy resource consumption data.

DISCUSSION

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The proposed Project would involve the use of energy during construction and operation. Energy use during the construction phase would be in the form of fuel consumption (e.g., gasoline and diesel fuel) to operate heavy equipment, light-duty vehicles, and machinery. The proposed Project's long-term operation includes electricity and natural gas service to power internal and exterior building lighting and heating and cooling systems. In addition, the increase in vehicle trips associated with the Project would increase fuel consumption within the City.

Energy demand during the construction phase would result from the transportation of materials, construction equipment, and employee vehicle trips. Construction equipment includes rubber-tired dozers, tractors, loaders, backhoes, excavators, graders, scrapers, cranes, forklifts, generator sets, welders, pavers, paving equipment, rollers, and air compressors. The Project would comply with the SJVAPCD requirements regarding the use of fuel-efficient vehicles.

Energy-saving strategies will be implemented where possible to further reduce the Project’s energy consumption during the construction phase. Strategies being

implemented include those recommended by the California Air Resources Board (CARB) that may reduce the Project's energy consumption, including diesel anti-idling measures, light-duty vehicle technology, alternative fuels such as biodiesel blends and ethanol, and heavy-duty vehicle design measures to reduce energy consumption. Additionally, as outlined in the SJVAPCD's GAMAQI, the Project includes recommendations to reduce energy consumption by shutting down equipment when not in use for extended periods, limiting the usage of construction equipment to eight cumulative hours per day, usage of electric equipment for construction whenever possible in lieu of diesel or gasoline-powered equipment, and encouragement of employees to carpool to retail establishments or to remain on-site during lunch breaks.

The Project consists of 73 single-family residential units and approximately 6,000 square feet of open space, along with a public trail. The amount of energy used at the Project site would directly correlate to the size of the proposed buildings, the energy consumption of associated appliances and technology, and outdoor lighting. Other major sources of proposed Project energy consumption include fuel used by vehicle trips generated during Project construction and operation and fuel used by off-road construction vehicles during construction. The proposed Project will be consistent with the City's Greenhouse Gas Reduction Plan related to energy conservation and reduction measures, as shown in Table 6-1.

Table 6-1
City of Fresno Greenhouse Gas Reduction Plan

Objective RC-8 Reduce the consumption of non-renewable energy resources by requiring and encouraging conservation measures and the use of alternative energy sources**.**	**Consistent.** The Project will comply with Title 24 Energy Efficiency Standards and CalGreen Code requirements for solar-ready roofs, electric vehicle charging, and water conservation. The 2019 Building Efficiency Standards are the current regulations and went into effect on January 1, 2020. One of the notable changes in the 2019 Title 24 Standards includes the solar photovoltaic systems requirement for new low-rise residential homes.
Policy RC-8-a Existing Standards and Programs. Continue existing beneficial energy conservation programs, including adhering to the California Energy Code in new construction and major renovations.	**Consistent.** The Project will comply with all applicable energy standards.

Policy RC-8-b Energy Reduction Targets. Strive to reduce per capita residential electricity use to 1,800 kWh per year and nonresidential electricity use to 2,700 kWh per year per capita by developing and implementing incentives, design and operation standards, promoting alternative energy sources, and cost-effective savings.	**Consistent.** The Project will comply with the Title 24 energy standards in effect at the time building permits are processed for approval.
Source: City of Fresno Greenhouse Gas Reduction Plan 2014.	

There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy-intensive than is used for comparable activities. All construction equipment shall conform to current emissions standards and related fuel efficiencies. In particular, construction and operations of the Project would be subject to applicable CARB regulations (Airborne Toxic Control Measure), California Code of Regulations (Title 13, Motor Vehicles), and Title 24 standards that include a broad set of energy conservation requirements (e.g., Lighting Power Density requirements). In addition, the Project would follow Best Management Practices (BMPs) for water conservation, as warranted and appropriate. Enforcement of these regulations, requirements, and practices would thereby minimize or eliminate unnecessary or wasteful consumption of energy. In addition, the Project would be served by PG&E and would not require extensions of energy infrastructure or new energy supplies. For these reasons, the Project would have a less than significant impact.

The proposed Project would use energy resources for the operation of Project buildings (electricity and natural gas), for on-road vehicle trips (e.g., gasoline and diesel fuel) generated by the proposed Project, and from off-road construction activities associated with the proposed Project (e.g., diesel fuel). Each of these activities would require the use of energy resources. The proposed Project would be responsible for conserving energy to the extent feasible and relies heavily on reducing per capita energy consumption to achieve this goal, including through State-wide and local measures. Therefore, impacts would be *less than significant*.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The proposed Project would be in compliance with all applicable federal, State, and local regulations regulating energy usage, as shown in Table 6-1. The Project will comply with Title 24 Energy Efficiency Standards and CalGreen Code requirements for solar-ready roofs, electric vehicle charging, and water conservation. The Project also includes the installation of solar panels on each home to offset the use of

electricity that would be generated by non-renewable energy sources such as coal-fired power plants.

PG&E is responsible for the mix of energy resources used to provide electricity for its customers, and it is in the process of implementing the State-wide Renewable Portfolio Standard (RPS) to increase the proportion of renewable energy (e.g., solar and wind) within its energy portfolio. PG&E is expected to achieve at least 50% renewable energy by 2030 and 100% by 2045.

Other statewide measures, including those intended to improve the energy efficiency of the State-wide passenger and heavy-duty truck vehicle fleet (e.g., the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time.

As a result, the proposed Project would not result in any significant adverse impacts related to Project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by the amount and fuel type for each stage of the Project, including construction, operations, maintenance, and/or removal. PG&E, the electricity and natural gas provider to the site, maintains sufficient capacity to serve the proposed Project. The proposed Project would comply with all existing energy standards and would not result in significant adverse impacts on energy resources. For these reasons, the proposed Project would not be expected to cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the thresholds as described by Appendix F of the CEQA Guidelines. In conclusion, energy impacts would be considered *less than significant*.

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or Indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

The following analysis is based in part on the Geotechnical Engineering Investigation (Krazan & Associates, Inc., 2021a) prepared for the Project (Appendix D).

DISCUSSION

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Fresno has no known active earthquake faults and is not in any Alquist-Priolo Special Studies Zones. The immediate Fresno area has extremely low seismic activity levels, although shaking may be felt from earthquakes whose epicenters lie to the east, west, and south. Known major faults are over 50 miles distant and include the San Andreas Fault, Coalinga area blind thrust fault(s), and the Long Valley, Owens Valley, and White Wolf/Tehachapi fault systems. The most serious threat to Fresno from a major earthquake in the eastern Sierra would be flooding that could be caused by damage to dams on the upper reaches of the San Joaquin River.

Fresno is classified by the State as being in a moderate seismic risk zone, Category “C” or “D,” depending on the soils underlying the specific location being categorized and that location’s proximity to the nearest known fault lines. All new structures are required to conform to current seismic protection standards in the California Building Code. No adverse environmental effects related to seismology or known fault lines are expected as a result of this Project.

Further, according to the Fault Rupture Zones Map prepared by the California Department of Conservation in 2018, the City of Fresno GP PEIR Planning Area is not located within a Fault-Rupture Hazard Area. Moreover, no active faults have been identified within the Planning Area.

Therefore, because no active faults occur within the Planning Area, impacts associated with fault rupture would be *less than significant*.

ii. Strong seismic ground shaking?

According to the Fresno County Multi-Hazard Mitigation Plan, the Project site is located in an area of relatively low seismic activity. However, the GP PEIR indicates that projects within the Planning Area would be designed to withstand strong ground shaking because all built projects are required to comply with the California Building Code (CBC) to minimize the potential effects of ground shaking and other seismic activity. CBC covers many aspects of building design and construction as a guide to protect public health and safety, including guidelines related to earthquakes. To reduce ground-shaking impacts, the approved General Plan also includes Objective NS-2 and policies NS-2-a through NS-2-d.

With the implementation of the above-referenced objective and policies as well as adherence to the Municipal Code and other applicable regulations, development in accordance with the approved General Plan would reduce potential seismic ground shaking impacts to a less-than-significant level. Compliance with local and State building codes would ensure Project structures and personnel present during the construction would not be exposed to substantial adverse effects, including the risk of loss, injury, or death resulting from strong seismic ground shaking. Therefore, implementation of these building code requirements and local agency enforcement would reduce impacts from ground shaking to *less than significant* levels.

iii. Seismic-related ground failure, including liquefaction?

No specific countywide assessment of liquefaction has been performed; however, the Fresno County Multi-Hazard Mitigation Plan identifies the risk of liquefaction within the county as low because the soil types are unsuitable for liquefaction. The Project site is within an area of low seismic activity, and the groundwater in the Project area occurs below 60 feet, and the soils associated with the Project site are not suitable for liquefaction (Krazan & Associates, Inc., 2021a). Impacts would be *less than significant*.

iv. Landslides?

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is

construction activity that is associated with road building (i.e., cut and fill). The Project site is relatively flat; therefore, the potential for a landslide in the Project site is essentially non-existent. Because the Project is within an area with relatively flat topography, the Project will not have any environmental impacts relating to landslides. Therefore, impacts would be *less than significant.*

b) Result in substantial soil erosion or the loss of topsoil?

Minimal soil will be removed from the Project site during construction, as the site is relatively flat and has been previously impacted by grading from previous site use. Development of the Project site would require typical site preparation activities such as grading and trenching, which may result in the potential for short-term soil disturbance or erosion impacts. Construction would also involve the use of water, which may cause further soil disturbance. Such impacts would be addressed through compliance with regulations set by the State Water Resources Control Board (SWRCB). Namely, the SWRCB requires sites larger than one (1) acre to comply with the General Permit for Discharges of Storm Water Associated with Construction Activity (i.e., General Permit Order No. 2012-0006-DWQ). The General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer (QSD). The SWPPP estimates the sediment risk associated with construction activities and includes best management practices (BMP) to control erosion. These BMPs are developed to prevent significant impacts related to erosion from construction. Additionally, because these soils have been disturbed, it is recommended that the surface soils be recompacted to stabilize the surface soils and locate any unsuitable or pliant areas. Because Project impacts related to erosion would be temporary and limited to construction and required BMPs would prevent significant impacts related to erosion, the impacts will be *less than significant*.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Soil conditions were analyzed and determined to be disturbed, have low strength characteristics, and be highly compressible when saturated. As such, the soils are recommended to be recompacted. Following these recommendations, the site soils would be considered stable in that there is no potential of on or offsite landslides, lateral spreading, subsidence, or collapse. As discussed in Impact VII. Geology and Soils (a-iii) Soils, the Project site soils have a low overall potential for significant liquefaction to occur at the site. All structures would be subject to all IBC and CBC earthquake construction standards, including those relating to soil characteristics. Development of the property requires compliance with grading and drainage standards of the City of Fresno. Therefore, there would be *less than significant impact.*

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

Expansive soils contain large amounts of clay, which absorb water and cause the soil to increase in volume. Conversely, the surface soils on the site have a loose consistency. These soils are disturbed, have low strength characteristics, and are highly compressible when saturated. Preliminary testing indicates the on-site soils include Exeter, Hanford, and Ramona series, which are often underlain at a shallow depth by a clayey or hardpan substrate. These soils have low strength characteristics and are highly compressible when saturated (Krazan & Associates, Inc., 2021a). The soils associated with the Project have a low potential for expansion. Implementation of the Project will pose no direct or indirect risk to life or property caused by expansive soils, and there would be no impact. The proposed Project would not result in any expansive soils environmental impacts. In conclusion, the Project would have a *less than significant impact*.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The proposed Project would not include the use of septic tanks or any other alternative wastewater disposal systems. The dwelling units will be required to tie into the existing sewer services. Therefore, there would be *no impact*.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

As noted previously, there are no known paleontological resources that exist within the Project site. Nevertheless, previously unknown paleontological resources could be disturbed during Project construction. Therefore, due to the ground-disturbing activities that will occur as a result of the Project, the measures within the City of Fresno PEIR Mitigation Monitoring and Reporting Program to address paleontological resources will be employed to guarantee that should archaeological and/or animal fossil material be encountered during Project excavations, then work shall stop immediately; and, that qualified professionals in the respective field are contacted and consulted in order to ensure that the activities of the proposed Project will not involve physical demolition, destruction, relocation, or alteration of historical, archaeological, or paleontological resources. Mitigation Measure GEO-6.1 will reduce the impacts to paleontological resources to a *less than significant impact with mitigation incorporated.*

Mitigation Measures

The proposed Project shall implement and incorporate the paleontological resources related mitigation measure as identified in the attached Project Specific Mitigation Checklist dated May 20, 2022.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

DISCUSSION

Analysis of Greenhouse Gases is based on the Small Project Analysis Level Assessment (SPAL) prepared for the Project (Trinity Consultants, 2022), which is included as Appendix A of this document along with the GHG Checklist.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The City of Fresno adopted a Greenhouse Gas Reduction Plan in 2014 that includes procedures for certain qualified projects to demonstrate consistency with the plan and use the streamlining provisions allowed under CEQA. In addition to the plan consistency analysis, a quantitative analysis was prepared to show that reductions from Business As Usual (BAU) emissions would exceed the 21.7 percent required by 2020 to show consistency with State reduction targets. The SJVAPCD's Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA provides guidance for preparing a BAU analysis (SJVAPCD 2009b). Under the SJVAPCD guidance, projects meeting one of the following would have a less than significant impact on climate change:

- Exempt from CEQA;
- Complies with an approved GHG emission reduction plan or GHG mitigation program;
- Project achieves 29 percent GHG reductions by using approved Best Performance Standards; and
- Project achieves AB 32 targeted 29 percent GHG reductions compared with "business as usual."

The 29 percent GHG reduction level is based on the target established by ARB's AB 32 Scoping Plan, approved in 2008. The GHG reduction level for the State to reach 1990 emission levels by 2020 was reduced to 21.7 percent from BAU in 2020 in the 2014 First Update to the Scoping Plan to account for slower than projected growth after the 2008 recession. In addition, the State has reported that the 2016 greenhouse gas inventory was below the 2020 target for the first time (ARB 2018b). Furthermore, the 2017 Scoping Plan states that California is on track to achieve the 2020 target). The first occupancy at the Project site is expected to occur in 2022, which is the year after the AB 32 target year. It is unknown when future development will occur as a result of the Project approval, but it is expected to take several years, depending on market conditions. Until a new threshold or BPS are identified for projects constructed after 2020, significance is based on making continued progress toward the AB 32 2030 goal. For the proposed future development as a result of the Project approval, there will be a less than significant impact on climate change because the facts (set forth in this section) demonstrate that the Project will work to meet the AB 32 targeted 29 percent GHG reductions (Trinity Consultants, 2022).

Although construction of the proposed Project would result in temporary emissions of GHGs, the Project as a whole is not expected to generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. The Project's greenhouse gas (GHG) emissions are primarily from mobile source activities and are shown in Table 8-1.

Table 8-1
Estimated Annual Greenhouse Gas Emissions

	CO_2 Emissions metric tons	CH_4 Emissions metric tons	N_2O Emissions metric tons	CO_2e Emissions metric tons
Project Operations	781.27	1.16	0.04	821.14
2005 BAU	1,327.22	1.72	0.12	1,406.98
BAU less Project emissions				41.6%

The current inventory and forecast for GHG emissions in the California Air Resources Board's 2008 Climate Change Scoping Plan supports the 2011 IPPC estimates. The 2008 Climate Change Scoping Plan also indicates that GHG emissions were expected to increase to 596.41 million metric tons of CO_2e by 2020. It is widely understood that climate change is a "global" issue and, as such, GHG emissions are cumulative problem and can only be evaluated as such.

The amount of CO_2 that would be generated by the Project is so small in relation to the California CO_2 equivalent estimates for 202 (596 million metric tons CO_2e) that it's not possible for the contribution of the project to be cumulative considerable. Additionally, the Project's GHG emissions are less than the 2005 business as usual

emissions for the Project by 585.58 metric tons CO_2e, which is a 41.6% reduction. Therefore, the project would not generate a cumulatively considerable GHG impact, nor would it conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Project will also no conflict with any elements of the California Air Resources Board's 2008 Climate Change Scoping Plan. Therefore, this potential impact is less than significant.

Additionally, the Project's GHG emissions are less than the 2005 business-as-usual emissions for the Project by 821 metric tons per year of CO_2e, which is a 41.6 percent reduction. Therefore, the Project would not generate a cumulatively considerable GHG impact, nor would it conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Project will also not conflict with any elements of the California Air Resources Board's 2008 Climate Change Scoping Plan. Therefore, the Project would have a less than significant impact.

The General Plan and PEIR rely upon the Recirculated Greenhouse Gas Reduction Plan Update that provides a comprehensive assessment of the benefits of city policies and proposed code changes, existing plans, programs, and initiatives that reduce greenhouse gas emissions. The Recirculated Plan provides goals and supporting measures to reflect and ensure compliance with changes in the local and State policies while ensuring it encourages economic growth and keeps the city economically competitive while achieving GHG reductions, as discussed under VIII. GREENHOUSE GAS EMISSIONS (b) below. The benefits of adopted regulations become flat in later years, and growth starts to exceed the reductions from all regulations and measures. In conclusion, the proposed project would not result in any greenhouse gas emission environmental impacts.

Therefore, there would be a *less than significant impact* .

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The City of Fresno adopted its Recirculated GHG Reduction Plan Update (2021) as part of the General Plan Update. The Project's consistency with applicable GHG policies from the Recirculated GHG Reduction Plan policies is assessed below.

The Project is also assessed for its consistency with ARB's adopted Scoping Plans. This would be achieved with an assessment of the Project's compliance with Scoping Plan measures contained in the 2008 Scoping Plan and the 2017 Scoping Plan Update.

City of Fresno Recirculated GHG Plan Update

The Project would be required to incorporate a number of features that would minimize GHG emissions as required by the City's existing plans and policies. These features are consistent with project-level strategies identified by the ARB's Scoping Plan and the City of Fresno Recirculated GHG Reduction Plan Update (City of Fresno, 2021).

Consistency with SB 32

The 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. The Project is required to comply with the SB 32 strategy and is not expected to conflict with this component of Executive Order S-3-05.

The State's executive branch adopted several Executive Orders related to GHG emissions. Executive Orders S-3-05 and B-30-15 are two examples. Executive Order S-3-05 sets goals to reduce emissions to 1990 levels by 2020 and 80 percent below 1990 levels by 2050. The goal of Executive Order S-3-05 to reduce GHG emissions to 1990 levels by 2020 was codified by AB 32. As noted in Table 8-1 above, the Project is consistent with AB 32. Therefore, the Project does not conflict with this component of Executive Order S-3-05. Executive Order B-30-15 establishes an interim goal to reduce GHG emissions to 40 percent below 1990 levels by 2030.

As discussed above, the proposed Project will not occur at a scale or scope with the potential to contribute substantially or cumulatively to the generation of GHG emissions, either directly or indirectly, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Project would adhere to standards as identified in the Fresno City General Plan and impacts are considered *less than significant*.

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIAL – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

The following analysis is based in part on the Phase 1 Environmental Site Assessment (Krazan and Associates, 2021b) prepared for the Project (Appendix E).

DISCUSSION

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Pursuant to the Fresno General Plan, hazardous materials are defined as those that no longer have a practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. Hazardous materials and hazardous wastes are classified according to four properties: toxic (causes human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), and reactive (causes explosions or generates toxic gases). Hazardous materials have been and are commonly used in commercial, agricultural, and industrial applications and, to a limited extent, in residential areas.

Construction of the Project would involve the temporary transport and use of minor quantities of hazardous materials such as fuels, oils, lubricants, hydraulic fluids, paints, and solvents. The types and quantities of hazardous materials to be used and stored on-site would not be of a significant amount to create a reasonably foreseeable upset or accident condition. The handling and transport of all hazardous materials onsite would be performed in accordance with all applicable federal, State, and local laws and regulations.

Hazardous and non-hazardous wastes would likely be transported to and from the Project site during the construction phase of the proposed Project. Construction would involve the use of some hazardous materials, such as diesel fuel, hydraulic oil, grease,

solvents, adhesives, paints, and other petroleum-based products, although these materials are commonly used during construction activities and would not be disposed of on the Project site. Workers would likely be trained to properly identify and handle all hazardous materials, following OSHA/CALOSHA regulations. Hazardous waste would be either recycled or disposed of at a permitted and licensed treatment and/or disposal facility. Hazardous waste would be either recycled or disposed of at a permitted and licensed treatment and/or disposal facility. Any hazardous waste or debris that is generated during the construction of the proposed Project would be collected and transported away from the site and disposed of at an approved off-site landfill or other such facility. In addition, sanitary waste generated during construction would be managed through the use of portable toilets, which would be located at reasonably accessible on-site locations. Hazardous materials such as paint, bleach, water treatment chemicals, gasoline, oil, etc., may be used during construction. These materials are stored in appropriate storage locations and containers in the manner specified by the manufacturer and disposed of in accordance with local, federal, and State regulations. No significant hazard to the public or to the environment through the routine transport, use, or disposal of hazardous waste during the construction or operation of the new residential development would occur.

There are a number of sensitive receptors (schools and other residences) located in close proximity to the Project site. However, the use of hazardous materials will be limited in quantities and duration and, if spilled, would be localized. The proposed Project would not emit hazardous emissions or involve handling hazardous or acutely hazardous materials substances. The transport use and storage of hazardous materials would be required to comply with all applicable State and federal regulations, such as requirements that spills would be cleaned immediately, and all wastes and spills control materials would be properly disposed of at approved disposal facilities.

Residential construction generally uses fewer hazardous chemicals or use chemicals in relatively small quantities and concentrations as compared to commercial or industrial uses. In addition, once the Project is completed, the chemicals used would include minor quantities of pesticides/ rodenticides, fertilizers, paints, detergents, and other cleaners.

Once constructed, the use of such materials such as paint, bleach, etc., are considered common for residential developments, and it would be unlikely for such materials to be stored or used in such quantities that would be considered a significant hazard. The Project itself will not generate or use hazardous materials in a manner outside health department requirements. Therefore, there would be *less than significant impact.*

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

As noted in VII GEOLOGY AND SOILS(b), the Project would be required to prepare and implement an SWPPP under the NPDES permit for construction sites over one acre. The SWPPP identifies potential sources of pollution from the Project that may affect the quality of stormwater discharge and requires that BMPs be implemented to prevent contamination at the source. By implementing BMPs during construction activities, accidental spills of hazardous materials would be contained, and soil and groundwater contamination would be minimized or prevented. While there are no known existing hazardous material conditions on the site and the Project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, portions of the Project site have been utilized for agricultural purposes, which may have utilized pesticides in association with agricultural operations and cultivation.

As noted in III- Air Quality, the Project would include compliance with the SJVAPCD's Regulation VIII (Fugitive PM10 Prohibitions). Grading of the site will be minimal, and with the appropriate application of water or other dust suppression during construction, impacts from pesticides in the soil during construction will be minimal.

Valley Fever or coccidioidomycosis, is prevalent in the central San Joaquin Valley of California. This disease, which affects both humans and animals, is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis* (CI). CI spores are found in the top few inches of soil, and the existence of the fungus in most soil areas is temporary. The proposed project has the potential to generate fugitive dust and suspend Valley Fever spores with the dust that could then reach nearby sensitive receptors. It is possible that on-site workers could be exposed to valley fever as fugitive dust is generated during construction. Implementation of dust control measures throughout the construction period would reduce fugitive dust emissions (Trinity Consultants, 2021). Therefore, the exposure to Valley Fever would be minimized. With the implementation of these dust control measures, dust from the construction of the proposed Project would not add significantly to the existing exposure level of people to this fungus, including construction workers, and impacts would be reduced to less than significant levels.

There is a completed LUST site reported releases of hazardous materials to the subsurface reported within a 4,000 foot radius of the site. The review of the State of California Regional Water Quality Control Board (RWQCB) Geotracker database available via the RWQCB Internet Website indicated that no active LUST sites, land disposal sites, or military sites are listed for the subject site, the adjacent properties, or properties located within the subject site vicinity (California State Water Resources Control Board, 2022).

A review of the State of California Department of Toxic Substances Control (DTSC) Envirostor database available via the DTSC's Internet Website indicated that there are two school investigations to the south of the Project site within a 1-mile radius

(California Department of Toxic Substances, 2022). However, the site will not impact the Project's construction and operation. Envirostor does not list any other sites, including State response sites, school cleanup sites, or military or school evaluation sites listed for the subject site or adjacent properties. Additionally, no Federal Superfund – National Priorities List (NPL) sites were determined to be located within a one-mile radius of the subject site.

Review of State of California Department of Conservation, Geological Energy Management Division (Cal GEM) Online Mapping System (DOMS) indicated that no plugged and abandoned or producing oil wells are located on or adjacent to the subject site (Krazan and Associates, 2021b).

During the Phase 1 ESA survey of the site, there was no evidence of recognized environmental conditions (RECs), controlled RECs (CRECs), or historical RECs (HRECs) (Krazan and Associates, 2021b). If during the construction phase of the Project there is a use of hazardous materials, the safe processing and storage of hazardous materials consistent with the California Building Code and the Uniform Fire Code will be required. Additionally, there is no record or indication of underground storage tanks (USTs) being located at the site. If an unknown UST was discovered during construction, it would be properly destroyed in accordance with the State.

It was also noted that there was no material evidence was obtained related to the use of environmentally persistent pesticides/herbicides during the course of the Phase 1 ESA. It is anticipated that any environmentally persistent pesticides/herbicides potentially located on-site will be dislocated and diluted as a result of the grading and trenching operations conducted in conjunction with the proposed development of the property. Consequently, given the above-referenced factors and experience in the Project site vicinity, it was determined the potential is low for elevated concentrations of environmentally persistent pesticides/herbicides (Krazan and Associates, 2021b).

If during the construction phase of the Project there is a use of hazardous materials, the safe processing and storage of hazardous materials consistent with the California Building Code and the Uniform Fire Code will be required. To reduce potential impacts regarding transport, use, or disposal of hazardous materials in the City, the Policies NS-4-a and NS-4-bwill be implemented. This include the safe processing and storage of hazardous materials developing inventory statements, risk management prevention plans, and contingency/emergency response action plans during construction activities.

The proposed Project is not anticipated to create a significant hazard to the public or the environment. As mentioned previously in subsection a) above, the residential Project would not routinely transport, use, dispose of, or discharge hazardous materials into the environment. The Project will not result in any hazards and

hazardous material impacts. Therefore, Project impacts are considered to be *less than significant*.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The closest schools are Storey Elementary School, approximately 100 feet to the south, Southeast Elementary School approximately 0.3 miles to the southwest, and Terronez Middle School approximately 0.55 miles to the west. Construction activities of the proposed Project will result in the temporary use of minimal hazardous materials and or substances, such as lubricant and diesel fuel, during construction. Exhaust from construction and related activities is expected to be minimal and not significant. Once constructed, the residential Project is not expected to result in hazardous emissions. All construction-related activities as a result of the proposed Project would be subject to local, State, and federal laws related to emissions of hazardous materials and substances. In conclusion, the Project will not result in any hazards and hazardous material impacts. Therefore, there would be *less than significant impacts*.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

See discussion under IX. HAZARDS AND HAZARDOUS MATERIAL (b), There are no known existing hazardous material conditions on the property, and the property is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and the DTSC. The Project itself will not generate or use hazardous materials in a manner outside health department requirements.

The State Water Resources Control Board website, GeoTracker, indicated that there are no Permitted Underground Storage Tanks, Leaking Underground Storage Tanks, or any other active remediation and cleanup sites on or in the vicinity (within one mile) of the Project site (California State Water Resources Control Board, 2022). It is, therefore, possible that subsurface features such as unregistered USTs may exist in the vicinity of the former on-site structures, which remain unknown based upon the absence of any regulatory, municipality, interview data, or other evidence indicating their presence or location. If a UST is discovered, it should be properly destroyed in accordance with local guidelines.

As noted above, to reduce potential impacts regarding transport, use, or disposal of hazardous materials in the City, the Policies NS-4-a through NS-4-I will be applied and followed.
It is not anticipated that there are no known underground storage tanks or pipelines located on the Project site that contain hazardous materials; however, any underground storage tanks or pipelines will be removed in accordance with removal

standards of the Fresno County Department of Public Health. The disturbance of such items during construction activities is unlikely. Therefore, because the Project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. In conclusion, the Project will not result in any hazards and hazardous material impacts. Therefore, Project impacts are considered to be *less than significant*.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

The Project site is approximately 3.39 miles south of the Fresno Yosemite International Airport. The Project site is not located within Airport Land Use Compatibility Plan or within two miles of a public airport; therefore, there would be *no impact.*

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The City of Fresno Fire Department Emergency Preparedness Office coordinates planning, preparedness and response/recovery efforts for the City. The design and environmental review procedures employed will ensure compliance with emergency response and evacuation plans. In addition, the site plan will be reviewed by the Fire Department and Public Works Department per standard City procedure to ensure consistency with emergency response and evacuation needs.

All Project plans submitted to the City will be reviewed in compliance with federal, State, and local regulations related to emergency access. The proposed Project would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, the proposed Project would have a less than significant impact on emergency evacuation. In conclusion, the Project will not result in any interference with an emergency evacuation plan impacts. Therefore, Project impacts are considered to be *less than significant.*

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

The General Plan Update identified areas within the city limits as largely being categorized as little or no threat or moderate fire hazard, which is attributed to urbanization. The General Plan further indicated that small areas along the San Joaquin River Bluff area in northern Fresno are prone to wildfires due to relatively steep terrain/vegetation, and these areas are classified as high fire hazard areas. However, the Project site is not located within this area and is proposed on a relatively flat surface.

The land surrounding the Project site is primarily developed with urban, suburban, and educational facility uses and would not be considered to be wildlands. Additionally, Cal Fire indicates that the Project site has a low frequency, limited extent, limited magnitude, and low significance regarding wildfire threats (CAL FIRE, 2022). The structures will be built following applicable California Building Codes and standards. The land surrounding the Project site is primarily vacant land and is not considered to be wildlands. The proposed Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. The Project will not result in exposure to people or structures to a significant risk involving wildland fires. Therefore, Project impacts are considered to be *less than significant.*

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:			X	
i) Result in a substantial erosion or siltation on- or off-site;			X	
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site:			X	
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
iv) impede or redirect flood flows?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

DISCUSSION

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Adverse groundwater conditions of limited supply and compromised quality have been well documented by planning, environmental impact report, and technical studies over the past 20 years, including the City of Fresno PEIR SCH No. 2019050005, the City of Fresno MEIR SCH No. 2012111015, the City of Fresno MEIR SCH No. 2001071097 (Final EIR No. 10130) for the 2025 Fresno General Plan, Final EIR No.10100, Final EIR No.10117 and Final EIR No. SCH 95022029 (Fresno Metropolitan Water Resource Management Plan), et al. These conditions include water quality degradation due to contamination from 1,2-dibromo-3-chloropropane (DBCP), ethylene-dibromide (EDB), trichloroethylene (TCE), 1,2,3-trichloropropane (TCP), tetrachloroethylene (PCE), 1,1-dichloroethane (DCE), nitrate, and from naturally occurring arsenic, iron, manganese, and radon concentrations; low water well yields in some parts of the City; limited aquifer storage capacity from over-utilization; limited recharge activities; and, intensive urban or semi-urban development occurring up-gradient from the Fresno Metropolitan Area.

In order to be compliant with State regulations, the Project is required to comply with State regulations adopted to reduce groundwater degradation. Construction activities, including grading, could temporarily increase soil erosion rates during and shortly after Project construction. Construction-related erosion could result in the loss of soil and could adversely affect water quality in nearby surface waters. As noted in Section VII Geology and Soils, development as a result of the proposed Project will be required to prepare a site-specific SWPPP as required by the RWQCB. The SWPPP is required to be approved by the RWQCB prior to construction which identifies project-specific best management measures that are designed to control drainage and erosion.

In order to be compliant with State regulations, the Project is required to comply with State regulations adopted to reduce groundwater degradation. Construction activities, including grading, could temporarily increase soil erosion rates during and shortly after Project construction. Construction-related erosion could result in the loss of soil and could adversely affect water quality in nearby surface waters. As noted in Section VII Geology and Soils, development as a result of the proposed Project will be required to prepare a site-specific SWPPP as required by the RWQCB. The SWPPP is required to be approved by the RWQCB prior to construction which identifies project-specific best management measures that are designed to control drainage and erosion.

In addition, prior to the commencement of construction activities, the Project proponent would be required to adhere to the requirements of the City Grading Code. This includes implementation of various measures designed to prevent erosion and control drainage onsite, thereby further preventing the potential sedimentation and subsequent degradation of stormwater. Therefore, Project impacts are considered to be *less than significant*.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Fresno is one of the largest cities in the United States that still maintains a significant reliance on groundwater as part of its public water supply portfolio. Surface water treatment and distribution have been implemented in the northeastern part of the City since 2004 and in the southeastern part of the City since 2018, but the City is still subject to an EPA Sole Source Aquifer designation. While the aquifer underlying Fresno typically exceeds a depth of 300-feet and is capacious enough to provide adequate quantities of safe drinking water to the metropolitan area well into the twenty-first century, groundwater degradation, increasingly stringent water quality regulations, and a historical trend of high consumptive use of water on a per capita basis (currently 205 gallons per day per capita), have resulted in a general decline in aquifer levels, increased cost to provide potable water, and localized water supply limitations.

The City's groundwater aquifer has been documented by the State Department of Water Resources (Bulletin 118 - Interim Update 2016) to be critically over-drafted and has been designated a high-priority basin for corrective action through the Sustainable Groundwater Management Act (SGMA).

The City of Fresno is actively addressing these issues through citywide metering and updating water use targets and the water shortage contingency plan in the City of Fresno 2020 Urban Water Management Plan (UWMP). The City has adopted the Fresno Metropolitan Water Resource Management Plan. The purpose of these management plans is to provide safe, adequate, and dependable water supplies in order to adequately meet existing and the future needs of the metropolitan area in an

economical manner; protect groundwater quality from further degradation and overdraft, and provide a plan of reasonably implementable measures and facilities. City water wells, pump stations, recharge facilities, water treatment, and distribution systems have been expanded incrementally to mitigate increased water demands and respond to groundwater quality challenges.

In response to the need for a comprehensive long-range water supply and distribution strategy, the Fresno General Plan recognizes regional water resource planning efforts, such as the Kings Basin's Integrated Regional Water Management Plan, the Fresno Area Regional Groundwater Management Plan, the North Kings Groundwater Sustainability Agency, City of Fresno Metropolitan Water Resource Management Plan and cites the findings of the City of Fresno 2020 UWMP. The purpose of these management plans is to provide safe, adequate, and dependable water supplies in order to adequately meet the existing and future needs of the Kings Basin regions and the Fresno-Clovis metropolitan area in an economical manner; protect groundwater quality from further degradation and overdraft, and provide a plan of reasonably implementable measures and facilities.

The City has indicated that groundwater wells, pump stations, recharge facilities, water treatment, and distribution systems shall be expanded incrementally to mitigate increased water demands. One of the primary objectives of Fresno's future water supply plans detailed in Fresno's Metropolitan Water Resources Management Plan, 2010, 2015 & 2020 UWMPs is to balance groundwater operations through a host of strategies. Through careful planning, Fresno has designed a comprehensive plan to accomplish this objective by increasing the utilization of surface water supplies through expansion of surface water treatment facilities, intentional recharge, and conservation, thereby reducing groundwater pumping. The City continually monitors the impacts of land use changes and development project proposals on water supply facilities by assigning fixed demand allocations to each parcel by land use as currently zoned or proposed to be rezoned.

The 2020 City of Fresno Urban Water Management Plan outlines the City of Fresno's goals to achieve a 'water balance' between supply and demand while decreasing reliance upon and use of groundwater. To achieve these goals, the City is implementing a host of strategies, including:

- Intentional groundwater recharge through reclamation at the City's groundwater recharge facility at Leaky Acres (located northwest of Fresno-Yosemite international Airport), refurbish existing streams and canals to increase percolation, and recharge at Fresno Metropolitan Flood Control District's (FMFCD) stormwater basins;
- Increase use of existing surface water entitlements from the Kings River, United States Bureau of Reclamation, and Fresno Irrigation District for treatment at the

Northeast Surface Water Treatment Facility (NESWTF) and construct a new Southeast Surface Water Treatment Facility (SESWTF); and

- Recycle wastewater at the Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF) for treatment and re-use for irrigation and to percolation ponds for groundwater recharge. Further actions include the General Plan, Policy RC-6-d to prepare, adopt and implement a City of Fresno Recycled Water Master Plan.

The City has indicated that groundwater wells, pump stations, recharge facilities, water treatment, and distribution systems shall be expanded incrementally to mitigate increased water demands. One of the primary objectives of Fresno's future water supply plans detailed in Fresno's Metropolitan Water Resources Management Plan, 2010 & 2015 UWMPs is to balance groundwater operations through a host of strategies. Through careful planning, Fresno has designed a comprehensive plan to accomplish this objective by increasing the utilization of surface water supplies through expansion of surface water treatment facilities, intentional recharge, and conservation, thereby reducing groundwater pumping. The City continually monitors impacts of land use changes and development project proposals on water supply facilities by assigning fixed demand allocations to each parcel by land use as currently zoned.

The use of groundwater will continue to be an important part of the City's supply but will not be relied upon as heavily as has historically been the case. The 2020 UWMP shows that groundwater pumped by the City has decreased from approximately 148,006 AF/year in 2008 to approximately 55,000 AF/year in 2020. The projected total estimated groundwater yield for 2045 is approximately 159,820 AF/year, inclusive of intentional recharge (Table 6-1, 2020 UWMP). In order to meet future demand projections, the City is planning to rely on expanding their delivery and treatment of surface water supplies and groundwater recharge activities.

Project construction would add additional impervious surfaces to the Project site; however, various areas of the Project site would remain largely pervious, which would allow infiltration to underlying groundwater. For example, the Project includes ample landscaping areas that would remain pervious. The areas would continue to contribute to groundwater recharge following the construction of the Project. Furthermore, the Project is not anticipated to significantly affect groundwater quality because sufficient stormwater infrastructure would be constructed as part of Project to detain and filter stormwater runoff and prevent long-term water quality degradation. Therefore, Project construction and operation would not substantially deplete or interfere with groundwater supply or quality.

The Urban Water Management Plan states that in 2020, the City's water use averaged 198 GPCD based on 121,993 AF of water production and a service area population of 550,217. The City is far below its 2020 daily per capita water use target of 247 GPCD due to the extensive conservation efforts implemented by the City in the past decade (City of Fresno, 2020).

The proposed Project consists of 73 dwelling units, and the average household size in Fresno is 3.07 (U.S. Census Bureau, 2019); therefore, the Project will house approximately 224 people. Thus, the proposed Project would result in an estimated water demand 44,352 gallons per day (224 people x 198 gallons/day x 365 days = 16.18 million gallons/year, or 49.68 acre-feet).

The Project will not conflict with the implementation of a water quality control plan or sustainable groundwater management or impede sustainable groundwater management plans.

Implementation of the above-mentioned City of Fresno General Plan policies will ensure that the City has a reliable, long-range source of water through the implementation of measures, standards, incentives, and capital investments to promote water conservation and supply. The Project will not substantially impede groundwater recharge impacts.

The proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). Therefore, impacts are *less than significant.*

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

The Project site is mostly flat, and the Project would not substantially alter the existing drainage pattern of the site or area. The Project site does not have a stream or river and is not near another body of water. The Project would not result in substantial erosion or siltation on- or off-site or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

As discussed in VII. GEOLOGY AND SOILS (b), above, potential impacts on water quality arising from erosion and sedimentation are expected to be localized and temporary during construction. Construction-related erosion and sedimentation impacts as a result of soil disturbance would be less than significant after implementation of an SWPPP and BMPs required by NPDES. No drainages or other

water bodies are present on the Project site, and therefore, the proposed Project would not change the course of any such drainages.

Once constructed, the Project would develop areas of impervious surfaces that would reduce the rate of percolation at the site or concentrate, but areas of open space will allow for the percolation of stormwater to recharge the aquifer or the water would be directed into the City's existing stormwater sewer system. The Project would comply with applicable City development standards and codes. Therefore, the Project would have a less than significant impact on drainage patterns or cause substantial erosion or siltation on or off the site. The impact would be *less than significant*.

.

ii. Substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

See also X. HYDROLOGY AND WATER QUALITY (c(i)), above. No drainages or other water bodies are present on the Project site, and therefore, the development of the site would not change the course of any such drainages that may potentially result in on or offsite flooding. Water would be used during the temporary construction phase of the proposed Project (i.e., for dust suppression). However, any water used for dust control would be mechanically and precisely applied and would generally infiltrate or evaporate prior to running off.

The BMPs associated with the SWPPP would prevent flooding onsite and offsite. While the project would permanently increase the impervious surface area, the Project would maintain the overall on-site drainage patterns and continue to direct surface water to catch basins that flow into the existing storm drains. Prior to the issuance of building permits, the applicant would be required to provide a stormwater improvement plan to the City to ensure that the stormwater system would be capable of handling a 25-year storm and that the drainage facilities conform to City requirements. Additionally, the applicant would be required to pay for all necessary improvement costs if the City determines that the City's storm drain system or storm drain pumping capacity requires expansion or modification as a result of the Project.

Therefore, the Project would not substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite and impacts are *less than significant*.

iii. Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

See X. HYDROLOGY AND WATER QUALITY (c(i)-c(ii)), above. The Project will comply with all applicable State and City codes and regulations. The storm drainage plan will be supported by engineering calculations to ensure that the Project does not

create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

As discussed above, the proposed project would result in a minimal increase in impervious surfaces and therefore would not substantially increase runoff from the site. However, compliance with existing regulatory requirements, including compliance with City standards during construction and operation, would reduce or eliminate the potential for project operations to cause substantial additional polluted runoff or runoff in excess of existing or planned stormwater drainage systems. Therefore, the Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. and impacts will be *less than significant.*

iv. Impede or redirect flood flows?

Please see X. HYDROLOGY AND WATER QUALITY (c(i)-c(iii)), above. The rate and amount of surface runoff are determined by multiple factors, including the following: topography, the amount and intensity of precipitation, the amount of evaporation that occurs in the watershed, and the amount of precipitation and water that infiltrates the groundwater.

According to available data, the proposed project is not located within the 100-year flood hazard area as mapped by the Federal Emergency Management Agency (FEMA). Therefore, the proposed project would not impede or redirect potential flood flows. The existing drainage pattern of the site and area would be affected by Project development because of the increase in impervious surfaces at the site. The Project design includes natural features such as landscaping and vegetation that would allow for the percolation of stormwater. However, there will be an addition in impervious surfaces (houses, driveways, roadways, etc.), which could increase the potential for stormwater runoff. Overflow will be distributed to areas where the City has rights to spread water per its Storm Drain Master Plan. The Project would also connect to existing City stormwater sewer infrastructure.

Since the Project is in an area that is not susceptible to offsite inundation, the Project would not risk the release of pollutants due to Project inundation. The impact would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The Project is located inland and not near an ocean or large body of water; therefore, it would not be affected by a tsunami. The Project is not located within a FEMA 100-year floodplain. Since the Project is located in an area that is not susceptible to

inundation, the Project would not risk the release of pollutants due to Project inundation. The impact would be *less than significant*.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Please see response b, above. As noted, the proposed Project is anticipated to use approximately 49.68 acre-feet of water annually. The Project will obtain water by connecting to City utility services.

Compliance of the Project with Fresno General Plan policy PU-8, for the management and development of City water facilities, the Kings Basin Integrated Regional Water Management Plan, City of Fresno Urban Water Management Plan, Fresno-Area Regional Groundwater Management Plan, and City of Fresno Metropolitan Water Resource Management Plan will ensure no conflict occurs. Policy PU-8-c, of the City's General Plan states that "appropriate conditions of approval for each new development proposal to ensure that the necessary potable water production and supply facilities and water resources are in place prior to occupancy", and would address the issues of providing an adequate, reliable, and sustainable water supply for the Project. The City of Fresno, Water Division has reviewed the Project for water quality and groundwater management compliance. Further compliance with General Plan policy PU-7-a, for waste water reduction through applicable water conservation standards would ensure less than significant impacts on water conservation efforts. The PEIR also evaluated the need for additional water conveyance infrastructure (e.g., new water wells) and the increase in additional water demand with the approval of proposed development in the City.

As noted above, the proposed Project would be required to adhere to NPDES drainage control requirements during construction and operation as well as to FMFCD drainage control requirements. As a result, the proposed Project would not include any other waste discharges that could conflict with the Basin Plan. Therefore, the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and impacts would be *less than significant.*

Mitigation Measures
No mitigation measures are required

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

DISCUSSION

a) Physically divide an established community?

The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. The Project is located within an area primarily consisting of residential parcels located within the Fresno city limits. The City's General Plan designated the parcel as Medium Density and Medium Low Density Residential. The proposed residential use is allowed with the land use designation. The Project would not create a physical barrier between existing communities, as there will be a trail allowing connectivity to the existing communities to the east. These improvements would not affect connectivity and would not divide an established community. Therefore, the proposed project would have no impact related to physically dividing an established community. The Project will not result in any land use and/or planning impacts, and there are *no impacts*.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed Project is located in an area that is planned for residential and urban development by the City. The construction of this Project will not conflict with any conservation plans because it is not located within any conservation plan areas.

It is determined that the proposed Project is consistent with respective General Plan Land Use designation for the Project site. The Project would comply with the General Plan objectives and policies and will not significantly conflict with applicable land use plans, policies, or regulations of the City of Fresno. Furthermore, the proposed Project, including the design and improvement of the Project site, is found; (1) to be suitable for the type and density of development; (2) to be safe from potential cause or introduction of serious public health problems; and, (3) to not conflict with any public interests in the Project site or adjacent lands.

The Project will fulfill the following applicable General Plan Policies:

- LU-5-c: Medium Density Residential Uses. Promote medium density residential uses to maximize efficient use of residential property through a wide range of densities.
- LU-5-g Scale and Character of New Development. Allow new development in or adjacent to established neighborhoods that is compatible in scale and character with the surrounding area by promoting a transition in scale and architectural character between new buildings and established neighborhoods, as well as integrating pedestrian circulation and vehicular routes

LU-5-h Housing Offering Amenities. Support housing that offers residents a range of amenities, including public and private open space, landscaping, and recreation facilities with direct access to commercial services, public transit, and community gathering spaces.

Upon approval the proposed Project would not conflict with any land use plan, policy or regulation. The discretionary approval required for the Project will include reviews and comments from responsible agencies, and from several City departments to ensure compliance with all applicable, plans, policies, regulations, standards, and conditions of approval. With approval of the discretionary actions, the Project will be consistent with the City's General Plan and Zoning Ordinance and will comply with local and State building codes and requirements. The zoning and General Plan designation are consistent with the proposed residential development.

The proposed Project would not result in any land use and planning environmental impacts. There would be *no impact.*

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

DISCUSSION

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The California Department of Conservation, Geological Survey classifies lands into Aggregate and Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act of 1974. These MRZs identify whether known or inferred significant mineral resources are present in areas. Lead agencies are required to incorporate identified MRZs resource areas delineated by the State into their General Plans. The subject site is not located in an area designated for mineral resource preservation or recovery area.

According to the California Department of Conservation - Geologic Energy Management Division (CalGEM) website, there are no active, inactive, or capped oil wells located within the Project site, and it is not within a DOGGR-recognized oilfield. Additionally, the Fresno General Plan has not designated the Project site to be located in an area designated for mineral resource preservation or recovery. The Project will not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Therefore, the Project would not result in any mineral resource environmental impacts. Therefore, there would be *no impact*.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The subject site is not designated by the General Plan, specific plan, or other land use plan as a locally-important mineral resource recovery site; therefore, it will not result in the loss of availability of a locally-important mineral resource. This is a less than significant impact. Therefore, the Project would not result in any mineral resource environmental impacts, and there is *no impact*.

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels?		X		
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

DISCUSSION

The analysis presented in this section are based on an Acoustical Analysis (WJV Acoustics, Inc, 2022) for the Project, which is attached as Appendix F.

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

The 2020 City of Fresno General Plan Update and associated PEIR provides noise level criteria for land use compatibility for both transportation and non-transportation noise sources. The General Plan sets noise compatibility standards for transportation noise sources in terms of the Day-Night Average Level (Ldn). The Ldn represents the

time-weighted energy average noise level for a 24-hour day, with a 10-dB penalty added to noise levels occurring during the nighttime hours (10:00 p.m.-7:00 a.m.). The Ldn represents cumulative exposure to noise over an extended period of time and is therefore calculated based upon annual average conditions.

Implementing Policy NS-1-h of the Noise Element requires that interior noise levels attributable to exterior transportation noise sources not exceed 45 dB Ldn. The intent of the interior noise level standard is to provide an acceptable noise environment for indoor communication and sleep.

Traffic Noise Exposure

Table 13-1 below indicates that the traffic noise exposure at the closest lots to S. Peach Avenue would be approximately 63 dB Ldn for existing conditions and approximately 64 dB Ldn for future (2035) traffic conditions. The table also indicates that traffic noise exposure at the closest lots on East Church Avenue would be approximately 55 dB Ldn for existing conditions and approximately 54 dB Ldn for future (2035) traffic conditions. Such noise exposure levels do not exceed the City's 65 dB Ldn exterior noise level standard, and mitigation measures are not required for compliance with the City's exterior noise level standard.

Table 13-1
Modeled Traffic Noise Levels, DB, L_{dn}
Olive Lane Subdivision

Roadway	Existing Conditions	2035 Conditions
S. Peach Avenue (north of E. Church Avenue)	63	64
E. Church Avenue (east of S. Peach Avenue)	55	54

Source: WJV Acoustics / Fresno COG

The City of Fresno's interior noise level standard is 45 dB Ldn. The worst-case noise exposure within the proposed residential development would be approximately 64 dB Ldn (2035 conditions along S. Peach Avenue). This means that the proposed residential construction must be capable of providing a minimum outdoor-to-indoor noise level reduction (NLR) of approximately 19 dB (64-45=19). Residential construction methods will comply with current building code requirements and reduce exterior noise levels by approximately 25 dB if windows and doors are closed. This will be sufficient for compliance with the City's 45 dB Ldn interior standard at all proposed Project.

The Project site is located on the northeast corner of the intersection of Church Avenue and Peach Avenue. Existing land uses in the immediate vicinity include a school to the south and residential development to the north, east, and west.

Conclusion

The Project will be required to comply with all noise policies and development standards identified within the Fresno General Plan and PEIR as well as the noise ordinance of the Fresno Municipal Code, Chapter 10 Article 1 – Noise Regulations. Through compliance with the policies and development standards and with implementation of General Plan policies NS-1-i, NS-1-j as proposed on the TTM to reduce noise impacts related to the railroad and park sites, the interior and exterior noise levels would comply with the City's noise standards, and impacts will be less than significant. Furthermore, the Project may produce an elevated ambient noise level during construction; however, those impacts are temporary, and no operational noise will be generated that exceeds the adopted noise levels identified for neighboring land uses. Therefore, Project impacts are considered to be *less than significant with mitigation incorporated*.

b) Generation of excessive groundborne vibration or groundborne noise levels?

According to the Federal Transit Administration Noise and Vibration Impact Assessment Guidelines (FTA-VA-90-06), ground-borne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, ground-borne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads.

Typical sources of groundborne vibration are construction activities (e.g., pavement breaking, pile driving and operating heavy-duty earthmoving equipment), and occasional traffic on rough roads. The Project does not propose any pavement demolition or pile driving. In general, groundborne vibration from standard construction practices is only a potential issue when within 25 feet of sensitive uses. As noted above, the closest sensitive receptors to the proposed project include the single-family residences directly east of the project site. However, the Project parcel faces the backyards of these homes, and there is approximately 25 feet between the Project and the houses. At this distance, construction activities associated with construction are not expected to result in excessive groundborne vibration or groundborne noise levels. In addition, no other existing buildings are located within 25 feet of the Project site. Once operational, no permanent groundborne vibration or noise sources would be located within the project site that would expose persons to excessive groundborne vibration or noise levels. Therefore, implementation of the proposed project would not result in the generation of excessive groundborne vibration or groundborne noise levels, and impacts would be less than significant.

Construction activity would be exempt from City of Fresno regulations as long as such activity is conducted pursuant to an applicable construction permit and occurs between 7:00 a.m. and 10:00 p.m., excluding Sunday. The Project would also comply with PEIR Mitigation Measure NOI-2, which prohibits the use of heavy construction equipment within 25 feet of existing structures during construction. With implementation of PEIR NOI-2, The Project would not generate excessive vibratory or noise impacts during short-term construction and impacts would be *less than significant impact with mitigation incorporated*.

c) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The closest airport or airstrip is the Fresno Yosemite International Airport, located approximately 3.89 miles south of the Project site. The proposed Project is outside noise level contours identified in the Fresno Airport Land Use Compatibility Plan (Fresno Council of Governments, 2018).

Therefore, the proposed Project would not expose people residing or working at the Project site to excessive noise levels associated with such airport facilities. In conclusion, with implementation of the Project, the Project will not result in any noise impacts, and the Project will have *no impact.*

Mitigation Measures

The proposed project shall implement and incorporate the noise related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated May 20, 2022.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

DISCUSSION

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The population in Fresno is 542,107 people, and the average persons per household is 3.07 (United States Census, 2021). It is anticipated that by 2040 the Fresno population will be 816,980 (Fresno County Council of Governments, 2017).

The Project build-out will result in an additional 73 single-family residences and a corresponding population increase of 224 residents. The Project population growth represents a 0.0435642 percent increase in the 2020 population. The Project-related population increase is de-minimis and will be absorbed upon full build-out of the Project. The installation of new infrastructure would be limited to the internal single-family residences and related improvements. The sizing of the infrastructure would be specific to the number of units proposed within the Project site.

This Project is located on a parcel listed in the 2013-2023 RHNA Housing Element Sites Inventory, which anticipates a minimum capacity of 51 above moderate units for this site. The 2013-2023 RHNA obligation for above moderate is 10,116 and the existing surplus capacity is 5,568 for a total existing capacity of 15,684 units. This project proposes 73 units of above moderate housing; thus it will increase the surplus capacity to 5,590. As the remaining sites identified in the Housing Element are adequate to meet the requirements of Section 65583.2 of the California Government

Code and to accommodate the City's share of the regional housing need pursuant to Section 65584, this project is consistent with the Housing Element.

The City's General Plan includes encouraging residential developments to meet the future population growth needs. This project accommodates this anticipated increase in City's population by providing 73 new residences for existing and future residents. Implementation of the proposed Project would not induce unplanned population growth in an area, as the property is currently designated for residential uses by the City's General Plan and this type of residential development is anticipated on the property. As such, it would not either directly or indirectly cause impacts by the development of unplanned infrastructure. Therefore, impacts are considered to be *less than significant*.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The proposed Project would not require the demolition of any housing, as the site is currently undeveloped. As proposed, the Project will not displace existing housing or people either directly or indirectly. Therefore, there are *no impacts*.

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES – Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?				X
Other public facilities?			X	

DISCUSSION

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

i. Fire protection?

The Project site is located approximately 2 miles southwest of Fire Station 15. The proposed Project will comply with Title 24 of the California Building Code and local development standards. Prior to the recordation of any subdivision map, the applicant will be required to enter into an agreement with the City to pay development impact

fees that are collected for the provision of capital facilities for fire facilities that will provide for future facilities as the City's population increases.

The Project is required to pay development impact fees that are collected that will provide for future fire-related facilities as the City's population increases. Recognizing that there would be an increased demand for fire and emergency medical response, the General Plan includes several policies to support the activities of the Fresno Fire Department. General Plan Policies PE-3-d and PU-3-e will ensure that the proposed Project does not significantly affect fire protection.

The construction of the Project may result in a minor increase in demand for fire protection services but would not require new or altered facilities. The General Plan Update includes several policies to support the activities of the Fresno Fire Department, such as PU-3-d, which requires the Fire Department to review development applications, and PU-3-e, which enforces amendments to construction and fire codes, to systematically reduce the level of risk to life and property from fire, commensurate with the City's fire suppression capabilities.

The aforementioned policies and objectives of the General Plan will ensure that the proposed Project does not significantly affect fire protection. With the Projects compliance with General Plan Policy PU-2-f, payment of impact fees for the Project would not significantly impact Department's response time to incidents. Therefore, impacts would be *less than significant.*

ii. Police protection?

The Project site is approximately 2.15 miles southeast of the Fresno Police Department Southeast Policing District station.

According to the City of Fresno General Plan, development impact fees are collected for the provision of capital facilities for public safety facilities that will provide for future facilities as the City's population increases. Recognizing that there would be an increased demand for police and emergency medical response, the General Plan includes several policies including PU-1-c and PU-1-g to support the activities of the Police Department. PU-1-c would ensure appropriate safety, design, and operational measures are applied to the Project for on-site safety. PU-1-g of the City's General Plan requires that a program be created and adopted that provide targeted police services and establish long-term steps for attaining and maintaining the optimum levels of service – 1.5 unrestricted officers per 1,000 residents. The Project's payment of impact fees ensure implementation of policy PU-1g.

The Project may result in significant environmental impacts related to acceptable service ratios, response times, or other performance objectives specific to police protection services. However, to reduce impacts to public protection services, the Project developer is required to pay appropriate impact fees related to police

protection and is responsible for constructing any infrastructure needed to serve the Project. Therefore, the Project does not significantly affect police protection.
Therefore, with implementation of standard local requirements for development projects related to police protection services, impacts are considered *less than significant*.

iii. Schools?

Impacts on schools are determined by analyzing the projected increase in demand for schools as a result of future residential development projected under the proposed Project.

School fees are collected for all new residential and commercial buildings. Fees are typically higher for residential uses, as these uses are associated with increased population growth, leading to an increased student population at existing schools. The Project is projected to have approximately 224 residents. Assuming that one of the average 3.04 people per household is a school-age child, the Project would include approximately 74 children that could be in the student population. However, it is also assumed that some portion of these children will be currently enrolled in school and may not necessarily be considered a new student.

The Project includes discretionary approvals for a Vesting Tentative Tract Map. The Project review and approval process will ensure that all school-related fees are paid by the applicant. These requirements will ensure that the proposed Project does not significantly affect Fresno Unified School District's facilities. The District recognizes that the legislature, as a matter of law, has deemed under Government Code Section 65996 that all school facilities' assessment of developer fees are set for new residential developments. The Project developer will pay appropriate impact fees at the time of building permits. The proposed Project does not result in the construction of new school facilities.

Therefore, with implementation of standard local requirements for development projects related to school fees, impacts are considered *less than significant*.

iv. Parks?

Impacts on parks and recreational facilities are determined by analyzing the projected increase in demand for these facilities as a result of future residential development and the corresponding population increase projected under the proposed Project. According to the 2025 City of Fresno General Plan, the City's standard called for at least 3.0 acres of parkland to be provided per 1,000 residents. Park and recreation fees (Quimby) are collected for all new residential developments. The Project review and approval process will ensure that all park-related fees are paid by the applicant.

However, the Project proposes an outlot that will be approximately 6,000 square feet of open space dedicated to the City of Fresno to satisfy park requirements. Therefore, as the Project proposes, the proposed Project does not significantly affect park and recreation facilities. Therefore, there is *no impact* as the Project will increase park facilities.

v. Other public facilities?

The Project build-out will result in an additional 73 single-family residences and a corresponding projected population increase of 224 residents. The Project population growth represents a 0.0435642 percent increase in the 2020 population. Impacts on other public facilities such as courts, libraries, and hospitals are determined by analyzing the projected increase in demand for these facilities.

The Project review and approval process will ensure that all development-related impact fees are paid by the applicant. In addition, the Project will not result in any public service impacts. Therefore, Project impacts are considered to be *less than significant*.

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION - Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

DISCUSSION

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

See also Section XV (iv) PUBLIC SERVICES, above. The Project proposes approximately 6,000 square feet of open space and an additional public trail. Impacts on parks and recreational facilities are determined by analyzing the projected increase in demand for these facilities as a result of future residential development and corresponding population increases. The Project build-out will result in an additional 73 single-family residences and a corresponding population increase of 224 residents. The Project population growth is minimal and will not have a negative impact on neighborhood or regional parks as the Project has its own open space and trails area. Therefore, Project impacts related to parks and recreational facilities are considered to have *no impacts*.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

As stated above, Project proposes to develop approximately 6,000 square feet of open space for dedication to the City of Fresno and an additional public trail as

Identified on TT 6410. Future construction of the park facilities and any associated infrastructure additions will be conducted by the City of Fresno. Therefore, through the standard City building process for the future park, City staff will ensure that the proposed Project does not significantly affect park and recreation facilities. The Project would not result in any recreational environmental impacts. Therefore, impacts are considered to be *less than significant*.

Mitigation Measures

No Mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

DISCUSSION
The VMT calculator results referenced herein are attached as Appendix H.

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Bicycle Facilities

The 2017 City of Fresno Active Transportation Plan (ATP) refers to the Caltrans Highway Design Manual for the classification of bicycle facilities as follows:

- Class I Bikeway (Bike Path): Off-street facilities that provide exclusive use for non-motorized travel, including bicyclists and pedestrians.
- Class II Bikeway (Bike Lane): On-street facilities that use striping, stencils, and signage to denote preferential or exclusive use by bicyclists.
- Class III Bikeway (Bike Route): On-street pavement markings or signage that connect the bicycle roadway network along corridors that do not provide enough space for dedicated lanes on low-speed and low-volume streets.

- Class IV Bikeway (Separated Bikeways): Physically separated bicycle facilities that are distinct from the sidewalk and designed for exclusive use by bicyclists. Commonly known as “cycle tracks,” they are located within the street right-of-way but provide similar comfort when compared to Class I Bikeways.

The ATP identifies existing Class II and Class III bike lanes in the immediate vicinity of the Project site. The ATP also identifies exiting Class II bikeway facilities running east-west along Church Avenue and Class III bike lane along the eastern portion of Peach Avenue westerly adjacent to the Project site.

Pedestrian Facilities

Pedestrian connectivity is not well established in the general vicinity of the site. Sidewalks typically exist only within and along the frontage of adjacent residential developments. The Project would be required to construct sidewalks along its frontage. Upon submittal of development permits with the City for the Project, all applicable requirements for updating sidewalks and other related infrastructure will be required from the ATP.

Transit

Fresno Area Express (FAX) is the transit operator in the City of Fresno. The closest is FAX Route 41, located at the intersection of Church and Maple Avenues. The Project is not expected to disrupt or impede existing transit facilities.

The Project is not expected to disrupt or impede existing or planned bicycle facilities, or pedestrian or transit facilities. The Project will not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, bicycle, and pedestrian facilities. Impacts related to these transit facilities are *less than significant*.

Table 17-1 below presents trip generation estimates for the Project. For comparison purposes, an estimate of the number of trips that potentially could have been generated by a Project constructed based on the current Single-Family Residential land use designation is presented below.

Table 17-2
Project Trip Generation Estimate

Land Use	Units	Daily		A.M. Peak Hour					P.M. Peak Hour				
		Rate	Total	Rate	In:Out	In	Out	Total	Rate	In:Out	In	Out	Total
Single-Family Detached Housing (210)	73	9.44	698	0.74	25:75	13	41	54	0.99	63:37	46	27	73

Source: Trip Generation Manual 10th Edition – Volume 2: Data

Trips generated during construction would not likely result in a substantial increase in traffic in relation to the existing roadway capacity nor congestion at intersections. The potential impacts on the local roadway system from the construction of 73 single-family homes related to vehicle trips and the Project's operational traffic on the area roadway and circulation system is minimal. Impacts related to traffic are *less than significant*.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Senate Bill (SB) 743 requires that relevant CEQA analysis of transportation impacts be conducted using a metric known as vehicle miles traveled (VMT) instead of Level of Service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the project adds excessive car travel onto our roads, the project may cause a significant transportation impact.

The State CEQA Guidelines were amended to implement SB 743, by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS measures of impacts on traffic facilities is no longer a relevant CEQA criteria for transportation impacts.

CEQA Guidelines Section 15064.3(b)(4) states that "[a] lead agency has discretion to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section."

On June 25, 2020, the City of Fresno adopted CEQA Guidelines for Vehicle Miles Traveled Thresholds pursuant to Senate Bill 743 to be effective of July 1, 2020. The thresholds described therein are referred to herein as the City of Fresno VMT Thresholds. The City of Fresno VMT Thresholds document was prepared and adopted consistent with the requirements of CEQA Guidelines Sections 15064.3 and 15064.7. The December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) published by the Governor's Office of Planning and Research (OPR), was utilized as a reference and guidance document in the preparation of the Fresno VMT Thresholds.

The City of Fresno VMT Thresholds adopted a screening standard and criteria that can be used to screen out qualified projects that meet the adopted criteria from needing to prepare a detailed VMT analysis.

The City of Fresno VMT Thresholds Section 3.0 regarding Project Screening discusses a variety of projects that may be screened out of a VMT analysis including specific development and transportation projects. For development projects, conditions may exist that would presume that a development project has a less than significant impact. These may be size, location, proximity to transit, or trip-making potential. For transportation projects, the primary attribute to consider with transportation projects is the potential to increase vehicle travel, sometimes referred to as "induced travel."

One of the eligible screening criteria is if a project is located within an area with low VMT, as designated in the screening map for residential uses (Figure 6) in the City of Fresno's CEQA Guidelines for Vehicle Miles Traveled Thresholds Technical Advisory. These low VMT areas were calculated using Fresno County as the region. The Fresno County average VMT per capita is 16.10. VMT Screen out is included as Appendix H.

The proposed project is eligible to screen out because it is located in a low VMT zone, as designated by the Fresno COG screening map and Figure 6 of the City of Fresno CEQA Guidelines for VMT Thresholds. The Screening Map shows the Project site within an area of Low VMT. Table 17-2 summarizes the results of the Fresno COG VMT screening tool. Based on the output, the Project is expected to have an average VMT of 12.81 per capita and does not exceed the City's VMT threshold of 14.01 VMT per capita..

Table 17-2
VMT Results

Project Component	Fresno COG VMT Analysis Tool Results[1]	City of Fresno VMT Threshold	Significant VMT Impact?
Single Family Residential	12.81	14.01	No

Note: 1 = VMT Results per Fresno COG VMT Calculation Tool

In conclusion, the Project will result in a *less than significant* VMT impact and is consistent with CEQA Guidelines Section 15064.3(b).

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Project will be designed to current standards and safety regulations. All intersections will be constructed to comply with the City and Caltrans regulations and design and safety standards of Chapter 33 of the California Building Codes (CBC) and the guidelines of Title 24 to create safe and accessible roadways. All new driveways connecting to existing adjacent streets must be designed in accordance with the City's street standards that assure safe ingress/egress.

Vehicles exiting the subdivision will be provided with a clear view of the roadway without obstructions. Landscaping associated with the entry driveways could impede such views if improperly installed. Specific circulation patterns and roadway designs will incorporate all applicable safety measures to ensure that hazardous design features or inadequate emergency access to the site or other areas surrounding the Project area would not occur.

Therefore, with the incorporated design features and all applicable rules and regulations for City standards, Project impacts are considered to be *less than significant,* and no further analysis is warranted.

d) Result in inadequate emergency access?

There will be two main entry points to the Project off of Church Avenue. The Project will be required to construct all necessary street frontage improvements to City Standards. In addition, the proposed Project will be required to dedicate and construct improvements along all major street frontages and on any future proposed local interior streets within respective phases in accordance with City of Fresno standards, specifications, and requirements.

The Project would not inhibit the ability of local roadways to continue to accommodate emergency response and evacuation activities. The Project would not interfere with the City's adopted emergency response plan. Therefore, with the incorporated design features and all applicable rules and regulations for State and City standards. Therefore, the Project would result in a *less than significant* impact associated with emergency access. In conclusion, the proposed Project would not result in any transportation environmental impacts.

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRIBAL CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:		X		
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC section 5020.1(k), or,		X		
ii) A resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC section 5024.1. In applying the criteria set forth in subdivision (c) of PRC section 5024.1, the Lead Agency shall consider the significance of the resource to a California Native American tribe.		X		

DISCUSSION

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

The State requires lead agencies to consider the potential effects of proposed Projects and consult with California Native American tribes during the local planning process for the purpose of protecting Traditional Tribal Cultural Resources through the CEQA Guidelines. Pursuant to PRC Section 21080.3.1, the Lead Agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed Project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Historic Register or local historic register or the Lead Agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a)(1-2)).

Pursuant to AB 52, the Table Mountain Rancheria of California and Dumna Wo Wah Tribal Government were invited to consult under AB 52. The City of Fresno mailed notices of the proposed Project to each of these tribes on April 15, 2022 which included the required 30-day time period regarding AB 52 ending on May 16, 2022. To date, neither tribal group has responded to the City's notices for this Project.

As noted in V. CULTURAL RESOURCES (a)-(c), the Native American Heritage Commission (NAHC) was asked to conduct a search of its Sacred Lands File to identify previously recorded sacred sites or cultural resources of special importance to tribes and provide contact information for local Native American representatives who may have information about the Project area. A response dated March 1, 2022, indicates negative results.

A records search (#22-006) was conducted at the Southern San Joaquin Valley Information Center (IC), CSU Bakersfield, records search covered an area within one-half mile of the Project and included a review of the *National Register of Historic Places, California Points of Historical Interest, California Registry of Historic Resources, California Historical Landmarks, California State Historic Resources Inventory*, and a review of cultural resource reports on file.

Based on the results of cultural records search findings and the lack of historical or archaeological resources previously identified within a half-mile radius of the proposed Project, the potential to encounter subsurface cultural resources is minimal. Additionally, the Project construction would be conducted within the partially developed and previously disturbed parcel. The Project would not impact the cultural resource properties that are within the vicinity. The potential to uncover subsurface historical or archaeological deposits would be considered unlikely.

The Project site is currently undeveloped and was historically in agricultural production. If any artifacts are inadvertently discovered during ground-disturbing activities, existing federal, State, and local laws and regulations as well as the mitigation measures of the PEIR, will require construction activities to cease until such artifacts are properly examined and determined not to be of significance by a qualified cultural resources professional.

In conclusion, with GP PEIR mitigation measures incorporated, the Project will not result in any cultural resource impacts, and implementation of the GP PEIR Mitigation Measure CUL-1.1, CUL-1.2 CUL-2 and CUL-3 will result in a *less than significant impact with mitigation incorporated*.

ii. A resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the Lead Agency shall consider the significance of the resource to a California Native American tribe.

The State requires lead agencies to consider the potential effects of proposed projects and consult with California Native American tribes during the local planning process for the purpose of protecting Traditional Tribal Cultural Resources through the CEQA Guidelines. Pursuant to PRC Section 21080.3.1, the Lead Agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed Project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Historic Register or local historic register or the Lead Agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a)(1-2)).

Additional information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

All tribes, to which invitations for consultation were extended declined AB 52 consultation. Existing cultural resources protection laws also require construction activities to cease if artifacts are discovered. The Project site is currently undeveloped and was historically in agricultural production. If any artifacts are inadvertently discovered during ground-disturbing activities, existing federal, State, and local laws and regulations as well as the mitigation measures of the PEIR will require construction activities to cease until such artifacts are properly examined and determined not to be of significance by a qualified cultural resources professional.

In conclusion, with City of Fresno PEIR mitigation measures incorporated, the Project will not result in any cultural resource impacts and implementation of PEIR Mitigation Measures CUL-1.1, CUL 1.2, CUL-2 and CUL-3 will result in a *less than significant impact with mitigation incorporated.*

Mitigation Measures

The proposed project shall implement and incorporate the tribal cultural resource related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated May 20, 2022.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effect?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

DISCUSSION

a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

The proposed Project will require the construction of new infrastructure to connect to the existing utility infrastructure. This will include water, wastewater, and stormwater drainage connections. Additionally, the Project will include connections for electric power, natural gas, and telecommunications facilities. The installation of this infrastructure will not require any major upsizing or other offsite construction activities that would cause a significant impact. The new infrastructure would be connected to the existing infrastructure that is adjacent to the Project site.

Impacts to storm drainage facilities have been previously discussed in X. HYDROLOGY AND WATER QUALITY (b, c (i)-C(iii) and e). In compliance with NPDES General Construction Permit requirements, the proposed Project would design and submit a site-specific SWPPP to minimize the discharge of wastewater during construction and a Water Quality Management Plan that includes BMPs for runoff control as required. Therefore, the proposed Project would not require new stormwater drainage facilities to manage stormwater runoff during construction or operation, and impacts would be *less than significant*.

The proposed Project would be subject to the payment of any applicable connection charges and/or fees and extension of services in a manner that is compliant with the Department of Public Utilities standards, specifications, and policies.

Sanitary sewer and water service under City of Fresno jurisdiction, delivery is also subject to payment of applicable connection charges and/or fees; compliance with the Department of Public Utilities standards, specifications, and policies; the rules and regulations of the California Public Utilities Commission and California Health Services; and, implementation of the citywide program for the completion of incremental expansions to facilities for planned water supply, treatment, and storage.

Therefore, the Project has a *less than significant impact* .

b) **Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

As discussed under the Section VII HYDROLOGY AND WATER QUALITY (b, c(i)-c(iii) and e, the proposed Project is anticipated to use approximately 50.12 acre feet of water annually. The Project will obtain water by connecting to City utility services. The PEIR recognizes regional water resource planning efforts, such as the Kings Basin's Integrated Regional Water Management Plan, the Fresno- Area Regional

Groundwater Management Plan, and the City of Fresno Metropolitan Water Resource Management Plan and cites the findings of the City of Fresno 2020 UWMP. The purpose of these management plans is to provide safe, adequate, and dependable water supplies in order to adequately meet the existing and future needs of the Kings Basin regions and the Fresno-Clovis metropolitan area in an economical manner; protect groundwater quality from further degradation and overdraft; and, provide a plan of reasonably implementable measures and facilities.

The Project will comply with all applicable requirements of the City of Fresno Department of Public Utilities to reduce the Project's water impacts. The Project conditions of approval may include water service and water supply requirements include such as the use of water meters, the installation of water mains, fire hydrants, and the payment of applicable Water Capacity fees. Therefore, the Project has a *less than significant impact*.

c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

See also discussion of Impacts a and b, above, The City acts as the Regional Sewer Agency and is responsible for operating the Fresno/Clovis Regional Wastewater Reclamation Facility (RWRF) and the North Fresno Wastewater Treatment Facility (NFWTF). The Regional Facility provides wastewater treatment for a service area that includes most of the Cities of Fresno and Clovis and some unincorporated areas of Fresno County. According to the City of Fresno PEIR, the Regional Facility received and treated approximately 72,302 acre-feet (AF) of wastewater during 2011, representing an annual average daily flow of approximately 64.5 million gallons per day (MGD). The quantity of wastewater received and treated by the Regional Facility has been declining since 2006, when it peaked at a total of approximately 80,801 AF, representing an annual average daily flow of approximately 72.1 MGD.

The permitted wastewater treatment capacity of the Regional Facility is currently 80-MGD as an annual, monthly average flow, and 88-MGD as a maximum monthly average flow. The City is currently evaluating upgrades and modifications to the existing Regional Facility that may result in a capacity rating increase of 15-MGD. The City of Clovis owns 9.3-MGD of wastewater treatment capacity at the Regional Facility, and the City of Fresno owns the remaining capacity.

The NFWTF was constructed in late 2006 to provide wastewater treatment service for residential and commercial development in the surrounding area of north Fresno. The permitted capacity of the NFWRF is 0.71 MGD, as an average monthly flow and 1.07 MGD, as a maximum daily flow. The City's master plan for the NFWRF calls for ultimate expansion to an average monthly flow capacity of 1.07-MGD upon full development of the NFWRF service area.

The City of Fresno PEIR concludes that impacts associated with wastewater treatment facilities and capacity resulting from the buildout of the General Plan, including the proposed Project site, would be less than significant.

The City of Fresno Department of Public Utilities will review the Project and determine which sanitary sewer facilities are available to provide service to the site. The Project conditions of approval may include payment of the applicable sanitary sewer fees, which would eventually be used to provide funding for the improvements at the RWRF and NFWTF in order to expand capacity.

The proposed Project will not result in an inadequate capacity to serve the Project's anticipated wastewater demand in addition to the provider's existing commitments. With implementation of applicable conditions of approval, the proposed Project would not obstruct implementation of wastewater management. Therefore, the Project has a *less than significant impact*.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The City of Fresno Department of Public Utilities, Solid Waste Division has reviewed the Project for compliance with any federal, State, and local management and reduction statutes and regulations related to solid waste. According to the City of Fresno PEIR, garbage disposed of in the City of Fresno is taken to Cedar Avenue Recycling and Transfer Station. Once trash has been off-loaded at the transfer station, it is sorted, and non-recyclable solid waste is loaded onto large trucks and taken to the American Avenue Landfill located approximately six miles southwest of Kerman. American Avenue Landfill is owned and operated by Fresno County and began operations in 1992 for both public and commercial solid waste haulers. The American Avenue Landfill is a sanitary landfill, meaning that it is a disposal site for non-hazardous solid waste spread in layers, compacted to the smallest practical volume, and covered by material applied at the end of each operating day.

The American Avenue Landfill (i.e., American Avenue Disposal Site 10-AA-0009) has a maximum permitted capacity of 32,700,000 cubic yards and a remaining capacity of 29,358,535 cubic yards, with an estimated closure date of August 31, 2031. The maximum permitted throughput is 2,200 tons per day. Other landfills within the County of Fresno include the Clovis Landfill, with a maximum remaining permitted capacity of 7,740,000 cubic yards, a maximum permitted throughput of 2,000 tons per day, and an estimated closure date of 2047. There is also the Coalinga Landfill, with a maximum remaining capacity of 1,930,062 cubic yards, a maximum permitted throughput of 200 tons per day, and an estimated closure date of 2029. As noted above, the estimated closure date of the American Avenue Landfill is 2031. Additional capacity also exists at the Clovis Landfill and Coalinga Landfill. The 200 tons per year would not result in an exceedance of the local capacity infrastructure.

It is anticipated the Project would generate minimal amounts of waste during construction. Any Hazardous waste generated during construction would be disposed of at an approved location, and construction activities are not expected to exceed the capacity of these landfills.

In the operation phase, typical household refuse would be generated by residences; according to CalRecyle residential units average 12.23 lbs. of household refuse per day. The proposed 73 units would generate approximately 893 lbs. per day (or 163 tons per year). The Project will comply with any statutes and regulations related to solid waste. Therefore, the proposed Project would not result in any waste related environmental impacts and would be l*ess than significant.*

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Project construction and operational activities that generate solid waste are handled, transported, and disposed of in accordance with applicable federal, State, and local regulations pertaining to municipal waste. The 1989 California Integrated Waste Management Act requires jurisdictions to attain specific waste diversion goals (AB 939 2019). In addition, the California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires expanded or new development Projects to incorporate storage areas for recycling bins into the proposed Project design. Reuse and recycling of construction debris would reduce operating expenses and save valuable landfill space. With development in accordance with the City's General Plan, solid waste will continue to be handled, transported, and disposed of according to all applicable federal, State, and local regulations pertaining to municipal waste disposal. The City has a number of provisions that require or promote recycling and waste reduction, including the Construction and Demolition Recycling Ordinance, which requires contractors to recycle construction and demolition debris.

In June of 2005, the Fresno City Council adopted the City of Fresno Solid Waste and Recycling Facilities Ordinance (Ord. No. 2003-100; FMC Chapter 6, Article 2 and FMC 10-401) in order to comply with AB 939, which requires the implementation of integrated waste management plans and mandates that local jurisdictions divert at least 50 percent of all solid waste. The recycling of construction and demolition materials is required for any City-issued building, relocation, or demolition permit that generates at least eight cubic yards of material by volume.

The Project would generate solid waste during construction and operation of the new single-family residences. Common construction waste may include metals, masonry, plastic pipe, rocks, dirt, cardboard, or green waste related to land development. AB 939 and Ordinance No. 2003-100 require the City of Fresno to attain specific waste diversion goals. The waste disposal facilities listed above have the available capacity to accept construction waste from potential new facilities.

The Project is required to comply with all local, State, and federal regulations related to solid waste and would not result in any utility-related environmental impacts and are considered to be *less than significant.*

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

DISCUSSION

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

The Project site will connect to an existing network of City streets. The Project site has several access points allowing access in the event of an emergency. Therefore, no

significant impacts related to the impairment of the implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan would occur.

The proposed Project is for the residential construction. These types of uses are similar in nature to the other uses within the Project area. It is not anticipated that new or different impairments would occur that may physically interfere with an adopted emergency response plan or emergency evacuation plan. All Project plans submitted to the City will be reviewed in compliance with federal, State, and local regulations related to emergency access. The Project is required to comply with all local, State, and federal regulations related to emergency preparedness and would not result in environmental impacts, and Project impacts are considered to be *less than significant*.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

See IX. HAZARDS AND HAZARDOUS MATERIAL (g). There are no very high fire hazard severity zones located within the City of Fresno. Although the City of Fresno is proximate to high and very high fire hazard designated areas, the City is largely categorized as little or no threat or moderate fire hazard, which is largely attributed to urban development. Some small areas along the San Joaquin River Bluff area in northern Fresno are prone to wildfires due to relatively steep terrain/vegetation, and these areas are classified as high fire hazard areas. The Project area is located in a Local Responsibility Area (LRA) and has been designated as Non-Wildland by CalFire.

The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels, and fuel moisture contents), and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The Project site is located in an area that is predominately urban, which is not considered at significant risk of wildlife. There are minimal amounts of highly flammable fuels such as dry grasses in the area. Therefore, in the unlikely event of a wildfire, the project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The Project would not pose a wildfire risk during construction or operations and Project impacts are considered to be *less than significant.*

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

See discussion under XX. WILDFIRE (a) above. The Project includes the development of infrastructure (water, sewer, and storm drainage) required to support the proposed residential uses and park site. The Project site is surrounded by existing and future urban development. However, the site is not located within an area designated as a high wildfire risk. Additionally, all new single-family residences would be required to comply with federal, State, and local health and safety regulations, development standards, building codes, and other laws and regulations that govern fire protection and suppression. All Project-related construction will meet or exceed all Federal, State, and local regulations and codes related to fire protection and suppression. Additionally, the Project would not require the installation or maintenance of associated infrastructure and will not exacerbate fire risk that may result in impacts to the environment. Therefore, there are no impacts. Therefore, Project impacts are considered to be *less than significant.*

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The proposed Project would require the installation of storm drainage infrastructure to ensure that storm waters properly drain from the Project site and do not result in downstream flooding or major drainage changes. A storm drainage plan would be designed and engineered to ensure the proper construction of storm drainage infrastructure to control runoff and prevent flooding, erosion, and sedimentation.

Upon development of the site, stormwater would flow to the existing storm drains in the adjacent roadways. Any further storm drain requirements will be processed by the Fresno Metropolitan Flood Control District and constructed per the District's standards. Additionally, the Project site is located within an "Area of Minimal Flood Hazard" indicating that the site is located outside of the 100-year flood hazard zone as determined by the Federal Emergency Management Agency (FEMA) (Federal Emergency Management Agency, 2022). Further, because the site is essentially flat and located in an existing urbanized area of the City, downstream landslides would not occur.

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. The Project site is flat and has little topography. Therefore, the Project will not expose people or structures to risks of causing downstream flooding, landslides, runoff, slope instability, or drainage changes. The Project would not pose a risk of downslope or downstream flooding or landslides during construction or operations. Therefore, there are *no impacts.*

Mitigation Measures

No mitigation measures are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		X		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

DISCUSSION

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

The size of the Project is a size that is not a detriment to the existing environment within the Project area. The Project will not reduce habitat, biological resources populations, or local historical components. As discussed in Section IV. Biological Resources and Section V, Cultural Resources, with the incorporation of Mitigation MeasuresBIO-1.1, BIO-1.2, BIO-1.4, BIO-2.1, CUL-1.1, CUL-1.2, CUL-2, CUL-3,the Project does not have the potential to degrade the quality of the environment or reduce the habitat of wildlife species and will not threaten plant communities or endanger any floral or faunal species. Furthermore, the Project has no potential to eliminate important examples of major periods in history. With implementation of applicable City of Fresno PEIR mitigation measures, impacts are considered to be *less than significant with mitigation incorporated*.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

The Project is considered to be proposed at a size and scope that would not result in impacts that are cumulatively considerable when viewed in connection with existing or future development as described in this initial study document.

Implementation of recommended mitigation measures AES-4.1, AES-4.2, , AIR-2.1 AIR-2.2, BIO-1.1, BIO-1.2, BIO-1.4, BIO-2.1, CUL-1.1, CUL-1.2, CUL-2, CUL-3, GEO-6.1, and NOI-2 would ensure that the impacts of the project would be below established thresholds of significance and that these impacts would not combine with the impacts of other cumulative projects to result in a cumulatively considerable impact on the environment as a result of project development and this impact would be *less than significant with mitigation incorporated*.

For the topics of Agriculture and Forest Resources, Energy, Hazards and Hazardous Materials, Hydrology and Water Quality Land Use, Greenhouse Gases, and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service Systems, and Wildlife, the Project would have no impacts or less-than-significant impacts, and therefore, the project would not substantially contribute to any potential cumulative impacts for these topics

Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

The Project is consistent with applicable environmental policies and mitigation measures as outlined in the General Plan PEIR that are required in several impact areas to reduce any potentially significant impacts to less than significant. Additionally, due to the existing residential development surrounding the project site and in the general area, the General Plan anticipates that future development will increase the density within adjacent areas. Development is planned to occur in the immediate area projected by the City's General Plan.

Therefore, the Project is not anticipated to cause substantial adverse effects on human beings directly. With implementation of the applicable City of Fresno PEIR mitigation measures AES-4.1, AES-4.2, , AIR-2.1, AIR-2.2, BIO-1.1, BIO-1.2, BIO-1.4, BIO-2.1, CUL-1.1, CUL-1.2, CUL-2, CUL-3, GEO-6.1, and NOI-2, impacts are considered to be *less than significant with mitigation incorporated*.

References

California Department of Toxic Substances. (2022). *Envirostar*. Retrieved from https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Chuch+ave+and+peach+ave+fresno

CAL FIRE. (2022). *Fire Severity Maps*. Retrieved from Fresno: https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/

California State Water Resources Control Board. (2022). *GeoTracker*. Retrieved from GeoTracker: https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=fowler+ave+and+dakota+ave%2C+fresno%2C+ca

City of Fresno. (2020). *2020 Urban Water Management Plan.*

City of Fresno. (2021). *Greenhouse Gas Reduction Plan Update.*

Federal Emergency Management Agency. (2022). *FEMA.* Retrieved from Firmette: https://msc.fema.gov/portal/home

Fresno County Council of Governments. (2017). *Fresno County 2050 Growth Projections.*

Krazan & Associates, Inc. (2021a). *Geotechnical Engineering Investigation- Church and Peach Avenues.*

Krazan and Associates. (2021b). *Phase I Environmental Site Assessment- Olive Lane Property.*

QK. (2022a). *Biological Resource Evaluation - Olive Lane Project.*

QK. (2022b). *Cultural Resources Records Search Results - Olive Lane Project.*

SJVAPCD. (2015). *Guidance for Assessing and Mitigating Air Quality Impacts.*

Trinity Consultants. (2022). *Small Project Analysis Level Assessment- Olive Lane Tract.*

U.S. Census Bureau. (2019). *Census* . Retrieved from Fresno, CA: https://www.census.gov/quickfacts/fresnocitycalifornia

United States Census. (2021). *U.S. Census*. Retrieved from Fresno City, CA.

WJV Acoustics, Inc. (2022). *Acoustical Anaaysis- Olive Lane Subdivision.*

SMALL PROJECT ANALYSIS LEVEL ASSESSMENT

Olive Lane Tract
Fresno, CA

Prepared For:

QK, Inc.
5080 California Avenue, Suite 220
Bakersfield, CA 93309

Prepared By:
Matt Daniel – Senior Consultant
Jake Risi – Associate Consultant

TRINITY CONSULTANTS
4900 California Avenue, Suite 420A
Bakersfield, CA 93309
(661) 282-2200

March 2022

Project 220505.0089

LIST OF FIGURES

LIST OF TABLES

1. EXECUTIVE SUMMARY

1.1 Executive Summary

Trinity Consultants has completed a limited air quality assessment for single-family residential tract at the northeast corner of the intersection South Peach Avenue and East Church Avenue in Fresno, California. The Project includes the construction of 76 single-family residences.

This limited air quality assessment uses the San Joaquin Valley Air Pollution Control District's (SJVAPCD) screening tool, Small Project Analysis Level (SPAL) (SJVAPCD 2020). This SPAL assessment was prepared pursuant to the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) (SJVAPCD 2015), the California Environmental Quality Act (CEQA) (Public Resources Code 21000 to 21189) and the CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).

1.2 Statement of Finding

Based on the SPAL established by the SJVAPCD's GAMAQI, the emissions estimates prepared pursuant to this assessment do not exceed the SJVAPCD's established emissions thresholds and significance thresholds for all CEQA air quality determinations; this Project would therefore not pose a significant impact to the San Joaquin Valley Air Basin and would have a less than significant air quality impact.

2. PROJECT INFORMATION

2.1 Introduction

The Project site is located in the City of Fresno and consists of the construction of 76 single family residences. The Project was assessed in 1 phase. This assessment examines the projected gross impacts to air quality posed by this Project to the San Joaquin Valley Air Basin to determine whether or not the Project remains below established air quality thresholds of significance.

2.2 Project Location

The Project is located within the City of Fresno, on the northeast corner of the intersection of South Peach Avenue and East Church Avenue. **Figure 2-1** depicts the Project location.

Figure 2-1. Project Location

3. SMALL PROJECT ANALYSIS LEVEL QUALIFICATION

This assessment was prepared pursuant to the SJVAPCD's GAMAQI (SJVAPCD 2015), the CEQA (Public Resources Code 21000 to 21189) and CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387). The SJVAPCD created the SPAL screening tool to streamline air quality assessments of commonly encountered projects. According to GAMAQI, the SJVAPCD "pre-calculated the emissions on a large number and types of projects to identify the level at which they have no possibility of exceeding the emissions thresholds"[1].

The SJVAPCD SPAL process established review parameters to determine whether a project qualifies as a "small project." A project that is found to be "less than" the established parameters has "no possibility of exceeding criteria pollutant emissions thresholds." **Table 3-1** presents the SPAL size parameters for residential projects.

Table 3-1. Small Project Analysis Level in Units for Residential

Land Use Category – Residential	Project Size (dwelling unit)*
Single Family	155
Apartment, Low Rise	224
Apartment, Mid Rise	225
Apartment, High Rise	340
Condominiums/Townhouse	256
Condominiums, High Rise	352
Mobile Home Park	292
Retirement Community	580
Congregate Care Assisted Living	536
Proposed Project – Single Family	**76**
SPAL Exceeded?	No
*Project size based on SPAL Table 1, as posted on SJVAPCD webpage: http://www.valleyair.org/transportation/CEQA Rules/GAMAQI-SPAL.pdf	

As shown in **Table 3-1**, the proposed Project would not exceed the established SPAL limits for a "Single Family" residential project. The Project would construct 76 single family residences compared to the allowable project size for an "Single Family" project which is 155 units. Based on the above information, this Project qualifies for a limited air quality analysis applying the SPAL guidance to determine air quality impacts.

[1] SJVAPCD GAMAQI, Section 8.3.4, Page 85.

4. AIR QUALITY IMPACTS THRESHOLDS AND EVALUATION METHODOLOGY

Significance thresholds are based on the CEQA Appendix G Environmental Checklist Form (not included herein) and SJVAPCD air quality thresholds (SJVAPCD 2015). A potentially significant impact to air quality, as defined by the CEQA Checklist, would occur if the project caused one or more of the following to occur:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; and/or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SJVAPCD has identified quantitative emission thresholds to determine whether the potential air quality impacts of a project require analysis in the form of an Environmental Impact Report. The SJVAPCD air quality thresholds from the GAMAQI are presented in **Table 4-1** (SJVAPCD 2015). The SJVAPCD separates construction emissions from operational emissions, and further separates permitted operational emissions from non-permitted operational emissions, for determining significance thresholds for air pollutant emissions.

Table 4-1. SJVAPCD Air Quality Thresholds of Significance - Criteria Pollutants

Pollutant/ Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15

Source: SJVAPCD 2015

Criteria pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0 (California Air Pollution Control Officers Association (CAPCOA) 2021). This project would generate short-term construction emissions and long-term operational emissions.

An air quality evaluation also considers: 1) exposure of sensitive receptors to substantial pollutant concentrations; and 2) the creation of other emissions (such as those leading to odors) adversely affecting a substantial number of people. The criteria for this evaluation are based on the Lead Agency's determination of the proximity of the proposed Project to sensitive receptors. A sensitive receptor is a location where human populations, especially children, senior citizens and sick persons, are present, and where there is a reasonable expectation of continuous human exposure to pollutants, according to the averaging period for ambient air quality standards, i.e. the 24-hour, 8-hour or 1-hour standards. Commercial and industrial sources are not considered sensitive receptors.

5. PROJECT-RELATED EMISSIONS

This document was prepared pursuant to the SJVAPCD's GAMAQI and SPAL guidelines and provides a cursory review of the Project emissions to demonstrate that it would not exceed established air quality emissions thresholds.

5.1 Short-Term Emissions

Table 5-1 shows the construction emission levels using default CalEEMod factors for construction of a 76 single-family residential project (see Attachment A).

Construction emission estimates also included the following SJVAPCD's required measures for all projects:

- Water exposed area 3 times per day; and
- Reduce vehicle speed to less than 15 miles per hour.

Based on these anticipated activity levels, the Project construction activities would not exceed construction thresholds (**Table 4-1**). Therefore, construction emissions were found to be less than significant, and no further evaluation is required.

Table 5-1. Project Construction Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	(tons/year)					
2022 Construction Emissions	0.20	1.89	1.74	0.00	0.21	0.13
2023 Construction Emissions	0.21	1.88	2.19	0.00	0.12	0.09
2024 Construction Emissions	1.29	0.01	0.02	0.00	0.00	0.00
SJVAPCD Construction Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

5.2 Long-Term Emissions

Table 5-2 presents the Project's long-term operations emissions generated from mobile, energy, and area sources as well as from water use and waste generation emissions. Most of these emissions impacts are from mobile sources traveling to and from the Project area. The following changes to default values were incorporated during the CalEEMod analysis:

- Fleet mix was changed from the default to match the SJVAPCD's residential fleet mix for year 2024.

Operational emission estimates also included the following mitigation measures even though the project was less than significant before mitigation:

- Improved Transit Accessibility;
- Improved Destination Accessibility;
- Improved Pedestrian Network;
- No Hearths; and
- Use electric lawnmower, leaf blower, and chainsaw (3% per SJVAPCD).

Table 5-2. Total Project Operational Emissions

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	(tons/year)					
Unmitigated						
Operational Emissions	1.40	0.62	7.62	0.02	1.52	0.95
SJVAPCD Operational Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded Before Mitigation?	**No**	**No**	**No**	**No**	**No**	**No**
Mitigated						
Operational Emissions	0.90	0.46	2.93	0.01	0.70	0.20
SJVAPCD Operational Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

As calculated (see **Attachment A**), the long-term operational emissions associated with the proposed Project would be less than SJVAPCD significance threshold levels and would, therefore, not pose a significant impact to criteria air pollutants. This finding is consistent with the SPAL screening thresholds.

5.3 Greenhouse Gas Emissions

The Project's greenhouse gas (GHG) emissions are primarily from mobile source activities. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified as carbon dioxide equivalents (CO_2e) (**see Attachment A**). The proposed Project's operational CO_2e emissions were estimated using CalEEMod. These emissions are summarized in **Table 5-3**.

Table 5-3. Estimated Annual Greenhouse Gas Emissions

	CO_2 Emissions metric tons	CH_4 Emissions metric tons	N_2O Emissions metric tons	CO_2e Emissions metric tons
Project Operations	781.27	1.16	0.04	821.14
2005 BAU	1,327.22	1.72	0.12	1,406.98
BAU less Project emissions				41.6%

The current inventory and forecast for GHG emissions in the California Air Resources Board's 2008 Climate Change Scoping Plan supports the 2011 IPPC estimates. The 2008 Climate Change Scoping Plan also indicates that GHG emissions were expected to increase to 596.41 million metric tons of CO_2e by 2020. It is widely understood that climate change is a "global" issue and, as such, GHG emissions are a cumulative problem and can only be evaluated as such.

The amount of CO_2 that would be generated by the Project is so small in relation to the California CO_2 equivalent estimates for 2020 (596 million metric tons CO_2e) that it's not possible for the contribution of the project to be cumulatively considerable. Additionally, the Project's GHG emissions are less than the 2005 business as usual emissions for the Project by 585.58 metric tons CO_2e, which is a 41.6% reduction. Therefore, the Project would not generate a cumulatively considerable GHG impact, nor would it conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Project will also not conflict with any elements of the California Air Resources Board's 2008 Climate Change Scoping Plan. Therefore, this potential impact is less than significant.

5.4 Potential Impact on Sensitive Receptors

The proposed Project is located on the southeast corner of the intersection of South Peach Avenue and East Church Avenue. Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly, or people who are more sensitive than the general population reside. Schools, hospitals, nursing homes and daycare centers are locations where sensitive receptors would likely reside. There are residential receptors bordering the Project site to the north, west and the east. The 20 known non-residential sensitive receptors within 2 miles of the Project site are listed below in **Table 5-4**.

Table 5-4. Sensitive Receptors Located < 2 Miles from Project

Receptor	Type of Facility	Distance from Project in Miles	Direction from Project
Edith B. Storey Elementary School	K - 7, Public	0.01	S
Phoenix Secondary School	7 - 12, Public	0.10	SE
Juan Felipe Herrera Elementary School	K - 6, Public	0.28	SW
Terronez Middle School	6 - 8, Public	0.54	W
Oak Park Senior Villas	Assisted Living	0.68	SW
Hillside Swim School	Daycare	0.75	NE
James Royal Kids WeeCare	Daycare	0.81	NE
Ayer Elementary School	K - 6, Public	0.85	N
Twilight Haven Senior Living	Assisted Living	0.93	NW
Sunnyside High School	9 - 12, Public	0.98	N
Aynesworth Elementary School	K - 6, Public	1.04	SW
David L. Greenberg Elementary	K - 6, Public	1.13	NW
Balderas Elementary School	K - 6, Public	1.31	W
Convalescent Hospital	Assisted Living	1.39	S
Cambridge High School	9 - 12, Public	1.47	NW
Lane Elementary School	K - 6, Public	1.50	NW
Olmos Elementary School	K - 6, Public	1.71	NW
Easterby Elementary School	K - 6, Public	1.79	N
Kings Canyon Middle School	7 - 8, Public	1.82	NW
Sanger High School - West Campus	9 - 12, Public	1.89	SE

Based on the predicted operational emissions and activity types, the proposed Project is not expected to affect any sensitive receptors and is *not expected to have any adverse impacts on any known sensitive receptor*.

5.5 Potential Impacts to Visibility to Nearby Class 1 Areas

It should be noted that visibility impact analyses are not usually conducted for area sources. The recommended analysis methodology was initially intended for stationary sources of emissions which were subject to the Prevention of Significant Deterioration (PSD) requirements in 40 CFR Part 60. Since the Project's emissions are predicted to be significantly less than the PSD threshold levels, an impact at either the Dome Land Wilderness or the Sequoia National Park Areas (the two nearest Class 1 areas to the Project) is extremely unlikely. Therefore, based on the Project's predicted emissions, the Project is not expected to have any adverse impact to visibility at any Class 1 Area.

5.6 Potential Odor Impacts

The proposed Project is a residential community located near other residential neighborhoods and commercial land uses. Expected uses are not known to be a source of nuisance odors and are not listed in Table 6 of the SJVAPCD's GAMAQI. The Project is therefore not anticipated to have substantial odor impacts. The Project is therefore anticipated to have a less than significant odor impact.

5.7 Ambient Air Quality Impacts

As stated in the of GAMAQI (2015, p 96-97), SJVAPCD has developed screening levels for requiring an Ambient Air Quality Analysis (AAQA). The SJVAPCD recommends that an AAQA be performed for all criteria pollutants when emissions of any criteria pollutant resulting from project construction or operational activities exceed the 100 pounds per day screening level, after compliance with Rule 9510 requirements and implementation of all enforceable mitigation measures.

As shown above in **Table 5-1** and **Table 5-2**, average daily emissions for construction and operational activities associated with this Project would not exceed 100 pounds per day. Therefore, an AAQA is not required for this Project.

5.8 Toxic Air Contaminant (TAC) Impacts

TACs, as defined by the California Health & Safety Code (CH&SC) §44321, are listed in Appendices AI and AII in AB 2588 Air Toxic "Hot Spots" and Assessment Act's Emissions Inventory Criteria and Guideline Regulation document. SJVAPCD's risk management objectives for permitting and CEQA are as follows:

- Minimize health risks from new and modified sources of air pollution.
- Health risks from new and modified sources shall not be significant relative to the background risk levels and other risk levels that are typically accepted throughout the community.
- Avoid unreasonable restrictions on permitting.

The proposed Project would result in emissions of Hazardous Air Pollutants (HAPs) during construction and would be located near existing residents; therefore, an assessment of the potential risk to the population attributable to emissions of hazardous air pollutants from the proposed Project is required. To predict the potential health risk to the population attributable to emissions of HAPs from the proposed Project, ambient air concentrations were predicted with dispersion modeling to arrive at a conservative estimate of increased individual carcinogenic risk that might occur as a result of continuous exposure over the construction period for construction emissions. Similarly, predicted concentrations were used to calculate non-cancer chronic and acute hazard indices (HIs), which are the ratio of expected exposure to acceptable exposure. The basis for evaluating potential health risk is the identification of sources with increased HAPs. HAP emissions from anticipated on-site construction activities were evaluated.

Health risk is determined using the Hotspots Analysis and Reporting Program (HARP2) software distributed by the CARB; HARP2 requires peak 1-hour emission rates and annual-averaged emission rates for all pollutants for each modeling source. Assumptions used to calculate the emission rates for the proposed Project are outlined below.

The most recent version of EPA's AMS/EPA Regulatory Model - AERMOD was used to predict the dispersion of emissions from the proposed Project. The analysis employed all of the regulatory default AERMOD model keyword parameters, including elevated terrain options.

Diesel combustion emissions from diesel on-site construction equipment were modeled as an area source for on-site construction activity on the property. Diesel particulate matter was calculated using CalEEMod for onsite construction equipment. A unit emission rate of 1 grams/second (g/sec) was input to AERMOD for each source. The time-of-day variable emissions rates were applied in AERMOD since construction emissions are expected to be limited to specific work hours provided by the project proponent. This scenario places the highest level of activity and impact in the closest proximity to potential receptors to determine if, at the Project's highest potential impact, it would present adverse health risks to nearby receptors. Operational emissions from the single-family residences would not generate HAP emissions.

Discrete receptor grids were used over the areas of dense residential neighborhoods surrounding the Project site as well as individual discrete receptors for scattered agricultural residences. A total of 620 discrete off-site receptors were analyzed. Elevated terrain options were employed even though there is not complex terrain in the Project area.

SJVAPCD-provided AERMET processed meteorological data sets for the Fresno monitoring station, calendar years 2013 through 2017 was input to AERMOD (SJVAPCD 2018). This was the most recent available dataset available at the time the modeling was conducted. Rural dispersion parameters were used because the operation and the majority of the land surrounding the facility is considered "rural" under the Auer land use classification method (Auer 1978).

Plot files generated by AERMOD were uploaded to the Air Dispersion Modeling and Risk Assessment Tool (ADMRT v21081) program in the Hotspots Analysis and Reporting Program Version 2 (HARP 2) (CARB 2021). ADMRT post-processing was used to assess the potential for excess cancer risk and chronic and acute noncancer effects using the most recent health effects data from the California EPA Office of Environmental Health Hazard Assessment (OEHHA). HARP2 site parameters were set for the mandatory minimum pathways of inhalation, soil ingestion, dermal, and mother's milk for residential receptors and inhalation, soil ingestion, and dermal for worker receptors. Risk reports were generated using the derived OEHHA analysis method for carcinogenic risk and non-carcinogenic chronic and acute risk. Site parameters are included in the HARP2 output files. Total cancer risk was predicted for each receptor. A hazard index was computed for chronic non-cancer health effects for each applicable endpoint and each receptor. A hazard index for acute non-cancer health effects was not computed since DPM does not have a risk exposure level for acute risk.

SJVAPCD has set the level of significance for carcinogenic risk at twenty in one million, which is understood as the possibility of causing twenty additional cancer cases in a population of one million people. The level of significance for chronic non-cancer risk is a hazard index of 1.0. All receptors were modeled with a 3-year exposure for the construction activities.

The carcinogenic risk and the health hazard index (HI) for chronic non-cancer risk at the maximum exposed individual receptor (MEIR) does not exceed the significance levels of twenty in one million (20E-06) and 1.0, respectively for the proposed Project. The MEIR is identified by receptor location and risk and is provided in **Table 5-4**. The electronic AERMOD and HARP2 output files are provided in Appendix B.

Table 5-5. Potential Maximum Health Risk Impacts

	Value	UTM East	UTM N
Excess Cancer Risk	1.36E-05	257528.5	4066745
Chronic Hazard Index	7.15E-03	257528.5	4066745

As shown above in **Table 5-4**, the maximum predicted cancer risk for the proposed Project is 1.36E-05. The maximum chronic non-cancer hazard index for the proposed Project is 7.15E-03. Since the MEIR remained

below the significance threshold for cancer and chronic risk, this Project would not have an adverse effect to any of the surrounding communities.

The potential health risk attributable to the proposed Project is determined to be less than significant based on the following conclusions:

1. Potential carcinogenic risk from the proposed Project is below the significance level of twenty in a million at each of the modeled receptors; and
2. The hazard index for the potential chronic non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.
3. The hazard index for the potential acute non-cancer risk was not calculated since there is no acute risk associated with DPM emission; therefore, the proposed Project is considered below the significance level.

Therefore, potential risk to the population attributable to emissions of HAPs from the proposed Project would be less than significant.

5.9 Cumulative Impacts

Cumulative impacts were also evaluated; however, cumulative emissions were not quantified because no other tentative projects were found within a one-mile radius of the Proposed Project that provided enough project detail information to accurately estimate emissions. Owing to the inherently cumulative nature of air quality impacts, the threshold for whether a project would make a cumulatively considerable contribution to a significant cumulative impact is currently based on whether the proposed Project would exceed established project-level thresholds. As such, a qualitative evaluation of the cumulative projects supports a finding that the Project's contribution would not be cumulatively considerable because the proposed Project's incremental emissions increase would be less than significant.

6. CONCLUSIONS

Based on the criteria established by the SJVAPCD's GAMAQI and SPAL guidelines, the proposed Project does not meet the minimum standards to require a full Air Quality Impact Analysis. Furthermore, the Project as proposed would not exceed the SJVAPCD's criteria air pollutant emission levels and would generate *less than significant air quality impacts*.

7. REFERENCES

California Environmental Quality Act (CEQA). 2021. (Public Resources Code 21000 - 21189) and CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).

---------. 2021. CEQA, Appendix G – Environmental Checklist Form, Final Text.

California Air Pollution Control Officers Association (CAPCOA). 2021. California Emissions Estimator Model tm (CalEEMod), version 2020.4.0.

----------. 2016. "Air Toxic Hot Spots" Facility Prioritization Guidelines, Revised 2016.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2020. Small Project Analysis Level (SPAL) Memorandum. November 13, 2020. http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI-SPAL.PDF

----------. 2015. Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI). March 19, 2015. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf

----------. 2009. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. December 17, 2009.

APPENDIX A. CALEEMOD EMISSIONS ESTIMATES OUTPUT FILES

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Olive Lane Tract SPAL

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	76.00	Dwelling Unit	24.68	136,800.00	217

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Fleet Mix - District Accepted Fleet Mix for Residential Projects - 2024

Woodstoves - Rule 4901

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	NumberGas	41.80	76.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFireplaces	NumberNoFireplace	34.20	76.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.52	0.53
tblFleetMix	LDT1	0.05	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.03	9.0000e-004
tblFleetMix	LHD2	6.8290e-003	9.0000e-004
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.16	0.06
tblFleetMix	MH	2.9750e-003	2.0000e-003
tblFleetMix	MHD	0.01	8.0000e-003
tblFleetMix	OBUS	7.0700e-004	0.00
tblFleetMix	SBUS	1.4960e-003	2.0000e-004
tblFleetMix	UBUS	2.8900e-004	4.3000e-003
tblWoodstoves	NumberCatalytic	24.68	24.00
tblWoodstoves	NumberNoncatalytic	24.68	24.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1986	1.8933	1.7350	3.2900e-003	0.2803	0.0897	0.3700	0.1201	0.0836	0.2037	0.0000	287.5077	287.5077	0.0729	2.0000e-003	289.9264
2023	0.2106	1.8771	2.1879	3.8900e-003	0.0335	0.0895	0.1229	9.0400e-003	0.0841	0.0931	0.0000	338.2368	338.2368	0.0734	3.4000e-003	341.0841
2024	1.2859	0.0123	0.0192	3.0000e-005	4.0000e-004	6.1000e-004	1.0100e-003	1.1000e-004	6.1000e-004	7.2000e-004	0.0000	2.8635	2.8635	1.5000e-004	1.0000e-005	2.8699
Maximum	**1.2859**	**1.8933**	**2.1879**	**3.8900e-003**	**0.2803**	**0.0897**	**0.3700**	**0.1201**	**0.0841**	**0.2037**	**0.0000**	**338.2368**	**338.2368**	**0.0734**	**3.4000e-003**	**341.0841**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1986	1.8933	1.7350	3.2900e-003	0.1221	0.0897	0.2118	0.0503	0.0836	0.1339	0.0000	287.5074	287.5074	0.0729	2.0000e-003	289.9261
2023	0.2106	1.8771	2.1879	3.8900e-003	0.0335	0.0895	0.1229	9.0400e-003	0.0841	0.0931	0.0000	338.2364	338.2364	0.0734	3.4000e-003	341.0837
2024	1.2859	0.0123	0.0192	3.0000e-005	4.0000e-004	6.1000e-004	1.0100e-003	1.1000e-004	6.1000e-004	7.2000e-004	0.0000	2.8635	2.8635	1.5000e-004	1.0000e-005	2.8698
Maximum	**1.2859**	**1.8933**	**2.1879**	**3.8900e-003**	**0.1221**	**0.0897**	**0.2118**	**0.0503**	**0.0841**	**0.1339**	**0.0000**	**338.2364**	**338.2364**	**0.0734**	**3.4000e-003**	**341.0837**

Olive Lane Tract SPAL - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**50.35**	**0.00**	**32.03**	**54.01**	**0.00**	**23.46**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**5-2-2022**	**8-1-2022**	1.0995	1.0995
2	**8-2-2022**	**11-1-2022**	0.5889	0.5889
3	**11-2-2022**	**2-1-2023**	0.5727	0.5727
4	**2-2-2023**	**5-1-2023**	0.5233	0.5233
5	**5-2-2023**	**8-1-2023**	0.5405	0.5405
6	**8-2-2023**	**11-1-2023**	0.5407	0.5407
7	**11-2-2023**	**2-1-2024**	1.5878	1.5878
		Highest	1.5878	1.5878

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1748	0.1307	5.0279	0.0149		0.7319	0.7319		0.7319	0.7319	97.0254	60.7832	157.8085	0.4556	1.1000e-003	169.5257
Energy	9.8500e-003	0.0842	0.0358	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	153.5592	153.5592	0.0109	2.8900e-003	154.6930
Mobile	0.2150	0.4018	2.5578	7.1900e-003	0.7736	5.2200e-003	0.7788	0.2062	4.8600e-003	0.2110	0.0000	684.0507	684.0507	0.0496	0.0330	695.1280
Waste						0.0000	0.0000		0.0000	0.0000	15.8577	0.0000	15.8577	0.9372	0.0000	39.2867
Water						0.0000	0.0000		0.0000	0.0000	1.5710	3.4900	5.0609	0.1619	3.8800e-003	10.2646
Total	**1.3997**	**0.6167**	**7.6215**	**0.0226**	**0.7736**	**0.7439**	**1.5175**	**0.2062**	**0.7436**	**0.9498**	**114.4540**	**901.8830**	**1,016.3370**	**1.6152**	**0.0409**	**1,068.8980**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.6794	6.4600e-003	0.5600	3.0000e-005		3.1000e-003	3.1000e-003		3.1000e-003	3.1000e-003	0.0000	0.9135	0.9135	8.7000e-004	0.0000	0.9353
Energy	9.8500e-003	0.0842	0.0358	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	153.5592	153.5592	0.0109	2.8900e-003	154.6930
Mobile	0.2105	0.3681	2.3366	6.3700e-003	0.6823	4.6600e-003	0.6870	0.1818	4.3500e-003	0.1862	0.0000	605.8745	605.8745	0.0454	0.0300	615.9583
Waste						0.0000	0.0000		0.0000	0.0000	15.8577	0.0000	15.8577	0.9372	0.0000	39.2867
Water						0.0000	0.0000		0.0000	0.0000	1.5710	3.4900	5.0609	0.1619	3.8800e-003	10.2646
Total	**0.8997**	**0.4587**	**2.9324**	**6.9400e-003**	**0.6823**	**0.0146**	**0.6969**	**0.1818**	**0.0143**	**0.1961**	**17.4286**	**763.8372**	**781.2658**	**1.1563**	**0.0368**	**821.1378**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**35.72**	**25.61**	**61.52**	**69.26**	**11.80**	**98.04**	**54.08**	**11.80**	**98.08**	**79.35**	**84.77**	**15.31**	**23.13**	**28.41**	**9.98**	**23.18**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/2/2022	5/13/2022	5	10	
2	Grading	Grading	5/14/2022	7/1/2022	5	35	
3	Building Construction	Building Construction	7/2/2022	12/1/2023	5	370	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	12/2/2023	12/29/2023	5	20	
5	Architectural Coating	Architectural Coating	12/30/2023	1/26/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 105

Acres of Paving: 0

Residential Indoor: 277,020; Residential Outdoor: 92,340; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	27.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0983**	**8.0600e-003**	**0.1064**	**0.0505**	**7.4200e-003**	**0.0579**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.1000e-004	2.3300e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5883	0.5883	2.0000e-005	2.0000e-005	0.5941
Total	**3.0000e-004**	**2.1000e-004**	**2.3300e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5883**	**0.5883**	**2.0000e-005**	**2.0000e-005**	**0.5941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0383	0.0000	0.0383	0.0197	0.0000	0.0197	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
Total	**0.0159**	**0.1654**	**0.0985**	**1.9000e-004**	**0.0383**	**8.0600e-003**	**0.0464**	**0.0197**	**7.4200e-003**	**0.0271**	**0.0000**	**16.7197**	**16.7197**	**5.4100e-003**	**0.0000**	**16.8549**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.1000e-004	2.3300e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5883	0.5883	2.0000e-005	2.0000e-005	0.5941
Total	**3.0000e-004**	**2.1000e-004**	**2.3300e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5883**	**0.5883**	**2.0000e-005**	**2.0000e-005**	**0.5941**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1611	0.0000	0.1611	0.0639	0.0000	0.0639	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0634	0.6798	0.5082	1.0900e-003		0.0286	0.0286		0.0263	0.0263	0.0000	95.4356	95.4356	0.0309	0.0000	96.2072
Total	**0.0634**	**0.6798**	**0.5082**	**1.0900e-003**	**0.1611**	**0.0286**	**0.1897**	**0.0639**	**0.0263**	**0.0903**	**0.0000**	**95.4356**	**95.4356**	**0.0309**	**0.0000**	**96.2072**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1800e-003	8.0000e-004	9.0500e-003	2.0000e-005	2.8000e-003	1.0000e-005	2.8100e-003	7.4000e-004	1.0000e-005	7.6000e-004	0.0000	2.2877	2.2877	7.0000e-005	7.0000e-005	2.3103
Total	**1.1800e-003**	**8.0000e-004**	**9.0500e-003**	**2.0000e-005**	**2.8000e-003**	**1.0000e-005**	**2.8100e-003**	**7.4000e-004**	**1.0000e-005**	**7.6000e-004**	**0.0000**	**2.2877**	**2.2877**	**7.0000e-005**	**7.0000e-005**	**2.3103**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0628	0.0000	0.0628	0.0249	0.0000	0.0249	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0634	0.6798	0.5082	1.0900e-003		0.0286	0.0286		0.0263	0.0263	0.0000	95.4354	95.4354	0.0309	0.0000	96.2071
Total	**0.0634**	**0.6798**	**0.5082**	**1.0900e-003**	**0.0628**	**0.0286**	**0.0914**	**0.0249**	**0.0263**	**0.0513**	**0.0000**	**95.4354**	**95.4354**	**0.0309**	**0.0000**	**96.2071**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1800e-003	8.0000e-004	9.0500e-003	2.0000e-005	2.8000e-003	1.0000e-005	2.8100e-003	7.4000e-004	1.0000e-005	7.6000e-004	0.0000	2.2877	2.2877	7.0000e-005	7.0000e-005	2.3103
Total	**1.1800e-003**	**8.0000e-004**	**9.0500e-003**	**2.0000e-005**	**2.8000e-003**	**1.0000e-005**	**2.8100e-003**	**7.4000e-004**	**1.0000e-005**	**7.6000e-004**	**0.0000**	**2.2877**	**2.2877**	**7.0000e-005**	**7.0000e-005**	**2.3103**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1109	1.0150	1.0636	1.7500e-003		0.0526	0.0526		0.0495	0.0495	0.0000	150.6214	150.6214	0.0361	0.0000	151.5235
Total	**0.1109**	**1.0150**	**1.0636**	**1.7500e-003**		**0.0526**	**0.0526**		**0.0495**	**0.0495**	**0.0000**	**150.6214**	**150.6214**	**0.0361**	**0.0000**	**151.5235**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0700e-003	0.0280	7.9400e-003	1.1000e-004	3.4500e-003	3.0000e-004	3.7500e-003	1.0000e-003	2.9000e-004	1.2800e-003	0.0000	10.3838	10.3838	8.0000e-005	1.5600e-003	10.8521
Worker	5.9000e-003	4.0200e-003	0.0454	1.2000e-004	0.0140	7.0000e-005	0.0141	3.7300e-003	7.0000e-005	3.8000e-003	0.0000	11.4712	11.4712	3.7000e-004	3.5000e-004	11.5844
Total	**6.9700e-003**	**0.0321**	**0.0533**	**2.3000e-004**	**0.0175**	**3.7000e-004**	**0.0179**	**4.7300e-003**	**3.6000e-004**	**5.0800e-003**	**0.0000**	**21.8551**	**21.8551**	**4.5000e-004**	**1.9100e-003**	**22.4365**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1109	1.0150	1.0636	1.7500e-003		0.0526	0.0526		0.0495	0.0495	0.0000	150.6212	150.6212	0.0361	0.0000	151.5233
Total	**0.1109**	**1.0150**	**1.0636**	**1.7500e-003**		**0.0526**	**0.0526**		**0.0495**	**0.0495**	**0.0000**	**150.6212**	**150.6212**	**0.0361**	**0.0000**	**151.5233**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0700e-003	0.0280	7.9400e-003	1.1000e-004	3.4500e-003	3.0000e-004	3.7500e-003	1.0000e-003	2.9000e-004	1.2800e-003	0.0000	10.3838	10.3838	8.0000e-005	1.5600e-003	10.8521
Worker	5.9000e-003	4.0200e-003	0.0454	1.2000e-004	0.0140	7.0000e-005	0.0141	3.7300e-003	7.0000e-005	3.8000e-003	0.0000	11.4712	11.4712	3.7000e-004	3.5000e-004	11.5844
Total	**6.9700e-003**	**0.0321**	**0.0533**	**2.3000e-004**	**0.0175**	**3.7000e-004**	**0.0179**	**4.7300e-003**	**3.6000e-004**	**5.0800e-003**	**0.0000**	**21.8551**	**21.8551**	**4.5000e-004**	**1.9100e-003**	**22.4365**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1887	1.7262	1.9493	3.2300e-003		0.0840	0.0840		0.0790	0.0790	0.0000	278.1657	278.1657	0.0662	0.0000	279.8200
Total	**0.1887**	**1.7262**	**1.9493**	**3.2300e-003**		**0.0840**	**0.0840**		**0.0790**	**0.0790**	**0.0000**	**278.1657**	**278.1657**	**0.0662**	**0.0000**	**279.8200**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0300e-003	0.0422	0.0126	1.9000e-004	6.3600e-003	2.7000e-004	6.6400e-003	1.8400e-003	2.6000e-004	2.1000e-003	0.0000	18.4633	18.4633	1.0000e-004	2.7800e-003	19.2940
Worker	0.0100	6.5000e-003	0.0766	2.2000e-004	0.0259	1.3000e-004	0.0260	6.8800e-003	1.2000e-004	7.0000e-003	0.0000	20.6260	20.6260	6.2000e-004	5.9000e-004	20.8175
Total	**0.0111**	**0.0487**	**0.0893**	**4.1000e-004**	**0.0323**	**4.0000e-004**	**0.0327**	**8.7200e-003**	**3.8000e-004**	**9.1000e-003**	**0.0000**	**39.0893**	**39.0893**	**7.2000e-004**	**3.3700e-003**	**40.1115**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1887	1.7262	1.9493	3.2300e-003		0.0840	0.0840		0.0790	0.0790	0.0000	278.1654	278.1654	0.0662	0.0000	279.8197
Total	**0.1887**	**1.7262**	**1.9493**	**3.2300e-003**		**0.0840**	**0.0840**		**0.0790**	**0.0790**	**0.0000**	**278.1654**	**278.1654**	**0.0662**	**0.0000**	**279.8197**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0300e-003	0.0422	0.0126	1.9000e-004	6.3600e-003	2.7000e-004	6.6400e-003	1.8400e-003	2.6000e-004	2.1000e-003	0.0000	18.4633	18.4633	1.0000e-004	2.7800e-003	19.2940
Worker	0.0100	6.5000e-003	0.0766	2.2000e-004	0.0259	1.3000e-004	0.0260	6.8800e-003	1.2000e-004	7.0000e-003	0.0000	20.6260	20.6260	6.2000e-004	5.9000e-004	20.8175
Total	**0.0111**	**0.0487**	**0.0893**	**4.1000e-004**	**0.0323**	**4.0000e-004**	**0.0327**	**8.7200e-003**	**3.8000e-004**	**9.1000e-003**	**0.0000**	**39.0893**	**39.0893**	**7.2000e-004**	**3.3700e-003**	**40.1115**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0103**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0269**	**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.0000e-004	3.5500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9549	0.9549	3.0000e-005	3.0000e-005	0.9638
Total	**4.6000e-004**	**3.0000e-004**	**3.5500e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9549**	**0.9549**	**3.0000e-005**	**3.0000e-005**	**0.9638**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0103**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0268**	**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.0000e-004	3.5500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9549	0.9549	3.0000e-005	3.0000e-005	0.9638
Total	**4.6000e-004**	**3.0000e-004**	**3.5500e-003**	**1.0000e-005**	**1.2000e-003**	**1.0000e-005**	**1.2100e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9549**	**0.9549**	**3.0000e-005**	**3.0000e-005**	**0.9638**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2840					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**1.2858**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	9.0000e-005	1.0900e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3103	0.3103	1.0000e-005	1.0000e-005	0.3130
Total	**1.4000e-004**	**9.0000e-005**	**1.0900e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3103**	**0.3103**	**1.0000e-005**	**1.0000e-005**	**0.3130**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2840					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**1.2858**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	9.0000e-005	1.0900e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3103	0.3103	1.0000e-005	1.0000e-005	0.3130
Total	**1.4000e-004**	**9.0000e-005**	**1.0900e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3103**	**0.3103**	**1.0000e-005**	**1.0000e-005**	**0.3130**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2105	0.3681	2.3366	6.3700e-003	0.6823	4.6600e-003	0.6870	0.1818	4.3500e-003	0.1862	0.0000	605.8745	605.8745	0.0454	0.0300	615.9583
Unmitigated	0.2150	0.4018	2.5578	7.1900e-003	0.7736	5.2200e-003	0.7788	0.2062	4.8600e-003	0.2110	0.0000	684.0507	684.0507	0.0496	0.0330	695.1280

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	717.44	725.04	649.80	2,076,734	1,831,679
Total	717.44	725.04	649.80	2,076,734	1,831,679

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.527700	0.209000	0.167500	0.055600	0.000900	0.000900	0.008000	0.021400	0.000000	0.004300	0.002500	0.000200	0.002000

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	56.0713	56.0713	9.0700e-003	1.1000e-003	56.6258
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	56.0713	56.0713	9.0700e-003	1.1000e-003	56.6258
NaturalGas Mitigated	9.8500e-003	0.0842	0.0358	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	97.4879	97.4879	1.8700e-003	1.7900e-003	98.0672
NaturalGas Unmitigated	9.8500e-003	0.0842	0.0358	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	97.4879	97.4879	1.8700e-003	1.7900e-003	98.0672

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	1.82685e+006	9.8500e-003	0.0842	0.0358	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	97.4879	97.4879	1.8700e-003	1.7900e-003	98.0672
Total		**9.8500e-003**	**0.0842**	**0.0358**	**5.4000e-004**		**6.8100e-003**	**6.8100e-003**		**6.8100e-003**	**6.8100e-003**	**0.0000**	**97.4879**	**97.4879**	**1.8700e-003**	**1.7900e-003**	**98.0672**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	1.82685e+006	9.8500e-003	0.0842	0.0358	5.4000e-004		6.8100e-003	6.8100e-003		6.8100e-003	6.8100e-003	0.0000	97.4879	97.4879	1.8700e-003	1.7900e-003	98.0672
Total		**9.8500e-003**	**0.0842**	**0.0358**	**5.4000e-004**		**6.8100e-003**	**6.8100e-003**		**6.8100e-003**	**6.8100e-003**	**0.0000**	**97.4879**	**97.4879**	**1.8700e-003**	**1.7900e-003**	**98.0672**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	606021	56.0713	9.0700e-003	1.1000e-003	56.6258
Total		**56.0713**	**9.0700e-003**	**1.1000e-003**	**56.6258**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	606021	56.0713	9.0700e-003	1.1000e-003	56.6258
Total		**56.0713**	**9.0700e-003**	**1.1000e-003**	**56.6258**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6794	6.4600e-003	0.5600	3.0000e-005		3.1000e-003	3.1000e-003		3.1000e-003	3.1000e-003	0.0000	0.9135	0.9135	8.7000e-004	0.0000	0.9353
Unmitigated	1.1748	0.1307	5.0279	0.0149		0.7319	0.7319		0.7319	0.7319	97.0254	60.7832	157.8085	0.4556	1.1000e-003	169.5257

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5343					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.4952	0.1242	4.4638	0.0148		0.7288	0.7288		0.7288	0.7288	97.0254	59.8614	156.8867	0.4547	1.1000e-003	168.5818
Landscaping	0.0170	6.5000e-003	0.5641	3.0000e-005		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	0.9218	0.9218	8.8000e-004	0.0000	0.9439
Total	**1.1748**	**0.1307**	**5.0279**	**0.0149**		**0.7319**	**0.7319**		**0.7319**	**0.7319**	**97.0254**	**60.7832**	**157.8085**	**0.4556**	**1.1000e-003**	**169.5257**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5343					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0167	6.4600e-003	0.5600	3.0000e-005		3.1000e-003	3.1000e-003		3.1000e-003	3.1000e-003	0.0000	0.9135	0.9135	8.7000e-004	0.0000	0.9353
Total	**0.6794**	**6.4600e-003**	**0.5600**	**3.0000e-005**		**3.1000e-003**	**3.1000e-003**		**3.1000e-003**	**3.1000e-003**	**0.0000**	**0.9135**	**0.9135**	**8.7000e-004**	**0.0000**	**0.9353**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.0609	0.1619	3.8800e-003	10.2646
Unmitigated	5.0609	0.1619	3.8800e-003	10.2646

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	4.95171 / 3.12173	5.0609	0.1619	3.8800e-003	10.2646
Total		**5.0609**	**0.1619**	**3.8800e-003**	**10.2646**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	4.95171 / 3.12173	5.0609	0.1619	3.8800e-003	10.2646
Total		**5.0609**	**0.1619**	**3.8800e-003**	**10.2646**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	15.8577	0.9372	0.0000	39.2867
Unmitigated	15.8577	0.9372	0.0000	39.2867

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	78.12	15.8577	0.9372	0.0000	39.2867
Total		**15.8577**	**0.9372**	**0.0000**	**39.2867**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	78.12	15.8577	0.9372	0.0000	39.2867
Total		**15.8577**	**0.9372**	**0.0000**	**39.2867**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Olive Lane Tract SPAL - BAU

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	76.00	Dwelling Unit	24.68	136,800.00	217

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2005
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Operational Run Only

Fleet Mix -

Woodstoves -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Trips and VMT - Operational Run Only

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	370.00	0.00
tblConstructionPhase	PhaseEndDate	8/3/2005	3/3/2004
tblTripsAndVMT	VendorTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	27.00	0.00

2.0 Emissions Summary

Olive Lane Tract SPAL - BAU - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2004											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2004											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											99.7744	33.8456	133.6200	0.4685	6.0000e-004	145.5131
Energy											0.0000	153.5592	153.5592	0.0109	2.8900e-003	154.6930
Mobile											0.0000	1,019.1199	1,019.1199	0.1409	0.1161	1,057.2240
Waste											15.8577	0.0000	15.8577	0.9372	0.0000	39.2867
Water											1.5710	3.4900	5.0609	0.1619	3.8800e-003	10.2646
Total											**117.2030**	**1,210.0146**	**1,327.2176**	**1.7195**	**0.1234**	**1,406.9813**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											99.7744	33.8456	133.6200	0.4685	6.0000e-004	145.5131
Energy											0.0000	153.5592	153.5592	0.0109	2.8900e-003	154.6930
Mobile											0.0000	1,019.1199	1,019.1199	0.1409	0.1161	1,057.2240
Waste											15.8577	0.0000	15.8577	0.9372	0.0000	39.2867
Water											1.5710	3.4900	5.0609	0.1619	3.8800e-003	10.2646
Total											**117.2030**	**1,210.0146**	**1,327.2176**	**1.7195**	**0.1234**	**1,406.9813**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	3/4/2004	3/3/2004	5	0	

Acres of Grading (Site Preparation Phase): 0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Building Construction - 2004

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Building Construction - 2004

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	1,019.1199	1,019.1199	0.1409	0.1161	1,057.2240
Unmitigated											0.0000	1,019.1199	1,019.1199	0.1409	0.1161	1,057.2240

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	717.44	725.04	649.80	2,076,734	2,076,734
Total	717.44	725.04	649.80	2,076,734	2,076,734

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.477591	0.081668	0.164575	0.168109	0.036290	0.006715	0.016687	0.017024	0.000893	0.000307	0.021194	0.000966	0.007982

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated											0.0000	56.0713	56.0713	9.0700e-003	1.1000e-003	56.6258
Electricity Unmitigated											0.0000	56.0713	56.0713	9.0700e-003	1.1000e-003	56.6258
NaturalGas Mitigated											0.0000	97.4879	97.4879	1.8700e-003	1.7900e-003	98.0672
NaturalGas Unmitigated											0.0000	97.4879	97.4879	1.8700e-003	1.7900e-003	98.0672

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	1.82685e+006											0.0000	97.4879	97.4879	1.8700e-003	1.7900e-003	98.0672
Total												**0.0000**	**97.4879**	**97.4879**	**1.8700e-003**	**1.7900e-003**	**98.0672**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	1.82685e+006											0.0000	97.4879	97.4879	1.8700e-003	1.7900e-003	98.0672
Total												**0.0000**	**97.4879**	**97.4879**	**1.8700e-003**	**1.7900e-003**	**98.0672**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	606021	56.0713	9.0700e-003	1.1000e-003	56.6258
Total		**56.0713**	**9.0700e-003**	**1.1000e-003**	**56.6258**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	606021	56.0713	9.0700e-003	1.1000e-003	56.6258
Total		**56.0713**	**9.0700e-003**	**1.1000e-003**	**56.6258**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											99.7744	33.8456	133.6200	0.4685	6.0000e-004	145.5131
Unmitigated											99.7744	33.8456	133.6200	0.4685	6.0000e-004	145.5131

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											99.7744	32.9238	132.6982	0.4671	6.0000e-004	144.5544
Landscaping											0.0000	0.9218	0.9218	1.4800e-003	0.0000	0.9587
Total											**99.7744**	**33.8456**	**133.6200**	**0.4685**	**6.0000e-004**	**145.5131**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											99.7744	32.9238	132.6982	0.4671	6.0000e-004	144.5544
Landscaping											0.0000	0.9218	0.9218	1.4800e-003	0.0000	0.9587
Total											**99.7744**	**33.8456**	**133.6200**	**0.4685**	**6.0000e-004**	**145.5131**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.0609	0.1619	3.8800e-003	10.2646
Unmitigated	5.0609	0.1619	3.8800e-003	10.2646

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	4.95171 / 3.12173	5.0609	0.1619	3.8800e-003	10.2646
Total		**5.0609**	**0.1619**	**3.8800e-003**	**10.2646**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	4.95171 / 3.12173	5.0609	0.1619	3.8800e-003	10.2646
Total		**5.0609**	**0.1619**	**3.8800e-003**	**10.2646**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	15.8577	0.9372	0.0000	39.2867
Unmitigated	15.8577	0.9372	0.0000	39.2867

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	78.12	15.8577	0.9372	0.0000	39.2867
Total		**15.8577**	**0.9372**	**0.0000**	**39.2867**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	78.12	15.8577	0.9372	0.0000	39.2867
Total		**15.8577**	**0.9372**	**0.0000**	**39.2867**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B. HEALTH RISK ASSESSMENT MODELING FILES

(Electronic Files)

BIOLOGICAL RESOURCES EVALUATION

CITY OF FRESNO

OLIVE LANE TRACT PROJECT

MARCH 2022

BIOLOGICAL RESOURCES EVALUATION

OLIVE LANE TRACT PROJECT
CITY OF FRESNO

Prepared for:

Century Communities
7330 N Palm Avenue, Suite 106
Fresno, CA 93711
Contact Person: Jerome Keene

Phone: (559) 559.226.9250

Consultant:

5080 California Avenue, Suite 220
Bakersfield, CA 93309
Contact: Jaymie Brauer
Phone: (661) 616-2600
Fax: (661) 616-5970

March 2022

Project #210267

Table of Contents

Appendices

List of Figures

List of Tables

EXECUTIVE SUMMARY

This Biological Resource Evaluation (BRE) report provides the results of a biological survey conducted by Quad Knopf, Inc. (QK) for the Olive Lane Tract Project (Project). In order to comply with the California Environmental Quality Act (CEQA) and the requirement of the approval of a Conditional Use Permit (CUP) by the City of Fresno, a biological evaluation was conducted to identify the potential for sensitive biological resources to occur on or near the Project.

The Project is on approximately 12 acres in the City of Fresno, Fresno County, California. The Project is bounded by residential development, the Central Canal and fallow fields to the north, residential properties to the east and west, and Story Elementary School to the south. A sports field complex for Buchanan High School is located further to the west, and fallow agricultural land is located further to the north and southwest.

The Project includes the construction of a new housing development of 74 lots of Tentative Tract Map No. 6410. The development would include single story homes with a minimum lot size of 4,00 square feet and 2,500 square feet with the enhanced streetscape. The construction of the subdivision will take approximately 15 months to complete.

A review of literature and agency databases was conducted to obtain information of the occurrences of natural communities and special-status plant and wildlife species known to occur the vicinity of the Project. QK conducted a biological reconnaissance survey on January 5, 2022, to determine the locations and extent of land use and natural vegetation communities, determine the potential for occurrences of special-status species, and verify the presence of wetlands and waters. No special-status species or diagnostic sign of special-status species were observed, and no wetlands or other sensitive biological resources were observed. The Central Canal, utilized for water runoff and agriculture, runs along the northern boundary of the Project site that will not be impacted by the Project. No wetlands or jurisdictional waters are present on the Project site.

Based on the literature and database searches, there is potential for four special-status species to occur on the site: the San Joaquin kit fox (*Vulpes macrotis mutica*), American badger (*Taxidea taxus*), Swainson's hawk (*Buteo swainsoni*), and burrowing owl (*Athene cunicularia*). Because the Project has been historically disturbed by agricultural practices and is almost entirely surrounded by disturbed and urbanized land, impacts to these special-status wildlife species are not expected, and there is no habitat for any special-status plant species. There is potential for nesting migratory birds and raptors to occur on the Project and surrounding areas. With the implementation of the Best Management Practices and recommended avoidance measures, the Project will likely have no impacts to special-status plant species and little to no impacts to special-status wildlife species or migratory birds and raptor species.

SECTION 1 - INTRODUCTION

Benchmark Communities, LLC, proposes to construct a new residential development in the City of Fresno (City), Fresno County, California. The Olive Lane Tract Project (Project) will provide additional housing within the City. To comply with the California Environmental Quality Act (CEQA) and meet the requirement for approval of a Conditional Use Permit (CUP) by the City of Fresno, a biological evaluation was conducted to identify the potential for sensitive biological resources to occur on or near the Project site. This Biological Resource Evaluation (BRE) provides the basic biological information requested by Benchmark Communities, LLC that is required for the CEQA evaluation process.

1.1 - Project Location

The Project is within the boundaries of the City of Fresno, Fresno County, California. It covers approximately 12 acres of fallow agricultural land and is located on the northeast corner of the intersection of South Peach Avenue and East Church Avenue, on Assessor Parcel Number (APN) 481-020-60 (Figures 1-1 and 1-2). The Storey Elementary School is immediately south of the Project site, and there is residential development west, north, and east of the Project. Fallow agricultural lands are locatednorthwest and southwest of the Project (Figure 1-2). The Central Canal, an agricultural canal, defines the northern boundary of the Project site. The Project site is within the *Malaga* United States Geological Survey (USGS) 7.5-minute quadrangle, in Section 17 of Township 14 South, Range 21 East, Mount Diablo Base and Meridian.

1.2 - Project Description

The Project includes the construction of a new housing development of 74 lots of Tentative Tract Map No. 6410. The development would include single story homes with a minimum lot size of 4,00 square feet and 2,500 square feet with the enhanced streetscape. The construction of the subdivision will take approximately 15 months to complete.

Initial construction activities would include the removal of existing vegetation including fallow agricultral vegetation, grading activities, and minor excavations for the installation of utility infrastructure, including water conveyance, sewer, and stormwater containment. No existing site structures are located on the Project site

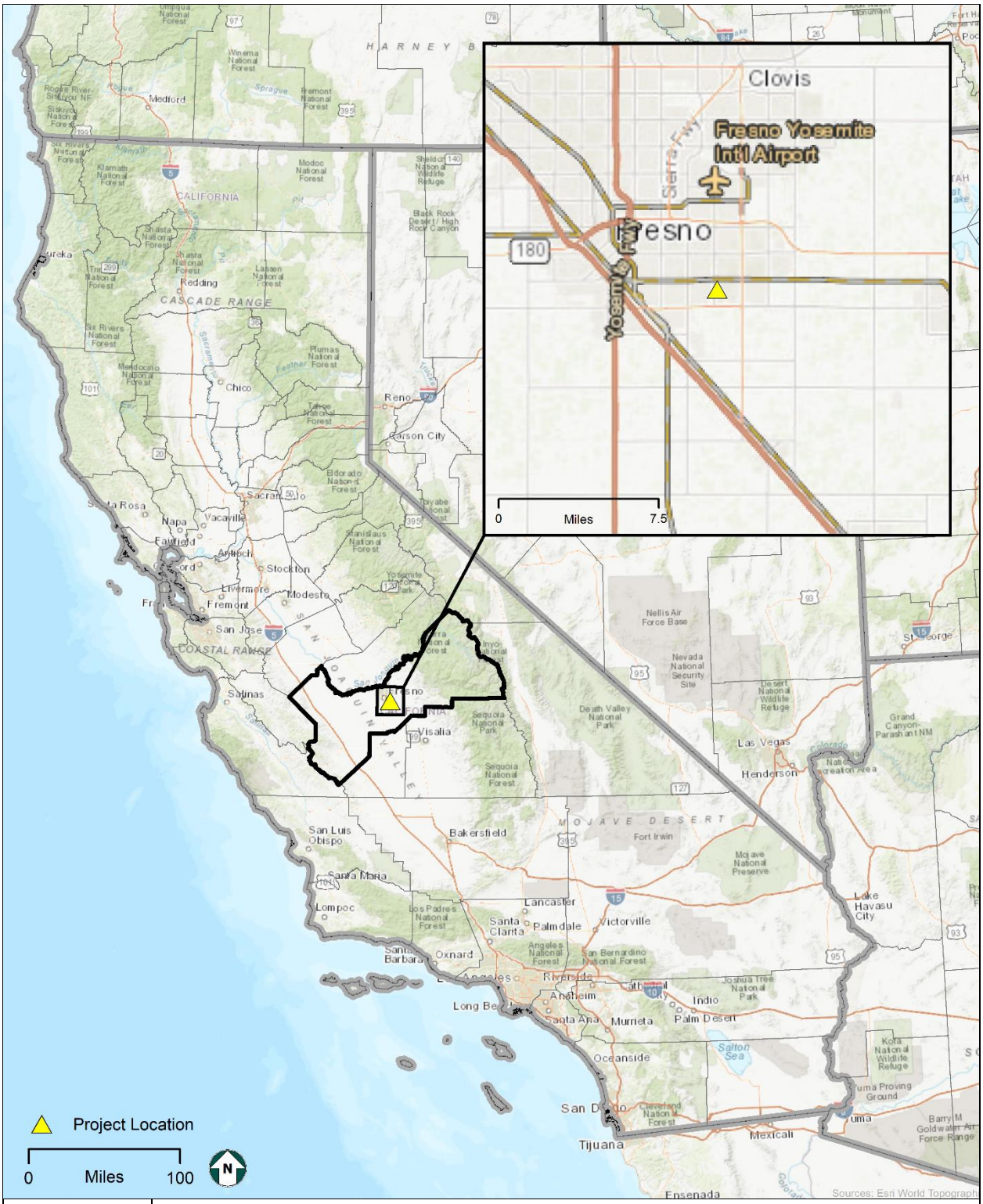


Figure 1-1
Regional Map, Olive Lane Tract Project, Fresno County, California

Figure 1-2
Project Vicinity Map, Olive Lane Tract Project,
City of Fresno, Fresno County, California

1.3 - Purpose, Goals, and Objectives for this Report

The primary focus of this report is to provide the City of Fresno with an understanding of how the Project would comply with CEQA and comply with the requirements needed for approval of a CUP by the City of Fresno. This Biological Resource Evaluation (BRE) provides information about sensitive biological resources occurring or potentially occurring on and in the vicinity of the Project site, including sensitive natural communities, special-status plant and wildlife species, wildlife movement corridors and nursery sites, and State and federal juriditional wetlands and waters. Information on these topics was obtained by conducting a desktop review of existing databases and literature, then verifying and augmenting those findings by conducting an on-site sensitive biological resource survey.

SECTION 2 - METHODS

2.1 - Definition of Biological Study Area

The Biological Study Area (BSA) consists of the entire 12-acre Project site and a 250-foot survey buffer surrounding the Project site (Figure 2-1).

2.2 - Literature Review and Database Analysis

The following sources were reviewed to obtain information on sensitive biological resources occurring in the Project vicinity:

- California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB; CDFW 2022a),
- CDFW's Biogeographic Information and Observation System (CDFW 2022b).
- CDFW's Special Animals List (CDFW 2022c),
- CDFW's California Wildlife Habitat Relationships (CWHR) System (Mayer and Laudenslayer 1988),
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2022),
- United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation system (IPaC; USFWS 2022a),
- USFWS Critical Habitat Mapper (USFWS 2022b),
- USFWS National Wetlands Inventory (USFWS 2022c),
- USGS National Hydrography Dataset (USGS 2022),
- Federal Emergency Management Agency (FEMA) flood zone maps (FEMA 2022),
- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2022a),
- NRCS Lists of Hydric Soils (NRCS 2022b), and
- Current and historical aerial imagery (Google LLC 2022, Netronline 2022)

The CNDDB and CNPS, and queries focused on the *Malaga* USGS 7.5-minute quadrangle in which the Project is located, plus the surrounding eight quadrangles: *Fresno North, Fresno South, Clovis, Round Mountain, Sanger, Selma, Conejo,* and *Caruthers*.

Figure 2-1
Biological Study Area, Olive Lane Tract Project, City of Fresno, Fresno County, California

The CNDDB provides element-specific spatial information on documented occurrences of special-status species and sensitive natural communities. Some of the information available for review in the CNDDB is still undergoing review by the CDFW; these records are identified as unprocessed data. The CNPS database provides similar information as the CNDDB but at a much lower spatial resolution. Much of the information from these databases is submitted opportunistically and is often focused on protected lands or on lands where various developments have been proposed. Neither database represents data collected during comprehensive surveys for special-status resources in the region. As such, the absence of recorded occurrences in these databases at any specific location does not preclude the possibility that a special-status species could be present.

The CDFW Special Animals List and IPaC provide no spatial data on wildlife occurrences and provide only lists of species that might potentially be present. Wildlife species designated as "Fully Protected" by California Fish and Game Code Sections 5050 (Fully Protected reptiles and amphibians), 3511 (Fully Protected birds), and 4700 (Fully Protected mammals) are also included on the final list of species that were evaluated.

A review of the National Wetlands Inventory was completed to identify whether wetlands had previously been documented on or adjacent to the Project site (USFWS 2022c). The National Wetlands Inventory (NWI), which is operated by the USFWS, is a collection of wetland and riparian maps that depicts graphic representations of the type, size, and location of wetlands, deep water, and riparian habitats in the United States. In addition to the NWI, regional hydrologic information from the (NHD) was obtained from the USGS to evaluate the potential occurrence of blueline streams within the BSA (USGS 2022).

Soils data were obtained from the NRCS (2022a, 2022b), climate information was obtained from the Western Regional Climate Center (WRCC; WRCC 2022), and land use information was obtained from available aerial imagery and as observed during field surveys. Information about flood zones was obtained from the Federal Emergency Management Agency, Department of Homeland Security (FEMA 2022).

The results of the database inquiries (Appendix A) were subsequently reviewed to extract pertinent information on site conditions and evaluate the potential for sensitive biological resources to occur within or near the Project site. Only those resources with the potential to be present and affected by the Project are included and considered in this document. The potential presence of natural communities and special-status species is based on distributional ranges overlapping the Project site and the presence of habitat and/or primary constituent habitat elements.

2.3 - Reconnaissance-Level Field Surveys

A biological survey of the BSA was conducted on January 5, 2022, by QK Environmental Scientists Courtney Chaney and Mitch Wayman. The survey consisted of walking meandering pedestrian transects spaced 50 to 100 feet apart throughout the Project site and a 250-foot survey buffer surrounding the site, where accessable. Areas with suitable habitat that could not be accessed (residential properties) were viewed by use of binoculars.

Tasks completed during the survey included determining and documenting current land use, developing an inventory of plant species, wildlife species, and wildlife sign (e.g., scat, burrows, nests, feathers, tracks, etc.), characterizing vegetation associations and habitat conditions within the BSA, assessing the potential for federally- and State-listed and other special-status plant and wildlife species that may occur on and near the Project, and assessing the potential for migratory birds and raptors to nest on and near the Project. In addition, all historical wetland and water features documented by NWI and NHD were field verified. All spatial data were recorded using Environmental Systems Research Institute (Esri) Collector for ArcGIS software installed on an iPad. Site conditions were documented with representative photographs (Appendix B).

SECTION 3 - ENVIRONMENTAL SETTING

This section identifies the regional and local environmental setting of the Project and describes existing baseline conditions. The environmental setting of the BSA was obtained from various sources of literature, databases, and aerial photographs. Site conditions were verified and updated during the site survey conducted by QK Environmental Scientists.

3.1 - Topography

The Project site is on relatively flat, level terrain at an approximate elevation of 305 feet above mean sea level. Most of the Project site has been previously disturbed by historical agriculture and maintenance activities, and historical aerial imagery shows the land has been farmed and used for agricultural purposes since at least 1962 (Netronline 2022).

3.2 - Climate

The climatic conditions of the region are typical of the San Joaquin Valley, consisting of hot, dry summers and mild, wet winters, which is characteristic of a Mediterranean climate. Average maximum temperatures range from approximately 54.6°F in January to 98.3°F in July, with several days recorded above 100°F each summer (WRCC 2022). Average minimum temperatures range from 37.3°F in December to 65.7°F in July. The average annual precipitation is 10.89 inches, with the most rain occurring from October through April. During the winter months, dense fog often occurs after rain events.

3.3 - Land Use

The Project is in the City of Fresno, California, on the northeastern corner of the intersection of South Peach Avenue and East Church Avenue (Figure 1-2). The Project is bounded by residential development to the north, east, and west, and Storey Elementary School to the south. There are agricultural parcels northwest and southwest of the Project.

3.4 - Soils

The Project is underlain by three soil types: Ramona loam, Exeter sandy loam, and Hanford sandy loam (Figure 3-1, NRCS 2022a).

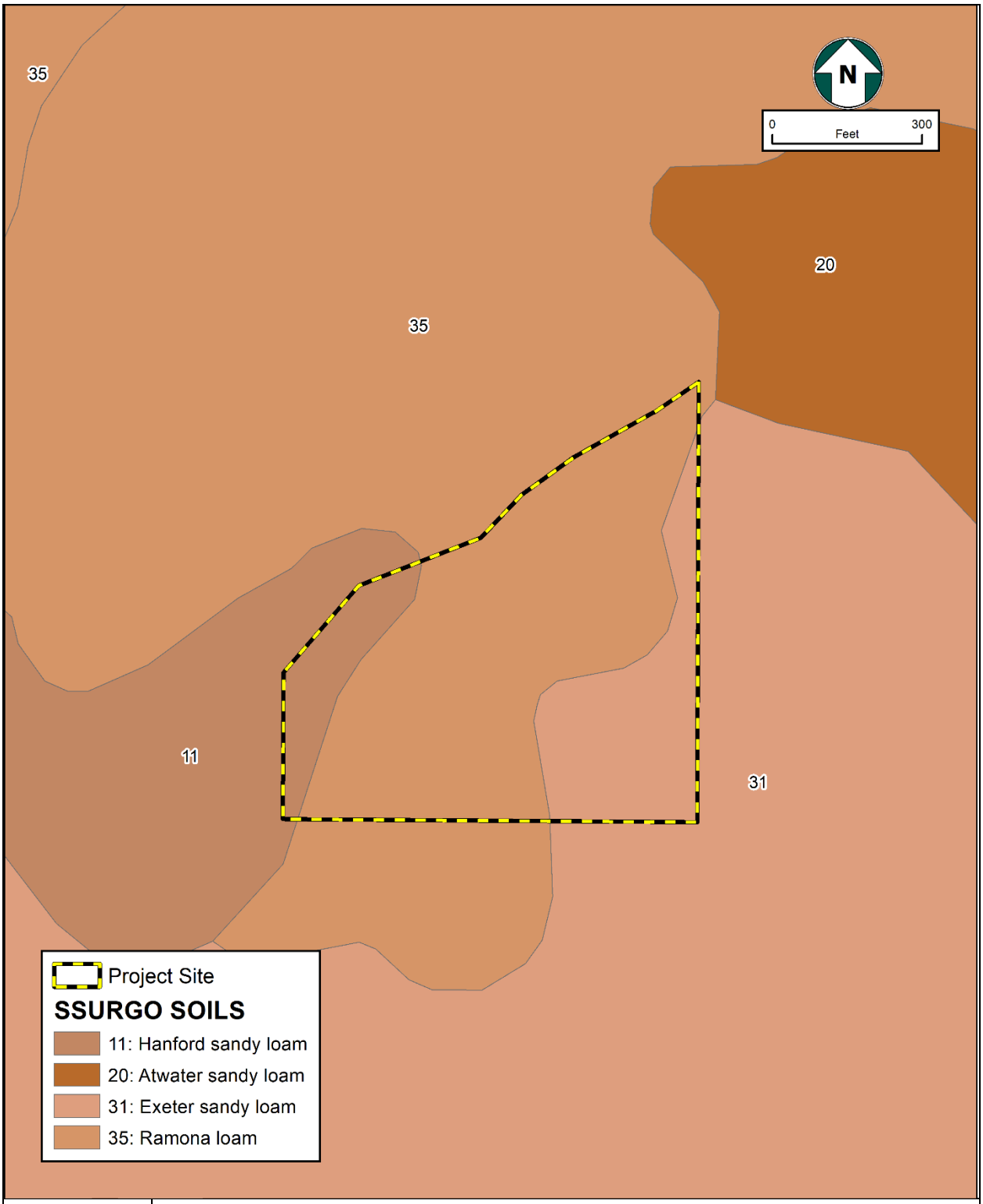


Figure 3-1
Soils Mapped within the Olive Lane Tract Project, City of Fresno, Fresno County, California

3.4.1 - Ramona Soil Series

The Ramona series consists of nearly level to moderately steep, well-drained soils that formed in alluvium derived mostly from granitic and related rock sources (NRCS 2022a). Ramona soils characteristics, including texture, material and mineral composition, color, acidity, and structure, vary widely between soil horizons. Ramona soils are found on terraces and fans at elevations of 250 to 3,500 feet. The mean annual precipitation is about 10 to 20 inches, and the mean annual temperature is about 63°F. This soil is used mostly for the production of grain, grain-hay, pasture, irrigated citrus, olives, row crops, and deciduous fruits. Uncultivated areas have a cover of annual grasses, forbs, chamise, or chaparral. This is series is not defined as a hydric soil in the region of the Project site(NRCS 2022b).

3.4.2 - Exeter Soil Series

The Exeter series consists of moderately deep to duripan, well-drained soils that formed in alluvium mainly from granitic sources. Exeter soils occur on alluvial fans and stream terraces and have slopes of 0 to 9 percent (NRCS 2022a). This soil type is on hummocky, undulating to gently rolling alluvial fans and stream terraces at elevations of 20 to 700 feet. Slopes range from 0 to 9 percent. In most areas, the hummocky relief has been smoothed by leveling. This series is found in climates that are dry and sub-humid with hot, dry summers and cool, moist winters. This soil is used for irrigated cropland consisting mostly of oranges (*Citrus* X *sinensis*), olives (*Olea europaea*), and deciduous orchards, vineyards, and row crops. It is also used for dairy and cattle production and building site development. Vegetation in uncultivated areas is mainly annual grasses and forbs. This series is not considered hydric in the region of the Project site (NRCS 2022b).

3.4.3 - Hanford Soil Series

The Hanford series consists of very deep, well-drained soils that formed in moderately coarse-textured alluvium dominantly from granite (2022a). Hanford soils typically occur on stream bottoms, floodplains, and alluvial fans at slopes up to 15 percent. The mean annual precipitation is about 12 inches, and the mean annual air temperature is about 63°F. These soils are widely distributed in the San Joaquin Valley and in the valleys of central and southern California and are used for growing a wide range of fruits, vegetables, and general farm crops. They are also used for urban development and dairies. Vegetation in uncultivated areas is mainly annual grasses and associated herbaceous plants. Besides Hanford fine sandy loam, the Hanford series does not consist of hydric soils (NRCS 2022b).

3.5 - Hydrology

The Project site is in the South Valley Floor Hydrologic Unit, within the Tulare Lake Hydrologic Region (CDWR 2022). The Tulare Lake Hydrologic Region encompasses approximately 10.5 million acres and includes the drainage area south of the San Joaquin River within the San Joaquin Valley. The Kings, Kaweah, Tule, and Kern rivers, which drain the west face of the Sierra Nevada Mountains, provide the bulk of the surface water supply native to the basin. Imported surface waters enter the basin through the San Luis Canal/California Aqueduct System, the Friant-Kern Canal, and the Delta-Mendota Canal. Of

these significant water features, the Kings River is the nearest to the Project, occurring approximately 10.1 miles east of the Project. The Kings River flows west out of the Sierra Nevada mountains, southwest through the cities of Sanger and Kingsburg, and then south, where it ultimately joins the Tule River.

One water feature, the Central Canal, runs along the northern boundary of the Project site, outside of the Project area (Figure 3-2). The NHD classifies it as a canal ditch, and the NWI identifies it as R4SBCx, an intermittent-flow, seasonally flooded streambed that was excavated by human development (USFWS 2022c, USGS 2022). The Central Canal is a small agricultural canal with either a concrete-lined or compacted earthen channel, depending on location. At the time of the survey, it contained a small amount of low-flow water and was unvegetated (Appendix B, Photograph 1).

As defined by FEMA, the Central Canal and the northern boundary of the Project site falls within a 1 percent Annual Chance Flood Hazard zone. The remainder of the Project site falls within an area of Minimal Flood Hazard (Figure 3-3; FEMA 2022).

3.6 - General Biological Conditions

The Project site is surrounded by residential developments to the north, west, and east, and the Storey Elementary School is located to the south. There are also agricultural fields northwest and southwest of the Project site.

No natural plant communities occur within the BSA. The site was previously used for agricultural production but is currently fallow and vegetated with non-native grasses (*Bromus madritensis rubens*) with scattered non-native forbs such as red-stemmed filaree (*Erodium cicutarium*). Burrows of California ground squirrel (*Otospermophilus beecheyi*) were observed within the BSA and along the Central Canal. Because the survey was conducted outside of the bird nesting season (February 1 to September 15) no nests were located. Bird species observed during the survey included common ravens (*Corvus corax*) and house finches (*Haemorhous mexicanus*) were observed. The Central Canal, which has compacted earthen banks, runs along the northern border of the Project site and was barren of vegetation. A complete list of plant and wildlife species observed during the biological reconnaissance survey is included in Appendix C.

Figure 3-2
NWI and NHD Records of Aquatic Resources,
Olive Lane Tract Project,
City of Fresno, Fresno County, California

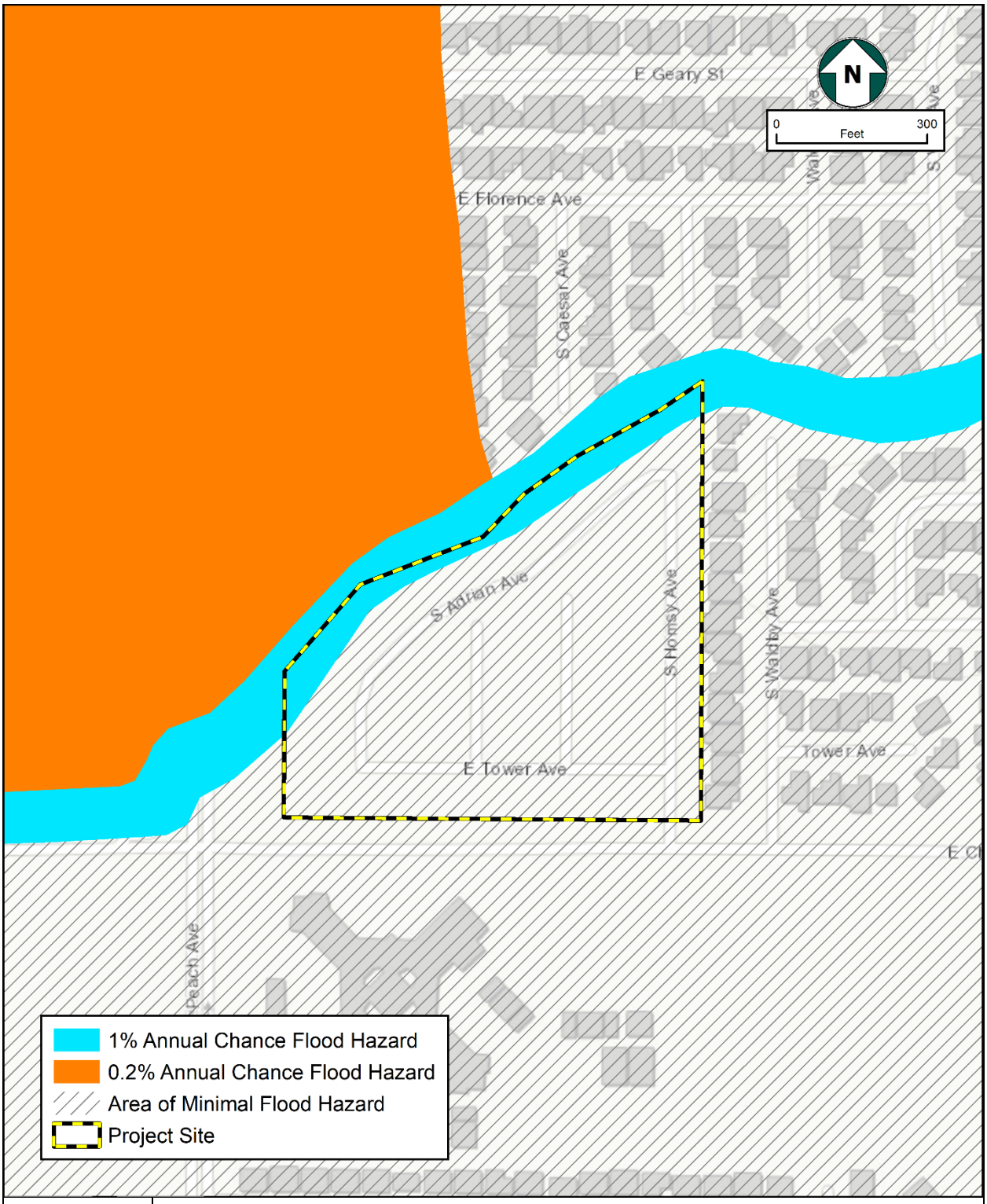


Figure 3-3
FEMA Flood Zone Map,
Olive Lane Tract Project,
City of Fresno, Fresno County, California

SECTION 4 - FINDINGS

4.1 - Sensitive Natural Communities

4.1.1 - RESULTS OF LITERATURE REVIEW AND DATABASE SEARCHES

Literature results from the 9-quadrangle queries for the Project site revealed two sensitive natural vegetation communities, Northern Claypan Vernal Pool and Northern Hardpan Vernal Pool.

4.1.2 - PRESENCE OF SENSITIVE NATURAL COMMUNITIES

Northern Claypan Vernal Pool and Northern Hardpan Vernal Pool communities were not observed on the Project site during the survey, and the BSA does not provide habitat that would support these natural communities.

4.2 - Special-Status Plants

4.2.1 - RESULTS OF LITERATURE REVIEW AND DATABASE SEARCHES

There were 12 special-status plant species identified in the literature and database review that are known or have potential to occur within the nine-quadrangle queries centered on the Project site (Table 4-1).

Table 4-1
Special-Status Plant Species Identified in the Database Queries
Olive Lane Tract Project
(Sources: CNDDB 2022, CNPS 2022, and USFWS 2022)

Scientific Name	Common Name	Status
Carex comosa	bristly sedge	2B.1
Castilleja campestris var. *succulenta*	succulent owl's-clover	FT, SE, 1B.2
Caulanthus californicus	California jewelflower	FE, SE, 1B.1
Eryngium spinosepalum	spiny-sepaled button-celery	1B.2
Imperata brevifolia	California satintail	2B.1
Lagophylla dichotoma	forked hare-leaf	1B.1
Lasthenia chrysantha	alkalk-sink goldfields	1B.1
Leptosiphon serrulatus	Madera leptosiphon	1B.2
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	FT, SE, 1B.1
Pseudobahia peirsonii	San Joaquin adobe sunburst	FT, SE, 1B.1
Sagittaria sanfordii	Sanford's arrowhead	1B.2
Tuctoria greenei	Greene's tuctoria	FE, 1B.1

Sources:
California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Data Base (CNDDB), California Department of Fish and Wildlife Sacramento, CA. Quads: Malaga, Fresno North, Fresno South, Clovis, Round Mountain, Sanger, Selma, Conejo, Caruthers.

California Native Plant Society (CNPS). 2022. Inventory of Rare and Endangered Plants (online edition, v6-05b 4-11-05). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Quads: Malaga, Fresno North, Fresno South, Clovis, Round Mountain, Sanger, Selma, Conejo, Caruthers.
Unites States Fish and Wildlife Service (USFWS). 2022. Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Malaga USGS 7 ½ Minute Quad. USFWS. Sacramento, CA.

Abbreviations:

1B.1 California Native Plant Society List 1B Species-Plants Categorized as Rare, Threatened, or Endangered in California and Elsewhere; Seriously Endangered in California
1B.2 California Native Plant Society List 1B Species-Plants Categorized as Rare, Threatened, or Endangered in California and Elsewhere; Fairly Endangered in California.
2B.1 California Native Plant Society List 2B Species-Plants Categorized as Endangered in California; Seriously Endangered
FE Federal Endangered Species
FT Federal Threatened Species
SE California State Endangered Species

4.2.2 - Presence of Special-Status Plants

No special-status plant species were observed within the BSA. Although the field survey did not coincide with the optimum blooming survey period for all sensitive plant species, there is no habitat present on the Project site or within the BSA that would support special-status plant species. The Project site is degraded from historical land uses, mainly for agricultural operations and continual disking, and the adjacent lands have been equally disturbed for agricultural and residential uses. A complete list of plant species observed during the biological reconnaissance survey is included in Appendix C.

4.3 - Special-Status Wildlife

4.3.1 - Results of Literature Review and Database Searches

There were 35 special-status wildlife species identified in the literature and database review that are known or have potential to occur within the nine-quad search area centered on the Project (Table 4-2). There are no historical records from the CNDDB of special-status wildlife species on the Project site.

Table 4-2
Special-Status Wildlife Species Identified in the Database Queries
Olive Lane Tract Project
(Sources: CNDDB 2022 and USFWS 2022)

Scientific Name	Common name	Status
Insects		
Danaus plexippus	monarch butterfly	FC, -
Desmocerus californicus	valley elderberry longhorn beetle	FT,-
Efferia antiochi	Antioch efferian robberfly	-,-
Lytta molesta	molestan blister beetle	-,-
Metapogon hurdi	Hurd's metapogon robberfly	-,-
Crustaceans		
Branchinecta lynchi	vernal pool fairy shrimp	FT,-

Scientific Name	Common name	Status
Branchinecta mesovallensis	midvalley fairy shrimp	-,-
Linderiella occidentalis	California linderiella	-,-
Fishes		
Hypomesus transpacificus	delta smelt	FT,SE
Amphibians		
Ambystoma californiense	California tiger salamander	FT, ST
Rana draytonii	California red-legged frog	FT, SSC
Spea hammondii	western spadefoot	-, SSC
Reptiles		
Anniella pulchra	Northern California legless lizard	-. SSC
Arizona elegans occidentalis	California glossy snake	-. SSC
Emys marmorata	western pond turtle	-, SSC
Gambelia sila	blunt-nosed leopard lizard	FE, SE, FP
Phrynosoma blainvillii	coast horned lizard	-, SSC
Thamnophis gigas	giant gartersnake	FT, ST
Birds		
Agelaius tricolor	tricolored blackbird	ST, SSC
Ardea alba	great egret	-,-
Athene cunicularia	burrowing owl	-, SSC
Buteo swainsoni	Swainson's hawk	-, ST
Coccyzus americanus	western yellow-billed cuckoo	FT, SE
Egretta thula	snowy egret	-,-
Nannopeterum auritum	double-crested cormorant	-,-
Nycticorax nyctirorax	black-crowned night heron	-,-
Vireo bellii pusillus	least Bell's vireo	FE, SE
Mammals		
Antrozous pallidus	pallid bat	-, SSC
Dipodomys nitratoides exilis	Fresno kangaroo rat	FE, SE
Eumops perotis californicus	western mastiff bat	-. SSC
Lasiurus cinereus	hoary bat	-,-
Perognathus inornatus	San Joaquin pocket mouse	-,-
Taxidea taxus	American badger	-, SSC
Vulpes macrotis mutica	San Joaquin kit fox	FE, ST

Sources:
California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Data Base (CNDDB), California Department of Fish and Wildlife Sacramento, CA. Quads: Malaga, Fresno North, Fresno South, Clovis, Round Mountain, Sanger, Selma, Conejo, Caruthers.
Unites States Fish and Wildlife Service (USFWS). 2022. Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Malaga USGS 7 ½ Minute Quad. USFWS. Sacramento, CA.
Abbreviations:

FE	Federal Endangered Species
FT	Federal Threatened Species
FC	Federal Candidate for Listing
SE	California State Endangered Species
ST	California State Threatened Species
SSC	California Department of Fish and Wildlife Species of Special Concern
FP	California Department of Fish and Wildlife Fully Protected Species

4.3.2 - Presence of Special-Status Wildlife

No special-status wildlife species or their sign were observed within the BSA. The Project site is highly disturbed and contains no habitat that would support most of the special-status wildlife species listed in Table 4-2. A complete list of wildlife species observed during the biological reconnaissance survey is included in Appendix C.

There are no vernal pools or wetlands that would support aquatic species such as vernal pool crustaceans, western spadefoot (*Spea hammondii*), California tiger salamander (*Ambystoma californiense*), and California red-legged frog (*Rana draytonii*). The Central Canal on the northern boundary of the Project does not provide the necessary hydrology and vegetation to support giant gartersnake (*Thamnophis gigas*) or western pond turtle (*Emys marmorata*). The Central Canal does not support suitable habitat for the delta smelt (*Hypomesus transpacificus*). There are no grasslands or native shrub habitats that would support California glossy snake (*Arizona elegans occidentalis*), northern California legless lizard (*Anniella pulchra*), coast horned lizard (*Phrynosoma blainvillii*), or blunt-nosed leopard lizard (*Gambelia sila*). No wetland or riparian habitat exists on-site that would support nesting or foraging for the tricolored blackbird (*Agelaius tricolor*), least Bell's vireo (*Vireo bellii pusillus*) or the western yellow-billed cuckoo (*Coccyzus americanus*), or other aquatic bird species like the great egret (*Ardea alba*), snowy egret (*Egretta thula*), double-crested cormorant (*Nannopterum auritum*), or black-crowned night heron (*Nyctocirorax nycticorax*). There is no roosting habitat for monarch butterfly (*Danaus plexippus*), although it may travel through the Project area as a transient, and there are no elderberry shrubs within the BSA to support the valley elderberry longhorn beetle (*Desmocerus californicus*). The four remaining insect species have no formal protection under CESA or the ESA.

There are no rocky outcroppings, mines or caves, cliff faces, tree hollows, or bridges on the Project site that would support the pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), or hoary bat (*Lasiurus cinereus*). Because of the historic disturbance and lack of small mammal burrows, the Project does not support the Fresno kangaroo rat (*Dipodomys nitratoides exilis*) or San Joaquin pocket mouse (*Perognathus inornatus*).

The San Joaquin kit fox (*Vulpes macrotis mutica*) is unlikely to occur on the Project site. The nearest CNDDB occurrence for San Joaquin kit fox is mapped in Sanger, approximately 8.2 miles east of the Project site, where an injured fox was observed in 1992 (EONDX 70606). The Project site consists of fallow agricultural land that is now vegetated with non-native grasses and forbs. No San Joaquin kit fox or diagnostic signs of the species (e.g., tracks, dens, scat, prey remains) were found during the field survey. Although limited prey species are present within the BSA, surrounding land use and habitat conditions make it unlikely that the San Joaquin kit fox would be present, other than as a transient forager. The American badger (*Taxidea taxus*) has similar habitat requirements to the San Joaquin kit fox and also is unlikely to occur within the BSA other than a transient. The nearest American badger CNDDB occurrence is approximately 5.1 miles north of the Project from 1987 (EONDX 56616). Project activities would be very unlikely to affect these species.

The Swainson's hawk (*Buteo swainsoni*) is unlikely to occur on the Project. The nearest Swainson's hawk CNDDB occurrence is from 1956 and is only approximately mapped as "near Fresno" (EONDX 91594). The next nearest Swainson's hawk CNDDB occurrence is from 2016 and approximately 3.4 miles southwest of the Project site in a pasture (EONDX 106840). Although there is limited foraging habit on the Project site, there are no suitable nesting trees or structues in the immediate vicinity and the disturbances from human activity in the area further limit the likelihood for nesting Swainson's hawks. California ground squirrels were observed on-site, so there is some potential for the Swainson's hawk to be present from time to time as a transient forager.

There is potential for burrowing owl (*Athene cunicularia*) to occur on or near the Project site. The nearest CNDDB occurrence is approximately 4.7 miles north of the Project site at the northwest end of the Fresno Yosemite International Airport Three breeding pairs were observed between 1981 and 1990 (EONDX 103145). No burrowing owls or their sign (whitewash, feathers, pellets) were observed during the survey and limited prey base was observed for the species (small mammal burrows, beetles). Because burrowing owls use existing burrows excavated by small mammals, including California ground squirrels, there is a potential for burrowing owls to become established on or near the Project site. There is also potential for burrowing owls to forage or become established in the agricultural properties northwest and southwest and along the Central Canal. The species is not likely to be present on the residential properties or the elementary school on the lands surrounding the Project site.

4.4 - Nesting Migratory Birds and Raptors

4.4.1 - Presence of Nesting Birds and Raptors

No active or inactive migratory bird or raptor nests were observed during the survey, although the survey was not conducted during a period when nests would be active. There is potential for ground-nesting species, such as horned lark (*Eremophila alpestris*), to nest on the Project site, and there are suitable nesting trees for other migratory species in the surrounding residential areas and elementary school. There are no suitably large nesting trees for raptor species in the immediate vicinity, although there are utility poles south of the Project site along East Church Avenue, which could potentially support nesting raptors such as red-tailed hawk (*Buteo jamaicensis*) and other large native birds such as common raven.

4.5 - Critical Habitat, Movement Corridors, and Linkages

4.5.1 - Presence of Critical Habitat

There is no designated Critical Habitat within 10 miles of the Project site.

4.5.2 - Presence of Movement Corridors and Linkages

There are no known movement corridors or linkages that intersect the Project site. The Project is situated within an urban area and does not provide a linkage between suitable habitats for most wildlife species. The Central Canal could potentially provide a corridor for wildlife dependent on water flow conditions.

4.6 - Wetlands and Waters

4.6.1 - Presence of Wetlands and Other Waters

No wetland features are known to exist at the Project site (see Figure 3-2). The NHD and NWI identified one water feature, the Central Canal, which is described as a canal ditch and a seasonally flooded, excavated streambed. The Central Canal is a small agricultural canal that runs just outside the northern border of the Project site, with either a compacted earth or concrete-lined channel. ow flow of water was observed during the survey and the canal bed and bank was not vegetated. No other water features were observed during the survey.

SECTION 5 - POTENTIAL PROJECT IMPACTS

The purpose of this section is to present an evaluation of the potential for Project-related impacts to sensitive biological resources to occur resulting from Project construction activities. Although the potential for impacts of the Project is anticipated to be minor because the Project will be mostly constructed on an existing peach orchard, vacant lot, and maintained residential property, there are some risks of Project impacts. These are discussed below.

5.1 - Potential Impacts to Sensitive Vegetation Communities and Special-Status Plant Species

No sensitive vegetation communities occur on-site. The Project would not impact sensitive natural communities.

5.2 - Potential Impacts to Sensitive Vegetation Communities and Special-Status Plant Species

No special-status plant species occur on-site and there is no suitable habitat for any special-status plant species on or near the Project site. The Project would not impact special-status plant species.

5.3 - Potential Impacts to Special-Status Wildlife Species

Some special status wildlife species could be present at the Project from time to time, but the available habitat only marginally fulfills the requirements of the San Joaquin kit fox, Swainson's hawk, American badger, and western burrowing owl. The potential for these species to occur on the Project site, even as transients, is unlikely, especially because the Project is surrounded by urban development. The kit fox and badger are both unlikely to occur on or near the Project, so Project activities would is unlikely to effect these two species. There are no suitable nesting trees for Swainson's hawk in the vicinity of the Project, and although the species may forage from time to time on the Project, loss of this habitat would be minimal, and Project activities is unlikely to effect this species. Ground squirrel burrows scattered on the Project site and in the Central Canal could provide suitable burrowing habitat for burrowing owls. No observations or sign was observed during the site survey of burrowing owls. If borrowing owls become established, there is a potential to impacts to individual owls. No special-status wildlife species or diagnostic signs of special-status wildlife species were present on the Project site, and the disturbed condition and urban location of the site would tend to preclude special-status wildlife species with the possible exception of burrowing owls.

5.4 - Potential Impacts to Nesting Birds and Raptors

No active or inactive bird nests were observed on the Project site, but the survey was not conducted during the bird breeding season (February 1 through September 15). There is

potential for birds to nest on the Project and in trees and utility poles in the surrounding urban areas, and if there are active nests present during Project activities during nesting season, nests could be destroyed. Project activities could interfere with normal breeding behaviors, which could discourage breeding or lead to nest abandonment at nests occuring on the surrounding ornamental trees and shrubs in adjacent residences.

5.5 - Potential Impacts to Movement Corridors and Linkages

Project activities would not impact any movement corridors or wildlife linkages.

5.6 - Potential Impacts to Wetlands and Waters

No wetland features exist on or near the Project, and there would be no impacts to wetland resources. The Central Canal runs just north of the Project boundary and will not be impacted by Project activities.

SECTION 6 - RECOMMENDATIONS

The Project is anticipated to have no impacts to sensitive natural communities, special-status plants, special-status wildlife, wetlands, critical habitat, or migratory corridors. Although no impacts to special-status species are expected, Best Management Practices (BMPs) are recommended. There is a potential for the Project to impact migratory birds and raptors.

6.1 - Recommended Best Management Practices for the Protection of Special-Status Wildlife Species

To protect the special-status wildlife species, we recommend these BMPs:

- A pre-construction survey of the project footprint and a 500-foot buffer surrounding the Project footprint should be conducted for burrowing owl and nesting migratory birds (if the Project occurs during the nesting season, January 15 through Septmenber 30). The survey should occur no less than 14 days prior to the start of construction activities and no more than 30 days prior to the start of construction activities. The survey should be conducted by a biologist with adequate training and prior experience conducting surveys for special-status wildlife species.
- A worker Environmental Awareness Training Program should be prepared and presented to all workers that will be on-site during construction activities.
- Project-related vehicles should observe a 20 mph speed limit in all Project areas, except on county roads and state and federal highways; this is particularly important at night when wildlife is most active. To the extent possible, nighttime construction should be minimized. Off-road traffic outside of designated Project areas should be prohibited.
- To prevent inadvertent entrapment of wildlife while work is being conducted, the contractor should cover all excavated, steep-walled holes or trenches more than 2 feet deep at the close of each working day with plywood or similar materials, or provide one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, the contractor should thoroughly inspect them for trapped animals.
- Wildlife species such as transient kit foxes and burrowing owls are attracted to den-like structures such as pipes and may enter stored pipes becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for wildlife before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox, burrowing owl, or other animal is discovered inside a pipe, that section of pipe should not be moved until the designated biologist has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity until the animal has escaped.
- All trash and food items should be discarded into closed containers and properly disposed of at the end of each workday.

- To prevent harassment, mortality of wildlife, or destruction of dens by dogs or cats, no pets should be permitted on project sites.

6.2 - Recommendations for the Protection of Migratory Birds and Raptors

To protect nesting migratory birds and raptors, it is recommended that:

- If Project activities are scheduled during the nesting bird season, from February 1 through September 15, then a pre-construction survey for nesting birds should be conducted within the project footprint and within 500-feet from the outside boundaries of the Project footprint. Construction activities should not be conducted within 250 feet of an active bird nest or within 500 feet of an active raptor nest. That avoidance distance could be reduced if a biological monitor determines that activities are not affecting the breeding success of the nesting birds.

SECTION 7 - SUMMARY AND CONCLUSION

There were no special-status species present on the Project, and the site is highly disturbed and contains no natural habitat that would support special-status plant species or sensitive natural communities. There are no designated Critical Habitats, movement corridors, or wetlands that would be impacted by the Project. Central Canal would not be impacted by the Project.

Based on the literature and database searches, there is potential for four special-status species to occur on the site, the San Joaquin kit fox, American badger, Swainson's hawk, and burrowing owl. However, based on the disturbed nature of the Project and its location within an urban area, impacts to these species are not expected with the excepton of burrowing owl. The Project and surrounding areas provide limited nesting habitat for nesting migratory birds, and they may occur on or near the Project site. Implementation of the recommended BMPs and avoidance measures outlined in Section 6 would minimize any Project impacts to these species.

This Biological Resource Evaluation report has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The findings and opinions conveyed in this report are based on findings derived from specified historical and literary sources and a biological survey of the Project site and surrounding area. The biological investigation was limited by the scope of work performed. The biological survey may not have been performed during blooming periods or periods of seasonal or daily wildlife activity that would provide positive identification if resources were present, and therefore the findings of this report might not be definitive. The biological survey was also limited by the environmental conditions present at the time of the survey. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and would not be discovered in the future within the site. Mobile animal species could occupy the site on a transient basis or re-establish populations in the future. No other guarantees or warranties, expressed or implied, are provided.

SECTION 8 - REFERENCES

California Department of Fish and Wildlife (CDFW). 2022a. California Natural Diversity Database (CNDDB), from https://map.dfg.ca.gov/rarefind/view/RareFind.aspx.

California Department of Fish and Wildlife (CDFW). 2022b. Biogeographic Information and Observation System (BIOS). www.wildlife.ca.gov/data/BIOS

California Department of Fish and Wildlife (CDFW). 2022c. CDFW's Special Animals List

California Department of Water Resources Water Management Planning Tool (CDWR). 2022. https://gis.water.ca.gov/app/boundaries/

California Native Plant Society (CNPS). 2022. Inventory of Rare and Endangered Plants. Updated online and accessed via: www.rareplants.cnps.org.

Federal Emergency Management Agency (FEMA) 2022. On-line Map Service Center.

Google LLC. 2022. Google Earth Pro.

Mayer, K.E. and W.F. Laudenslayer, Jr. 1988. *A guide to wildlife habitats of California. State of California*. Resources Agency, Department of Fish and Game. Sacramento, CA. 166 pp. As updated online at: https://www.wildlife.ca.gov/Data/CWHR/Wildlife-Habitats

Netronline. 2022. Historic Aerials Viewer. Accessedd via: www.historicaerials.com/viewer

United States Department of Agriculture, Natural Resources Conservation Service (NRCS). 2022a. Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

United States Department of Agriculture, Natural Resources Conservation Service (NRCS). 2022b. Lists of Hydric Soils. National Cooperative Soil Survey, U.S. Department of Agriculture. Accessed via: https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/.

United States Fish and Wildlife Service (USFWS). 2022a. Information for Planning and Consultation online project planning tool. Available at: https://ecos.fws.gov/ipac/

United States Fish and Wildlife Service (USFWS). 2022b. Critical Habitat Portal. Available at: https://ecos.fws.gov/ecp/report/table/critical-habitat.html

United States Fish and Wildlife Service (USFWS). 2022c. National Wetlands Inventory Wetlands Mapper (NWI). U.S. Geological Survey.

United States Geological Survey (USGS). 2022. National Hydrography Dataset (NHD). https://www.usgs.gov/core-science-systems/ngp/national-hydrography

Western Region Climate Center. 2022. Cooperative Climatological Data Summaries. Station ID: Fresno Yosemite Intl AP, California 043257. Accessed January 2022. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca3257

APPENDIX A

SPECIAL-STATUS SPECIES DATABASE SEARCH RESULTS FOR THE OLIVE LANE TRACT PROJECT

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Malaga (3611966) OR Fresno North (3611977) OR Fresno South (3611967) OR Clovis (3611976) OR Round Mountain (3611975) OR Sanger (3611965) OR Selma (3611955) OR Conejo (3611956) OR Caruthers (3611957))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3	S3	WL
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Carex comosa bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
Castilleja campestris var. succulenta succulent owl's-clover	PDSCR0D3Z1	Threatened	Endangered	G4?T2T3	S2S3	1B.2
Caulanthus californicus California jewelflower	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S3	
Dipodomys nitratoides exilis Fresno kangaroo rat	AMAFD03151	Endangered	Endangered	G3TH	SH	
Efferia antiochi Antioch efferian robberfly	IIDIP07010	None	None	G1G2	S1S2	
Egretta thula snowy egret	ABNGA06030	None	None	G5	S4	

Commercial Version -- Dated January, 1 2022 -- Biogeographic Data Branch — Page 1 of 3

Report Printed on Wednesday, January 05, 2022 — **Information Expires 7/1/2022**

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eryngium spinosepalum spiny-sepaled button-celery	PDAPI0Z0Y0	None	None	G2	S2	1B.2
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G4G5T4	S3S4	SSC
Imperata brevifolia California satintail	PMPOA3D020	None	None	G4	S3	2B.1
Lagophylla dichotoma forked hare-leaf	PDAST5J070	None	None	G2	S2	1B.1
Lasiurus cinereus hoary bat	AMACC05030	None	None	G3G4	S4	
Lasthenia chrysantha alkali-sink goldfields	PDAST5L030	None	None	G2	S2	1B.1
Leptosiphon serrulatus Madera leptosiphon	PDPLM09130	None	None	G3	S3	1B.2
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Lytta molesta molestan blister beetle	IICOL4C030	None	None	G2	S2	
Metapogon hurdi Hurd's metapogon robberfly	IIDIP08010	None	None	G1G2	S1S2	
Nannopterum auritum double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
Northern Claypan Vernal Pool Northern Claypan Vernal Pool	CTT44120CA	None	None	G1	S1.1	
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S4	
Orcuttia inaequalis San Joaquin Valley Orcutt grass	PMPOA4G060	Threatened	Endangered	G1	S1	1B.1
Perognathus inornatus San Joaquin pocket mouse	AMAFD01060	None	None	G2G3	S2S3	
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Pseudobahia peirsonii San Joaquin adobe sunburst	PDAST7P030	Threatened	Endangered	G1	S1	1B.1
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3	SSC

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Taxidea taxus	AMAJF04010	None	None	G5	S3	SSC
American badger						
Tuctoria greenei	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
Greene's tuctoria						
Vireo bellii pusillus	ABPBW01114	Endangered	Endangered	G5T2	S2	
least Bell's vireo						
Vulpes macrotis mutica	AMAJA03041	Endangered	Threatened	G4T2	S2	
San Joaquin kit fox						

Record Count: 44

Commercial Version -- Dated January, 1 2022 -- Biogeographic Data Branch

Report Printed on Wednesday, January 05, 2022

Page 3 of 3

Information Expires 7/1/2022

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: January 05, 2022
Consultation Code: 08ESMF00-2022-SLI-0731
Event Code: 08ESMF00-2022-E-02208
Project Name: 210267 Olive Lane Fresno Residential Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2022-SLI-0731
Event Code: Some(08ESMF00-2022-E-02208)
Project Name: 210267 Olive Lane Fresno Residential Project
Project Type: DEVELOPMENT
Project Description: Residential development
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.71617405,-119.71634934437746,14z

Counties: Fresno County, California

Endangered Species Act Species

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Fresno Kangaroo Rat *Dipodomys nitratoides exilis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5150	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard *Gambelia silus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

APPENDIX B

REPRESENTATIVE PHOTOGRAPHS OF THE OLIVE LANE TRACT PROJECT

Photograph 1: Northeast corner of the Project area, facing west to show the Central Canal
GPS Coordinates: 36.717322°N, -119.715324°W.
Photograph taken by Mitch Wayman on January 5, 2022.

Photograph 2: Northern boundary of the Project, facing south.
GPS Coordinates: 36.716351°N, -119.717355°W.
Photograph taken by Mitch Wayman on January 5, 2022.

Photograph 3: Northwest corner of the Project, facing east.
GPS Coordinates: 36.715801°N, -119.718000°W.
Photograph taken by Mitch Wayman on January 5, 2022.

Photograph 4: Southern boundary of the Project, facing east.
GPS Coordinates: 36.715097°N, -119.716556°W.
Photograph taken by Mitch Wayman on January 5, 2022.

Photograph 5: Southern boundary of the Project, facing north.
GPS Coordinates: 36.715097°N, -119.716556°W.
Photograph taken by Mitch Wayman on January 5, 2022.

Photograph 6: Southwest corner of the Project, facing north.
GPS Coordinates: 36.715116°N, -119.715164°W.
Photograph taken by Mitch Wayman on January 5, 2022.

Photograph 7: Representative California ground squirrel precinct in the center of the Project.
GPS Coordinates: 36.716289°N, -119.715752°W.
Photograph taken by Mitch Wayman on January 5, 2022.

Photograph 8: Representative California ground squirrel along the Central Canal.
GPS Coordinates: 36.717442°N, -119.715370°W.
Photograph taken by Mitch Wayman on January 5, 2022.

APPENDIX C

PLANT AND WILDLIFE SPECIES OBSERVED ON THE OLIVE LANE TRACT PROJECT

Table C - 1
Plant and Wildlife Species Observed on the Project Site
Olive Lane Tract Project

Scientific Name	Common Name	Status
Plants		
Ambrosia acanthicarpa	annual burrweed	None
Ambrosia psilostachya	ragweed	None
Amsinckia eastwoodiae	Eastwood's fiddleneck	None
Artemisia douglasiana	California mugwort	None
Avena fatua	wild oat	None
Brassica nigra	black mustard	None
Bromus madritensis ssp. *Rubens*	red brome	None
Chenopodium album	lambs quarters	None
Datura wrightii	jimsonweed	None
Erodium cicutarium	red-stemmed filaree	None
Helianthus annuus	annual sunflower	None
Lamium amplexicaule	henbit	None
Malva parviflora	common mallow	None
Melilotus indicus	annual yellow sweetclover	None
Raphanus raphanistrum	wild radish	None
Senecio vulgaris	common groundsel	None
Urtica dioica	stinging nettle	None
Birds		
Corvus corax	common raven	None
Junco hyemalis	dark-eyed junco	None
Mammals		
Canis familiaris	domestic dog*	None
Otospermophilus beecheyi	California ground squirrel*	None

* Indicates that only sign (e.g., tracks, scat, burrows, dens, vocalizations) of the species was observed.

TECHNICAL MEMORANDUM

Date: January 3, 2022

Project: Cultural resources records search- Olive Lane Residential Project, City of Fresno, Fresno County, CA

To: Jaymie Brauer, Principal Planner

From: Robert Parr, MS, RPA, Senior Archaeologist

Subject: Cultural Resources Records Search Results (RS#22-006)

Background

A cultural resources records search (#22-006) was conducted at the Southern San Joaquin Valley Information Center (IC), CSU Bakersfield for the above referenced Project in the City of Fresno, Fresno County, CA to determine whether the proposed project would impact cultural resources.

Project Location

he Project is located on the northeast intersection of Peach Avenue and Church Avenue in Fresno, CA. The Project site is within the northwest ¼ of the northwest ¼ of Section 17, T14S R21E. The site is on APN 481-020-60S. (Attachment A: Figures 1-4).

Project Description

The proposed project consists of a 76-lot single-family residential subdivision with a park and walking trail along the FID canal on an on approximately 12 acres lot.

Results

The records search covered an area within one-half mile of the Project and included a review of the *National Register of Historic Places, California Points of Historical Interest, California Registry of Historic Resources, California Historical Landmarks, California State Historic Resources Inventory*, and a review of cultural resource reports on file.

The records search indicated that the subject property had previously been surveyed for cultural resources (Busby 2005). No cultural resources were identified on the property as a result of that study and it was recommended that no further cultural resource work is warranted unless " . . . significant cultural materials are exposed during subsurface construction" (Busby 2005:10).

Four additional cultural resource studies have been conducted within a half mile of the property (Bissonnette 1992; Nettles and Baloian 2003, 2005; Busby 2004).

Four historic cultural resource properties have been recorded within a half mile of the project. These include the Central Canal, a portion of which runs along the northern edge of the project;

the Washington Colony Canal; the route of the Southern Pacific Railroad; and the USDA Horticultural Field Station. The project will not impact any of these cultural resources.

A Sacred Lands File request was also submitted to the Native American Heritage Commission. A response dated March 1, 2022, indicates negative results (see Attachment B).

Conclusions

Based on the results of cultural records search findings and the lack of historical or archaeological resources previously identified within a half mile radius of the proposed Project, the potential to encounter subsurface cultural resources is minimal. Additionally, the Project construction would be conducted within the partially developed and previously disturbed parcel. The Project would not impact the cultural resource properties that are within the vicinity. The potential to uncover subsurface historical or archaeological deposits would be considered unlikely.

However, there is still a possibility that historical or archaeological materials may be exposed during construction. Grading and trenching, as well as other ground-disturbing actions have the potential to damage or destroy these previously unidentified and potentially significant cultural resources within the project area, including historical or archaeological resources. Disturbance of any deposits that have the potential to provide significant cultural data would be considered a significant impact. To reduce the potential impacts of the Project on cultural resources, the following measures are recommended to be included as Conditions of Approval. With implementation of CUL-1 and CUL-2, the Project would have a less than significant impact related to cultural resources.

CUL-1: If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified archaeologist can evaluate the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants. If the qualified archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from Project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation. Implementation of the mitigation measure below would ensure that the proposed Project would not cause a substantial adverse change in the significance of a historical resource.

CUL-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by

the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the county coroner.

Robert E. Parr, MS, RPA
Senior Archaeologist

Attachment A- Figures
Attachment B- Sacred Lands File Response by the Native American Heritage Commission

References

(all reports on file at the Southern San Joaquin Valley Information Center, California State University, Bakersfield)

Bissonnette, Linda Dick
1992 Cultural Resources Assessment for the Fresno Unified School District, Southeast Fresno High School, Middle School, and Elementary School. (FR-00296)

Busby, Colin I.
2004 Cultural Resources Assessment – Bennett Development, Vicinity of S. Peach and E. Church Avenues, Fresno, Fresno County. (FR-02127)

2005 Cultural Resources Assessment – Bennett Development Parcel in the Vicinity of NW Center, S. Peach and E. Church Avenues, City of Fresno, Fresno County. (FR-02126)

Nettles, Wendy M., and Randy Baloian
2003 Cultural Resources Survey and Inventory of the USDA Peach Avenue Property in Fresno, California. (FR-02000)

2005 National Register of Historic Places Evaluation of the USAD Horticultural Field Station on Peach Avenue in Fresno, California. (FR-02217)

ATTACHMENT A
PROJECT FIGURES

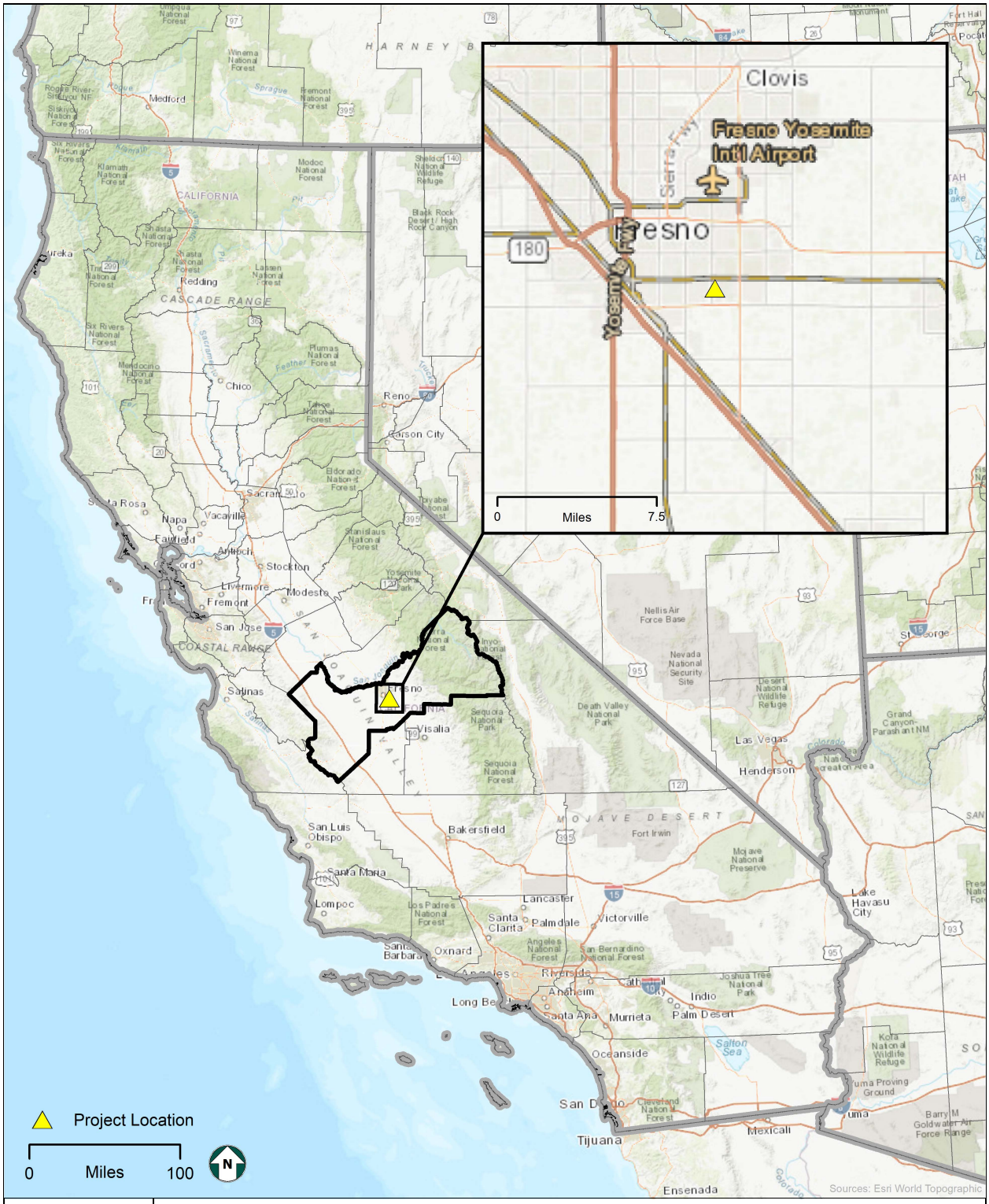


Figure - 1
Regional Location

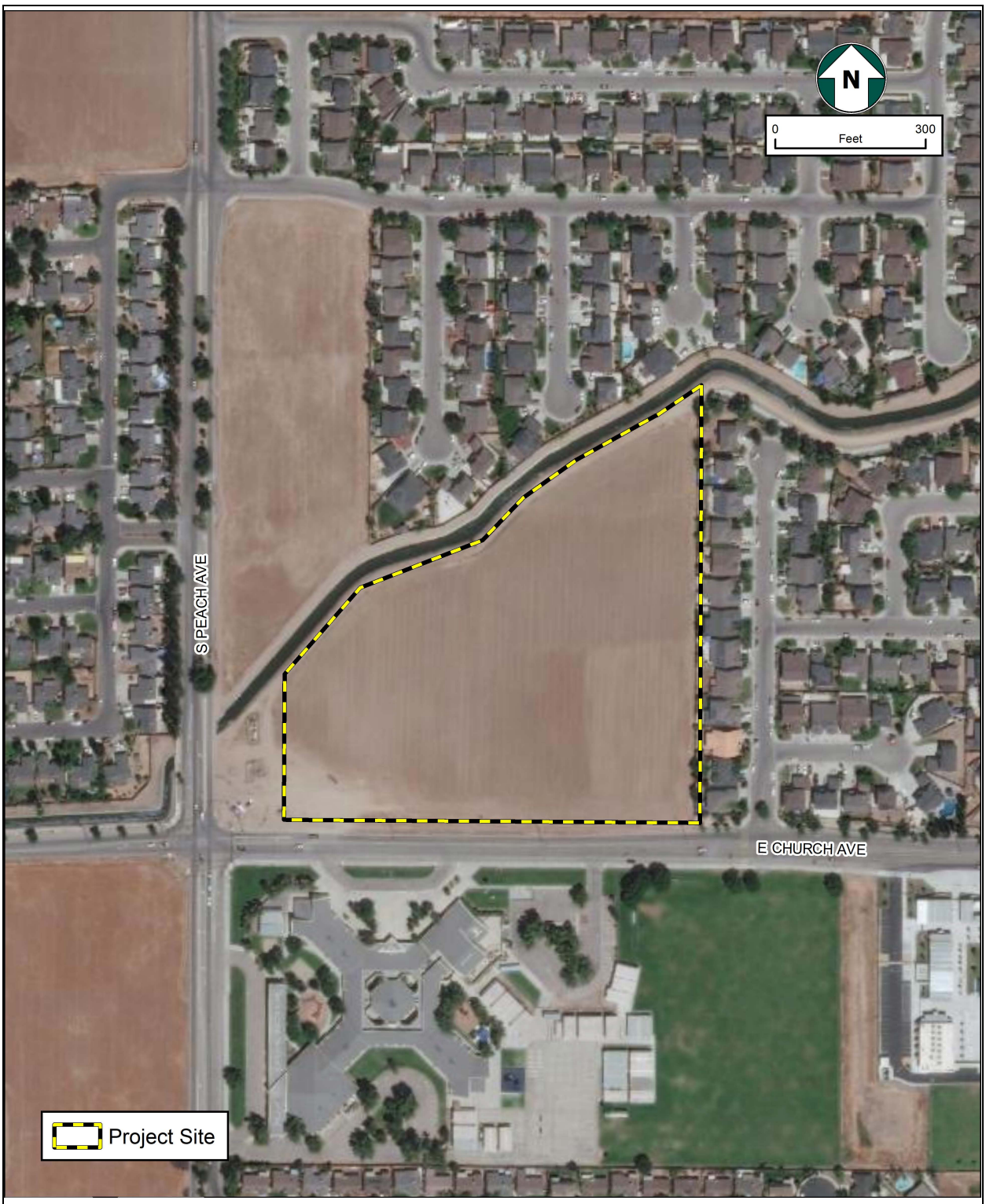


Figure - 2
Project Area

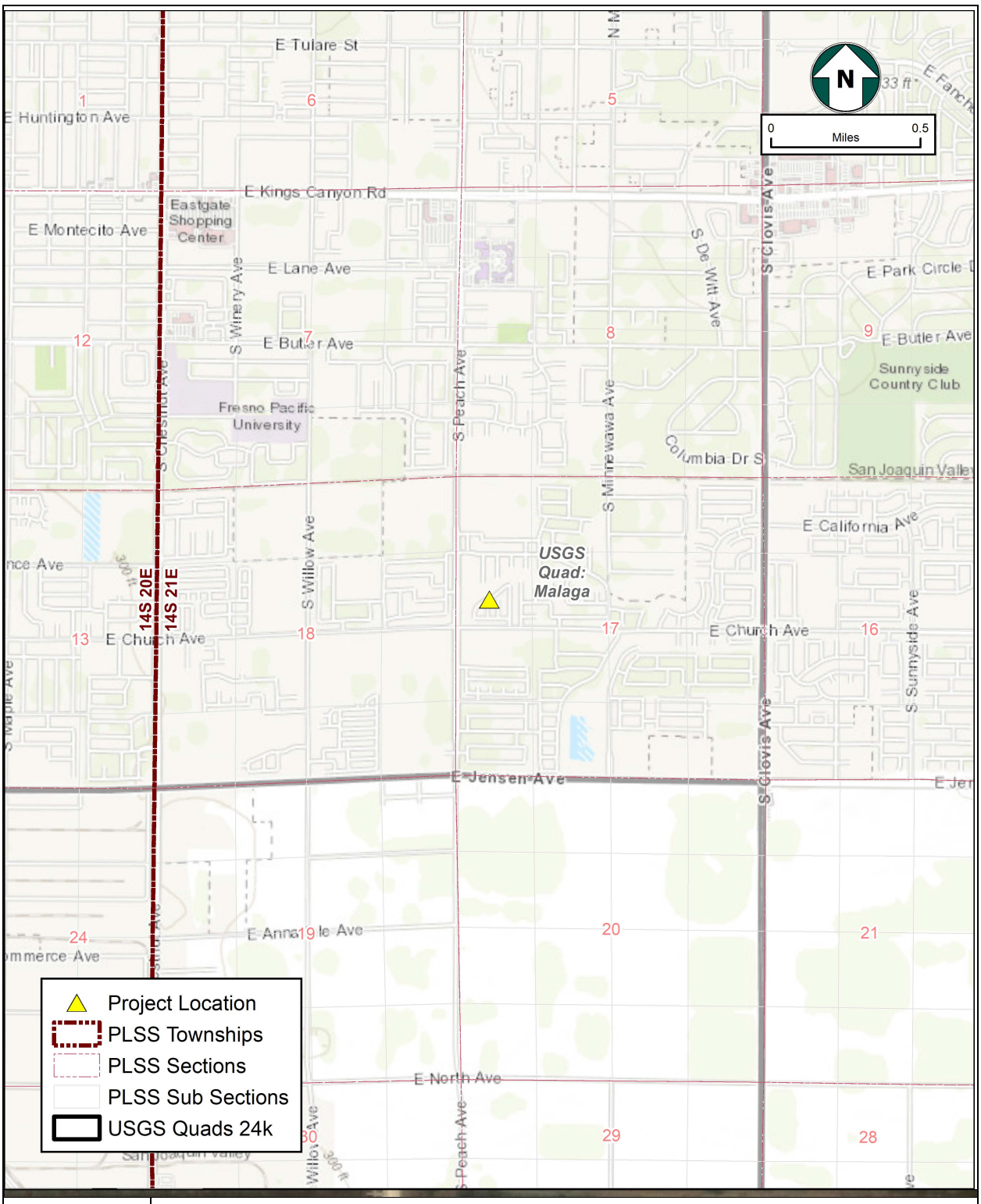


Figure - 3
PLSS/USGS Quad

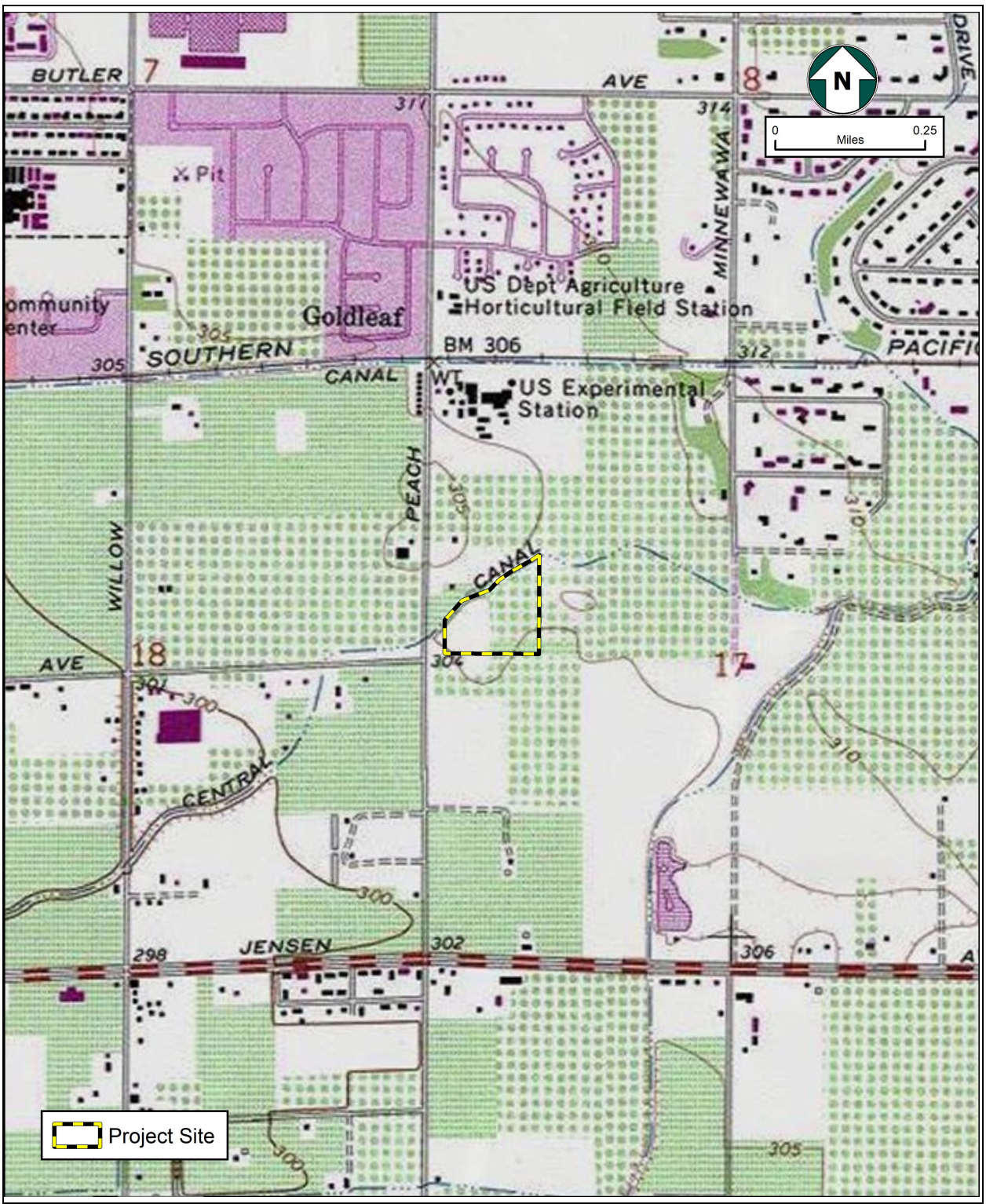


Figure - 4
Topo

ATTACHMENT B

Sacred Lands File Response by the

Native American Heritage Commission

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

March 1, 2022

Jaymie Brauer
Quad Knopf, Inc.

Via Email to: jaymie.brauer@qkinc.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Olive Lane Residential Project (210267), Fresno County

Dear Mr. Brauer:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measures.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Cameron.vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Fresno County
3/1/2022

Big Sandy Rancheria of Western Mono Indians
Elizabeth Kipp, Chairperson
P.O. Box 337
Auberry, CA, 93602
Phone: (559) 374 - 0066
Fax: (559) 374-0055
lkipp@bsrnation.com
Western Mono

Cold Springs Rancheria of Mono Indians
Carol Bill, Chairperson
P.O. Box 209
Tollhouse, CA, 93667
Phone: (559) 855 - 5043
Fax: (559) 855-4445
coldsprgstribe@netptc.net
Mono

Dumna Wo-Wah Tribal Government
Robert Ledger, Chairperson
2191 West Pico Ave.
Fresno, CA, 93705
Phone: (559) 540 - 6346
ledgerrobert@ymail.com
Foothill Yokut
Mono

Kings River Choinumni Farm Tribe
Stan Alec,
3515 East Fedora Avenue
Fresno, CA, 93726
Phone: (559) 647 - 3227
Foothill Yokut

North Valley Yokuts Tribe
Katherine Perez, Chairperson
P.O. Box 717
Linden, CA, 95236
Phone: (209) 887 - 3415
canutes@verizon.net
Costanoan
Northern Valley
Yokut

North Valley Yokuts Tribe
Timothy Perez,
P.O. Box 717
Linden, CA, 95236
Phone: (209) 662 - 2788
huskanam@gmail.com
Costanoan
Northern Valley
Yokut

Table Mountain Rancheria
Brenda Lavell, Chairperson
P.O. Box 410
Friant, CA, 93626
Phone: (559) 822 - 2587
Fax: (559) 822-2693
rpennell@tmr.org
Yokut

Traditional Choinumni Tribe
David Alvarez, Chairperson
2415 E. Houston Avenue
Fresno, CA, 93720
Phone: (559) 217 - 0396
Fax: (559) 292-5057
davealvarez@sbcglobal.net
Foothill Yokut

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589
Porterville, CA, 93258
Phone: (559) 781 - 4271
Fax: (559) 781-4610
neil.peyron@tulerivertribe-nsn.gov
Yokut

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas, CA, 93906
Phone: (831) 443 - 9702
kwood8934@aol.com
Foothill Yokut
Mono

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Olive Lane Residential Project (210267), Fresno County.

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED RESIDENTIAL DEVELOPMENT
APN 481-020-60S
CHURCH AND PEACH AVENUES
FRESNO, CALIFORNIA

PROJECT NO. 012-21156
JULY 27, 2021

Prepared for:

MR. QUINN TEDFORD
CENTURY COMMUNITIES
7815 N. PALM AVENUE, SUITE 101
FRESNO, CALIFORNIA 93711

Prepared by:

KRAZAN & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERING DIVISION
215 WEST DAKOTA AVENUE
CLOVIS, CALIFORNIA 93612
(559) 348-2200

Krazan & ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

July 27, 2021

KA No. 012-21156

Mr. Quinn Tedford
Century Communities
7815 N. Palm Avenue, Suite 101
Fresno, California 93711

RE: Geotechnical Engineering Investigation
Proposed Residential Development
APN 481-020-60S
Church and Peach Avenues
Fresno, California

Dear Mr. Tedford:

In accordance with your request, we have completed a Geotechnical Engineering Investigation for the above-referenced site. The results of our investigation are presented in the attached report.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (559) 348-2200.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

REGISTERED PROFESSIONAL ENGINEER
DAVID R. JAROSZ II
2698
GEOTECHNICAL
STATE OF CALIFORNIA

David R. Jarosz, II
Managing Engineer
RGE No. 2698/RCE No. 60185

DRJ:ht

TABLE OF CONTENTS

July 27, 2021 KA Project No. 012-21156

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED RESIDENTIAL DEVELOPMENT
APN 480-020-60S
CHURCH AND PEACH AVENUES
FRESNO, CALIFORNIA

INTRODUCTION

This report presents the results of our Geotechnical Engineering Investigation for the proposed Residential Development to be located at at the northeast corner of Church Avenue and Peach Avenue in Fresno, California. Discussions regarding site conditions are presented herein, together with conclusions and recommendations pertaining to site preparation, Engineered Fill, utility trench backfill, drainage and landscaping, foundations, concrete floor slabs and exterior flatwork, retaining walls, and soil cement reactivity.

A site plan showing the approximate boring locations is presented following the text of this report. A description of the field investigation, boring logs and the boring log legend are presented in Appendix A. Appendix A contains a description of laboratory testing phase of this study; along with laboratory test results. Appendices B and C contain guides to earthwork and pavement specifications. When conflicts in the text of the report occur with the general specifications in the appendices, the recommendations in the text of the report have precedence.

PURPOSE AND SCOPE

This investigation was conducted to evaluate the soil and groundwater conditions at the site, to make geotechnical engineering recommendations for use in design of specific construction elements and to provide criteria for site preparation and Engineered Fill construction.

Our scope of services was outlined in our proposal dated June 22, 2021 (KA Proposal No. P489-21) and included the following:

- A site reconnaissance by a member of our engineering staff to evaluate the surface conditions at the project site.
- A field investigation consisting of drilling 6 borings to depths ranging from approximately 10 to 20 feet for evaluation of the subsurface conditions at the project site.
- Performing laboratory tests on representative soil samples obtained from the borings to evaluate the physical and index properties of the subsurface soils.

- Evaluation of the data obtained from the investigation and an engineering analysis to provide recommendations for use in the project design and preparation of construction specifications.

- Preparation of this report summarizing the results, conclusions, recommendations, and findings of our investigation.

PROPOSED CONSTRUCTION

We understand that design of the proposed development is currently underway; structural load information and other final details pertaining to the structures are unavailable. On a preliminary basis, it is understood that development will consist of single-family residential lots. It is understood the buildings will be single- or two-story wood-framed structures utilizing concrete slab-on-grade construction. Footing loads are anticipated to be light to moderate. On-site paved areas and landscaping are also planned for the development of the project.

In the event these structural or grading details are inconsistent with the final design criteria, the Soils Engineer should be notified so that we may update this writing as applicable.

SITE LOCATION, SITE HISTORY AND SITE DESCRIPTION

The site is irregular in shape and encompasses approximately 12 acres. The site is located near the northeast corner of Church Avenue and Peach Avenue in Fresno, California. A school is located south of the site. Two city water wells are located west of the site. The remainder of the site is predominately surrounded by vacant land and residential developments.

Site history was obtained by reviewing historical aerial photographs taken in 1998, 2007 and 2018. Review of the 1998 aerial photograph indicates that the project site predominately consisted of vacant land.

Review of the 2007 and 2018 aerial photographs indicate that the project site conditions appeared to be relatively similar to that noted in the 1998 aerial photograph.

Presently, the site predominately consisted of vacant land. Buried utility lines are located along the edges of the site and may extend into portions of the site. The site is covered by a sparse to moderate weed growth and the surface soils have a loose consistency. The site is relatively level with no major changes in grade.

GEOLOGIC SETTING

The San Joaquin Valley, which includes the Fresno area, is a topographic and structural basin that is bounded on the east by the Sierra Nevada and on the west by the Coast Ranges. The Sierra Nevada, a fault block dipping gently southwestward, is made up of igneous and metamorphic rocks of pre-Tertiary age that comprise the basement complex beneath the Valley. The Coast Ranges contain folded and faulted sedimentary rocks of Mesozoic and Cenozoic age, which are similar to those rocks that underlie

the Valley at depth and nonconformably overlie the basement complex; gently dipping to nearly horizontal sedimentary rocks of Tertiary and Quaternary age overlie the older rocks. These younger rocks are mostly of continental origin and in the Fresno area, they were derived from the Sierra Nevada.

The San Joaquin River is the principal river in the area. Alluvial fans formed by this river are the largest geomorphic features in the Fresno area. The formation of the fans has resulted in rather flat regional topography.

The Coast Ranges evolved as a result of folding, faulting and accretion of diverse geologic terrains. They are composed chiefly of sedimentary and metamorphic rocks that are sharply deformed into complex structures. They are broken by numerous faults, the San Andreas Fault being the most notable structural feature.

Both the Sierra Nevada and Coast Range are geologically young mountain ranges and possess active and potentially active fault zones. Major active faults and fault zones occur at some distance to the east, west and south of the Fresno area. The Owens Valley Fault Zone bounds the eastern edge of the Sierra Nevada block and contains both active and potentially active faults.

Portions of the Ortigalita, Calaveras, Hayward and Rinconada Faults, which are to the west, are considered potentially active. The San Andreas Fault is possibly the best-known fault and is located approximately 60 to 70 miles to the west.

There are no active fault traces in the project vicinity. Accordingly, the project area is not within an Earth Quake Fault Zone (Special Studies Zone) and will not require a special site investigation by an Engineering Geologist.

Fresno residents could feel the effects of a large seismic event on one of the nearby active or potentially active fault zones. Fresno has experienced groundshaking from earthquakes in the historical past. According to the Five County Seismic Safety Element, groundshaking of VII intensity (Modified Mercali Scale) was felt in Fresno from the 1872 Owens Valley Earthquake. This is the largest known earthquake event affecting the Fresno area.

Secondary hazards from earthquakes include rupture, seiche, landslides, liquefaction and subsidence. Since there are no known faults within the immediate area, ground rupture from surface faulting should not be a potential problem. Seiche and landslides are not hazards in the area either. Liquefaction potential (sudden loss of shear strength in a saturated cohesionless soil) should be low since groundwater occurs below 60 feet. Lastly, deep subsidence problems may be low to moderate according to the conclusions of the Five County Seismic Safety Element. However, there are no known occurrences of structural or architectural damage due to deep subsidence in the Fresno area.

FIELD AND LABORATORY INVESTIGATIONS

Subsurface soil conditions were explored by drilling 6 borings to depths ranging from approximately 10 to 20 feet below existing site grade, using a truck-mounted drill rig. In addition, 2 bulk subgrade samples were obtained from the site for laboratory R-value testing. The approximate boring and bulk

sample locations are shown on the site plan. During drilling operations, penetration tests were performed at regular intervals to evaluate the soil consistency, obtain information regarding the engineering properties of the subsoils and to retain soil samples for laboratory testing. The soils encountered were continuously examined and visually classified in accordance with the Unified Soil Classification System. A more detailed description of the field investigation is presented in Appendix A.

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory-testing program was formulated with emphasis on the evaluation of natural moisture, density, gradation, shear strength, consolidation potential, expansion potential and moisture-density relationships of the materials encountered. In addition, chemical tests were performed to evaluate the soil-cement reactivity. Details of the laboratory test program and the results of laboratory test are summarized in Appendix A. This information, along with the field observations, was used to prepare the final boring logs in Appendix A.

SOIL PROFILE AND SUBSURFACE CONDITIONS

Based on our findings, the subsurface conditions encountered appear typical of those found in the geologic region of the site. The upper soils are identified as by the Soil Conservation Service as belonging to the Exeter, Hanford and Ramona Series. These Series is often underlain at a shallow depth by a clayey or cemented substratum locally referred to as "hardpan." The soils within this Series generally consist of sands, silts, and occasional clays.

More specifically, the surface soils consisted of approximately 6 to 12 inches of very loose silty sand or sandy silt. These soils are disturbed, have low strength characteristics, and are highly compressible when saturated.

Approximately 2½ feet of fill material was encountered within Boring No. B6 drilled in the northeast portion of the site. The fill material predominately consisted of silty sand. The thickness and extent of fill material was determined based on limited test borings and visual observation. Thicker fill may be present at the site. Limited testing was performed on the fill soils during the time of our field and laboratory investigations. The limited testing indicates that the fill soils ranged from loosely placed to compacted.

Below the loose surface soils and fill material, approximately 2 to 3 feet of loose to dense silty sand, sandy silt or clayey silty sand were encountered. Field and laboratory tests suggest that these soils are moderately strong and slightly compressible. Penetration resistance ranged from 19 to 64 blows per foot. Dry densities ranged from 100 to 120 pcf. A representative soil sample consolidated approximately 3½ percent under a 2 ksf load when saturated. A representative soil sample had an angle of internal friction of 33 degrees. A representative sample of the clayey soil had an expansion index of 4.

Below 3 to 4 feet, layers of predominately medium dense to very dense silty sand, sandy silt or sand were encountered. Some of these soils contained traces of clay. Some of these soils were weakly cemented in parts. Field and laboratory tests suggest that these soils are moderately strong and slightly

compressible. Penetration resistance ranged from 27 blows per foot to greater than 50 blows per 6 inches. Dry densities ranged from 95 to 115 pcf. These soils had similar strength characteristics as the upper soils and extended to the termination depth of the borings.

For additional information about the soils encountered, please refer to the logs of borings in Appendix A.

GROUNDWATER

Test boring locations were checked for the presence of groundwater during and immediately following the drilling operations. Free groundwater was not encountered.

Cemented silty sand, locally referred to as "hardpan," was encountered below 3½ to 4 feet in several of the borings. This cementation retards the free percolation of the surface water into the soil stratum below the hardpan frequently resulting in a temporary perched water table condition at or near the ground surface.

It should be recognized that water table elevations may fluctuate with time, being dependent upon seasonal precipitation, irrigation, land use and climatic conditions as well as other factors. Therefore, water level observations at the time of the field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of our field and laboratory investigations, along with previous geotechnical experience in the project area, the following is a summary of our evaluations, conclusions, and recommendations.

Administrative Summary

In brief, the subject site and soil conditions, with the exception of the loose surface soils, fill material, previous development and existing development, appear to be conducive to the development of the project. The surface soils have a loose consistency. These soils are disturbed, have low strength characteristics and are highly compressible when saturated. Accordingly, it is recommended that the surface soils be recompacted. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation.

Approximately 2½ feet of fill material was encountered within Boring No. B6 drilled in the northeast portion of the site. The fill material predominately consisted of silty sand. The thickness and extent of fill material was determined based on limited test borings and visual observation. Thicker fill may be present at the site. Verification of the extent of fill should be determined during site grading. Limited testing was performed on the fill soils during the time of our field and laboratory investigations. The limited testing indicates that the fill soils had varying strength characteristics ranging from loosely placed to compacted. Therefore, it is recommended that these fill soils be excavated and recompacted. Prior to backfilling, the bottom of the excavation should be observed by Krazan & Associates, Inc. to

verify no additional removal is required. The fill material will be suitable for re-use as Engineered Fill, provided it is cleansed of excessive organics, debris, moisture-conditioned as necessary, and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Presently, the site predominately consists of vacant land. However, the site was previously utilized as agricultural land. In addition, residential developments are located within the project site vicinity. Associated with these developments may be buried structures, such as utility lines, irrigation lines and water wells that extend into the site. Demolition activities should include proper removal any buried structures. Water wells should be abandoned in accordance with county standards. The resulting excavations should be backfilled with Engineered Fill. It is suspected that demolition activities of the existing structures will disturb the upper soils. Following demolition activities, it is recommended that the disturbed soils be removed and/or recompacted. Any buried structures or loosely backfilled excavations encountered during construction should be properly removed and the resulting excavations backfilled with Engineered Fill. Disturbed areas caused by demolition activities should be recompacted.

Cemented silty sand locally referred to as hardpan, was encountered below 3½ to 4 feet in some of the borings. Hardpan is an excellent foundation-bearing material because of its apparent rock-like properties caused by particle cementation. However, this same cementation also retards the free percolation of the surface water into the soil stratum below the hardpan, frequently resulting in a temporary perched water table condition at or near the ground surface. This perched water condition has a substantial affect on the strength characteristics of the surface soils. As a mitigation measure, very positive drainage should be established around the proposed structures.

Sandy soil conditions were encountered at the site. These cohesionless soils have a tendency to cave in trench wall excavations. Shoring or sloping back trench sidewalls may be required within these sandy soils.

After completion of the recommended site preparation, the site should be suitable for shallow footing support. The proposed structure footings may be designed utilizing an allowable bearing pressure of 2,000 psf for dead-plus-live loads. Footings should have a minimum embedment of 12 inches.

Groundwater Influence on Structures/Construction

Although groundwater was not encountered during our field investigation or anticipated to rise within the zone of structural influence within the project area, it is common for surface runoff water to infiltrate the upper sandy soils and perch above the underlying lower permeable hardpan for extended periods during the winter and spring months. This condition, if encountered, could seriously impede grading by causing an unstable subgrade condition. Typical remedial measures include discing and aerating the soils during soil during dry weather, mixing the soil with dryer materials, removing and replacing the soil with an approved fill material, or mixing the soil with an approved lime or cement product. Our firm should be consulted prior to implementing remedial measures to observe the unstable subgrade conditions and provide appropriate recommendations.

Some structures in the Fresno area are founded on hardpan have experienced standing water for extended periods of time in crawl spaces below wooden floors or within sunken floor slab areas. The sources of the water were natural precipitation and landscape irrigation, and consequently, wood floor and sunken floor slab construction in hardpan soils are discouraged.

Site Preparation

General site clearing should include removal of vegetation; existing utilities; concrete structures including foundations; basement walls and floors; existing stockpiled soil; trees and associated root systems; rubble; rubbish; and any loose and/or saturated materials. Site stripping should extend to a minimum depth of 2 to 4 inches, or until all organics in excess of 3 percent by volume are removed. Deeper stripping may be required in localized areas. These materials will not be suitable for use as Engineered Fill. However, stripped topsoil may be stockpiled and reused in landscape or non-structural areas.

Approximately 2½ feet of fill material was encountered within Boring No. B6 drilled in the northeast portion of the site. The fill material predominately consisted of silty sand. The thickness and extent of fill material was determined based on limited test borings and visual observation. Thicker fill may be present at the site. Verification of the extent of fill should be determined during site grading. Limited testing was performed on the fill soils during the time of our field and laboratory investigations. The limited testing indicates that the fill soils had varying strength characteristics ranging from loosely placed to compacted. Therefore, it is recommended that these fill soils be excavated and recompacted. Prior to backfilling, the bottom of the excavation should be verified by Krazan & Associates, Inc., to verify no additional removal is required. The fill material will be suitable for re-use as Engineered Fill, provided it is cleansed of excessive organics and debris. The fill material should be moisture-conditioned as necessary, and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557.

Presently, the site predominately consists of vacant land. However, the site was previously utilized as agricultural land. In addition, residential developments are located within the project site vicinity. Associated with these developments may be buried structures, such as utility lines, irrigation lines and water wells that extend into the site. Demolition activities should include proper removal of any buried structures. Any buried structures or loosely backfilled excavations encountered during construction should be properly removed and the resulting excavations backfilled. Excavations, depressions, or soft and pliant areas extending below planned finish subgrade level should be cleaned to firm undisturbed soil, and backfilled with Engineered Fill. In general, any septic tanks, debris pits, cesspools, or similar structures should be entirely removed. Concrete footings should be removed to an equivalent depth of at least 3 feet below proposed footing elevations or as recommended by the Soils Engineer. Water wells should be abandoned in accordance with county standards. Any other buried structures should be removed in accordance with the recommendations of the Soils Engineer. Resulting excavations should be backfilled with Engineered Fill.

Following stripping, fill removal operations and demolition activities, the exposed subgrade within proposed building, exterior flatwork, and pavement areas should be excavated/scarified to a depth of at least 12 inches, worked until uniform and free from large clods, moisture-conditioned as necessary, and recompacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. Limits of recompaction should extend 5 feet beyond structural elements.

The upper soils, during wet winter months, become very moist due to the absorptive characteristics of the soil. Earthwork operations performed during winter months may encounter very moist unstable soils, which may require removal to grade a stable building foundation. Project site winterization consisting of placement of aggregate base and protecting exposed soils during the construction phase should be performed.

A representative of our firm should be present during all site clearing and grading operations to test and observe earthwork construction. This testing and observation is an integral part of our service as acceptance of earthwork construction is dependent upon compaction of the material and the stability of the material. The Soils Engineer may reject any material that does not meet compaction and stability requirements. Further recommendations of this report are predicated upon the assumption that earthwork construction will conform to recommendations set forth in this section and the Engineered Fill section.

Engineered Fill

The on-site, upper native and fill soils are predominately silty sand, clayey silty sand, sandy silt, and sand. These soils will be suitable for reuse as Engineered Fill, provided they are cleansed of excessive organics and debris. Clayey soils with an expansion index greater than 15 should not be used in the upper 12 inches of soil supporting slabs-on-grade or exterior flatwork.

The preferred materials specified for Engineered Fill are suitable for most applications with the exception of exposure to erosion. Project site winterization and protection of exposed soils during the construction phase should be the sole responsibility of the Contractor, since he has complete control of the project site at that time.

Imported Fill should consist of a well-graded, slightly cohesive, fine silty sand or sandy silt, with relatively impervious characteristics when compacted. This material should be approved by the Soils Engineer prior to use and should typically possess the following characteristics:

Percent Passing No. 200 Sieve	20 to 50
Plasticity Index	10 maximum
UBC Standard 29-2 Expansion Index	15 maximum

Fill soils should be placed in lifts approximately 6 inches thick, moisture-conditioned as necessary, and compacted to achieve at least 90 percent of maximum density based on ASTM D1557. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

Drainage and Landscaping

The ground surface should slope away from building pad and pavement areas toward appropriate drop inlets or other surface drainage devices. In accordance with Section 1804 of the 2019 California Building Code, it is recommended that the ground surface adjacent to foundations be sloped a minimum of 5 percent for a minimum distance of 10 feet away from structures, or to an approved alternative means of drainage conveyance. Swales used for conveyance of drainage and located within 10 feet of foundations should be sloped a minimum of 2 percent. Impervious surfaces, such as pavement and exterior concrete flatwork, within 10 feet of building foundations should be sloped a minimum of 1 percent away from the structure. Drainage gradients should be maintained to carry all surface water to collection facilities and off-site. These grades should be maintained for the life of the project.

Slots or weep holes should be placed in drop inlets or other surface drainage devices in pavement areas to allow free drainage of adjoining base course materials. Cutoff walls should be installed at pavement edges adjacent to vehicular traffic areas, these walls should extend to a minimum depth of 12 inches below pavement subgrades to limit the amount of seepage water that can infiltrate the pavements. Where cutoff walls are undesirable subgrade drains can be constructed to transport excess water away from planters to drainage interceptors. If cutoff walls can be successfully used at the site, construction of subgrade drains is considered unnecessary.

Utility Trench Backfill

Utility trenches should be excavated according to accepted engineering practice following OSHA (Occupational Safety and Health Administration) standards by a Contractor experienced in such work. The responsibility for the safety of open trenches should be borne by the Contractor. Traffic and vibration adjacent to trench walls should be reduced and cyclic wetting and drying of excavation side slopes should be avoided. Depending upon the location and depth of some utility trenches, groundwater flow into open excavations could be experienced, especially during or shortly following periods of precipitation.

Sandy soil conditions were encountered at the site. These cohesionless soils have a tendency to cave in trench wall excavations. Shoring or sloping back trench sidewalls may be required within these sandy soils.

Utility trench backfill placed in or adjacent to buildings and exterior slabs should be compacted to at least 90 percent of maximum density based on ASTM Test Method D1557. The utility trench backfill placed in pavement areas should be compacted to at least 90 percent of maximum density based on ASTM Test Method D1557. Pipe bedding should be in accordance with pipe manufacturer's recommendations.

The Contractor is responsible for removing all water sensitive soils from the trench regardless of the backfill location and compaction requirements. The Contractor should use appropriate equipment and methods to avoid damage to the utilities and/or structures during fill placement and compaction.

Foundations

The proposed structures may be supported on a shallow foundation system bearing on undisturbed native soil or on Engineered Fill. Spread and continuous footings can be designed for the following maximum allowable soil bearing pressures:

Load	Allowable Loading
Dead Load Only	1,500 psf
Dead-Plus-Live Load	2,000 psf
Total Load, including wind or seismic loads	2,650 psf

The footings should have a minimum depth of 12 inches below pad subgrade (soil grade) or adjacent exterior grade, whichever is lower. Footings should have a minimum width of 12 inches, regardless of load.

The total movement is not expected to exceed 1 inch. Differential movement should be less than 1 inch. Most of the settlement is expected to occur during construction as the loads are applied. However, additional post-construction settlement may occur if the foundation soils are flooded or saturated.

Resistance to lateral footing displacement can be computed using an allowable friction factor of 0.35 acting between the base of foundations and the supporting subgrade. Lateral resistance for footings can alternatively be developed using an allowable equivalent fluid passive pressure of 325 pounds per cubic foot acting against the appropriate vertical footing faces. The frictional and passive resistance of the soil may be combined without reduction in determining the total lateral resistance. A ⅓ increase in the above value may be used for short duration, wind, or seismic loads.

Floor Slabs and Exterior Flatwork

Concrete slab-on-grade floors should be underlain by a water vapor retarder. The water vapor retarder should be installed in accordance with accepted engineering practice. The water vapor retarder should consist of a vapor retarder sheeting underlain by a minimum of 3 inches of compacted, clean, gravel of ¾-inch maximum size. To aid in concrete curing an optional 2 to 4 inches of granular fill may be placed on top of the vapor retarder. The granular fill should consist of damp clean sand with at least 10 to 30 percent of the sand passing the 100 sieve. The sand should be free of clay, silt, or organic material. Rock dust which is manufactured sand from rock crushing operations is typically suitable for the granular fill. This granular fill material should be compacted.

The exterior floors should be poured separately in order to act independently of the walls and foundation system. Exterior finish grades should be sloped a minimum of 2 percent away from all interior slab areas to preclude ponding of water adjacent to the structures. All fills required to bring the building pads to grade should be Engineered Fills.

Moisture within the structure may be derived from water vapors, which were transformed from the moisture within the soils. This moisture vapor can travel through the vapor membrane and penetrate the slab-on-grade. This moisture vapor penetration can affect floor coverings and produce mold and mildew in the structure. To reduce moisture vapor intrusion, it is recommended that a vapor retarder be installed. It is recommended that the utility trenches within the structure be compacted, as specified in our report, to reduce the transmission of moisture through the utility trench backfill. Special attention to the immediate drainage and irrigation around the building is recommended. Positive drainage should be established away from the structure and should be maintained throughout the life of the structure. Ponding of water should not be allowed adjacent to the structure. Over-irrigation within landscaped areas adjacent to the structure should not be performed. In addition, ventilation of the structure (i.e. ventilation fans) is recommended to reduce the accumulation of interior moisture.

Lateral Earth Pressures and Retaining Walls

Walls retaining horizontal backfill and capable of deflecting a minimum of 0.1 percent of its height at the top may be designed using an equivalent fluid active pressure of 40 pounds per square foot per foot of depth. Walls incapable of this deflection or are fully constrained walls against deflection may be designed for an equivalent fluid at-rest pressure of 60 pounds per square foot per foot of depth. Expansive soils should not be used for backfill against walls. The wedge of non-expansive backfill material should extend from the bottom of each retaining wall outward and upward at a slope of 2:1 (horizontal to vertical) or flatter. The stated lateral earth pressures do not include the effects of hydrostatic water pressures generated by infiltrating surface water that may accumulate behind the retaining walls; or loads imposed by construction equipment, foundations, or roadways.

Retaining and/or below grade walls should be drained with either perforated pipe encased in free-draining gravel or a prefabricated drainage system. The gravel zone should have a minimum width of 12 inches wide and should extend upward to within 12 inches of the top of the wall. The upper 12 inches of backfill should consist of native soils, concrete, asphaltic concrete, or other suitable backfill to reduce surface drainage into the wall drain system. The aggregate should conform to Class 2 permeable materials graded in accordance with CalTrans Standard Specifications (2018). Prefabricated drainage systems, such as Miradrain®, Enkadrain®, or an equivalent substitute, are acceptable alternatives in lieu of gravel provided they are installed in accordance with the manufacturer's recommendations. If a prefabricated drainage system is proposed, our firm should review the system for final acceptance prior to installation.

Drainage pipes should be placed with perforations down and should discharge in a non-erosive manner away from foundations and other improvements. The pipes should be placed no higher than 6 inches above the heel of the wall, in the center line of the drainage blanket and should have a minimum diameter of four inches. Collector pipes may be either slotted or perforated. Slots should be no wider

than ⅛ inch in diameter, while perforations should be no more than ¼ inch in diameter. If retaining walls are less than 6 feet in height, the perforated pipe may be omitted in lieu of weep holes on 4 feet maximum spacing. The weep holes should consist of 4-inch diameter holes (concrete walls) or unmortared head joints (masonry walls) and not be higher than 18 inches above the lowest adjacent grade. Two 8-inch square overlapping patches of geotextile fabric (conforming to CalTrans Standard Specifications for "edge drains") should be affixed to the rear wall opening of each weep hole to retard soil piping.

During grading and backfilling operations adjacent to any walls, heavy equipment should not be allowed to operate within a lateral distance of 5 feet from the wall, or within a lateral distance equal to the wall height, whichever is greater, to avoid developing excessive lateral pressures. Within this zone, only hand-operated equipment ("whackers," vibratory plates, or pneumatic compactors) should be used to compact the backfill soils.

Seismic Parameters – 2019 California Building Code

The Site Class per Section 1613 of the 2019 California Building Code (2019 CBC) and ASCE 7-16, Chapter 20 is based upon the site soil conditions. It is our opinion that a Site Class D is most consistent with the subject site soil conditions. For seismic design of the structures based on the seismic provisions of the 2019 CBC, we recommend the following parameters:

Seismic Item	Value	CBC Reference
Site Class	D	Section 1613.2.2
Site Coefficient F_a	1.336	Table 1613.2.3 (1)
S_s	0.581	Section 1613.2.1
S_{MS}	0.775	Section 1613.2.3
S_{DS}	0.517	Section 1613.2.4
Site Coefficient F_v	2.148	Table 1613.2.3 (2)
S_1	0.226	Section 1613.2.1
S_{M1}	0.485	Section 1613.2.3
S_{D1}	0.324	Section 1613.2.4
T_S	0.626	Section 1613.2

* Based on Equivalent Lateral Force (ELF) Design Procedure being used.

Soil Cement Reactivity

Excessive sulfate in either the soil or native water may result in an adverse reaction between the cement in concrete (or stucco) and the soil. HUD/FHA and UBC have developed criteria for evaluation of sulfate levels and how they relate to cement reactivity with soil and/or water.

Soil samples were obtained from the site and tested in accordance with State of California Materials Manual Test Designation 417. The sulfate concentrations detected in these soil samples were less than 0.02 percent and are below the maximum allowable values established by HUD/FHA and UBC. Therefore, no special design requirements are necessary to compensate for sulfate reactivity with the cement.

Compacted Material Acceptance

Compaction specifications are not the only criteria for acceptance of the site grading or other such activities. However, the compaction test is the most universally recognized test method for assessing the performance of the Grading Contractor. The numerical test results from the compaction test cannot be used to predict the engineering performance of the compacted material. Therefore, the acceptance of compacted materials will also be dependent on the stability of that material. The Soils Engineer has the option of rejecting any compacted material regardless of the degree of compaction if that material is considered to be unstable or if future instability is suspected. A specific example of rejection of fill material passing the required percent compaction is a fill which has been compacted with an in-situ moisture content significantly less than optimum moisture. This type of dry fill (brittle fill) is susceptible to future settlement if it becomes saturated or flooded.

Testing and Inspection

A representative of Krazan & Associates, Inc. should be present at the site during the earthwork activities to confirm that actual subsurface conditions are consistent with the exploratory fieldwork. This activity is an integral part of our service, as acceptance of earthwork construction is dependent upon compaction testing and stability of the material. This representative can also verify that the intent of these recommendations is incorporated into the project design and construction. Krazan & Associates, Inc. will not be responsible for grades or staking, since this is the responsibility of the Prime Contractor.

LIMITATIONS

Soils Engineering is one of the newest divisions of Civil Engineering. This branch of Civil Engineering is constantly improving as new technologies and understanding of earth sciences advance. Although your site was analyzed using the most appropriate and most current techniques and methods, undoubtedly there will be substantial future improvements in this branch of engineering. In addition to advancements in the field of Soils Engineering, physical changes in the site, either due to excavation or fill placement, new agency regulations, or possible changes in the proposed structure after the soils report is completed may require the soils report to be professionally reviewed. In light of this, the Owner should be aware that there is a practical limit to the usefulness of this report without critical review. Although the time limit for this review is strictly arbitrary, it is suggested that 2 years be considered a reasonable time for the usefulness of this report.

Foundation and earthwork construction is characterized by the presence of a calculated risk that soil and groundwater conditions have been fully revealed by the original foundation investigation. This risk is derived from the practical necessity of basing interpretations and design conclusions on limited sampling of the earth. The recommendations made in this report are based on the assumption that soil conditions

do not vary significantly from those disclosed during our field investigation. If any variations or undesirable conditions are encountered during construction, the Soils Engineer should be notified so that supplemental recommendations may be made.

The conclusions of this report are based on the information provided regarding the proposed construction. If the proposed construction is relocated or redesigned, the conclusions in this report may not be valid. The Soils Engineer should be notified of any changes so the recommendations may be reviewed and re-evaluated.

This report is a Geotechnical Engineering Investigation with the purpose of evaluating the soil conditions in terms of foundation design. The scope of our services did not include any Environmental Site Assessment for the presence or absence of hazardous and/or toxic materials in the soil, groundwater, or atmosphere; or the presence of wetlands. Any statements, or absence of statements, in this report or on any boring log regarding odors, unusual or suspicious items, or conditions observed, are strictly for descriptive purposes and are not intended to convey engineering judgment regarding potential hazardous and/or toxic assessment.

The geotechnical engineering information presented herein is based upon professional interpretation utilizing standard engineering practices and a degree of conservatism deemed proper for this project. It is not warranted that such information and interpretation cannot be superseded by future geotechnical engineering developments. We emphasize that this report is valid for the project outlined above and should not be used for any other sites.

If you have any questions or if we may be of further assistance, please do not hesitate to contact our office at (559) 348-2200.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

REGISTERED PROFESSIONAL ENGINEER
DAVID R. JAROSZ II
2698
GEOTECHNICAL
STATE OF CALIFORNIA

Steve Nelson
Project Engineer

David R. Jarosz, II
Managing Engineer
RGE No. 2698/RCE No. 60185

SN/DRJ:ht

APPROXIMATE BORING LOCATION

APPROXIMATE R-VALUE LOCATION

SITE MAP	**Scale:** NTS	**Date:** July 2021	Krazan GEOTECHNICAL ENGINEERING
Residential Development **APN 481-020-60S, Church and Peach Avenues** **Fresno, California**	**Drawn by:** HT	**Approved by:** DJ	
	Project No. 012-21156	**Figure No.** 1	

APPENDIX A

FIELD AND LABORATORY INVESTIGATIONS

Field Investigation

The field investigation consisted of a surface reconnaissance and a subsurface exploratory program. Six 4½-inch exploratory borings were advanced. The boring locations are shown on the site plan.

The soils encountered were logged in the field during the exploration and, with supplementary laboratory test data, are described in accordance with the Unified Soil Classification System.

Modified standard penetration tests were performed at selected depths. This test represents the resistance to driving a 2½-inch diameter split barrel sampler. The driving energy was provided by a hammer weighing 140 pounds, falling 30 inches. Relatively undisturbed soil samples were obtained while performing this test. Bag samples of the disturbed soil were obtained from the auger cuttings. All samples were returned to our Clovis laboratory for evaluation.

Laboratory Investigation

The laboratory investigation was programmed to determine the physical and mechanical properties of the foundation soil underlying the site. Test results were used as criteria for determining the engineering suitability of the surface and subsurface materials encountered.

In situ moisture content, dry density, consolidation, shear strength and sieve analysis tests were determined for the undisturbed samples representative of the subsurface material. Expansion index and R-value tests were completed for select bag samples obtained from the auger cuttings. These tests, supplemented by visual observation, comprised the basis for our evaluation of the site material.

The logs of the exploratory borings and laboratory determinations are presented in this Appendix.

UNIFIED SOIL CLASSIFICATION SYSTEM

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

COARSE-GRAINED SOILS (more than 50% of material is larger than No. 200 sieve size.)		
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size	Clean Gravels (Less than 5% fines)	
	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
	GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Gravels with fines (More than 12% fines)	
	GM	Silty gravels, gravel-sand-silt mixtures
	GC	Clayey gravels, gravel-sand-clay mixtures
SANDS 50% or more of coarse fraction smaller than No. 4 sieve size	Clean Sands (Less than 5% fines)	
	SW	Well-graded sands, gravelly sands, little or no fines
	SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)	
	SM	Silty sands, sand-silt mixtures
	SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size.)		
SILTS AND CLAYS Liquid limit less than 50%	ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts with slight plasticity
	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid limit 50% or greater	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
	CH	Inorganic clays of high plasticity, fat clays
	OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS	PT	Peat and other highly organic soils

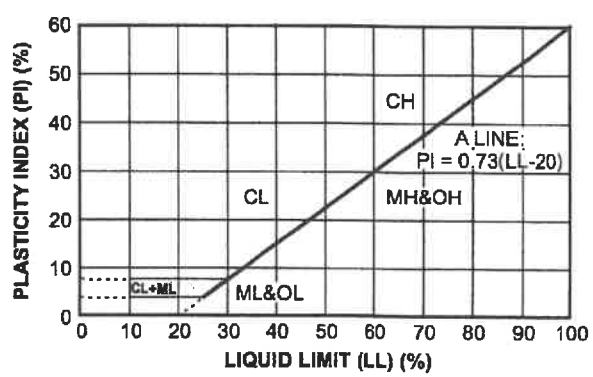
CONSISTENCY CLASSIFICATION

Description	Blows per Foot
Granular Soils	
Very Loose	< 5
Loose	5 – 15
Medium Dense	16 – 40
Dense	41 – 65
Very Dense	> 65
Cohesive Soils	
Very Soft	< 3
Soft	3 – 5
Firm	6 – 10
Stiff	11 – 20
Very Stiff	21 – 40
Hard	> 40

GRAIN SIZE CLASSIFICATION

Grain Type	*Standard Sieve Size*	*Grain Size in Millimeters*
Boulders	Above 12 inches	Above 305
Cobbles	12 to 13 inches	305 to 76.2
Gravel	3 inches to No. 4	76.2 to 4.76
Coarse-grained	3 to ¾ inches	76.2 to 19.1
Fine-grained	¾ inches to No. 4	19.1 to 4.76
Sand	No. 4 to No. 200	4.76 to 0.074
Coarse-grained	No. 4 to No. 10	4.76 to 2.00
Medium-grained	No. 10 to No. 40	2.00 to 0.042
Fine-grained	No. 40 to No. 200	0.042 to 0.074
Silt and Clay	Below No. 200	Below 0.074

PLASTICITY CHART



Log of Boring B1

Project: Residential Development

Project No: 012-21156

Client: Century Communities

Figure No.: A-1

Location: APN 481-020-60S, Church and Peach Avenues, Fresno, California

Logged By: Wayne Andrade

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.	20 40 60	10 20 30 40
0		Ground Surface						
		SILTY SAND (SM) Very loose, fine- to medium-grained; light brown, damp, drills easily						
2		Loose below 12 inches Medium dense below 2 feet	113.6	2.2		21		
4		Very dense and drills hard below 4 feet						
6			97.2	4.5		50+		
8		***SANDY SILT (ML)*** Very dense, fine-grained; light gray, damp, drills firmly						
10		***SAND (SP)*** Very dense, fine- to medium-grained; light gray, damp, drills hard	95.4	10.8		50+		
12								
14		Medium dense below 15 feet						
16			96.8	1.2		32		
18								
20								

Drill Method: Solid Flight

Drill Date: 7-13-21

Drill Rig: CME 45C-1

Krazan and Associates

Hole Size: 4½ Inches

Driller: Chris Wyneken

Elevation: 20 Feet

Sheet: 1 of 1

Log of Boring B2

Project: Residential Development

Project No: 012-21156

Client: Century Communities

Figure No.: A-2

Location: APN 481-020-60S, Church and Peach Avenues, Fresno, California

Logged By: Wayne Andrade

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.	20 40 60	10 20 30 40
0		Ground Surface						
		SANDY SILT (ML) Very loose, fine- to medium-grained; light brown, damp, drills easily Loose below 12 inches Medium dense below 2 feet						
2			99.9	7.1		19		
4		***SILTY SAND (SM)*** Very dense, fine-grained, weakly cemented; brown, damp, drills hard						
6				8.0		50+		
8		***SILTY SAND (SM)*** Dense, fine-grained; light brown, damp, drills firmly	113.4	7.4		49		
10								
12		With increased SAND below 12 feet						
14								
		End of Borehole						
16								
18								
20								

Drill Method: Solid Flight

Drill Date: 7-13-21

Drill Rig: CME 45C-1

Krazan and Associates

Hole Size: 4½ Inches

Driller: Chris Wyneken

Elevation: 15 Feet

Sheet: 1 of 1

Log of Boring B3

Project: Residential Development | **Project No:** 012-21156

Client: Century Communities | **Figure No.:** A-3

Location: APN 481-020-60S, Church and Peach Avenues, Fresno, California | **Logged By:** Wayne Andrade

Depth to Water> | **Initial:** None | **At Completion:** None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.	20 40 60	10 20 30 40
		Ground Surface						
0		***SILTY SAND (SM)*** Very loose, fine- to medium-grained; light brown/brown, damp, drills easily Loose below 12 inches						
2		***CLAYEY SILTY SAND (SM/SC)*** Dense, fine-grained; brown, damp, drills firmly	101.2	4.9		57		■
4		***SILTY SAND (SM)*** Very dense, fine-grained, weakly cemented; light brown, damp, drills hard				50+		
6								
8		***SANDY SILT (ML)*** Medium dense, fine-grained; light brown, damp, drills easily						
10		End of Borehole						
12								
14								
16								
18								
20								

Drill Method: Solid Flight | **Drill Date:** 7-13-21

Drill Rig: CME 45C-1 | **Hole Size:** 4½ Inches

Driller: Chris Wyneken | **Elevation:** 10 Feet

Krazan and Associates

Sheet: 1 of 1

Log of Boring B4

Project: Residential Development

Project No: 012-21156

Client: Century Communities

Figure No.: A-4

Location: APN 481-020-60S, Church and Peach Avenues, Fresno, California

Logged By: Wayne Andrade

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.	20 40 60	10 20 30 40
0		Ground Surface						
		SILTY SAND (SM) Very loose, fine- to medium-grained; light brown, damp, drills easily Loose below 12 inches						
2		***CLAYEY SILTY SAND (SM/SC)*** Dense, fine-grained; brown, damp, drills firmly	105.5	3.2		64		
4		***SILTY SAND (SM)*** Very dense, fine-grained, weakly cemented; brown, damp, drills hard				50+		
6								
8		***SANDY SILT (ML)*** Dense, fine-grained; olive-brown, damp, drills firmly						
10			107.2	6.6		50		
12								
14		***SAND (SP)*** Medium dense, fine- to medium-grained; light gray, damp, drills easily						
16			100.5	1.7		30		
18								
20								

Drill Method: Solid Flight

Drill Date: 7-13-21

Drill Rig: CME 45C-1

Krazan and Associates

Hole Size: 4½ Inches

Driller: Chris Wyneken

Elevation: 20 Feet

Sheet: 1 of 1

Log of Boring B5

Project: Residential Development

Project No: 012-21156

Client: Century Communities

Figure No.: A-5

Location: APN 481-020-60S, Church and Peach Avenues, Fresno, California

Logged By: Wayne Andrade

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.	20 40 60	10 20 30 40
		Ground Surface						
0		***SILTY SAND (SM)*** Very loose, fine- to medium-grained with trace CLAY; light brown, damp, drills easily						
2		Loose below 12 inches Medium dense below 1½ feet	110.6	3.8		30		■
4								
6			112.3	3.5		27		■
8		With increased SAND below 8 feet						
10		End of Borehole						
12								
14								
16								
18								
20								

Drill Method: Solid Flight

Drill Date: 7-13-21

Drill Rig: CME 45C-1

Krazan and Associates

Hole Size: 4½ Inches

Driller: Chris Wyneken

Elevation: 10 Feet

Sheet: 1 of 1

Log of Boring B6

Project: Residential Development

Project No: 012-21156

Client: Century Communities

Figure No.: A-6

Location: APN 481-020-60S, Church and Peach Avenues, Fresno, California

Logged By: Wayne Andrade

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.	20 40 60	10 20 30 40
		Ground Surface						
0		***SILTY SAND (SM)*** FILL, fine- to medium-grained; brown, damp, drills easily						
2		***SILTY SAND (SM)*** Dense, fine- to medium-grained with trace CLAY; light brown, damp, drills firmly	120.0	1.5		60		
4		***SILTY SAND (SM)*** Very dense, fine- to medium-grained, weakly cemented; light brown, damp, drills hard		3.7		50+		
6		***SILTY SAND (SM)*** Dense, fine- to medium-grained; light brown, damp, drills firmly						
8			118.0	2.9		42		
10								
12								
14								
		End of Borehole						
16								
18								
20								

Drill Method: Solid Flight

Drill Date: 7-13-21

Drill Rig: CME 45C-1

Krazan and Associates

Hole Size: 4½ Inches

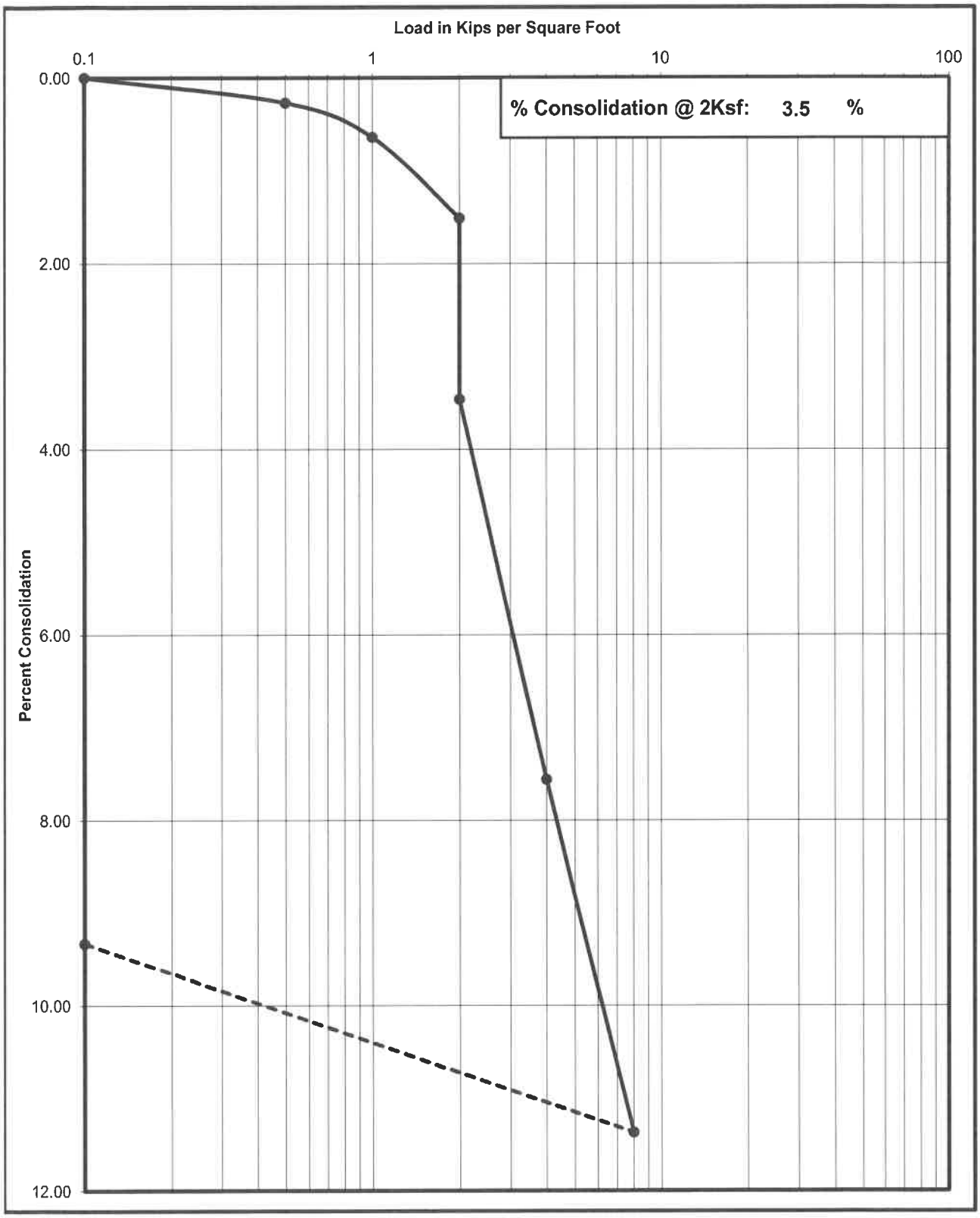
Driller: Chris Wyneken

Elevation: 15 Feet

Sheet: 1 of 1

Consolidation Test

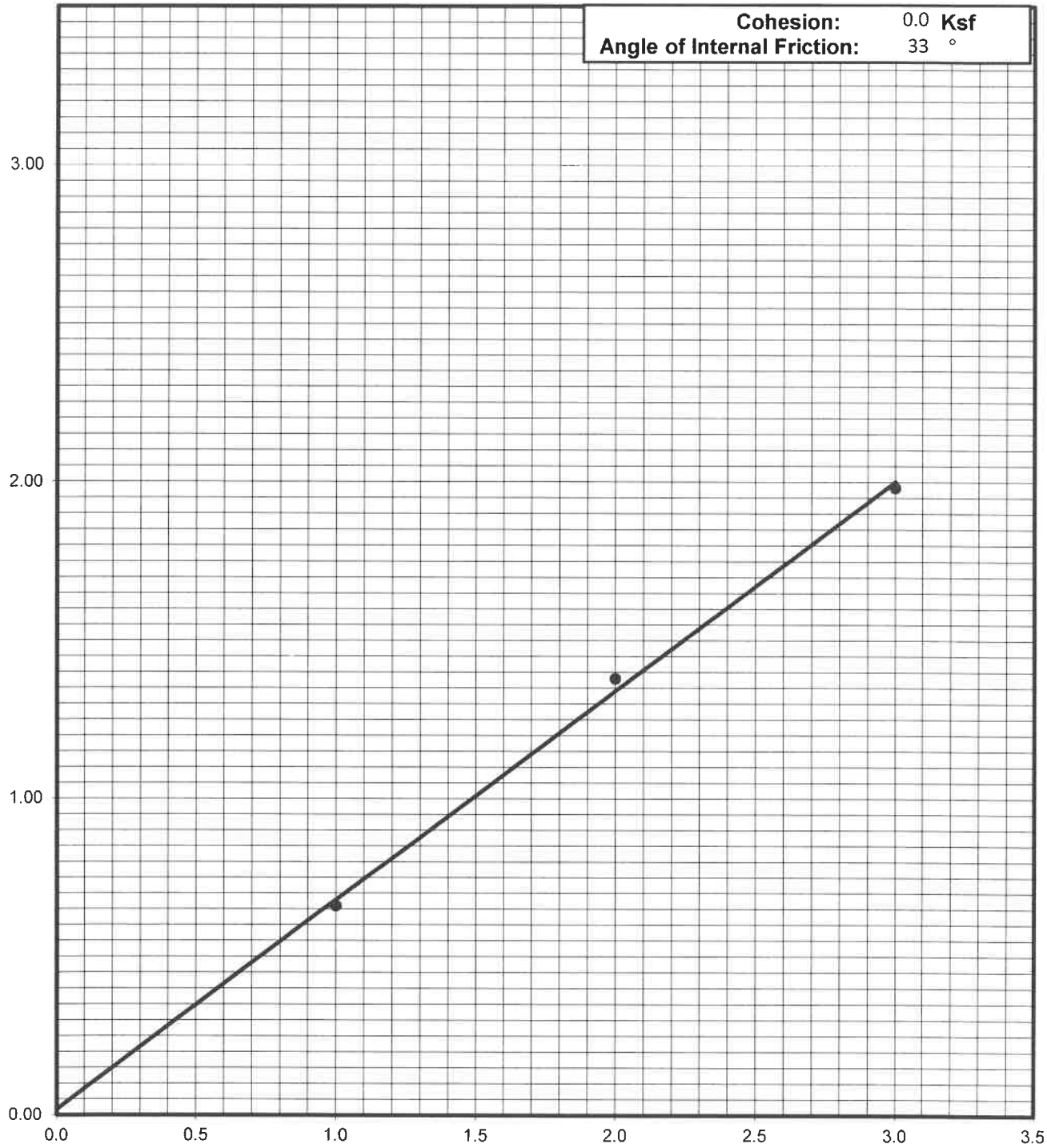
Project No	Boring No. & Depth	Date	Soil Classification
012-21156	B2 @ 2-3'	7/20/2021	ML



Krazan Testing Laboratory

Shear Strength Diagram (Direct Shear)
ASTM D - 3080 / AASHTO T - 236

Project Number	Boring No. & Depth	Soil Type	Date
012-21156	B5 @ 2-3'	SM	7/20/2021



Krazan Testing Laboratory

Grain Size Analysis

Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Residential Development
Project Number	012-21156
Soil Classification	ML
Sample Number	B2 @ 2-3'

Krazan Testing Laboratory

Expansion Index Test

ASTM D - 4829

Project Number	: 012-21156
Project Name	: Residential Development
Date	: 7/200
Sample location/ Depth	: B3 @ 1-4'
Sample Number	: X1
Soil Classification	: SM

Trial #	**1**	**2**	**3**
Weight of Soil & Mold, gms	797.5		
Weight of Mold, gms	368.3		
Weight of Soil, gms	429.2		
Wet Density, Lbs/cu.ft.	129.4		
Weight of Moisture Sample (Wet), gms	200.0		
Weight of Moisture Sample (Dry), gms	186.0		
Moisture Content, %	7.5		
Dry Density, Lbs/cu.ft.	120.4		
Specific Gravity of Soil	2.7		
Degree of Saturation, %	50.9		

Time	Inital	30 min	1 hr	6hrs	12 hrs	24 hrs
Dial Reading	0	--	--	--	--	0.0038

Expansion Index $_{measured}$ = 3.8

Expansion Index = 4

Expansion Potential Table	
Exp. Index	Potential Exp.
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
>130	Very High

Krazan Testing Laboratory

APPENDIX B

EARTHWORK SPECIFICATIONS

GENERAL

When the text of the report conflicts with the general specifications in this appendix, the recommendations in the report have precedence.

SCOPE OF WORK: These specifications and applicable plans pertain to and include all earthwork associated with the site rough grading, including but not limited to the furnishing of all labor, tools, and equipment necessary for site clearing and grubbing, stripping, preparation of foundation materials for receiving fill, excavation, processing, placement and compaction of fill and backfill materials to the lines and grades shown on the project grading plans, and disposal of excess materials.

PERFORMANCE: The Contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications. This work shall be inspected and tested by a representative of Krazan and Associates, Inc., hereinafter known as the Soils Engineer and/or Testing Agency. Attainment of design grades when achieved shall be certified to by the project Civil Engineer. Both the Soils Engineer and the Civil Engineer are the Owner's representatives. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, he shall make the necessary readjustments until all work is deemed satisfactory as determined by both the Soils Engineer and the Civil Engineer. No deviation from these specifications shall be made except upon written approval of the Soils Engineer, Civil Engineer or project Architect.

No earthwork shall be performed without the physical presence or approval of the Soils Engineer. The Contractor shall notify the Soils Engineer at least 2 working days prior to the commencement of any aspect of the site earthwork.

The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineers harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the soil negligence of the Owner or the Engineers.

TECHNICAL REQUIREMENTS: All compacted materials shall be densified to a density not less that 90 percent relative compaction based on ASTM Test Method D1557-78, UBC or CAL-216, as specified in the technical portion of the Soil Engineer's report. The location and frequency of field density tests shall be as determined by the Soils Engineer. The results of these tests and compliance with these specifications shall be the basis upon which satisfactory completion of work will be judged by the Soils Engineer.

SOILS AND FOUNDATION CONDITIONS: The Contractor is presumed to have visited the site and to have familiarized himself with existing site conditions and the contents of the data presented in the soil report.

The Contractor shall make his own interpretation of the data contained in said report, and the Contractor shall not be relieved of liability under the Contractor for any loss sustained as a result of any variance between conditions indicated by or deduced from said report and the actual conditions encountered during the progress of the work.

DUST CONTROL: The work includes dust control as required for the alleviation or prevention of any dust nuisance on or about the site or the borrow area, or off-site if caused by the Contractor's operation either during the performance of the earthwork or resulting from the conditions in which the Contractor leaves the site. The Contractor shall assume all liability, including court costs of codefendants, for all claims related to dust or windblown materials attributable to his work.

SITE PREPARATION

Site preparation shall consist of site clearing and grubbing and the preparations of foundation materials for receiving fill.

CLEARING AND GRUBBING: The Contractor shall accept the site in this present condition and shall demolish and/or remove from the area of designated project, earthwork all structures, both surface and subsurface, trees, brush, roots, debris, organic matter, and all other matter determined by the Soils Engineer to be deleterious. Such materials shall become the property of the Contractor and shall be removed from the site.

Tree root systems in proposed building areas should be removed to a minimum depth of 3 feet and to such an extent which would permit removal of all roots larger than 1 inch. Tree root removed in parking areas may be limited to the upper 1½ feet of the ground surface. Backfill or tree root excavation should not be permitted until all exposed surfaces have been inspected and the Soils Engineer is present for the proper control of backfill placement and compaction. Burning in areas which are to receive fill materials shall not be permitted.

SUBGRADE PREPARATION: Surfaces to receive Engineered Fill, building or slab loads shall be prepared as outlined above, scarified to a depth of 6 inches, moisture-conditioned as necessary, and compacted to 90 percent relative compaction.

Loose soil areas, areas of uncertified fill, and/or areas of disturbed soils shall be moisture-conditioned as necessary and recompacted to 90 percent relative compaction. All ruts, hummocks, or other uneven surface features shall be removed by surface grading prior to placement of any fill materials. All areas, which are to receive fill materials, shall be approved by the Soils Engineer prior to the placement of any of the fill material.

EXCAVATION: All excavation shall be accomplished to the tolerance normally defined by the Civil Engineer as shown on the project grading plans. All over excavation below the grades specified shall be backfilled at the Contractor's expense and shall be compacted in accordance with the applicable technical requirements.

FILL AND BACKFILL MATERIAL: No material shall be moved or compacted without the presence of the Soils Engineer. Material from the required site excavation may be utilized for construction site fills provided prior approval is given by the Soils Engineer. All materials utilized for constructing site fills shall be free from vegetation or other deleterious matter as determined by the Soils Engineer.

PLACEMENT, SPREADING AND COMPACTION: The placement and spreading of approved fill materials and the processing and compaction of approved fill and native materials shall be the responsibility of the Contractor. However, compaction of fill materials by flooding, ponding, or jetting shall not be permitted unless specifically approved by local code, as well as the Soils Engineer.

Both cut and fill shall be surface compacted to the satisfaction of the Soils Engineer prior to final acceptance.

SEASONAL LIMITS: No fill material shall be placed, spread, or rolled while it is frozen or thawing or during unfavorable wet weather conditions. When the work is interrupted by heavy rains, fill operations shall not be resumed until the Soils Engineer indicates that the moisture content and density of previously placed fill are as specified.

APPENDIX C

PAVEMENT SPECIFICATIONS

1. DEFINITIONS - The term "pavement" shall include asphaltic concrete surfacing, untreated aggregate base, and aggregate subbase. The term "subgrade" is that portion of the area on which surfacing, base, or subbase is to be placed.

The term "Standard Specifications": hereinafter referred to is the 2018 Standard Specifications of the State of California, Department of Transportation, and the "Materials Manual" is the Materials Manual of Testing and Control Procedures, State of California, Department of Public Works, Division of Highways. The term "relative compaction" refers to the field density expressed as a percentage of the maximum laboratory density as defined in the applicable tests outlined in the Materials Manual.

2. SCOPE OF WORK - This portion of the work shall include all labor, materials, tools, and equipment necessary for, and reasonably incidental to the completion of the pavement shown on the plans and as herein specified, except work specifically notes as "Work Not Included."

3. PREPARATION OF THE SUBGRADE - The Contractor shall prepare the surface of the various subgrades receiving subsequent pavement courses to the lines, grades, and dimensions given on the plans. The upper 12 inches of the soil subgrade beneath the pavement section shall be compacted to a minimum relative compaction of 90 percent. The finished subgrades shall be tested and approved by the Soils Engineer prior to the placement of additional pavement courses.

4. UNTREATED AGGREGATE BASE - The aggregate base material shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate base material shall conform to the requirements of Section 26 of the Standard Specifications for Class 2 material, 1½ inches maximum size. The aggregate base material shall be compacted to a minimum relative compaction of 95 percent. The aggregate base material shall be spread and compacted in accordance with Section 26 of the Standard Specifications. The aggregate base material shall be spread in layers not exceeding 6 inches and each layer of aggregate material course shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

5. AGGREGATE SUBBASE - The aggregate subbase shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate subbase material shall conform to the requirements of Section 25 of the Standard Specifications for Class 2 material. The aggregate subbase material shall be compacted to a minimum relative compaction of 95 percent, and it shall be spread and compacted in accordance with Section 25 of the Standard Specifications. Each layer of aggregate subbase shall be tested and approved by the Soils Engineer prior to the placement of successive layers.

6. ASPHALTIC CONCRETE SURFACING - Asphaltic concrete surfacing shall consist of a mixture of mineral aggregate and paving grade asphalt, mixed at a central mixing plant and spread and compacted on a prepared base in conformity with the lines, grades, and dimensions shown on the plans. The viscosity grade of the asphalt shall be PG 64-10. The mineral aggregate shall be Type B, ½ inch maximum size, medium grading, and shall conform to the requirements set forth in Section 39 of the Standard Specifications. The drying, proportioning, and mixing of the materials shall conform to Section 39.

The prime coat, spreading and compacting equipment, and spreading and compacting the mixture shall conform to the applicable chapters of Section 39, with the exception that no surface course shall be placed when the atmospheric temperature is below 50 degrees F. The surfacing shall be rolled with a combination steel-wheel and pneumatic rollers, as described in Section 39-6. The surface course shall be placed with an approved self-propelled mechanical spreading and finishing machine.

7. FOG SEAL COAT - The fog seal (mixing type asphaltic emulsion) shall conform to and be applied in accordance with the requirements of Section 37.

Krazan & ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

July 19, 2021 Project No. 014-21107

Mr. Quinn Tedford
Century Communities
7815 North Palm Avenue, Suite 101
Fresno, California 93711
quinn.tedford@centurycommunities.com

RE: Phase I Environmental Site Assessment
Vacant Property Olive Lane
Northeast of South Peach and East Church Avenues
Fresno, California 93725

Dear Mr. Tedford:

Krazan & Associates, Inc., (Krazan) completed a Phase I Environmental Site Assessment at the referenced site summarized in a report dated July 19, 2021. We appreciate the opportunity to serve your environmental due diligence needs. During the course of this assessment, Krazan identified no evidence of recognized environmental conditions (RECs), controlled RECs (CRECs) or historical RECs (HRECs) in conjunction with the subject site as defined by ASTM E 1527-13.

If you have any questions regarding the information presented in this report, please call me at (559) 348-2200.

Respectfully Submitted,
KRAZAN & ASSOCIATES, INC.

Arthur C. Farkas
Environmental Professional

ACF/mlt

PHASE I ENVIRONMENTAL
SITE ASSESSMENT
VACANT PROPERTY OLIVE LANE
NORTHEAST OF SOUTH PEACH AND EAST
CHURCH AVENUES
FRESNO, CALIFORNIA 93725

Project No. 014-21107
July 19, 2021

Prepared for:
Mr. Quinn Tedford
Century Communities
7815 North Palm Avenue, Suite 101
Fresno, California 93711
(559) 256-8601

Prepared by:
Krazan & Associates, Inc.
215 West Dakota Avenue
Clovis, California 93612
(559) 348-2200

Krazan & ASSOCIATES, INC.
SITE DEVELOPMENT ENGINEERS

TABLE OF CONTENTS
Project No. 014-21107

Figures

TABLE OF CONTENTS (continued)
Project No. 014-21107

Appendices

PHASE I ENVIRONMENTAL SITE ASSESSMENT
VACANT PROPERTY OLIVE LANE
NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES
FRESNO, CALIFORNIA 93725

1.0 EXECUTIVE SUMMARY

Krazan & Associates, Inc. (Krazan) has conducted a Phase I Environmental Site Assessment (ESA) of the Vacant Property Olive Lane located Northeast of South Peach and East Church Avenues in Fresno, California 93725 (subject site). It is incumbent upon the user to read this Phase I ESA report in its entirety. If not otherwise defined within the text of this report, please refer to the Glossary of Terms Section following the References Section for definitions of terms and acronyms utilized within this Phase I ESA report. Krazan conducted the Phase I ESA of the subject site in conformance with the American Society for Testing and Materials (ASTM) E 1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* This Phase I ESA constitutes all appropriate inquiry (AAI) designed to identify recognized environmental conditions (RECs) in connection with the previous ownership and uses of the subject site as defined by ASTM E 1527-13.

ASTM E 1527-13 Section 1.1.1 *Recognized Environmental Conditions* – In defining a standard of good commercial and customary practice for conducting an environmental site assessment of a parcel of property, the goal of the processes established by this practice is to identify recognized environmental conditions. The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions.

During the course of this assessment, Krazan identified no evidence of recognized environmental conditions (RECs), controlled RECs (CRECs) or historical RECs (HRECs) in conjunction with the subject site as defined by ASTM E 1527-13.

2.0 PURPOSE AND SCOPE OF ASSESSMENT

2.1 Purpose

According to ASTM E 1527-13, the purpose of this practice is to define good commercial and customary practice in the United States of America for conducting an *environmental site assessment* of a parcel of *commercial real estate* with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) and *petroleum products.* As such, this practice is intended to permit a *user* to satisfy one of the requirements to qualify for the *innocent landowner, contiguous property owner,* or *bona fide prospective purchaser* limitation on CERCLA liability (hereinafter, the *landowner liability protections,* or *LLPs*): that is, the practice that constitutes *all appropriate inquiries* into the previous ownership and uses of the *property* consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35)(B).

2.2 Scope of Work

The Phase I ESA includes the following scope of work: a) a site reconnaissance of existing on-site conditions and observations of adjacent property uses, b) a review of user-provided documents, and search of available current land title records compiled by AFX Corp., Inc., c) a review of historical aerial photographs, a review of pertinent building permit records, city directories, historical Sanborn Fire Insurance Maps (SFIMs), and interview(s) with person(s) knowledgeable of the previous and current ownership and uses of the subject site, d) a review of local regulatory agency records, and e) a review of local, state, and federal regulatory agency lists compiled by Environmental Data Resources, Inc. (EDR). The scope of work for this Phase I ESA conforms to ASTM E 1527-13. Krazan was provided written authorization to conduct the Phase I ESA by Mr. W. Allen Bennett with Benchmark Communities, a subsidiary of Century Communities, in Service Agreement No. 61-KRAASSOLVLN2 on June 24, 2021, in Krazan's June 22, 2021 Proposal/Cost Estimate No. P21-255.

3.0 SUBJECT SITE SETTING

The subject site is located Northeast of South Peach and East Church Avenues in the City of Fresno, California. The subject site consists of one parcel measuring 11.97 acres with the associated Fresno County Assessor's Parcel Number (APN) of 481-020-60S. The subject site is currently undeveloped land.

General property information and property use are summarized in the following Table I. Refer to Figures No. 1 – 5 following the Reference Section.

TABLE I
Subject Site Information Summary

Current Owner:	GMK Olive Lane Properties LLC
Assessor's Parcel Numbers:	481-020-60S
Address:	No Current Address
Historical Address:	None
General Location:	Northeast of South Peach and East Church Avenues
Acreage:	11.97 acres
Existing Use:	Undeveloped Land
Number of Buildings:	None
Original Construction Date:	N/A
Proposed Use:	Residential Development
Topographic Map:	U.S. Geological Survey, 7.5minute Malaga, California topographic quadrangle map, dated 1964, photo revised 1981
Topographic Map Location:	Northwest quarter of Section 17, Township 14 South, Range 21East, Mount Diablo Baseline and Meridian
Latitude/Longitude:	36.715981° / –119.716218°
Topography:	Relatively flat, approximately 300 feet above mean sea level
Approximate Depth to Groundwater:	75 feet below ground surface (bgs), State of California Department of Water Resources (DWR)*
Regional Groundwater Flow Direction:	Northwest, DWR

* State of California, Department of Water Resources, *Sustainable Groundwater Management Act (SGMA) Data Viewer, Spring 2018*.

3.1 Geology and Hydrogeology

The subject site is located within the San Joaquin Valley, a broad structural trough bound by the Sierra Nevada and Coast Ranges of California. The San Joaquin Valley, which comprises the southern portion of the Great Valley of California, has been filled with several thousand feet of sedimentary deposits. Sediments in the eastern valley, derived from the erosion of the Sierra Nevada, have been deposited by major to minor west-flowing drainages and their tributaries. Near-surface sediments are dominated by sands and silty sands with lesser silts, minor clays, and gravel. The sedimentary deposits in the region form large coalescing alluvial fans with gentle slopes. The groundwater in the area is reported to be first encountered at a depth of approximately 75 feet bgs. The groundwater flow direction in the area of the subject site is generally towards the northwest.

4.0 SITE RECONNAISSANCE

A site reconnaissance, which included a visual observation of the subject site and surrounding properties, was conducted by Mr. Ken Sani, Krazan's Environmental Assessor, on July 13, 2021.

Krazan's Environmental Assessor was unaccompanied during the site reconnaissance. The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions, including hazardous substances and petroleum products, in connection with the property (including soils, surface waters, and groundwater).

4.1 Observations

The following Table II summarizes conditions encountered during our site reconnaissance. A discussion of visual observations in the table below. Refer to the Site Map (Figure No. 3) and color photographs following the text for the locations of items discussed in this section of the report.

TABLE II
Summary of Site Reconnaissance

Feature	Observed	Not Observed
Structures (existing)		X
Evidence of Past Uses (foundations, debris)		X
Hazardous Substances and/or Petroleum Products		X
Aboveground Storage Tanks (ASTs)		X
Underground Storage Tanks (USTs) or Evidence of USTs		X
Evidence of Underground Pipelines (Irrigation)		X
Strong, Pungent, or Noxious Odors		X
Pools of Liquid Likely to be Hazardous Materials or Petroleum Products		X
Drums		X
Unidentified Substance Containers		X
Potential Polychlorinated Biphenyl (PCB)-Containing Equipment		X
Subsurface Hydraulic Equipment		X
Heating/Ventilation/Air conditioning (HVAC)		X
Stains or Corrosion on Floors, Walls, or Ceilings		X
Floor Drains, Sumps, or Oil/Water Clarifiers		X
Storm Drains		X
Pits, Ponds, or Lagoons		X
Discolored Soils		X
Soil Piles		X
Stressed Vegetation		X
Waste or Wastewater (including stormwater) Discharges to Surface/ Surface Waters		X
Wells (potential irrigation, domestic, dry, injection, abandoned, monitoring wells)		X
Septic Systems		X

The subject site comprises approximately 11.97 acres of undeveloped land with the associated Fresno County APN of 481-020-60S. Refer to Figure No. 3, Site Map, for locations of the following referenced on-site features:

- The subject site was observed to be undeveloped land with no on-site structures. No evidence of hazardous materials storage/waste was observed on the subject site (See Photos 1, 2, 5, and 6).

- A utility box and Portland-cement concrete (PCC) irrigation standpipe was observed along the central portion of the southern area of the subject site. No evidence of hazardous materials storage/waste was observed in association with the utility box and irrigation standpipe (See Photo 4).

- The Fancher Creek Canal, which did not contain water at the time of Krazan's site reconnaissance, was observed adjacent to the northern boundary of the subject site. No evidence of hazardous materials waste was observed within the Fancher Creek Canal (See Photos 3 and 7).

- A PCC irrigation standpipe was observed in the northern portion of the subject site along the Fancher Creek Canal. Additionally, three utility boxes were observed in the southeastern portion of the subject site. No evidence of hazardous materials was observed in association with the standpipe and utility boxes.

- During the visual observations of the subject site, no obvious evidence (vent pipes, fill pipes, dispensers, etc.) of USTs was noted within the areas observed. No standing water was observed on the subject site. No indications of former structures, such as foundations, were observed on the subject site.

- No high-voltage, tower-mounted electrical transmission lines were observed in the vicinity of the subject site.

4.2 Utilities

Based on Krazan's research, the following Table III summarizes companies/municipalities that will provide utility services to the subject site:

TABLE III
Municipal Service / Utility Providers

Electricity	Pacific Gas & Electric Company
Natural Gas	Pacific Gas & Electric Company
Potable Water	City of Fresno*
Sanitary Sewer	City of Fresno**

* It is the responsibility of the City of Fresno to provide drinking water that is in compliance with the California State Maximum Contaminant Levels (MCLs) for primary drinking water.
** According to a representative of the City of Fresno Public Utilities Department, the subject site is not monitored for sewer discharge; therefore, no sewer violations are on file for the subject site.

4.3 Adjacent Streets and Property Usage

The following Table IV summarizes the current adjacent roads and adjacent property uses observed during the site reconnaissance:

TABLE IV
Adjacent Streets and Property Use

Direction	Adjacent Street	Adjacent Property Use
North	None	Fancher Creek, Single-Family Residential (SFR), Vacant Land
West	None	Vacant Land
South	East Church Avenue	Storey Elementary School
East	None	SFR

Based on the observed uses of the properties located immediately adjacent to the subject site, it is unlikely that significant quantities of hazardous materials are stored at the adjacent properties.

4.4 ASTM Non-Scope Considerations

According to ASTM E 1527-13, there may be environmental issues or conditions at the subject site that are outside the scope of the Phase I ESA practice (non-scope considerations). Some substances may be present at the subject site in quantities and under conditions that may lead to contamination of the subject site or of nearby properties but are not included in CERCLA's definition of hazardous substances (42 U.S.C. §9601[14]). ASTM non-scope considerations are discussed below.

Asbestos-Containing Materials

Asbestos is a group of naturally occurring mineral fibers that have been used commonly in a variety of building construction materials for insulation and as a fire-retardant. Because of its fiber strength and heat resistant properties, asbestos has been used for a wide range of manufactured goods, mostly in building materials, vehicle brakes, and heat-resistant fabrics, packaging, gaskets, and coatings. When asbestos-containing materials (ACMs) are damaged or disturbed by repair, remodeling, or demolition activities, microscopic asbestos fibers may become airborne and can be inhaled into the lungs, where they can cause significant health problems. No structures are located on the subject site. Therefore, ACMs are not considered an on-site environmental concern at this time.

Lead-Based Paint

Although lead-based paint (LBP) was banned in 1978, many building constructed prior to 1978 have paint that contains lead. Lead from paint, chips, and dust can pose serious health hazards if not addressed properly. No structures are located on the subject site. Therefore, LBP is not considered an on-site environmental concern at this time.

Mold and Moisture Intrusion

A class of fungi, molds have been found to cause a variety of health problems in humans, including allergic, toxicological, and infectious responses. Molds are decomposers of organic materials, and

thrive in humid environments, and produce spores to reproduce, just as plants produce seeds. When mold spores land on a damp spot indoors, they may begin growing and digesting whatever they are growing on in order to survive. When excessive moisture or water accumulates indoors, mold growth will often occur, particularly if the moisture problem remains undiscovered or unaddressed. As such, interior areas of buildings characterized by poor ventilation and high humidity are the most common locations of mold growth. Building materials including drywall, wallpaper, baseboards, wood framing, insulation and carpeting often play host to such growth. Moisture control is the key to mold control. Molds need both food and water to survive; since molds can digest most things, water is the factor that limits mold growth. The EPA recommends the following action to prevent the amplification of mold growth in buildings:

- Fix leaky plumbing and leaks in the building envelope as soon as possible.
- Watch for condensation and wet spots. Fix source(s) of moisture problem(s) as soon as possible.
- Prevent moisture due to condensation by increasing surface temperature or reducing the moisture level in air (humidity). To increase surface temperature, insulate or increase air circulation. To reduce the moisture level in air, repair leaks, increase ventilation (if outside air is cold and dry), or dehumidify (if outdoor air is warm and humid).
- Keep heating, ventilation, and air conditioning (HVAC) drip pans clean, flowing properly, and unobstructed.
- Vent moisture-generating appliances, such as dryers, to the outside where possible.
- Maintain low indoor humidity, below 60% relative humidity (RH), ideally 30-50%, if possible.
- Perform regular building/HVAC inspections and maintenance as scheduled.
- Clean and dry wet or damp spots within 48 hours.
- Do not let foundations stay wet. Provide drainage and slope the ground away from the foundation.

No structures are currently located on the subject site. Therefore, microbial growth and moisture intrusion are not considered an on-site environmental concern at this time.

Radon

Radon is a radioactive gas that is found in certain geologic environments and is formed by the natural breakdown of radium, which is found in the earth's crust. A radon survey was not included within the scope of this investigation; however, the State of California Department of Health Services (CDHS)

maintains a statewide database of radon results in designated geographic areas. Radon detection devices are placed in homes throughout the study region to determine geographic regions with elevated radon concentrations. The U.S. EPA has set the safety standard for radon gas in homes to be 4.0 pico Curies per liter (pCi/L).

The US EPA has prepared a map to assist National, State and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the EPA Action Limit of 4.0 pCi/L. It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the EPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures. Review of the EPA Map of Radon Zones places the Property in Zone 2, where average predicted radon levels are between 2.0 and 4.0 pCi/L. Therefore, the available data suggests that the potential for radon to adversely impact the subject site appears to be low.

Wetlands

As defined by the U.S. EPA and the Department of Army, Corps of Engineers, wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Jurisdictional wetlands are regulated under Section 404 of the Clean Water Act (1972, 1977, and 1987, and also the 1985 and 1990 Farm Bills), and are important for protection of aquatic waterfowl and species, water purification, and flood control. According to current Corps of Engineers information, three basic criteria are currently used to define wetlands:

- Wetland hydrology - areas exhibiting surface or near-surface saturation or inundation at some point in time (greater than 12.5 percent of growing season defined on basis of frost-free days) during an average rainfall year.

- Hydrophilic vegetation - frequency of occurrence of wetland indicator plants (plant life growing in water, soil, or substrate that is periodically deficient in oxygen as a result of excessive water content).

- Hydric soil - landscape patterns identified by saturation, flooding, or ponding long enough during the growing season (generally seven days) which develop characteristic color changes in the upper part of the soil as a result of anaerobic conditions.

Based on Krazan's reconnaissance of the subject site, evidence was not apparent to suggest that the site contained a wetland. Furthermore, according to the U. S. Fish & Wildlife Service (USFWS) National Wetlands Inventory available via the USFWS Internet website, the subject site does not contain a designated wetland. Therefore, at this time, regulations pertaining to wetlands do not appear to impact the subject site.

Environmental Non-Compliance Issues

No obvious material non-compliance issues were identified in connection with the subject site in the process of preparing this report.

Activity and Use Limitations

No activity and use limitations were identified in connection with the subject site in the process of preparing this report.

5.0 USER-PROVIDED INFORMATION

A review of user-provided information was conducted in order to help identify pertinent information regarding potential environmental impacts associated with the subject site.

5.1 Environmental Liens/Activity and Use Limitations Report

An Environmental Lien/Activity and Use Limitations (EL/AUL) Report was prepared by AFX Corp. Inc. (AFX), effective June 22, 2021 for the subject site parcel. The AFX EL/AUL Report provides results from a search of available land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls. The subject site EL/AUL Reports were reviewed to identify potential environmental liens, institutional controls (ICs), land use controls (LUCs), activity and use limitations (AULs), or declaration of environmental use restrictions (DEULs) which may have been filed against the subject site or exist in connection with the subject site as indicated by the subject site EL/AUL Report. Krazan's review of the EL/AUL Report indicated no liens, judgments, ICs, LUCs, AULs, or DEULs were found for the subject site according to the scope of work and limitations. Please refer to Appendix B for a copy of the AFX EL/AUL report.

5.2 Phase I Environmental Site Assessment User Questionnaire

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*),

the *user* must provide the following information (if available) to the *environmental professional*. Failure to provide this information could result in a determination that *all appropriate inquiry* is not complete. The user is asked to provide information or knowledge of the following:

1. Environmental cleanup liens that are filed or recorded against the site.
2. Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry.
3. Specialized knowledge or experience of the person seeking to qualify for the LLPs.
4. Relationship of the purchase price to the fair market value of the *property* if it were not contaminated.
5. Commonly known or *reasonably ascertainable* information about the *property*.
6. The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation.
7. The reason for preparation of this Phase I ESA.

A completed Phase I ESA User Questionnaire was received from Mr. Quinn Tedford with Century Communities, the Phase I ESA user. According to the questionnaire responses, Mr. Tedford, to the best of his knowledge as the user of this Phase I ESA, was not aware of any environmental cleanup liens and activity or land use limitations which have been filed or recorded against the subject site and Mr. Tedford has no specialized knowledge or experience of the prior nature of the business or chemical utilization on the subject site. Mr. Tedford indicated that the subject site was historically used for agricultural purposes. Mr. Tedford also indicated that he is not aware of any obvious indications pointing to the presence or likely presence of contamination of the subject site property. Mr. Tedford stated that the purchase price of the subject site reasonably reflects fair market value. Additionally, Mr. Tedford indicated that the reason for preparation of this Phase I ESA is related to a proposed residential development of the subject site. Please refer to Appendix C for a copy of the Phase I ESA User Questionnaire.

6.0 SITE USAGE SURVEY

The property usage survey included assessing property history, and reviewing local, state, and federal regulatory agency records.

6.1 Site History

A review of a previous environmental assessment, historical aerial photographs, a USGS topographic quadrangle map, City of Fresno Planning and Development Department (CFPDD) records, reasonably ascertainable city directories, a search for historical Sanborn fire insurance maps (SFIMs), and a Phase I ESA interview were utilized to assess the history of the subject site.

Aerial Photograph Interpretation

Historical aerial photographs dated 1937, 1950, 1962, 1973, 1984, 1998, 2009, and 2020 were reviewed to assess the history of the subject site. These photographs were obtained from the California State University, Fresno (CSUF) - Henry Madden Library, and Google Earth™. The aerial photograph summary is provided in following Table V. Please refer to Appendix D for a copy of the Historical Aerial Photographs.

TABLE V
Summary of Aerial Photograph Review

Year/Scale	Site Use	Site and Adjacent Property Observation
1937 1" = 680'	Agricultural	The subject site and adjacent properties appear to be utilized for agricultural purposes (row crops and orchards). Fancher Creek appears to bound the northerly portion of the subject site. Additionally, a rural residential dwelling and associated farm structures appear to be located in the northern portion of the adjacent property to the south.
1950 1" = 680'	Agricultural	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1937 aerial photograph except that a rural residential dwelling and associated farm structures appear to be located in the central portion of the adjacent property to the northwest, across from Fancher Creek.
1962 1" = 680'	Agricultural	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1950 aerial photograph.
1973 1" = 680'	Agricultural	Conditions on the subject site and the adjacent properties appear relatively similar to those noted in the 1962 aerial photograph except the subject site appears to be predominantly utilized for the cultivation of orchards.
1984 1" = 680'	Agricultural	Conditions on the adjacent properties appear relatively similar to those noted in the 1973 aerial photograph except that the subject site appears to be predominantly utilized for the cultivation of row crops. Additionally, what appears to be an agricultural water well is located in the southeastern portion of the subject site. Furthermore, the rural residential dwelling and associated farm structures appear to have been removed from the northern portion of the adjacent property to the south; and several farm structures appear to be located in the central-eastern portion of the adjacent property to the east.

TABLE V (continued)
Summary of Aerial Photograph Review

Year/Scale	Site Use	Site and Adjacent Property Observation
1998 1" = 680'	Undeveloped Land Trees	The subject site and adjacent properties to the north/northwest, west, and east appear to be undeveloped land. Several large trees appear to be located along the southern boundary of the subject site; and a line of trees appears to be located in the northern area of the subject site. East Church Avenue appears to bound the subject site to the south, beyond which what appears to be a large school.
2009 1" = 680'	Undeveloped Land	The subject site and adjacent property to the west, as well as the western portion of the adjacent property to the north/northwest, appear to be undeveloped land. The eastern portion of the adjacent property to the northwest, as well as the adjacent property to the east, appear to be occupied by single-family residential dwellings. Conditions on the adjacent property to the south appear to be similar to those in the 1998 aerial photograph.
2020 1" = 500'	Undeveloped Land Truck Trailers Trash Bins	Conditions on the subject site and adjacent properties appear to be similar to those in the 2009 aerial photograph except that what appear to be two truck trailers and two large trash bins are located in the southwestern portion of the subject site. Additionally, what appears to be a municipal water well site is located adjacent to the west of the subject site.

USGS Topographic Quadrangle Map

Krazan's review of the USGS, 7.5 minute, Malaga, California topographic quadrangle map dated 1964, photo revised 1981, indicates that Fancher Creek traversed the northern boundary of the subject site and no structures were located on the subject site. Refer to Figure No. 4, Topographic Map, for reference.

City of Fresno Planning and Development Department

The City of Fresno Planning and Development Department (CFPDD) was contacted to review building permits for the subject site APN of 481-020-60S. According to representatives of the CFPDD, permits are filed by street address; however, street addresses have not been assigned to the subject site. Therefore, no permits for items such as underground storage tanks, septic systems, building, demolition, or previous structures are on file with the CFPDD for the subject site.

City Directories

City directories were not searched due to the current absence of structures and addresses associated with the subject site.

Sanborn Fire Insurance Maps

Krazan reviews SFIMs to evaluate prior land use of the subject site and the adjacent properties. SFIMs typically exist for cities with populations of 2,000 or more, the coverage dependent on the location of the subject site within the city limits. Krazan contracted with EDR to provide copies of available SFIMs for the subject site and the adjacent properties as far back as 1867. EDR's search of SFIMs revealed no coverage for the subject site and the adjacent properties. Please refer to Appendix E for a copy of the EDR, SFIM *Unmapped Property* report.

6.2 Interviews

Krazan conducted an interview with the owner of the subject site. The interview is designed to provide pertinent information regarding potential environmental impacts associated with the subject site.

Subject Site Owner

An interview was conducted with Mr. Shawn Milligan, a representative of GMK Olive Lane Properties LLC, the owner of the subject site. During the interview, Mr. Milligan stated that he has been familiar with the subject site for the past 15 years and that the subject site is currently vacant land. Mr. Milligan also stated that the subject site has historically been agricultural property and he is not aware of any environmentally persistent pesticides/herbicides that have been used on the subject site.

According to Mr. Milligan, to the best of his knowledge, no disposal of hazardous materials; no environmental cleanups, no on-site treatment and/or discharge of waste; no environmental liens, AULs, engineering or institutional controls, no on-site leach fields, dry wells, sumps, or disposal ponds; no ASTs or USTs; no buried materials; no monitoring or irrigation wells; or any items of environmental concern are associated with the subject site. Mr. Milligan indicated that the reason for preparation of this Phase I ESA is related to a property sale for a residential housing development. Additionally, Mr. Milligan stated that the purchase price of the subject site reasonably reflects fair market value.

Previous Subject Site Owners/Occupants

An interview with a previous owner/occupant of the subject site was not reasonably ascertainable.

6.3 Agricultural Chemicals

Review of historical aerial photographs indicates that portions of the subject site were utilized for agricultural purposes from at least 1937 until at least 1984. Although the potential exists that

environmentally persistent pesticides/herbicides were historically applied to crops grown on the subject site, 1) no material evidence of the use of environmentally persistent pesticides/herbicides was obtained during the course of this assessment, and 2) it is anticipated that any environmentally persistent pesticides/herbicides potentially located on site will be dislocated and diluted as a result of the grading and trenching operations conducted in conjunction with the proposed development of the property. Consequently, given the above-referenced factors and Krazan's experience in the subject site vicinity which generally indicates that the potential is low for elevated concentrations of environmentally persistent pesticides/herbicides related to crop cultivation to exist in the near-surface soils of common agricultural ground at concentrations which would require regulatory action, despite the absence of specific data, the potential for elevated concentrations of environmentally persistent pesticides or herbicides to currently exist in the near-surface soils of the subject site at concentrations which would require regulatory action appears to be low.

6.4 Regulatory Agency Interface

A review of regulatory agency records was conducted to help determine if hazardous materials have been handled, stored, or generated on the subject site and/or the adjacent properties and businesses.

Regulatory records are reviewed based on the following criteria: 1) properties with known soils and/or groundwater releases considered to represent the potential for impact to the subject site that are located within 1,760 feet of the subject site for constituents of concern impacts or 528 feet of the subject site for petroleum hydrocarbon impacts; 2) properties that are adjacent or in proximity to the subject site included within the EDR regulatory database report or noted during the site reconnaissance to possibly handle, store, or generate hazardous materials. Applicable property records are discussed below.

Fresno County Department of Community Health, Environmental Health System

The Fresno County Department of Community Health, Environmental Health System (FCEHS) is the lead regulatory agency or Certified Unified Program Agency (CUPA) for hazardous materials handling facilities in Fresno County. Krazan's review of the FCEHS CUPA and Solid Waste Programs Resource List (CUPA List) dated October 2020 indicated that no records are on file with the FCEHS for the subject site. However, records are on file with the FCEHS for one property adjacent to the subject site which is discussed below:

City of Fresno Well 100-1 & 100-2 — adjacent to the west
2375 South Peach Avenue
According to FCEHS records, this facility maintains a current Permit To Operate as a Hazardous Materials Handler. No violations are on file with the FCEHS for this facility. Based on the fact that there are no releases to the subsurface on file with the FCEHS for

this facility, no violations of record, depth to groundwater in the vicinity of the subject site, and its location hydraulically cross-gradient to the subject site, there is no evidence to suggest that this facility currently represents an environmental concern in connection with the subject site.

City of Fresno Fire Department

The City of Fresno Fire Department (CFFD) has jurisdiction for the fire protection for the subject site and the immediate vicinity. On June 30, 2021, the CFFD was contacted via facsimile regarding potential records of hazardous materials storage, aboveground storage tanks, and hazardous material incidents/spills for the subject site. As of the date of this report, the CFFD has not responded to Krazan's request. Krazan will forward any pertinent environmental data to the Client if received.

State of California Regional Water Quality Control Board - Geotracker

Krazan's review of the State of California Regional Water Quality Control Board (RWQCB) Geotracker database available via the RWQCB Internet Website indicated that no land disposal or school evaluation sites are listed for the subject site, the adjacent properties, or properties located within the subject site vicinity. Additionally, no permitted UST sites were determined to be located on or adjacent to the subject site.

State of California Department of Toxic Substances Control - Envirostor

Krazan's review of the State of California Department of Toxic Substances Control (DTSC) Envirostor database available via the DTSC's Internet Website indicated that no voluntary cleanup sites, are listed for the subject site, the adjacent properties, or properties located within 500 feet of the subject site. Additionally, no Federal Superfund – National Priorities List (NPL) sites were determined to be located within a one-mile radius of the subject site. However, two school evaluation sites are listed in the vicinity of the subject site which are discussed below:

Planned Southeast School Site — approx. 225 feet to the southwest
Southwest Corner of East Church and
South Peach Avenues

According to DTSC records, this school site property was historically utilized as cropland. On July 7, 2016, the DTSC issued comments on the draft Preliminary Endangerment Assessment (PEA) Report which included the investigation of this facility for potential impacts from organochlorine pesticides (OCPs), arsenic, and lead associated with former agricultural uses. On July 14, 2016, the DTSC received the final PEA Report. Analytical results of composite soil samples obtained at this site did not detect chemicals of potential concern (COPCs) at concentrations exceeding the selected non-cancer screening levels, indicating that no significant concern was present. The DTSC determined that neither a release of hazardous materials north the presence of naturally occurring hazardous substance which would pose a threat to public health or the environment under unrestricted land use was indicated. On July 18, 2016, the DTSC

issued a No Further Action determination for this facility. Based on its regulatory "closure" status, depth to groundwater in the vicinity of the subject site, and its location hydraulically cross-gradient to the subject site, there is no evidence to suggest that this facility currently represents an environmental concern in connection with the subject site.

Church and Orangewood Proposed School Site approx. 400 feet to the southeast
Southwest Corner of East Church and
South Orangewood Drive
According to DTSC records, this school site property was historically utilized for agricultural purposes. On October 3, 2018, the DTSC issued comments on the draft Preliminary Endangerment Assessment (PEA) Report which included the investigation of this facility for potential impacts from organochlorine pesticides (OCPs), arsenic, and lead associated with former agricultural uses. On December 4, 2018, the DTSC received the final PEA Report. Analytical results of composite soil samples obtained at this site did not detect chemicals of potential concern (COPCs) at concentrations exceeding the selected non-cancer screening levels, indicating that no significant concern was present. The DTSC determined that neither a release of hazardous materials north the presence of naturally occurring hazardous substance which would pose a threat to public health or the environment under unrestricted land use was indicated. On May 17, 2019, the DTSC issued a No Further Action determination for this facility. Based on its regulatory "closure" status, depth to groundwater in the vicinity of the subject site, and no findings of naturally occurring hazardous substances, there is no evidence to suggest that this facility currently represents an environmental concern in connection with the subject site.

State of California Geologic Energy Management Division - GalGEM

Krazan's review of the State of California Geologic Energy Management Division Online Mapping System (CalGEM) indicated that no plugged and abandoned or producing oil wells are located on or adjacent to the subject site.

Local Area Tribal Records

No Indian reservations, USTs on Indian land, or LUSTs on Indian land were reported on the subject site, adjacent properties, or vicinity properties in the EDR-provided government database report.

6.5 Regulatory Agency Lists Review

Several agencies have published documents that list businesses or properties which have handled hazardous materials or waste or may have experienced site contamination. The lists consulted in the course of our assessment were compiled by EDR and Krazan and represent reasonably ascertainable current listings. Krazan did not verify the locations and distances of every property listed by EDR. Krazan verified the location and distances of the properties Krazan deemed as having the potential to adversely impact the subject site. The actual location of the listed properties may differ from the EDR listing. Refer to the following Table VI for a summary of the listed properties considered to have the potential to impact the subject site located within the specified ASTM Search Radii. The actual distances of the listed properties (which are summarized below) are based on observations during

Krazan's site reconnaissance. No EDR-listed unmapped (non geocoded) sites were determined to be located on or adjacent to the subject site. Please refer to Appendix F for a copy of the EDR, Radius Map report.

TABLE VI
Summary of Findings

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	1	NR	NR	1
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	1	1	0	NR	2
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0

TABLE VI (continued)
Summary of Findings

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	1	NR	NR	NR	1
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		1	0	NR	NR	NR	1
HIST UST	0.250		1	0	NR	NR	NR	1
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		1	0	NR	NR	NR	1
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

TABLE VI (continued)
Summary of Findings

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		1	1	NR	NR	NR	2

TABLE VI (continued)
Summary of Findings

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
HWTS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	4	3	2	0	0	9

The following facility was listed adjacent to the subject site:

City of Fresno Well 100-1 & 100-2 adjacent to the west
2375 South Peach Avenue
According to EDR, this former facility is listed as a CUPA LISTINGS and CERS site located within 404 feet of the subject site. During Krazan's vicinity property investigation, this facility was observed to be located adjacent to the west of the subject site. Regulatory records for this facility are on file with the FCEHS. Based on Krazan's review of FCEHS records for this facility, there is no material evidence that this facility currently represents an environmental concern in conjunction with the subject site. FCEHS records for this facility were previously discussed in Section 6.4 of this report.

The following facilities were listed in the vicinity of the subject site:

Planned Southeast School Site approx. 225 feet to the southwest
Southwest Corner of East Church and
South Peach Avenues
According to EDR, this facility is listed as an ENVIROSTOR and SCHOOL site located within 1,351 feet of the subject site. During Krazan's vicinity property investigation, this facility was observed to be located approximately 225 feet to the southwest of the subject site. Regulatory records for this facility are on file with the DTSC. Based on Krazan's review of DTSC records for this facility, there is no material evidence that this facility currently represents an environmental concern in conjunction with the subject site. FCEHS records for this facility were previously discussed in Section 6.4 of this report.

Church and Orangewood Proposed School Site approx. 400 feet to the southeast
Southwest Corner of East Church and
South Orangewood Drive
According to EDR, this former facility is listed as an ENVIROSTOR and SCHOOL site located within 712 feet of the subject site. During Krazan's vicinity property investigation, this facility was observed to be located approximately 400 feet to the southeast of the subject site. Regulatory records for this facility are on file with the DTSC. Based on Krazan's review of DTSC records for this facility, there is no material evidence that this facility currently represents an environmental concern in conjunction with the subject site. FCEHS records for this facility were previously discussed in Section 6.4 of this report.

Grae Moorvartain approx. 240 feet to the southwest
5142 East Church Avenue
According to EDR, this facility is listed as a SWEEPS UST, CA FID UST, and HIST UST site located within 436 feet of the subject site. During Krazan's vicinity property investigation, this facility was observed to be located approximately 240 feet to the southwest of the subject site. However, no regulatory records for this facility are on file with the regulatory agencies contacted during this investigation. According to EDR, one 500-gallon gasoline UST is located at this facility. Based on the fact that there are no documented releases to the subsurface from this facility, the depth to groundwater in the vicinity of the subject site, and its location hydraulically cross-gradient to the subject site, there is no material evidence that this facility currently represents an environmental concern in conjunction with the subject site.

The remaining properties within the specified search radius of the subject site which appeared on local, state, or federally published lists of sites that use or have had releases of hazardous materials or petroleum products are of sufficient distance and/or situated hydraulically cross- or downgradient from the subject site such that impact to the subject site via groundwater migration is unlikely. In general, potentially hazardous materials released from facilities located approximately hydraulically upgradient within subject site vicinity, or in a hydraulically cross-gradient direction in proximity to the site, may have a reasonable potential of migrating to the subject site via groundwater flow. This opinion is based on the assumption that non-vaporous hazardous materials generally do not migrate large distances laterally within the soil, but rather tend to migrate with groundwater in the general direction of groundwater flow. However, the potential for migration of volatile hazardous materials may include movement within soils, groundwater flow or potentially omni-directionally if present in a vaporous state.

Hazardous Materials Migration in Vapor

Hazardous materials or petroleum product vapors which may have the potential to migrate into the subsurface of the subject site may be caused by the release of vapors from contaminated soil or groundwater either on or in the vicinity of the subject site from current or historical uses of the subject site and/or adjacent or vicinity properties. Current or past land uses such as gasoline stations (using petroleum hydrocarbons), dry cleaning establishments (using chlorinated volatile organic compounds), former manufactured gas plant sites (using volatile and semi-volatile organic compounds), and former industrial sites such as those that had vapor degreasing or other parts-cleaning operations (using chlorinated volatile organic compounds) are of particular concern. Constituent of concern vapors are capable of migrating great distances omni-directionally along subsurface conduits such as pipelines, utility lines, sewer and stormwater lines, and building foundations.

Based on Krazan's observations and review of State and local regulatory agency records and the EDR regulatory database report, no areas of concern were determined to be associated with the subject site, adjacent properties, or properties located within the subject site vicinity. However, the screening process for vapor encroachment conditions in connection with the subject site are beyond the scope of ASTM E 1527-13 and should be addressed via the ASTM E 2600-10 *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions.*

No engineering control sites, sites with institutional controls, or sites with deed restrictions were listed for the subject site, adjacent sites or vicinity properties in the EDR Report.

7.0 DISCUSSION OF FINDINGS

TABLE VII
Summary of Conclusions

Apparent Evidence of RECs/PAOCs From	Not Noted	Noted
Historical Uses	X	
Current Uses	X	
Adjacent or Vicinity Property Uses	X	

Historical Uses

Based on Krazan's review of historical aerial photographs, a site reconnaissance, and contacts with the local regulatory agencies and the owner of the subject site, there is no evidence that RECs exist in connection with the historical uses of the subject site.

Current Uses

Based on Krazan's site reconnaissance, contacts with local regulatory agencies, and an interview with the owner of the subject site, there is no evidence that RECs exist in connection with the current uses of the subject site.

Adjacent or Vicinity Property Uses

Based on Krazan's field observations, review of the EDR government database report and consultation with local regulatory agencies, there is no evidence that RECs exist in connection with the subject site from adjacent or vicinity property uses.

7.1 Evaluation of Data Gaps/Data Failure

In accordance with ASTM E 1527-13 guidance, data gaps represent a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice. Data failure represents the failure to achieve the historical research objectives of this practice even after reviewing the standard historical sources that are reasonably ascertainable and

likely to be useful. Data failure is one type of data gap. No data gaps were identified during the course of this assessment.

8.0 CONCLUSIONS

We have conducted a Phase I ESA of the subject site in conformance with the scope and limitations of the ASTM E 1527-05 and ASTM E 1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* guidance documents. Any deviations from this practice were previously described in this report. During the course of this assessment, Krazan identified no evidence of recognized environmental conditions (RECs), controlled RECs (CRECs) or historical RECs (HRECs) in conjunction with the subject site as defined by ASTM E 1527-13

9.0 RELIANCE

This report was prepared solely for use by Client and should not be provided to any other person or entity without Krazan & Associates' prior written consent. No party other than Client may rely on this report without Krazan & Associates' express prior written consent. Reliance rights for third parties will only be in effect once requested by Client and authorized by Krazan & Associates with authorization granted by way of a Reliance Letter. The Reliance Letter will require that the relying party(ies) agree to be bound to the terms and conditions of the agreement between Client and Krazan & Associates as if originally issued to the relying party(ies), or as so stipulated in the Reliance Letter.

10.0 LIMITATIONS

The site reconnaissance and research of the subject site has been limited in scope. This type of assessment is undertaken with the calculated risk that the presence, full nature, and extent of contamination would not be revealed by visual observation alone. Although a thorough site reconnaissance was conducted in accordance with ASTM Guidelines and employing a professional standard of care, no warranty is given, either expressed or implied, that hazardous material contamination or buried structures, which would not have been disclosed through this investigation, do not exist at the subject site. Therefore, the data obtained are clear and accurate only to the degree implied by the sources and methods used.

The findings presented in this report were based upon field observations during a single property visit, review of available data, and discussions with local regulatory and advisory agencies. Observations describe only the conditions present at the time of this investigation. The data reviewed and observations made are limited to accessible areas and currently available records searched. Krazan cannot guarantee the completeness or accuracy of the regulatory agency records reviewed. Additionally, in evaluating the property, Krazan has relied in good faith upon representations and information provided by individuals noted in the report with respect to present operations and existing property conditions, and the historical uses of the property. It must also be understood that changing circumstances in the property usage, proposed property usage, subject site zoning, and changes in the environmental status of the other nearby properties can alter the validity of conclusions and information contained in this report. Therefore, the data obtained are clear and accurate only to the degree implied by the sources and methods used.

This report is provided for the exclusive use of the client noted on the cover page and shall be subject to the terms and conditions in the applicable contract between the client and Krazan. Any third party use of this report, including use by Client's lender, shall also be subject to the terms and conditions governing the work in the contract between the client and Krazan. The unauthorized use of, reliance on, or release of the information contained in this report without the express written consent of Krazan is strictly prohibited and will be without risk or liability to Krazan. Conclusions and recommendations contained in this report are based on the evaluation of information made available during the course of this assessment. It is not warranted that such data cannot be superseded by future environmental, legal, geotechnical or technical developments. Consequently, given the possibility for unanticipated hazardous conditions to exist on a subject site which may not have been discovered, this Phase I ESA is not intended as the basis for a buyer or developer of real property to waive their rights of recovery based upon environmental unknowns. Parties that choose to waive rights of recovery prior to site development do so at their own risk.

Parties who seek to rely upon Phase I Environmental Site Assessment reports dated more than 180 days prior to the date of reliance do so at their own risk. This limitation in reliance is based on the potential for physical changes at the site, changes in circumstances, technological and professional advances, and guidance related to the continued viability of Environmental Site Assessment reports, user's responsibilities, and requirements for updating of components of the inquiry as stated in the ASTM Standard E 1527-13.

11.0 QUALIFICATIONS

This Phase I ESA was conducted under the supervision or responsible charge of Krazan's undersigned environmental assessor with oversight from the undersigned environmental professional. The work was conducted in accordance with ASTM E 1527-13 guidance, generally accepted industry standards for environmental due diligence in place at the time of the preparation of this report, and Krazan's quality-control policies.

We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in §312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

Kenneth R. Sani, REPA No. 872367
Environmental Project Manager

Arthur C. Farkas
Environmental Professional

KRS/ACF/mlt

REFERENCES

Aerial photographs obtained from Environmental Data Resources, Inc. (EDR), and Google Earth™.

AFX Corp, Inc., Environmental Lien/Activity Use Limitations Report.

American Society for Testing and Materials (ASTM), *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment (ESA) Process*, ASTM Designation: E 1527-13.

ASTM, *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions,* ASTM Designation E 2600-10.

City of Fresno Planning and Development Department (CFPDD).

Environmental Data Resources, Inc. (EDR), Sanborn Fire Insurance Map *Unmapped Property* Report.

Environmental Data Resources, Inc. (EDR), Regulatory Database Report.

Fresno County Department of Community Health, Environmental Health System, Master Hazardous Materials Handling Facilities List, October 2020.

Milligan, Mr. Shawn, a representative of GMK Olive Lane Properties LLC, the owner of the subject site.

State of California Geologic Energy Management Division (CalGEM) Maps Website: http://www.conservation.ca.gov/calgem/Pages/WellFinder.aspx

State of California Department of Toxic Substances Control, Envirostor Website: http://www.envirostor.dtsc.ca.gov/public

State of California Regional Water Quality Control Board, Geotracker Website: http://geotracker.swrcb.ca.gov

State of California, Department of Water Resources, *Sustainable Groundwater Management Act (SGMA) Data Viewer, Spring 2018*.

U.S. Environmental Protection Agency (EPA) *Map of Radon Zones*.

U.S. Geological Survey, 7.5 minute Malaga, California topographic quadrangle map, dated 1964, photo revised 1981.

GLOSSARY OF TERMS

Subject Site: The real property being investigated under this Phase I ESA.

Adjacent Properties: Properties which are contiguous with the subject site, or would be contiguous except for a street, road, or other public thoroughfare.

Subject Site Vicinity: Properties located within a 500-foot radius of the subject site.

Environmental Professional: A person meeting the education, training, and experience requirements as set forth in 40 CFR §312.10(b). The EP may be an independent contractor or an employee of the user.

User: The party seeking to use Practice E 1527 to complete an environmental site assessment of the subject site. A user may include, without limitation, a potential purchaser of the subject site, a potential tenant of the subject site, an owner of the subject site, a lender, or a property manager.

Recognized Environmental Condition (REC): In defining a standard of good commercial and customary practice for conducting an environmental site assessment of a parcel of property, the goal of the processes established by this practice is to identify recognized environmental conditions. The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions.

Controlled Recognized Environmental Condition (CREC): A recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). For example, if a leaking underground storage tank has been cleaned up to a commercial use standard, but does not meet unrestricted residential cleanup criteria, this would be considered a CREC. The "control" is represented by the restriction that the property use remain commercial. A condition considered by the environmental professional to be a CREC shall be listed in the findings section of the Phase I ESA report and as an REC in the conclusions section. A condition identified as a CREC does not imply that the environmental professional has evaluated or confirmed the adequacy, implementation, or continued effectiveness of the required control that has been, or is intended to be, implemented.

Historical Recognized Environmental Condition (HREC): A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release an HREC, the environmental professional must determine whether the past release is an REC at the time the Phase I ESA is conducted (for example, if there has been change in the regulatory criteria). If the EP considers the past release to be an REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as an REC.

GLOSSARY OF TERMS (continued)

Potential Area of Concern (PAOC): A term adopted to provide an alternative designation to the REC and HREC for a range of environmental issues related to current subject site uses, historical subject site uses, or from adjacent and/or vicinity property uses. The PAOC is utilized to emphasize full disclosure and provide the User with conclusions and recommendations related to potential environmental issues in connection with the subject site based on Krazan's professional experience in cases where official documentation or other evidence may be absent in order to identify an REC or HREC, thereby aiding the User's considerations of environmental due diligence risk tolerance.

Migrate/migration: For the purposes of this practice, "migrate" and "migration" refer to the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface. Vapor migration in the subsurface is described in ASTM E 2600-10 guidance; however, nothing in the E 1527-13 practice should be construed to require application of the E 2600-10 standard to achieve compliance with AAI.

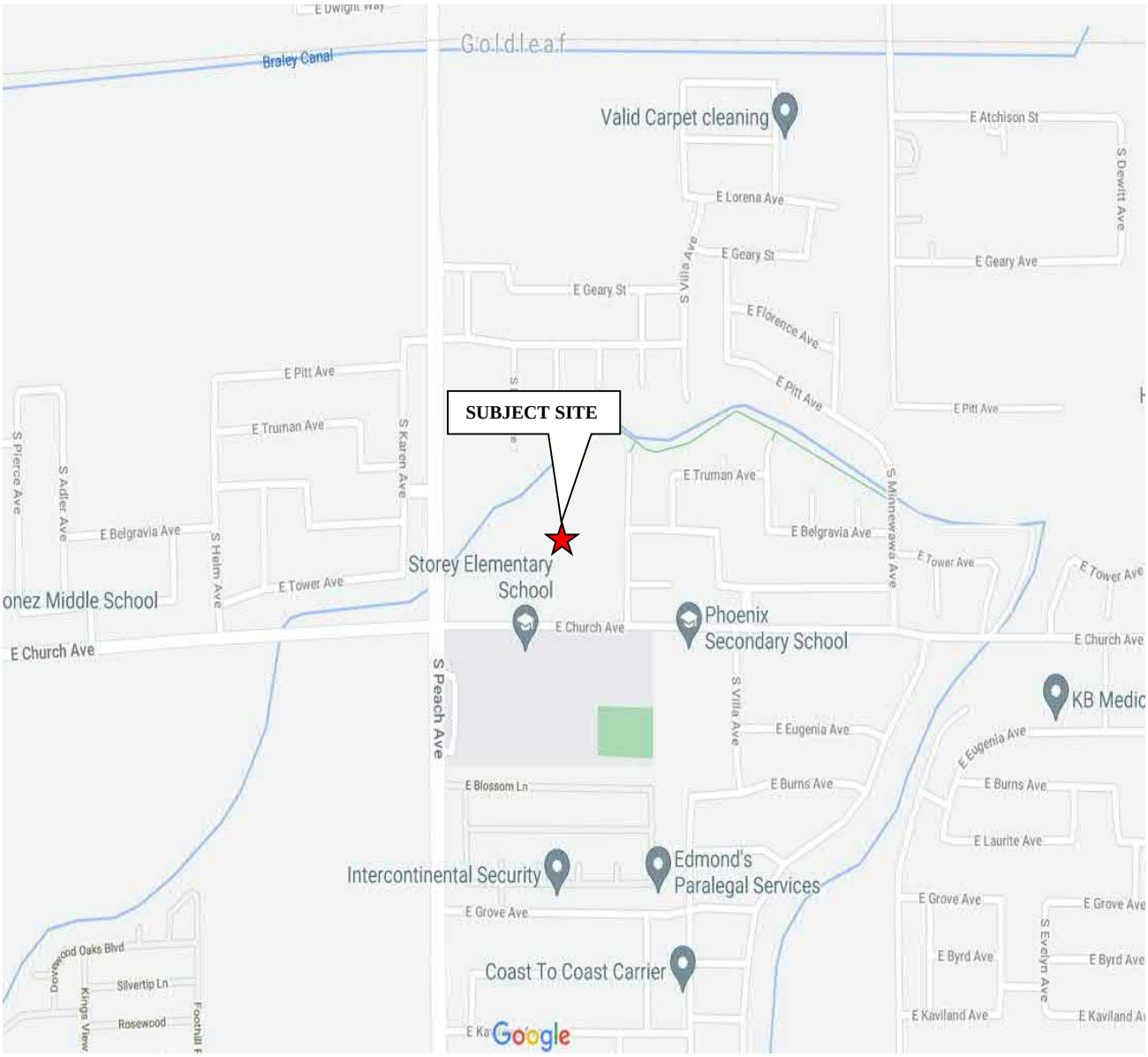
De minimis condition: A condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Condition determined to be *de minimis conditions* are not RECS or CRECs.

Data Gap: A lack of or inability to obtain information required by this practice despite good faith efforts by the Environmental Professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice, including, but not limited to the site reconnaissance and interviews.

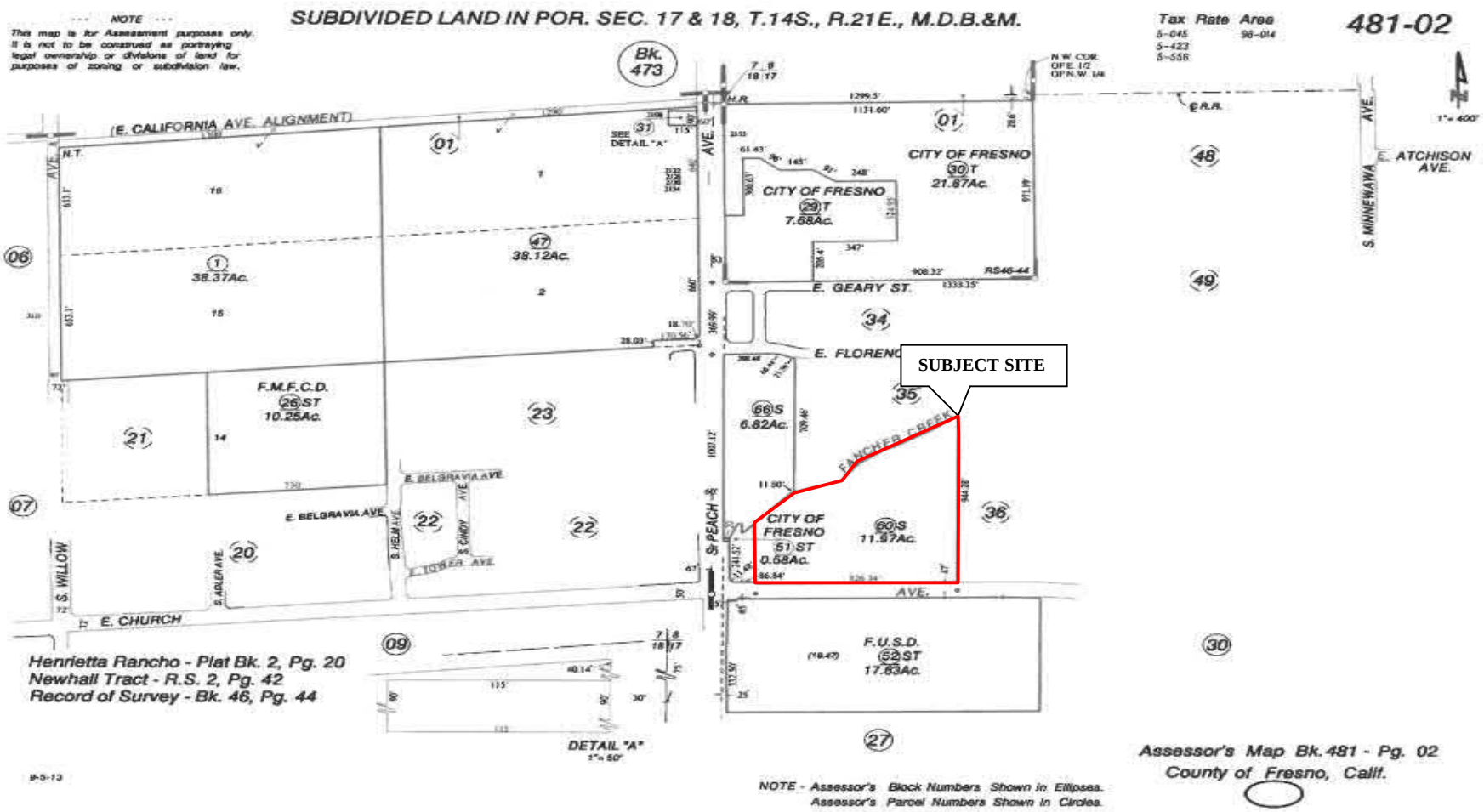
Data Failure: A failure to achieve the historical research objectives even after reviewing the standard historical sources that are reasonably ascertainable and likely to be useful. Data failure is one type of data gap.

GLOSSARY OF TERMS (continued)

AAI	All Appropriate Inquiries
AC	Asphalt Concrete
ACM	Asbestos-Containing Materials
AOC	Area of Concern
APN	Assessor's Parcel Number
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
AS	Air Sparging
AUL	Activity & Use Limitations
bgs	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CESQG	Conditionally Exempt Small Quantity Generator
CFR	Code of Federal Regulations
CMU	Concrete Masonry Unit
COCs	Constituents of Concern
DEULs	Declaration of Environmental Use Restrictions
DOGGR	Division of Oil, Gas & Geothermal Resources (CA)
DTSC	Department of Toxic Substances Control (CA)
EC	Engineering Control
EDR	Environmental Data Resources, Inc.
EP	Environmental Professional
EPA	United States Environmental Protection Agency
ERP	Emergency Response Plan
ESA	Environmental Site Assessment
ESL	Environmental Screening Level
FOIA	Freedom of Information Act
GPR	Ground Penetrating Radar
HCCD	Haines Criss-Cross Directory
HFIM	Historical Fire Insurance Map
HMBP	Hazardous Materials Business Plan
HREC	Historical Recognized Environmental Condition
HVAC	Heating, Ventilation, Air Conditioning
IC	Institutional Control
LBP	Lead-Based Paint
LLP	Landowner Liability Protection
LQG	Large Quantity Generator
LUC	Land Use Control
LUST	Leaking Underground Storage Tank
MCL	Maximum Contaminant Level
µg/L	Micrograms Per Liter
mg/kg	Milligrams Per Kilogram
mg/L	Milligrams Per Liter
MSDS	Material Safety Data Sheet
MTBE	Methyl Tertiary Butyl Ether
MFR	Multi-Family Residential
ND	Nondetectable
NFA	No Further Action (letter)
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
O&M	Operations & Maintenance Plan
PAOC	Potential Area of Concern
PCB	Polychlorinated Biphenyl
PCC	Portland Cement Concrete
PCE	Perchloroethylene
PEC	Potential Environmental Concern (TS)
PGD	Polk Guide Directory
PG&E	Pacific Gas & Electric
PHCs	Petroleum Hydrocarbon Constituents
PID	Photoionization Detector
ppb	Parts Per Billion
ppm	Parts Per Million
PRG	Preliminary Remediation Goal
PRP	Potentially Responsible Party
RAP	Remedial Action Plan
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RP	Responsible Party
RWQCB	Regional Water Quality Control Board (CA)
SBA	Small Business Administration
SFR	Single-Family Residential
SPCC	Spill Prevention Control and Countermeasure Plan
SQG	Small Quantity Generator
SCE	Southern California Edison
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compound
SWRCB	State Water Resources Control Board
TCE	Trichloroethylene
TPH	Total Petroleum Hydrocarbons
TPH-D	Total Petroleum Hydrocarbons as Diesel
TPH-G	Total Petroleum Hydrocarbons as Gasoline
TPH-MO	Total Petroleum Hydrocarbons as Motor Oil
TS	Transaction Screen
USGS	United States Geological Survey
USFWS	United States Fish & Wildlife Service
UST	Underground Storage Tank
VEC	Vapor Encroachment Condition
VES	Vapor Encroachment Screening
VOCs	Volatile Organic Compounds



VICINITY MAP	Scale: NTS	Date: July 2021	Krazan
VACANT PROPERTY OLIVE LANE NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES FRESNO, CALIFORNIA 93725	Drawn By: KS	Approved by: KS	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western United States*
	Project No. 014-21107	Figure No. 1	



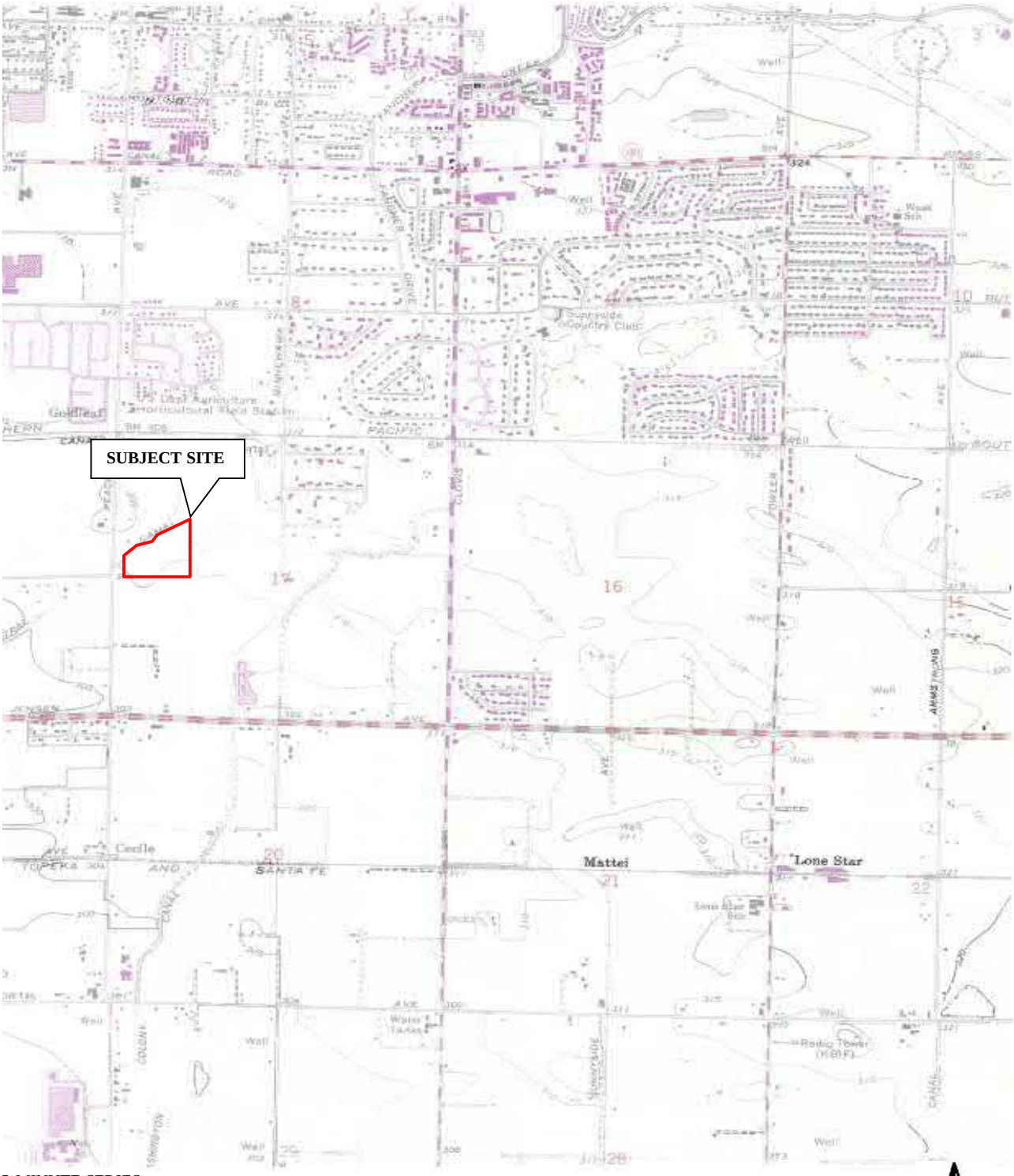
PARCEL MAP	Scale: NTS	Date: July 2021	Krazan
VACANT PROPERTY OLIVE LANE NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES FRESNO, CALIFORNIA 93725	Drawn By: KS	Approved by: KS	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western United States*
	Project No. 014-21107	Figure No. 2	

= SUBJECT SITE BOUNDARY

= UTILITY BOXES

= PCC IRRIGATION STANDPIPE

SITE MAP	Scale: NTS	Date: July 2021	Krazan
VACANT PROPERTY OLIVE LANE NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES FRESNO, CALIFORNIA 93725	Drawn By: KS	Approved by: KS	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western United States*
	Project No. 014-21107	Figure No. 3	



7.5-MINUTE SERIES
USGS TOPOGRAPHIC MAP
MALAGA, CALIFORNIA
DATED 1964
PHOTOREVISED 1981

TOPOGRAPHIC MAP	Scale: NTS	Date: July 2021	Krazan
VACANT PROPERTY OLIVE LANE NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES FRESNO, CALIFORNIA 93725	Drawn By: KS	Approved by: KS	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western United States*
	Project No. 014-21107	Figure No. 4	

Appendix A

Photo 1: Northeastern facing view of the subject site from the southwestern corner.

Photo 2: Northern facing view of the central portion of the subject site from the southern boundary.

Photo 3: Eastern facing view of the Fancher Creek Canal located adjacent to the northern boundary of the subject site.

Photo 4: View of the utility box and PCC irrigation standpipe located along the central portion of the southern area of the subject site.

Photo 5: Northwestern facing view of the subject site from the southeastern corner.

Photo 6: Southwestern facing view of the subject site from the northeastern corner. Krazan's geotechnical drilling rig can be seen in the photograph.

Photo 7: Western facing view of the Fancher Creek Canal located adjacent to the northern boundary of the subject site.

Photo 8: Northern facing view of the City of Fresno Municipal Water Well pumping stations located adjacent to the west of the subject site.

Appendix B

ENVIRONMENTAL LIEN AND AUL REPORT

Order Number:
01421107-KS

AFX Reference Number:
79-207035-47

Subject Property:
NE OF S PEACH AVENUE & E CHURCH AVENUE
FRESNO, CA 93725

Effective:
06/22/2021

Completed:
07/09/2021

AFX RESEARCH, LLC

A Quarter-Century of Title Document Research Expertise

999 Monterey St. Suite 380, San Luis Obispo, CA 93401

(877) 848-5337 / www.afxllc.com

SOURCES SEARCHED

Source 1: FRESNO COUNTY RECORDER'S OFFICE

Source 2: CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

Source 3: UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

TARGET PROPERTY

Current Owner(s): GMK OLIVE LANE PROPERTIES LLC, A CALIFORNIA LIMITED LIABILITY COMPANY

Street Address: NE OF S PEACH AVENUE & E CHURCH AVENUE

City, State Zip Code: FRESNO, CA 93725

APN/Parcel/PIN: 481-020-60S County: FRESNO

Legal Description: 11.97 AC SUR RT IN NW1/4 SEC 17 HENRIETTA RANCHO

PROPERTY OWNERSHIP

Instrument: **GRANT DEED**

Date Recorded: 01/27/2006 Instrument: 200618905

Dated: 01/23/2006

Grantor(s): DENNIS G. BENNETT, AS TRUSTEE OF THE DENNIS G. BENNETT FAMILY TRUST

Grantee(s): GMK OLIVE LANE PROPERTIES LLC, A CALIFORNIA LIMITED LIABILITY COMPANY

Notes: CORRECTION GRANT DEED RECORDED ON 06/30/2006 IN DOCUMENT NO: 2006136932(THIS IS A CORRECTION DEED ONLY TO THE LEGAL DESCRIPTION OF THE SUBJECT PROPERTY)

ENVIRONMENTAL LIENS

NO ENVIRONMENTAL LIENS FOUND FOR SUBJECT PROPERTY.

ACTIVITY AND USE LIMITATIONS (AUL)

NO AUL FOUND FOR SUBJECT PROPERTY.

LEASES

NO LEASES FOUND FOR SUBJECT PROPERTY.

MISCELLANEOUS INSTRUMENTS

NO MISCELLANEOUS INSTRUMENTS FOUND FOR SUBJECT PROPERTY.

THANK YOU FOR YOUR ORDER

For questions, please contact our office at 1-877-848-5337.

Order Number:
01421107-KS

AFX Reference Number:
79-207035-47

Our Environmental Lien and AUL report provides a summary of recorded information on a specific property from the time the current owner purchased the property, to present time. The report is intended to assist in the search for environmental liens filed in land title records. The report will verify property ownership and provide information on recorded environmental liens and/or Activity and Use Limitations that have been recorded from the time the current owner purchased the property, forward.

Our professional network of trained researchers follow established industry protocols and use client-supplied property information to complete this Environmental Lien and AUL report. The research is conducted at all appropriate government offices based on the location of the subject property. This would include City, County, State, Federal and Tribal offices as needed. The report includes:

- Current deed information (i.e. grantor, grantee, recording dates)
- Legal Description
- Environmental Lien information
- Activity and Use Limitation information
- Any Environmental Liens and/or documents referencing AULs that are listed within our summary report

3

RECORDING REQUESTED BY
First American Title Company

AND WHEN RECORDED MAIL TO:
GMK OLIVE LANE PROPERTIES, LLC
c/o KT Properties
21710 Stevens Creek Blvd., Ste. 200
Cupertino, CA 95014 ATTN: Ken Tersini
PLEASANTON, CA 94566

FRESNO County Recorder
Robert C. Werner
DOC- 2006-0018905
Acct 5-First American Title Insurance Company
Friday, JAN 27, 2006 15:04:20
NPC $20.00
Ttl Pd $33.00 Nbr-0002082114
APR/R1/1-3

Space Above This Line for Recorder's Use Only

A.P.N.: 481-020-50S

File No.: 0131-613203ala (MC)

GRANT DEED

The Undersigned Grantor(s) Declare(s): DOCUMENTARY TRANSFER TAX **$NOT DISCLOSED**; CITY TRANSFER TAX **$NOT DISCLOSED**; SURVEY MONUMENT FEE **$NOT DISCLOSED**

[**XX**] computed on the consideration or full value of property conveyed, OR
[ ] computed on the consideration or full value less value of liens and/or encumbrances remaining at time of sale,
[ ] unincorporated area; [**XX**] City of **FRESNO**, and

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, **DENNIS G. BENNETT, AS TRUSTEE OF THE DENNIS G. BENNETT FAMILY TRUST**

hereby GRANTS to **GMK OLIVE LANE PROPERTIES, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY**

the following described property in the City of **Fresno**, County of **Fresno**, State of **California**:

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 17, TOWNSHIP 14 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN, IN THE CITY OF FRESNO, COUNTY OF FRESNO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF; DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 17; THENCE NORTH 89 DEGREES 11' 33" EAST, ALONG THE SOUTH LINE OF THE NORTHWEST CORNER OF SAID SECTION 17, A DISTANCE OF 162.18 FEET TO A POINT ON THE SOUTHERLY PROLONGATION OF THE EAST LINE OF THAT CERTAIN PARCEL OF LAND DEEDED TO THE CITY OF FRESNO AUGUST 10, 1993 PER INSTRUMENT NO. 92-120205, OFFICIAL RECORDS OF FRESNO COUNTY, SAID POINT BEING THE TRUE POINT OF BEGINNING;

THENCE NORTH 01 DEGREES 29' 36" WEST, ALONG THE SOUTHERLY PROLONGATION OF THE EAST LINE AND ALONG THE EAST LINE OF THAT SAID CERTAIN PARCEL OF LAND DEEDED TO THE CITY OF FRESNO AUGUST 10, 1993 PER INSTRUMENT NO. 93-120205, OFFICIAL RECORDS OF FRESNO COUNTY, A DISTANCE OF 371.19 FEET TO A POINT ON THE CENTERLINE OF FANCHER CREEK; THENCE NORTHEASTERLY AND EASTERLY ALONG THE CENTERLINE OF SAID FANCHER CREEK, THE FOLLOWING COURSES:

Mail Tax Statements To: **SAME AS ABOVE**

NORTH 39 DEGREES 54' 53" EAST, A DISTANCE OF 164.04 FEET; THENCE NORTH 46 DEGREES 52' 25" EAST, A DISTANCE OF 73.35 FEET; THENCE NORTH 66 DEGREES 07' 41" EAST, A DISTANCE OF 65.14 FEET; THENCE NORTH 71 DEGREES 48' 11" EAST, A DISTANCE OF 120.38 FEET; THENCE NORTH 63 DEGREES 44' 29" EAST, A DISTANCE OF 53.68 FEET; THENCE NORTH 42 DEGREES 19' 05" EAST, A DISTANCE OF 114.03 FEET; THENCE NORTH 53 DEGREES 49' 56" EAST, A DISTANCE OF 117.03 FEET; THENCE NORTH 60 DEGREES 01' 57" EAST, A DISTANCE OF 173.07 FEET; THENCE NORTH 57 DEGREES 26' 36" EAST, A DISTANCE OF 43.07 FEET; THENCE NORTH 54 DEGREES 47' 14" EAST, A DISTANCE OF 68.54 FEET; THENCE NORTH 55 DEGREES 51' 50" EAST, A DISTANCE OF 52.96 FEET; THENCE NORTH 86 DEGREES 31' 46" EAST, A DISTANCE OF 39.65 FEET; THENCE SOUTH 68 DEGREES 31' 47" EAST, A DISTANCE OF 44.11 FEET; THENCE SOUTH 59 DEGREES 47' 48" EAST, A DISTANCE OF 14.10 FEET; THENCE SOUTH 00 DEGREES 48' 25" EAST, LEAVING THE CENTERLINE OF SAID FANCHER CREEK, A DISTANCE OF 933.06 FEET TO A POINT ON THE SOUTH LINE OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 17; THENCE NORTH 89 DEGREES 11' 33" WEST, ALONG THE SOUTH LINE OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 17, A DISTANCE OF 934.55 FEET TO THE TRUE POINT OF BEGINNING.

EXCEPTING THEREFROM FROM A PORTION OF THE ABOVE DESCRIBED PARCEL AN UNDIVIDED ONE-HALF INTEREST IN ALL OIL, GAS AND/OR MINERALS, AS RESERVED BY WILLIAM BURNS, A SINGLE MAN, ROBERT J. BURNS AND BETTY S. BURNS, HIS WIFE, AND MARRY ANN RALSTON AND HOWARD J. RALSTON, ALSO KNOWN AS HOWARD RALSTON, HER HUSBAND AND VERA M. BURNS, A WIDOW, IN DEED RECORDED JULY 28, 1952 IN BOOK 3192, PAGE 475 OF OFFICIAL RECORDS.

ALSO EXCEPTING FROM A PORTION OF THE ABOVE DESCRIBED PARCEL AN UNDIVIDED ONE-FOURTH INTEREST IN ALL OIL, GAS AND/OR MINERALS IN AND UNDER SAID LAND, AS RESERVED IN DEED RECORDED JANUARY 8, 1959 IN BOOK 4159, PAGE 552 OF OFFICIAL RECORDS.

NOTE: BY QUITCLAIM DEED DATED DECEMBER 5, 1978 AND RECORDED JANUARY 23, 1979 AS INSTRUMENT NO. 8754 IN BOOK 7204 906, OFFICIAL RECORDS, TRANSAMERICA DEVELOPMENT COMPANY FORMERLY CAPITAL COMPANY, REMISED, RELEASED AND QUITCLAIMED TO SUPERIOR FARMING COMPANY ALL SURFACE RIGHTS TO THE PARCEL OR PARCELS OF LAND THEREIN DESCRIBED FROM A DISTANCE OF NOT MORE THAN 500 FEET IN DEPTH. REFERENCE IS MADE TO THE RECORD FOR FULL PARTICULARS.

ALSO EXCEPTING THEREFROM FROM THE ABOVE DESCRIBED PARCEL AN UNDIVIDED ONE-HALF INTEREST IN AND TO ANY AND ALL OIL, GAS, OR OTHER HYDROCARBON SUBSTANCES IN OR UNDER SAID LAND, AS RESERVED BY MARY ANDERSON, ET AL, IN DEED RECORDED MARCH 13, 1951 IN BOOK 2984, PAGE 388 OF OFFICIAL RECORDS.

Dated: **01/23/2006**

DENNIS G. BENNETT, AS TRUSTEE

STATE OF California)SS
COUNTY OF San Joaquin)

On January 24 2006, before me, Marianne Henderson, Notary Public, personally appeared Dennis L. Bennett, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

MARIANNE HENDERSON
Commission # 1577182
Notary Public - California
San Joaquin County
My Comm. Expires May 8, 2009

Signature Marianne Henderson

My Commission Expires: May 8 2009

This area for official notarial seal

Notary Name: Marianne Henderson
Notary Phone: 209 365 2439
Notary Registration Number: 15577182
County of Principal Place of Business: San Joaquin

3

RECORDING REQUESTED BY
First American Title Company

AND WHEN RECORDED MAIL TO:
GMK OLIVE LANE PROPERTIES, LLC - ATTN:
Ken Tersini
c/o 21710 Stevens Creek Blvd., Ste. 200
Cupertino, CA 94566

FRESNO County Recorder
Robert C. Werner
DOC- 2006-0136932
Acct 5-First American Title Insurance Company
Friday, JUN 30, 2006 08:00:00
Ttl Pd $15.00 Nbr-0002224445
APR/R1/1-3

Space Above This Line for Recorder's Use Only

A.P.N.: 481-020-60 File No.: 0131-614451ala (MC)

CORRECTION GRANT DEED

THIS GRANT DEED IS A CORRECTION DEED TO CORRECT THE LEGAL DESCRIPTION OF THAT CERTAIN GRANT DEED BETWEEN DENNIS G. BENNETT, AS TRUSTEE OF THE DENNIS G. BENNETT FAMILY TRUST TO GMK OLIVE LANE PROPERTIES, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY RECORDED JANUARY 27, 2006 IN SERIES NO. 2006-0018905, FRESNO COUNTY RECORDS.

The Undersigned Grantor(s) Declare(s): DOCUMENTARY TRANSFER TAX **$previously paid by 2006-0018905**; CITY TRANSFER TAX **$0.00**; SURVEY MONUMENT FEE $

[ ] computed on the consideration or full value of property conveyed, OR
[ ] computed on the consideration or full value less value of liens and/or encumbrances remaining at time of sale,
[ ] unincorporated area; [**XX**] City of **Fresno**, and
[**XX**] Exempt from transfer tax; Reason: **THIS IS A CORRECTION DEED ONLY TO CORRECT THE LEGAL DESCRIPTION OF THE SUBJECT PROPERTY**

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,
DENNIS G. BENNETT, AS TRUSTEE OF THE DENNIS G. BENNETT FAMILY TRUST

hereby GRANT(s) to **GMK OLIVE LANE PROPERTIES, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY**

the following described property in the City of **Fresno**, County of **Fresno**, State of **California**:

PARCEL C AS SHOWN LOT LINE ADJUSTMENT NO. 2005-23 AS EVIDENCED BY DOCUMENT RECORDED AUGUST 19, 2005 AS INSTRUMENT NO. 05-193439 OF OFFICIAL RECORDS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THAT CERTAIN REAL PROPERTY SITUATED AND LYING IN THE NORTHWEST QUARTER OF SECTION 17, TOWNSHIP 14 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN, COUNTY OF FRESNO, STATE OF CALIFORNIA, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTH LINE OF SAID NORTHWEST QUARTER, NORTH 89°11'33" EAST, A DISTANCE OF 162.18 FEET FROM THE WEST QUARTER CORNER OF SAID SECTION 17; THENCE NORTH 01°29'36" WEST, ALONG THE SOUTHERLY PROLONGATION OF THE EAST LINE AND ALONG THE EAST LINE OF THAT CERTAIN PARCEL OF LAND DEEDED TO THE CITY OF FRESNO AUGUST 10, 1993 AS PER INSTRUMENT NO. 93-120205, OFFICIAL RECORDS OF FRESNO COUNTY, A DISTANCE OF 371.19 FEET TO A POINT ON THE CENTERLINE OF FANCHER CREEK; THENCE NORTHEASTERLY AND EASTERLY ALONG THE CENTERLINE OF SAID FANCHER CREEK THE FOLLOWING COURSES:

Mail Tax Statements To: **SAME AS ABOVE**

NORTH 39°54'53" EAST, A DISTANCE OF 164.04 FEET;THENCE
NORTH 46°52'25" EAST, A DISTANCE OF 73.35 FEET; THENCE
NORTH 66°07'41" EAST, A DISTANCE OF 65.14 FEET; THENCE
NORTH 71°48'11" EAST, A DISTANCE OF 120.38 FEET; THENCE
NORTH 63°44'29" EAST, A DISTANCE OF 53.68 FEET; THENCE
NORTH 42°19'05" EAST, A DISTANCE OF 114.03 FEET; THENCE
NORTH 53°49'56" EAST, A DISTANCE OF 117.03 FEET; THENCE
NORTH 60°01'57" EAST, A DISTANCE OF 173.07 FEET; THENCE
NORTH 57°26'36" EAST, A DISTANCE OF 43.07 FEET; THENCE
NORTH 54°47' 14" EAST, A DISTANCE OF 68.54 FEET; THENCE
NORTH 55°51'50" EAST, A DISTANCE OF 25.58 FEET; THENCE,
SOUTH 00°11'54" EAST, LEAVING THE CENTERLINE OF FANCHER CREEK, A DISTANCE OF 940.15 FEET TO THE INTERSECTION WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER; THENCE SOUTH 89°11'33" WEST, ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 820.09 FEET TO THE POINT OF BEGINNING.

CONTAINING 12.908 ACRES, MORE OR LESS.

Dated: **06/27/2006**

2

DENNIS G. BENNETT, AS TRUSTEE

STATE OF California)SS
COUNTY OF San Joaquin)

On June 26, 2006, before me, Marianne Henderson, Notary Public, personally appeared Dennis G. Bennett, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

MARIANNE HENDERSON
Commission # 1577182
Notary Public - California
San Joaquin County
My Comm. Expires May 8, 2009

Signature Marianne Henderson

My Commission Expires: May 8 2009

This area for official notarial seal

Notary Name: Marianne Henderson

Notary Phone: (209) 365-2439

Notary Registration Number: 1577182

County of Principal Place of Business: San Joaquin

Appendix C

Phase I ESA User Questionnaire
Vacant Property Olive Lane
E Church and S Peach Avenues
Fresno, California 93725

Respondent Information:

Name: Mr. Quinn Tedford Organization: Century Communities
Date: 7/8/2021 Phone: 559-544-5798

Introduction

"In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfield Revitalization Act of 2001 (the 'Brownfields Amendments'), the user must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that 'all appropriate inquiry' is not completed"- American Society for Testing and Materials (ASTM) E1527-13 Appendix X3: User Questionnaire

1. Are you aware of any environmental cleanup liens against the subject site that are filed or recorded under federal, tribal, state, or local law?
No

2. Are you aware of any activity use limitations (AULs) such as engineering controls, land use restrictions, or institutional controls that are in place at the subject site and/or have been filed or recorded in a registry under federal, tribal, state, or local law?
No

3. As the user of the Phase I Environmental Site Assessment (ESA), do you have any specialized knowledge or experience related to the subject site or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the subject site or an adjacent property so that you would have specialized knowledge of the chemicals and processes used by this type of business?
No

4. Does the purchase price being paid for the subject site reasonably reflect the fair market value of the subject site? Yes No

A. If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the subject site?

5. Are you aware of commonly known or reasonably ascertainable information about the subject site that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example:

A. Do you know the past uses of the subject site? If so, briefly explain.
No_____
_____
_____
_____

B. Do you know of specific chemicals that are present or once were present at the subject site? If so, briefly explain.
No_____
_____
_____
_____

C. Do you know of spills or other chemical releases that have taken place at the subject site? If so, briefly explain.
No_____
_____
_____
_____

D. Do you know of any environmental cleanups that have taken place at the subject site? If so, briefly explain.
No_____
_____
_____
_____

6. As the user of the Phase I ESA, based on your knowledge and experience related to the subject site, are there any obvious indicators that point to the presence or likely presence of contamination at the subject site?
No_____
_____
_____
_____

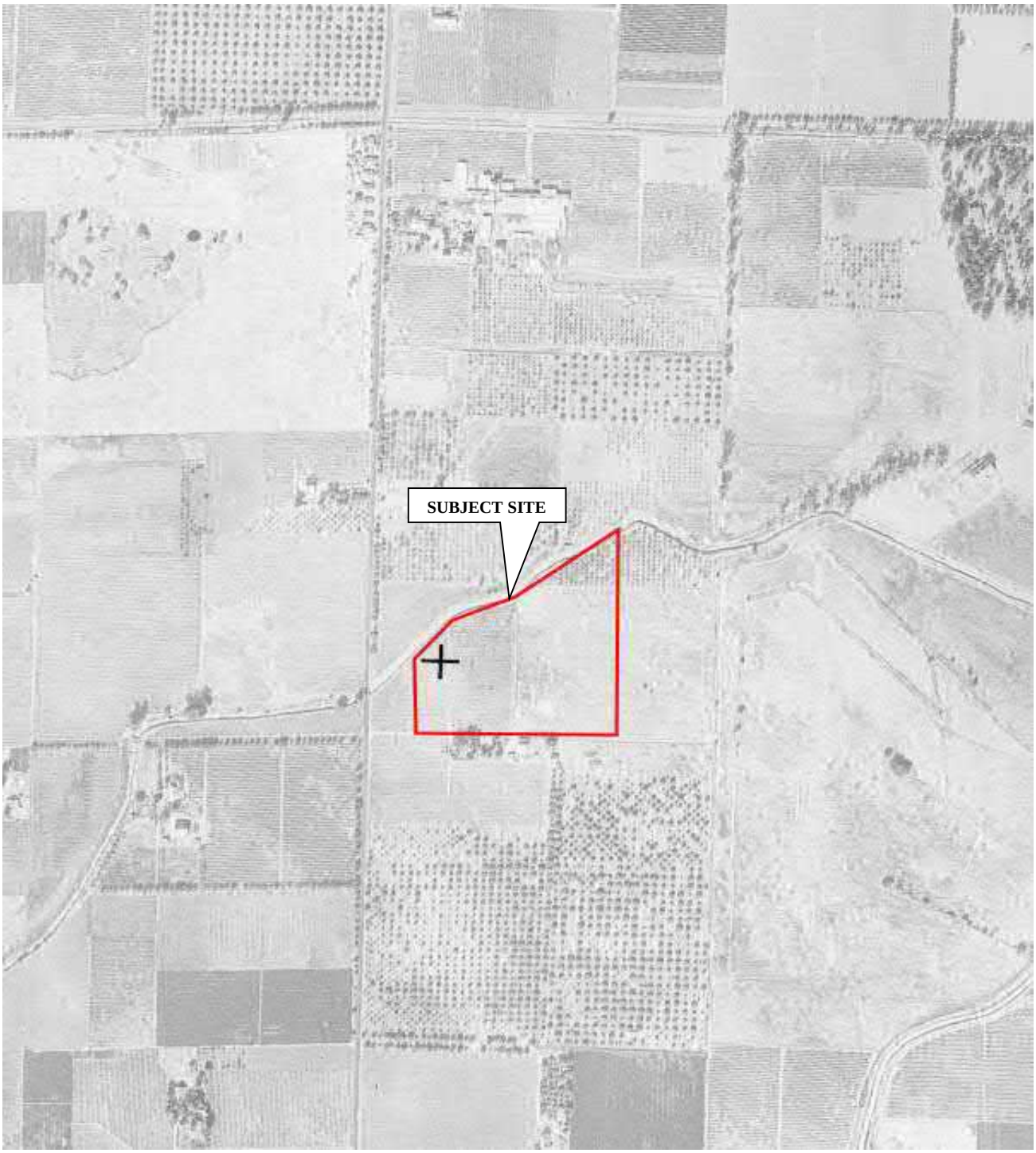
7. What is the reason for preparation of this Phase I ESA? (Property purchase/sale; bank loan; proposed development; etc.)
Purchase of property for residential development.
_____
_____

I, the user of this Phase I ESA (or authorized representative of the User), do hereby attest that I have carefully considered the questions herein and have presented answers to the best of my knowledge and ability based upon the Responsibilities of the User as required within ASTM E1527-13 guidance.

Name_Quinn Tedford_____ Date_7/8/2021_____
(Please Print)

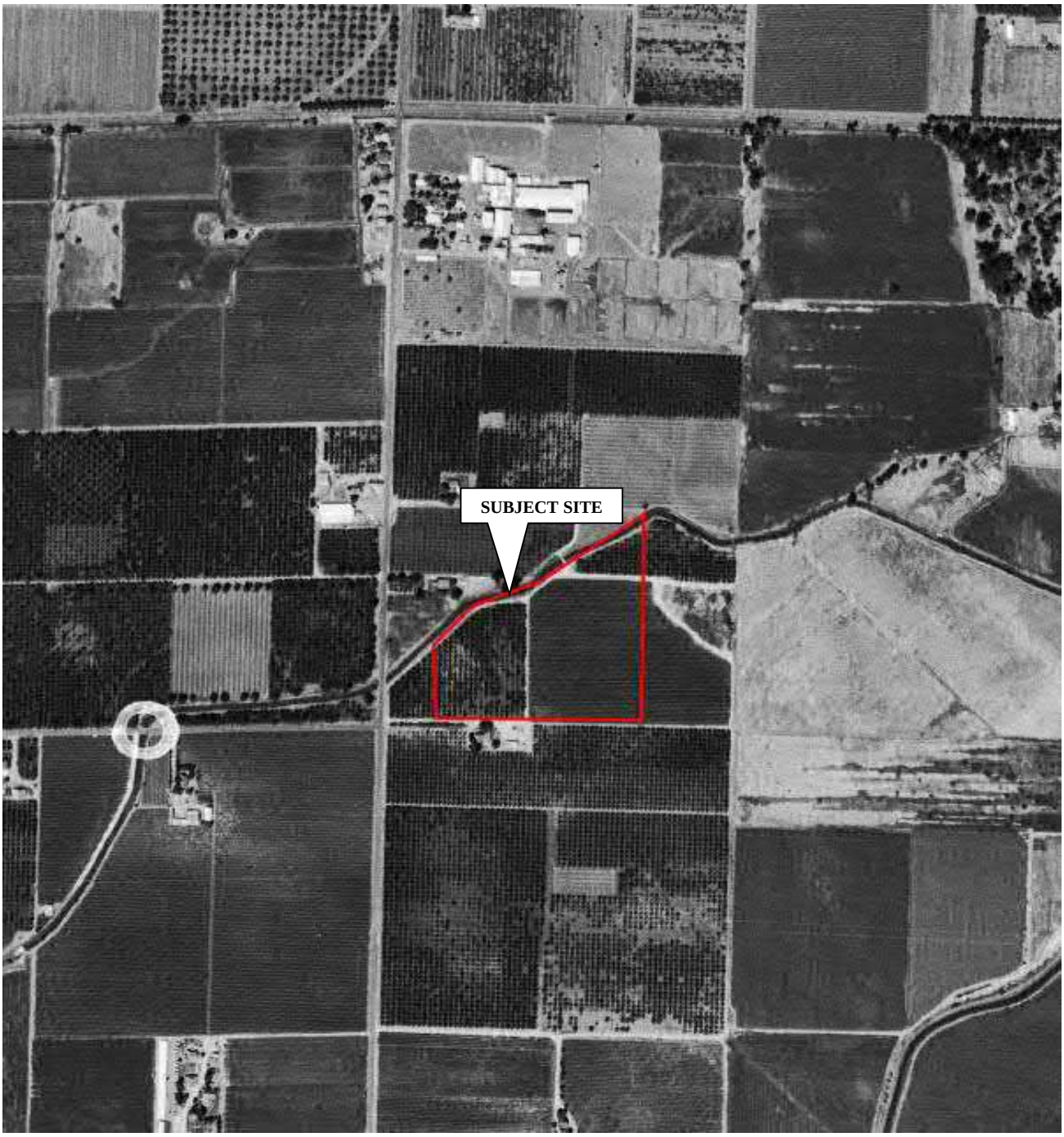
Signature_____

Appendix D



1937 AERIAL PHOTOGRAPH	Scale: 1" = 680’	Date: July 2021	Krazan
VACANT PROPERTY OLIVE LANE NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES FRESNO, CALIFORNIA 93725	Drawn By: KS	Approved by: KS	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western United States*
	Project No. 014-21107	Source: EDR	

1950 AERIAL PHOTOGRAPH	Scale: 1" = 680'	Date: July 2021	Krazan
VACANT PROPERTY OLIVE LANE NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES FRESNO, CALIFORNIA 93725	Drawn By: KS	Approved by: KS	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western United States*
	Project No. 014-21107	Source: EDR	



1962 AERIAL PHOTOGRAPH	Scale: 1" = 680'	Date: July 2021	Krazan
VACANT PROPERTY OLIVE LANE NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES FRESNO, CALIFORNIA 93725	Drawn By: KS	Approved by: KS	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western United States*
	Project No. 014-21107	Source: EDR	

1973 AERIAL PHOTOGRAPH	Scale: 1" = 680’	Date: July 2021	Krazan
VACANT PROPERTY OLIVE LANE NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES FRESNO, CALIFORNIA 93725	Drawn By: KS	Approved by: KS	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western United States*
	Project No. 014-21107	Source: EDR	

1984 AERIAL PHOTOGRAPH	Scale: 1" = 680’	Date: July 2021	Krazan
VACANT PROPERTY OLIVE LANE NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES FRESNO, CALIFORNIA 93725	Drawn By: KS	Approved by: KS	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western United States*
	Project No. 014-21107	Source: EDR	

1998 AERIAL PHOTOGRAPH	Scale: 1" = 680’	Date: July 2021	Krazan
VACANT PROPERTY OLIVE LANE NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES FRESNO, CALIFORNIA 93725	Drawn By: KS	Approved by: KS	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western United States*
	Project No. 014-21107	Source: EDR	

2009 AERIAL PHOTOGRAPH	Scale: 1" = 700'	Date: July 2021	Krazan
VACANT PROPERTY OLIVE LANE NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES FRESNO, CALIFORNIA 93725	Drawn By: KS	Approved by: KS	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western United States*
	Project No. 014-21107	Source: EDR	

2020 AERIAL PHOTOGRAPH	Scale: 1" = 500'	Date: July 2021	Krazan
VACANT PROPERTY OLIVE LANE NORTHEAST OF SOUTH PEACH AND EAST CHURCH AVENUES FRESNO, CALIFORNIA 93725	Drawn By: KS	Approved by: KS	SITE DEVELOPMENT ENGINEERS *With Offices Serving the Western United States*
	Project No. 014-21107	Source: Google Earth	

Appendix E

Vacant Property Olive Lane

Peach & Church Avenues

Fresno, CA 93725

Inquiry Number: 6568877.3

July 08, 2021

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

07/08/21

Site Name:	Client Name:
Vacant Property Olive Lane	Krazan & Associates, Inc.
Peach & Church Avenues	215 West Dakota
Fresno, CA 93725	Clovis, CA 93612
EDR Inquiry # 6568877.3	Contact: Ken Sani

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Krazan & Associates, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # AA2D-4247-879E

PO # NA

Project 01421107

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: AA2D-4247-879E

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Krazan & Associates, Inc. (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Appendix F

Vacant Property Olive Lane
Peach & Church Avenues
Fresno, CA 93725

Inquiry Number: 6568877.2s
July 08, 2021

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

PEACH & CHURCH AVENUES
FRESNO, CA 93725

COORDINATES

Latitude (North):	36.7159640 - 36˚ 42' 57.47''
Longitude (West):	119.7164860 - 119˚ 42' 59.34''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	257369.7
UTM Y (Meters):	4066601.8
Elevation:	308 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5603192 MALAGA, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140619
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
PEACH & CHURCH AVENUES
FRESNO, CA 93725

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	CITY OF FRESNO WELL	2375 S PEACH AVE	CUPA Listings, CERS	Lower	401, 0.076, SW
A2	GRAE MOORVARTIAN	5142 E CHURCH	SWEEPS UST, CA FID UST	Lower	433, 0.082, WSW
A3	GRAE MOORVARTIAN	5142 E CHURCH	HIST UST	Lower	433, 0.082, WSW
4	CHURCH & ORANGEWOOD	SW CORNER OF E. CHUR	ENVIROSTOR, SCH	Higher	709, 0.134, SE
5	USDA AGRICULTURE RES	2221 S PEACH	CUPA Listings	Higher	1277, 0.242, NNW
6	PLANNED SOUTHEAST SC	SOUTHWEST CORNER OF	ENVIROSTOR, SCH	Lower	1348, 0.255, WSW
7	USDA ARS	2021 S PEACH AVE	SEMS-ARCHIVE, RCRA-SQG, DOCKET HWC	Higher	2415, 0.457, NNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ..... Federal Facility Site Information listing
SEMS ..... Superfund Enterprise Management System

Federal RCRA CORRACTS facilities list

CORRACTS ..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ..... RCRA - Large Quantity Generators
RCRA-SQG ..... RCRA - Small Quantity Generators
RCRA-VSQG ..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ..... Land Use Control Information System
US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROLS ..... Institutional Controls Sites List

Federal ERNS list

ERNS ..... Emergency Response Notification System

EXECUTIVE SUMMARY

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
UST..... Active UST Facilities
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing
VCP..... Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
ODI..... Open Dump Inventory
DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register
HIST Cal-Sites..... Historical Calsites Database
CDL..... Clandestine Drug Labs
Toxic Pits..... Toxic Pits Cleanup Act Sites
CERS HAZ WASTE..... CERS HAZ WASTE

EXECUTIVE SUMMARY

US CDL	National Clandestine Laboratory Register
PFAS	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

CERS TANKS	California Environmental Reporting System (CERS) Tanks

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File

EXECUTIVE SUMMARY

ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
DOCKET HWC	Hazardous Waste Compliance Docket Listing
ECHO	Enforcement & Compliance History Information
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HAZNET	Facility and Manifest Data
ICE	ICE
HIST CORTESE	Hazardous Waste & Substance Site List
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
UIC	UIC Listing
UIC GEO	UIC GEO (GEOTRACKER)
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List
MILITARY PRIV SITES	MILITARY PRIV SITES (GEOTRACKER)
PROJECT	PROJECT (GEOTRACKER)
WDR	Waste Discharge Requirements Listing
CIWQS	California Integrated Water Quality System
CERS	CERS
NON-CASE INFO	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)
MINES MRDS	Mineral Resources Data System
HWTS	Hazardous Waste Tracking System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List

EXECUTIVE SUMMARY

RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 04/27/2021 has revealed that there is 1 SEMS-ARCHIVE site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
USDA ARS Site ID: 0903879 EPA Id: CA7120090397	***2021 S PEACH AVE***	***NNW 1/4 - 1/2 (0.457 mi.)***	***7***	***19***

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk

characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/25/2021 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHURCH & ORANGEWOOD Facility Id: 60002701 Status: No Further Action	***SW CORNER OF E. CHUR***	***SE 1/8 - 1/4 (0.134 mi.)***	***4***	***12***

Lower Elevation	Address	Direction / Distance	Map ID	Page
PLANNED SOUTHEAST SC Facility Id: 60002297 Status: No Further Action	***SOUTHWEST CORNER OF***	***WSW 1/4 - 1/2 (0.255 mi.)***	***6***	***15***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

SCH: This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category. depending on the level of threat to public health and safety or the. environment they pose.

A review of the SCH list, as provided by EDR, and dated 01/25/2021 has revealed that there is 1 SCH site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHURCH & ORANGEWOOD Facility Id: 60002701 Status: No Further Action	***SW CORNER OF E. CHUR***	***SE 1/8 - 1/4 (0.134 mi.)***	***4***	***12***

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GRAE MOORVARTIAN Status: A Tank Status: A Comp Number: 48387	***5142 E CHURCH***	***WSW 0 - 1/8 (0.082 mi.)***	***A2***	***11***

EXECUTIVE SUMMARY

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GRAE MOORVARTIAN Facility Id: 00000048387	5142 E CHURCH	WSW 0 - 1/8 (0.082 mi.)	A3	11

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
GRAE MOORVARTIAN Facility Id: 10007597 Status: A	***5142 E CHURCH***	***WSW 0 - 1/8 (0.082 mi.)***	***A2***	***11***

Other Ascertainable Records

CUPA Listings: A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

A review of the CUPA Listings list, as provided by EDR, has revealed that there are 2 CUPA Listings sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
USDA AGRICULTURE RES Database: CUPA FRESNO, Date of Government Version: 01/14/2021 Facility Id: FA0170542	2221 S PEACH	NNW 1/8 - 1/4 (0.242 mi.)	5	15

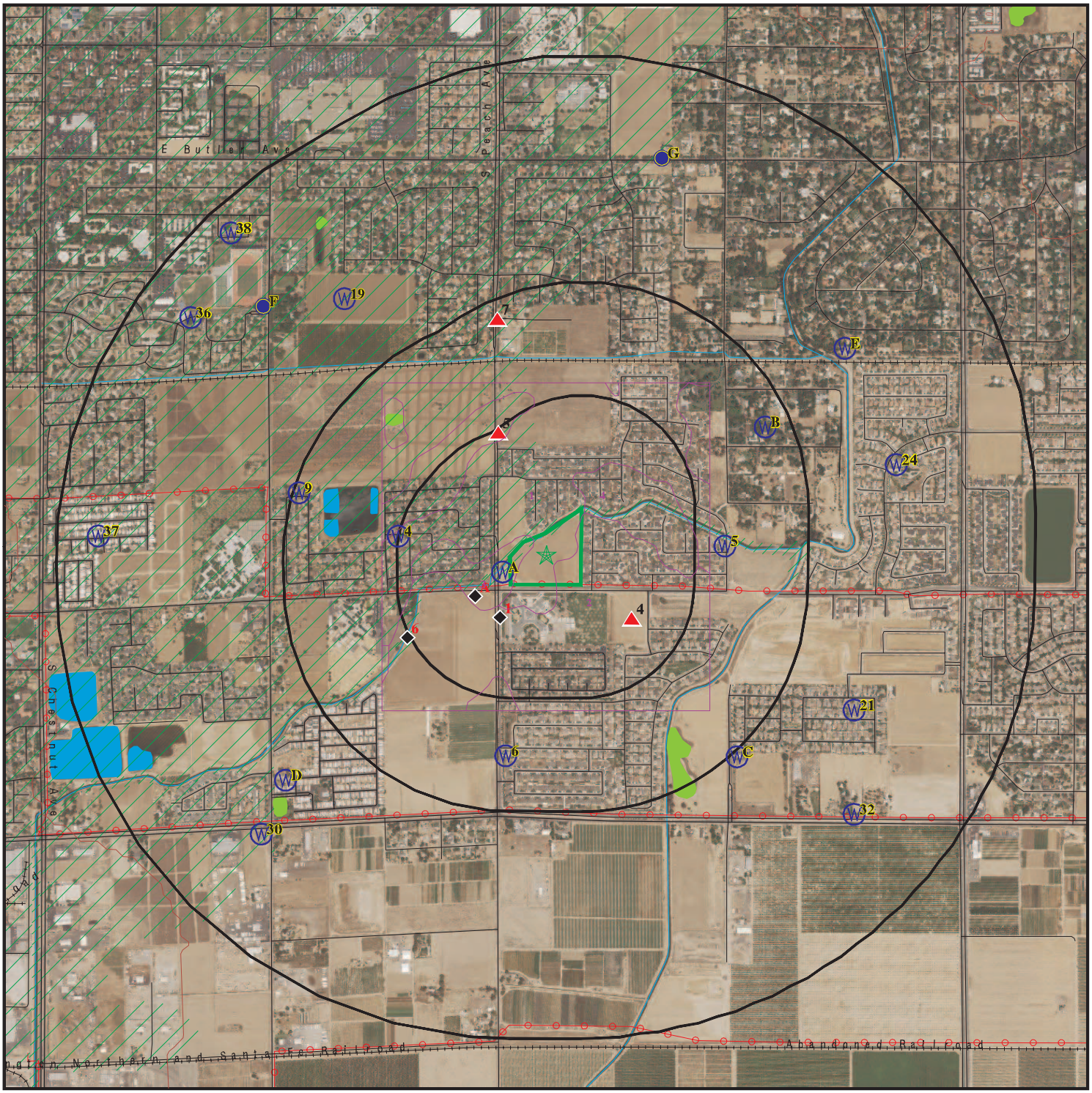
Lower Elevation	Address	Direction / Distance	Map ID	Page
CITY OF FRESNO WELL Database: CUPA FRESNO, Date of Government Version: 01/14/2021 Facility Id: FA0283405	***2375 S PEACH AVE***	***SW 0 - 1/8 (0.076 mi.)***	***1***	***9***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

Site Name	Database(s)
	CDL
PACIFIC GAS AND ELECTRIC - FRESNO	CA BOND EXP. PLAN
PROPOSED TEMPERANCE ELEMENTARY SCH	ENVIROSTOR, SCH

OVERVIEW MAP - 6568877.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

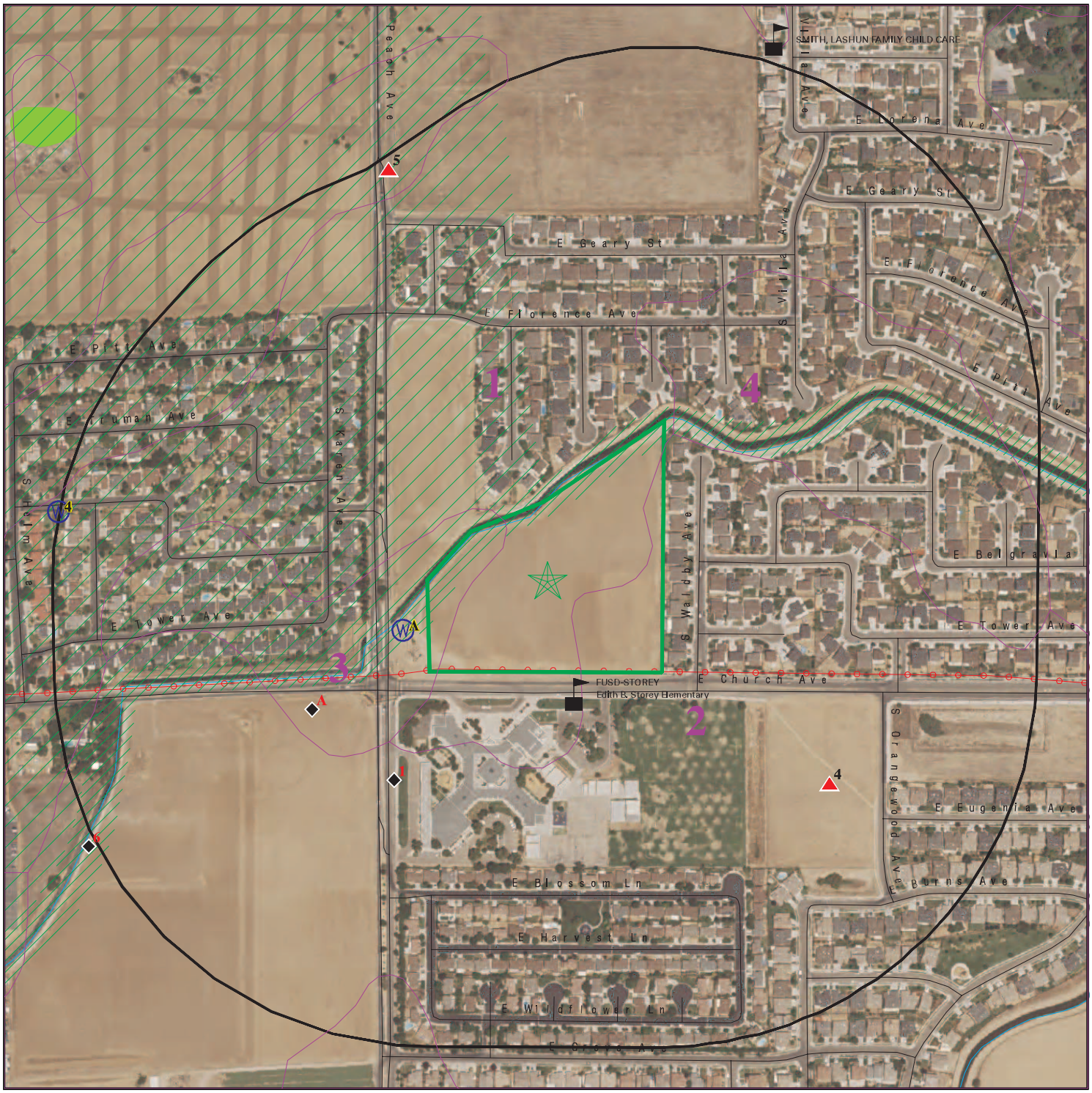
State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Vacant Property Olive Lane	CLIENT:	Krazan & Associates, Inc.
ADDRESS:	Peach & Church Avenues Fresno CA 93725	CONTACT:	Ken Sani
		INQUIRY #:	6568877.2s
LAT/LONG:	36.715964 / 119.716486	DATE:	July 08, 2021 4:12 pm

DETAIL MAP - 6568877.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Vacant Property Olive Lane	CLIENT:	Krazan & Associates, Inc.
ADDRESS:	Peach & Church Avenues Fresno CA 93725	CONTACT:	Ken Sani
		INQUIRY #:	6568877.2s
LAT/LONG:	36.715964 / 119.716486	DATE:	July 08, 2021 4:13 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	1	NR	NR	1
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	1	1	0	NR	2
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	1	NR	NR	NR	1
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		1	0	NR	NR	NR	1
HIST UST	0.250		1	0	NR	NR	NR	1
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		1	0	NR	NR	NR	1
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		1	1	NR	NR	NR	2

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
HWTS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	4	3	2	0	0	9

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1 SW < 1/8 0.076 mi. 401 ft. | **CITY OF FRESNO WELL 100-1 & 100-2**
2375 S PEACH AVE
FRESNO, CA 93725 | **CUPA Listings** **S116348192**
CERS **N/A**

Relative: Lower

Actual: 307 ft.

CUPA FRESNO:

Name:	CITY OF FRESNO WELL 100-1 & 100-2
Address:	2375 S PEACH AVE
City,State,Zip:	FRESNO, CA 93727
Region:	FRESNO
Cross Street:	CHURCH
Facility ID:	FA0283405
APM Number:	48102051ST
Program Element:	HAZARDOUS MATERIALS HANDLER - WELL SITE

CERS:

Name:	CITY OF FRESNO WELL 100-1 & 100-2
Address:	2375 S PEACH AVE
City,State,Zip:	FRESNO, CA 93725
Site ID:	418199
CERS ID:	10693201
CERS Description:	Chemical Storage Facilities

Coordinates:

Site ID:	418199
Facility Name:	CITY OF FRESNO WELL 100-1 & 100-2
Env Int Type Code:	HMBP
Program ID:	10693201
Coord Name:	Not reported
Ref Point Type Desc:	Entrance point of a facility or station
Latitude:	36.715554
Longitude:	-119.718130

Affiliation:

Affiliation Type Desc:	Document Preparer
Entity Name:	ROBERT LITTLE
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	CUPA District
Entity Name:	Fresno County Community Health Department
Entity Title:	Not reported
Affiliation Address:	1221 Fulton St., 3rd FloorP.O. Box 11867
Affiliation City:	Fresno
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93775
Affiliation Phone:	(559) 600-3271

Affiliation Type Desc:	Environmental Contact
Entity Name:	ROBERT LITTLE
Entity Title:	Not reported
Affiliation Address:	1910 E. UNIVERSITY AVE

CITY OF FRESNO WELL 100-1 & 100-2 (Continued) **S116348192**

Affiliation City:	FRESNO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93703
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	ROBERT LITTLE
Entity Title:	WATER SYSTEMS SUPERVISOR
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	1910 E. UNIVERSITY AVE
Affiliation City:	FRESNO
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	93703
Affiliation Phone:	Not reported

Affiliation Type Desc:	Legal Owner
Entity Name:	CITY OF FRESNO, WATER DIVISION
Entity Title:	Not reported
Affiliation Address:	1910 E. UNIVERSITY AVE
Affiliation City:	Fresno
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	93703
Affiliation Phone:	(559) 621-5300

Affiliation Type Desc:	Operator
Entity Name:	CITY OF FRESNO / DPU / WATER DIVISION
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(559) 621-5300

Affiliation Type Desc:	Parent Corporation
Entity Name:	City of Fresno Well Site Organization
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

A2 WSW < 1/8 0.082 mi. 433 ft. | **GRAE MOORVARTIAN 5142 E CHURCH FRESNO, CA 93725** | **SWEEPS UST CA FID UST** | **S101622311 N/A**

Site 1 of 2 in cluster A

Relative: Lower

Actual: 307 ft.

SWEEPS UST:

Name:	GRAE MOORVARTIAN
Address:	5142 E CHURCH
City:	FRESNO
Status:	Active
Comp Number:	48387
Number:	9
Board Of Equalization:	Not reported
Referral Date:	07-01-85
Action Date:	Not reported
Created Date:	02-29-88
Owner Tank Id:	1
SWRCB Tank Id:	10-000-048387-000001
Tank Status:	A
Capacity:	500
Active Date:	07-01-85
Tank Use:	M.V. FUEL
STG:	P
Content:	LEADED
Number Of Tanks:	1

CA FID UST:

Facility ID:	10007597
Regulated By:	UTNKA
Regulated ID:	00048387
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	0002554002
Mail To:	Not reported
Mailing Address:	5142 E CHURCH
Mailing Address 2:	Not reported
Mailing City,St,Zip:	FRESNO 93725
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

A3 WSW < 1/8 0.082 mi. 433 ft. | **GRAE MOORVARTIAN 5142 E CHURCH FRESNO, CA 93725** | **HIST UST** | **U001592554 N/A**

Site 2 of 2 in cluster A

Relative: Lower

Actual: 307 ft.

HIST UST:

Name:	GRAE MOORVARTIAN
Address:	5142 E CHURCH
City,State,Zip:	FRESNO, CA 93725
File Number:	00024325
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00024325.pdf
Region:	STATE

GRAE MOORVARTIAN (Continued) **U001592554**

Facility ID:	00000048387
Facility Type:	Other
Other Type:	FARM
Contact Name:	Not reported
Telephone:	2554002
Owner Name:	GRACE MOORVARTIAN
Owner Address:	5142 E. CHURCH
Owner City,St,Zip:	FRESNO, CA 93725
Total Tanks:	0001
Tank Num:	001
Container Num:	1
Year Installed:	Not reported
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

---

4 SE 1/8-1/4 0.134 mi. 709 ft. | **CHURCH & ORANGEWOOD PROPOSED SCHOOL SITE** | **ENVIROSTOR SCH** | **S123133182 N/A**
SW CORNER OF E. CHURCH AVE. AND S. ORANGEWOOD DR.
FRESNO, CA 93725

Relative: Higher

Actual: 308 ft.

ENVIROSTOR:

Name:	CHURCH & ORANGEWOOD PROPOSED SCHOOL SITE
Address:	SW CORNER OF E. CHURCH AVE. AND S. ORANGEWOOD DR.
City,State,Zip:	FRESNO, CA 93725
Facility ID:	60002701
Status:	No Further Action
Status Date:	07/22/2019
Site Code:	104792
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	5
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Elizabeth Tisdale
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Assembly:	, 31
Senate:	, 08
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	36.71395
Longitude:	-119.7131
APN:	48130034ST, 48130035ST
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	48130034ST

CHURCH & ORANGEWOOD PROPOSED SCHOOL SITE (Continued) **S123133182**

Alias Type: APN
Alias Name: 48130035ST
Alias Type: APN
Alias Name: 104792
Alias Type: Project Code (Site Code)
Alias Name: 60002701
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement Application
Completed Date: 08/03/2018
Comments: On August 3, 2018, the District submitted an EOP Application via email.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 10/03/2018
Comments: On October 3, 2018, DTSC approved the PEA Workplan as final.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 10/23/2018
Comments: Fieldwork was conducted on 23 October 2018.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 09/18/2018
Comments: Fully executed EOA sent to District via regular mail on 09/18/18.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/22/2018
Comments: On August 22, 2018, the PEA scoping meeting was held.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/17/2019
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

CHURCH & ORANGEWOOD PROPOSED SCHOOL SITE (Continued) **S123133182**

Name:	CHURCH & ORANGEWOOD PROPOSED SCHOOL SITE
Address:	SW CORNER OF E. CHURCH AVE. AND S. ORANGEWOOD DR.
City,State,Zip:	FRESNO, CA 93725
Facility ID:	60002701
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	5
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Elizabeth Tisdale
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Site Code:	104792
Assembly:	, 31
Senate:	, 08
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	07/22/2019
Restricted Use:	NO
Funding:	School District
Latitude:	36.71395
Longitude:	-119.7131
APN:	48130034ST, 48130035ST
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	48130034ST
Alias Type:	APN
Alias Name:	48130035ST
Alias Type:	APN
Alias Name:	104792
Alias Type:	Project Code (Site Code)
Alias Name:	60002701
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement Application
Completed Date:	08/03/2018
Comments:	On August 3, 2018, the District submitted an EOP Application via email.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	10/03/2018
Comments:	On October 3, 2018, DTSC approved the PEA Workplan as final.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork
Completed Date:	10/23/2018
Comments:	Fieldwork was conducted on 23 October 2018.

CHURCH & ORANGEWOOD PROPOSED SCHOOL SITE (Continued) **S123133182**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 09/18/2018
Comments: Fully executed EOA sent to District via regular mail on 09/18/18.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 08/22/2018
Comments: On August 22, 2018, the PEA scoping meeting was held.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/17/2019
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

5
NNW
1/8-1/4
0.242 mi.
1277 ft.

USDA AGRICULTURE RESEARCH SERVICE
2221 S PEACH
FRESNO, CA 93727

CUPA Listings **S106176714**
N/A

Relative:
Higher

Actual:
308 ft.

CUPA FRESNO:
Name: USDA AGRICULTURE RESEARCH SERVICE
Address: 2221 S PEACH
City,State,Zip: FRESNO, CA 93727
Region: FRESNO
Cross Street: Not reported
Facility ID: FA0170542
APM Number: Not reported
Program Element: UST REMOVAL/CLOSURE W/1 TANK

6
WSW
1/4-1/2
0.255 mi.
1348 ft.

PLANNED SOUTHEAST SCHOOL SITE
SOUTHWEST CORNER OF E. CHURCH & S. PEACH AVENUES
FRESNO, CA 93725

ENVIROSTOR SCH **S118466279**
N/A

Relative:
Lower

Actual:
304 ft.

ENVIROSTOR:
Name: PLANNED SOUTHEAST SCHOOL SITE
Address: SOUTHWEST CORNER OF E. CHURCH & S. PEACH AVENUES
City,State,Zip: FRESNO, CA 93725
Facility ID: 60002297
Status: No Further Action

PLANNED SOUTHEAST SCHOOL SITE (Continued) **S118466279**

Status Date:	07/19/2016
Site Code:	104750
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	51.48
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Jose Luevano
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Assembly:	, 31
Senate:	, 08
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	36.71338
Longitude:	-119.7220
APN:	481-090-16, 481-090-18, 481-090-23, 481-090-27, 481-090-28, 48109016, 48109018, 48109023ST, 48109027, 48109028
Past Use:	ABOVE GROUND STORAGE TANKS, AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS, RESIDENTIAL AREA, SCHOOL - ELEMENTARY, UNDERGROUND STORAGE TANKS
Potential COC:	Arsenic Chlordane DDD DDE DDT Lead Polychlorinated biphenyls (PCBs
Confirmed COC:	30001-NO 30004-NO 30006-NO 30007-NO 30008-NO 30013-NO 30018-NO No Contaminants found
Potential Description:	SOIL
Alias Name:	Planned School Site
Alias Type:	Alternate Name
Alias Name:	481-090-16
Alias Type:	APN
Alias Name:	481-090-18
Alias Type:	APN
Alias Name:	481-090-23
Alias Type:	APN
Alias Name:	481-090-27
Alias Type:	APN
Alias Name:	481-090-28
Alias Type:	APN
Alias Name:	48109016
Alias Type:	APN
Alias Name:	48109018
Alias Type:	APN
Alias Name:	48109023ST
Alias Type:	APN
Alias Name:	48109027
Alias Type:	APN
Alias Name:	48109028
Alias Type:	APN
Alias Name:	104750
Alias Type:	Project Code (Site Code)
Alias Name:	60002297
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

PLANNED SOUTHEAST SCHOOL SITE (Continued) **S118466279**

Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/16/2016
Comments:	EOA fully executed on Feb 16, 2016.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	09/18/2017
Comments:	Closeout Form 1554 submitted on 6/9/17 and processed by CRBU on 9/18/17; closeout complete.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	03/30/2016
Comments:	On Mar 30, 2016, DTSC approved the PEA Workplan for implementation. Fieldwork is scheduled for the week of April 11, 2016.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	07/19/2016
Comments:	On Jul 18, 2016, DTSC concurred with the recommendation of the PEA Report and issued a 'No Further Action' determination for the site.

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	PLANNED SOUTHEAST SCHOOL SITE
Address:	SOUTHWEST CORNER OF E. CHURCH & S. PEACH AVENUES
City,State,Zip:	FRESNO, CA 93725
Facility ID:	60002297
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	51.48
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Jose Luevano
Supervisor:	Jose Salcedo
Division Branch:	Northern California Schools & Santa Susana
Site Code:	104750
Assembly:	, 31
Senate:	, 08
Special Program Status:	Not reported
Status:	No Further Action

PLANNED SOUTHEAST SCHOOL SITE (Continued) **S118466279**

Status Date:	07/19/2016
Restricted Use:	NO
Funding:	School District
Latitude:	36.71338
Longitude:	-119.7220
APN:	481-090-16, 481-090-18, 481-090-23, 481-090-27, 481-090-28, 48109016, 48109018, 48109023ST, 48109027, 48109028
Past Use:	ABOVE GROUND STORAGE TANKS, AGRICULTURAL - ORCHARD, AGRICULTURAL - ROW CROPS, RESIDENTIAL AREA, SCHOOL - ELEMENTARY, UNDERGROUND STORAGE TANKS
Potential COC:	Arsenic, Arsenic, Chlordane, DDD, DDE, DDT, Lead, Polychlorinated biphenyls (PCBs
Confirmed COC:	30001-NO, 30004-NO, 30006-NO, 30007-NO, 30008-NO, 30013-NO, 30018-NO, No Contaminants found
Potential Description:	SOIL
Alias Name:	Planned School Site
Alias Type:	Alternate Name
Alias Name:	481-090-16
Alias Type:	APN
Alias Name:	481-090-18
Alias Type:	APN
Alias Name:	481-090-23
Alias Type:	APN
Alias Name:	481-090-27
Alias Type:	APN
Alias Name:	481-090-28
Alias Type:	APN
Alias Name:	48109016
Alias Type:	APN
Alias Name:	48109018
Alias Type:	APN
Alias Name:	48109023ST
Alias Type:	APN
Alias Name:	48109027
Alias Type:	APN
Alias Name:	48109028
Alias Type:	APN
Alias Name:	104750
Alias Type:	Project Code (Site Code)
Alias Name:	60002297
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/16/2016
Comments:	EOA fully executed on Feb 16, 2016.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	09/18/2017
Comments:	Closeout Form 1554 submitted on 6/9/17 and processed by CRBU on 9/18/17; closeout complete.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

PLANNED SOUTHEAST SCHOOL SITE (Continued) **S118466279**

Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	03/30/2016
Comments:	On Mar 30, 2016, DTSC approved the PEA Workplan for implementation. Fieldwork is scheduled for the week of April 11, 2016.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	07/19/2016
Comments:	On Jul 18, 2016, DTSC concurred with the recommendation of the PEA Report and issued a 'No Further Action' determination for the site.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

7
NNW
1/4-1/2
0.457 mi.
2415 ft.

USDA ARS
2021 S PEACH AVE
FRESNO, CA 93727

SEMS-ARCHIVE **1015732585**
RCRA-SQG **CA7120090397**
DOCKET HWC

Relative:
Higher

Actual:
310 ft.

SEMS Archive:

Site ID:	0903879
EPA ID:	CA7120090397
Name:	USDA, ARS
Address:	2021 SOUTH PEACH AVENUE
Address 2:	Not reported
City,State,Zip:	FRESNO, CA 93727
Cong District:	15
FIPS Code:	06019
FF:	Y
NPL:	Not on the NPL
Non NPL Status:	NFRAP-Site does not qualify for the NPL based on existing information

SEMS Archive Detail:

Region:	09
Site ID:	0903879
EPA ID:	CA7120090397
Site Name:	USDA, ARS
NPL:	N
FF:	Y
OU:	00
Action Code:	VS
Action Name:	ARCH SITE
SEQ:	1
Start Date:	Not reported
Finish Date:	1998-10-23 04:00:00
Qual:	Not reported
Current Action Lead:	EPA Perf In-Hse
Region:	09

USDA ARS (Continued) **1015732585**

Site ID: 0903879
EPA ID: CA7120090397
Site Name: USDA, ARS
NPL: N
FF: Y
OU: 00
Action Code: RX
Action Name: FF PA
SEQ: 1
Start Date: Not reported
Finish Date: 1998-10-23 04:00:00
Qual: N
Current Action Lead: EPA Perf

Region: 09
Site ID: 0903879
EPA ID: CA7120090397
Site Name: USDA, ARS
NPL: N
FF: Y
OU: 00
Action Code: PA
Action Name: PA
SEQ: 1
Start Date: Not reported
Finish Date: 1992-09-08 04:00:00
Qual: H
Current Action Lead: Fed Fac

Region: 09
Site ID: 0903879
EPA ID: CA7120090397
Site Name: USDA, ARS
NPL: N
FF: Y
OU: 00
Action Code: DS
Action Name: DISCVRY
SEQ: 1
Start Date: 1991-04-26 04:00:00
Finish Date: 1991-04-26 04:00:00
Qual: Not reported
Current Action Lead: Fed Fac

RCRA-SQG:
Date Form Received by Agency: 1987-07-01 00:00:00.0
Handler Name: USDA ARS
Handler Address: 2021 S PEACH AVE
Handler City,State,Zip: FRESNO, CA 93727
EPA ID: CA7120090397
Contact Name: ENVIRONMENTAL MANAGER
Contact Address: 2021 S PEACH AVE
Contact City,State,Zip: FRESNO, CA 93727
Contact Telephone: 209-487-5351
Contact Fax: Not reported
Contact Email: Not reported

USDA ARS (Continued) **1015732585**

Contact Title:	Not reported
EPA Region:	09
Land Type:	Not reported
Federal Waste Generator Description:	Small Quantity Generator
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	CA
State District:	5
Mailing Address:	S PEACH AVE
Mailing City,State,Zip:	FRESNO, CA 93727
Owner Name:	UNITED STATES OF AMERICA
Owner Type:	Private
Operator Name:	NOT REQUIRED
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported

USDA ARS (Continued) **1015732585**

Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2000-09-15 17:31:34.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	NOT REQUIRED
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	NOT REQUIRED
Owner/Operator City,State,Zip:	NOT REQUIRED, ME 99999
Owner/Operator Telephone:	415-555-1212
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	UNITED STATES OF AMERICA
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	NOT REQUIRED
Owner/Operator City,State,Zip:	NOT REQUIRED, ME 99999
Owner/Operator Telephone:	415-555-1212
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	1987-07-01 00:00:00.0
Handler Name: USDA ARS	
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	CA
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

USDA ARS (Continued) **1015732585**

List of NAICS Codes and Descriptions:
NAICS Codes: No NAICS Codes Found

Facility Has Received Notices of Violations:
Violations: No Violations Found

Evaluation Action Summary:
Evaluations: No Evaluations Found

DOCKET HWC:

Agency:	AGRICULTURE
Facility ID:	CA7120090397
Name:	FRESNO HORTICULTURAL FIELD STATION.
Address:	2021 SOUTH PEACH AVE
City,State,Zip:	FRESNO, CA 93727
Reporting Mechanism:	RCRA 3016
Status:	On MDL
Added Date:	11/16/1988

Count: 3 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
FRESNO	S105960401	PACIFIC GAS AND ELECTRIC - FRESNO	CALIFORNIA AND ORANGE AVENUES	93725	CA BOND EXP. PLAN
FRESNO	S112138493		PEACH AVE, 1/8 MILE S OF CENTR	93725	CDL
FRESNO	S126143205	PROPOSED TEMPERANCE ELEMENTARY SCH	WEST SIDE OF TEMPERANCE AVENUE	93727	ENVIROSTOR, SCH

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: N/A
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/30/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 06/23/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 39

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 02/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 02/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/24/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 85

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 05/03/2021
Number of Days to Update: 83

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/07/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/09/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/30/2020
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/02/2020
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Semi-Annually

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases

UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 03/05/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 04/01/2021
Number of Days to Update: 23

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

MILITARY UST SITES: Military UST Sites (GEOTRACKER)

Military ust sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/09/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/02/2020
Date Data Arrived at EDR: 12/18/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 84

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/12/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/07/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 86

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/30/2020
Date Data Arrived at EDR: 12/22/2020
Date Made Active in Reports: 03/12/2021
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 06/11/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: No Update Planned

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: No Update Planned

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/15/2021
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/22/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/22/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/13/2021
Number of Days to Update: 77

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 03/02/2021
Number of Days to Update: 83

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 02/24/2021
Date Data Arrived at EDR: 02/24/2021
Date Made Active in Reports: 05/14/2021
Number of Days to Update: 79

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing

Aboveground storage tank sites

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing
Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 77

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/24/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 85

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 04/04/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)
Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)
Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch
Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 47

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/05/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/07/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/17/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 01/20/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 60

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 01/22/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/05/2021
Number of Days to Update: 50

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: No Update Planned

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/11/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 61

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 70

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/07/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: No Update Planned

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 01/13/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 68

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 07/02/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 06/21/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/02/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Varies

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 04/28/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 16

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: No Update Planned

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: No Update Planned

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 05/27/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 14

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 07/01/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/24/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/23/2021
Date Data Arrived at EDR: 03/25/2021
Date Made Active in Reports: 06/17/2021
Number of Days to Update: 84

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/14/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 33

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/17/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/04/2021
Date Data Arrived at EDR: 04/06/2021
Date Made Active in Reports: 06/25/2021
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/01/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/07/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/17/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/22/2021
Date Data Arrived at EDR: 03/23/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 79

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing

list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/04/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 77

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Annually

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 02/26/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 02/23/2021
Date Data Arrived at EDR: 02/25/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 83

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 06/16/2020
Date Made Active in Reports: 08/28/2020
Number of Days to Update: 73

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/16/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 04/14/2021
Date Data Arrived at EDR: 04/15/2021
Date Made Active in Reports: 07/06/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 82

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

ICE: ICE
Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/16/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/07/2021
Number of Days to Update: 79

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/16/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/05/2021
Date Data Arrived at EDR: 04/06/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/01/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/08/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 05/04/2021
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 78

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/12/2021
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/01/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/14/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)

Military privatized sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)

Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 03/09/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 06/07/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 11/30/2020
Date Data Arrived at EDR: 12/01/2020
Date Made Active in Reports: 02/12/2021
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 05/19/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)

Produced water ponds sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)

Sampling point - public sites

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/30/2021
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 05/27/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/08/2021
Date Data Arrived at EDR: 04/09/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 11

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 06/30/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: No Update Planned

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 06/30/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: No Update Planned

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/30/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: No Update Planned

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank
The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 03/17/2021
Date Data Arrived at EDR: 03/18/2021
Date Made Active in Reports: 03/25/2021
Number of Days to Update: 7

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 06/15/2021
Date Data Arrived at EDR: 06/16/2021
Date Made Active in Reports: 07/02/2021
Number of Days to Update: 16

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 01/25/2021
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 80

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 04/20/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 12/17/2020
Date Data Arrived at EDR: 01/28/2021
Date Made Active in Reports: 04/16/2021
Number of Days to Update: 78

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/14/2021
Date Data Arrived at EDR: 01/15/2021
Date Made Active in Reports: 04/05/2021
Number of Days to Update: 80

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 06/23/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 05/20/2021
Number of Days to Update: 2

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/10/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/14/2021
Date Data Arrived at EDR: 04/15/2021
Date Made Active in Reports: 07/06/2021
Number of Days to Update: 82

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 10/29/2020
Date Data Arrived at EDR: 10/30/2020
Date Made Active in Reports: 01/15/2021
Number of Days to Update: 77

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 01/19/2021
Date Data Arrived at EDR: 01/21/2021
Date Made Active in Reports: 01/28/2021
Number of Days to Update: 7

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 02/10/2021
Date Data Arrived at EDR: 02/12/2021
Date Made Active in Reports: 03/11/2021
Number of Days to Update: 27

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/06/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 04/08/2021
Date Data Arrived at EDR: 04/13/2021
Date Made Active in Reports: 06/28/2021
Number of Days to Update: 76

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 06/29/2021
Next Scheduled EDR Contact: 10/18/2021
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/12/2021
Date Data Arrived at EDR: 04/13/2021
Date Made Active in Reports: 06/28/2021
Number of Days to Update: 76

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/13/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/06/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills

This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 04/16/2021
Date Made Active in Reports: 04/21/2021
Number of Days to Update: 5

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory

A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 06/28/2021
Number of Days to Update: 11

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory

A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 06/17/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 04/16/2021
Date Made Active in Reports: 07/06/2021
Number of Days to Update: 81

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/16/2021
Next Scheduled EDR Contact: 07/26/2021
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/06/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 09/11/2020
Date Data Arrived at EDR: 10/07/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 77

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/23/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: No Update Planned

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 03/24/2021
Date Data Arrived at EDR: 04/07/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 02/09/2021
Date Made Active in Reports: 02/18/2021
Number of Days to Update: 9

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 06/02/2021
Next Scheduled EDR Contact: 09/06/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/23/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 1

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 02/03/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 04/21/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 05/03/2021
Date Made Active in Reports: 05/12/2021
Number of Days to Update: 9

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/29/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/01/2021
Date Data Arrived at EDR: 02/02/2021
Date Made Active in Reports: 04/20/2021
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/26/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 55

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/10/2021
Number of Days to Update: 55

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/07/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 03/30/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/01/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 03/30/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/25/2021
Number of Days to Update: 85

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 06/23/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 04/29/2021
Date Made Active in Reports: 05/03/2021
Number of Days to Update: 4

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 05/19/2021
Date Data Arrived at EDR: 05/19/2021
Date Made Active in Reports: 06/07/2021
Number of Days to Update: 19

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/03/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/02/2021
Date Data Arrived at EDR: 03/03/2021
Date Made Active in Reports: 05/21/2021
Number of Days to Update: 79

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 05/28/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/08/2021
Next Scheduled EDR Contact: 09/27/2021
Data Release Frequency: No Update Planned

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/07/2021
Date Data Arrived at EDR: 05/11/2021
Date Made Active in Reports: 05/14/2021
Number of Days to Update: 3

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/06/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/10/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/02/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: No Update Planned

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 02/24/2021
Date Data Arrived at EDR: 02/26/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 82

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/18/2021
Next Scheduled EDR Contact: 09/06/2021
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/21/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/12/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: No Update Planned

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/23/2021
Date Data Arrived at EDR: 03/25/2021
Date Made Active in Reports: 06/10/2021
Number of Days to Update: 77

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 09/12/2021
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 7

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/28/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/01/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/15/2021
Next Scheduled EDR Contact: 10/04/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/09/2021
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 05/05/2021
Number of Days to Update: 83

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/06/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 05/25/2021
Next Scheduled EDR Contact: 09/13/2021
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 04/14/2021
Date Data Arrived at EDR: 04/15/2021
Date Made Active in Reports: 07/06/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 02/04/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 78

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 04/27/2021
Next Scheduled EDR Contact: 08/16/2021
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/14/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/28/2020
Date Data Arrived at EDR: 01/29/2021
Date Made Active in Reports: 04/22/2021
Number of Days to Update: 83

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/05/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/29/2021
Date Data Arrived at EDR: 04/21/2021
Date Made Active in Reports: 04/23/2021
Number of Days to Update: 2

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/19/2021
Next Scheduled EDR Contact: 08/02/2021
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/01/2021
Date Data Arrived at EDR: 03/09/2021
Date Made Active in Reports: 03/31/2021
Number of Days to Update: 22

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/04/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 03/26/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 06/22/2021
Next Scheduled EDR Contact: 10/11/2021
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/21/2021
Date Data Arrived at EDR: 04/22/2021
Date Made Active in Reports: 05/12/2021
Number of Days to Update: 20

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/24/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 10/05/2020
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 82

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/11/2021
Next Scheduled EDR Contact: 08/23/2021
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/09/2021
Next Scheduled EDR Contact: 07/19/2021
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 04/30/2021
Next Scheduled EDR Contact: 08/09/2021
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/07/2021
Next Scheduled EDR Contact: 10/25/2021
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 02/24/2021
Number of Days to Update: 13

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/13/2021
Next Scheduled EDR Contact: 08/30/2021
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/03/2021
Next Scheduled EDR Contact: 09/20/2021
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

VACANT PROPERTY OLIVE LANE
PEACH & CHURCH AVENUES
FRESNO, CA 93725

TARGET PROPERTY COORDINATES

Latitude (North):	36.715964 - 36˚ 42' 57.47''
Longitude (West):	119.716486 - 119˚ 42' 59.35''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	257369.7
UTM Y (Meters):	4066601.8
Elevation:	308 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5603192 MALAGA, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

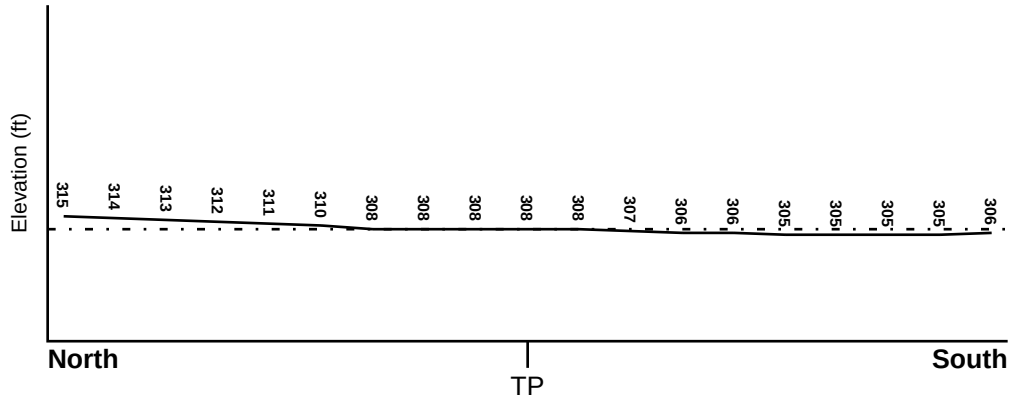
TOPOGRAPHIC INFORMATION

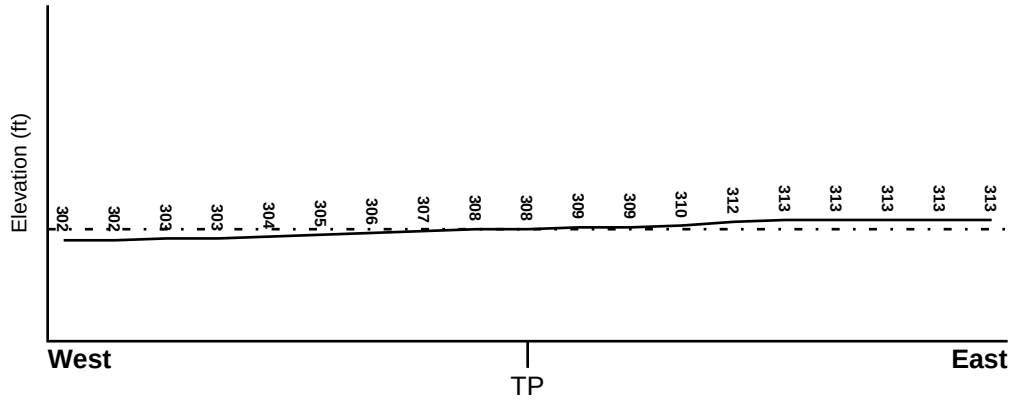
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

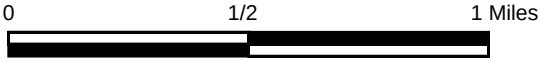
General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 308 ft.



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06019C2130H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
Not Reported	

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
MALAGA	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

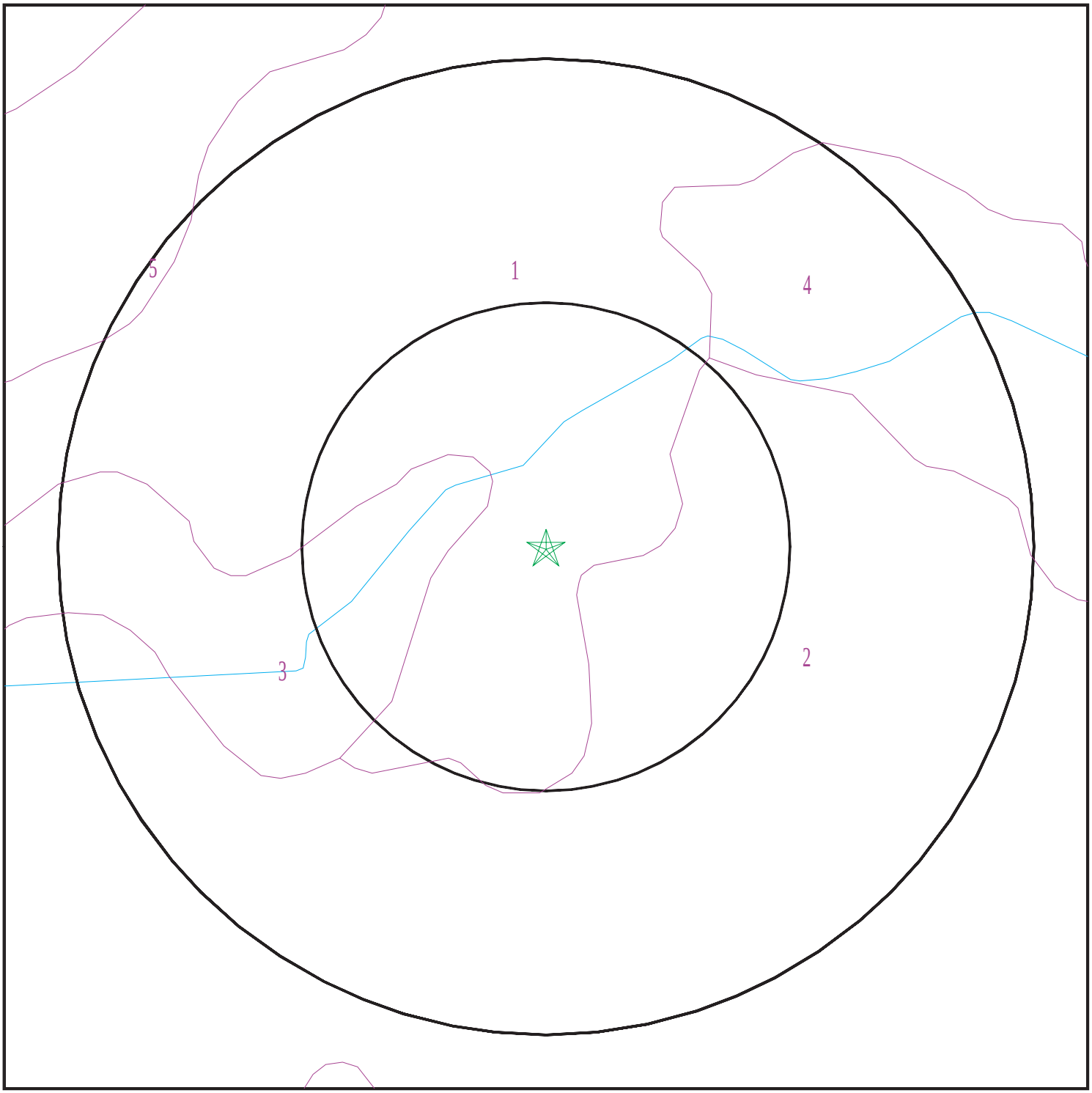
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6568877.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Vacant Property Olive Lane	CLIENT:	Krazan & Associates, Inc.
ADDRESS:	Peach & Church Avenues Fresno CA 93725	CONTACT:	Ken Sani
		INQUIRY #:	6568877.2s
LAT/LONG:	36.715964 / 119.716486	DATE:	July 08, 2021 4:13 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: RAMONA

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
2	11 inches	24 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
3	24 inches	38 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	38 inches	59 inches	coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

Soil Map ID: 2

Soil Component Name: EXETER

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.1 Min: 0.01	Max: Min:
2	14 inches	29 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.1 Min: 0.01	Max: Min:

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	29 inches	33 inches	cemented	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.1 Min: 0.01	Max: Min:

Soil Map ID: 3

Soil Component Name: HANFORD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
2	16 inches	72 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 4

Soil Component Name: ATWATER

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	24 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.6
2	24 inches	42 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.6
3	42 inches	59 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 5

Soil Component Name: RAMONA

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1 Min: 0.1	Max: Min:
2	11 inches	24 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1 Min: 0.1	Max: Min:
3	24 inches	40 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1 Min: 0.1	Max: Min:
4	40 inches	53 inches	cemented	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 1 Min: 0.1	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
4	USGS40000176807	1/4 - 1/2 Mile West
F29	USGS40000176895	1/2 - 1 Mile NW
G35	USGS40000176946	1/2 - 1 Mile NNE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

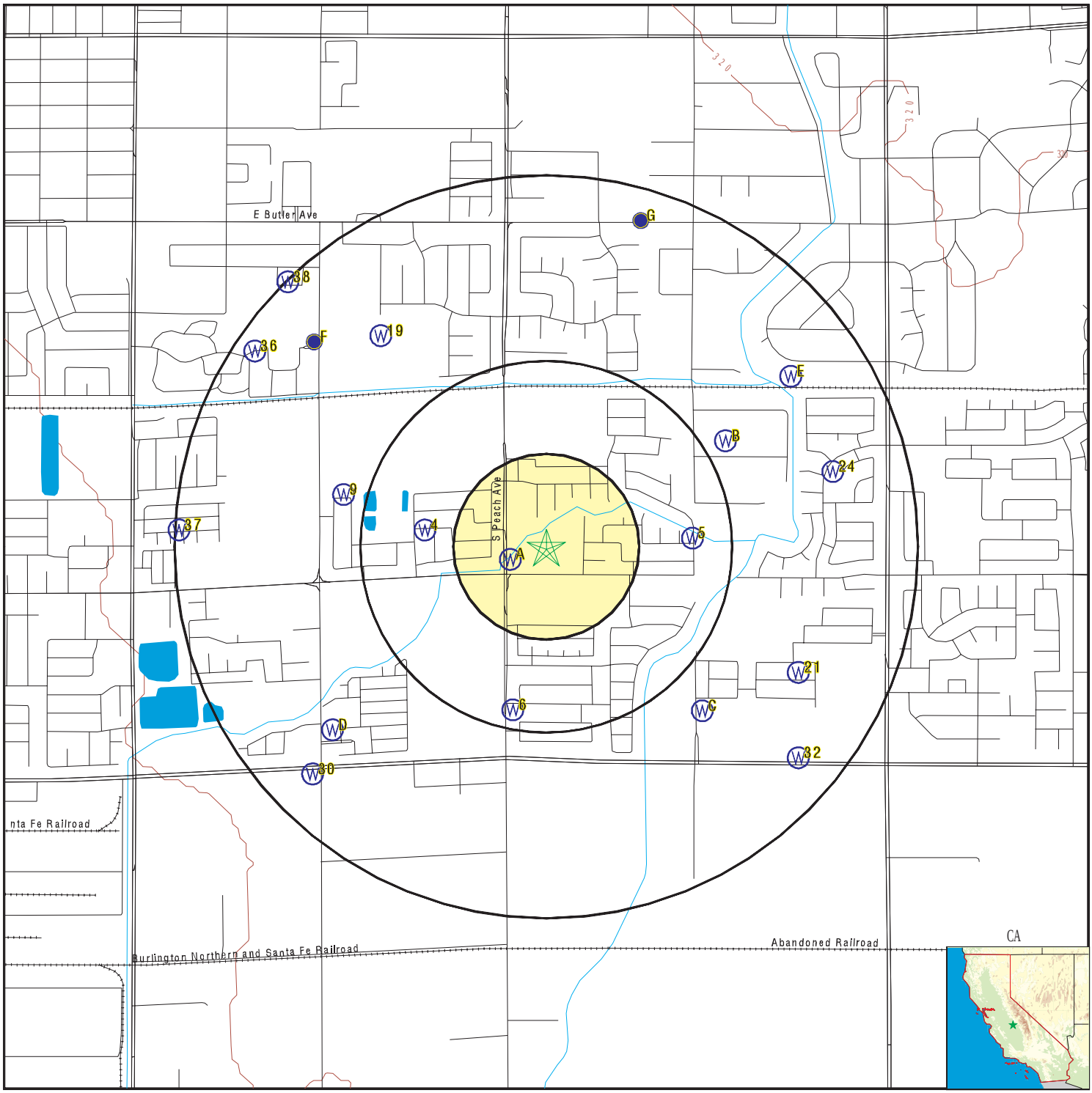
STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	CADDW0000007729	0 - 1/8 Mile WSW
A2	CADDW0000022289	0 - 1/8 Mile WSW
A3	12242	0 - 1/8 Mile WSW
5	CADDW0000010916	1/4 - 1/2 Mile East
6	CADDW0000008657	1/4 - 1/2 Mile SSW
B7	CAUSGSN00002557	1/2 - 1 Mile ENE
B8	CAUSGS000002685	1/2 - 1 Mile ENE
9	CADPR0000001130	1/2 - 1 Mile WNW
C10	CAUSGSN00018981	1/2 - 1 Mile SE
C11	CAUSGSN00017162	1/2 - 1 Mile SE
C12	CADPR0000002552	1/2 - 1 Mile SE
C13	CAUSGSN00007398	1/2 - 1 Mile SE
C14	CAUSGS000002300	1/2 - 1 Mile SE
C15	CAUSGSN00008633	1/2 - 1 Mile SE
C16	CAUSGS000000030	1/2 - 1 Mile SE
C17	CADDW0000011635	1/2 - 1 Mile SE
C18	CADDW0000018927	1/2 - 1 Mile SE
19	CAEDF0000017697	1/2 - 1 Mile NW

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
D20	CADDW0000022824	1/2 - 1 Mile SW
21	12244	1/2 - 1 Mile ESE
D22	12247	1/2 - 1 Mile SW
E23	CADDW0000001096	1/2 - 1 Mile NE
24	CADDW0000007735	1/2 - 1 Mile ENE
E25	12221	1/2 - 1 Mile NE
F26	CADDW0000006843	1/2 - 1 Mile NW
F27	CAUSGSN00011085	1/2 - 1 Mile NW
F28	CADDW0000001826	1/2 - 1 Mile NW
30	CADDW0000017892	1/2 - 1 Mile SW
G31	12218	1/2 - 1 Mile NNE
32	12245	1/2 - 1 Mile SE
G33	CADDW0000003991	1/2 - 1 Mile NNE
G34	CADDW0000005401	1/2 - 1 Mile NNE
36	CALLNL000001037	1/2 - 1 Mile NW
37	12163	1/2 - 1 Mile West
38	CADWR0000037265	1/2 - 1 Mile NW

PHYSICAL SETTING SOURCE MAP - 6568877.2s



County Boundary
Major Roads
Contour Lines
Earthquake Fault Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

Groundwater Flow Direction
Indeterminate Groundwater Flow at Location
Groundwater Flow Varies at Location
Closest Hydrogeological Data
Oil, gas or related wells

SITE NAME: Vacant Property Olive Lane ADDRESS: Peach & Church Avenues Fresno CA 93725 LAT/LONG: 36.715964 / 119.716486	CLIENT: Krazan & Associates, Inc. CONTACT: Ken Sani INQUIRY #: 6568877.2s DATE: July 08, 2021 4:13 pm

Map ID Direction Distance Elevation	Database	EDR ID Number
A1 **WSW** **0 - 1/8 Mile** **Higher**	**CA WELLS**	**CADDW0000007729**

Well ID:	1010007-297	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 100-2 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-297&store_num=		
GeoTracker Data:	Not Reported		

A2 **WSW** **0 - 1/8 Mile** **Higher**	**CA WELLS**	**CADDW0000022289**

Well ID:	1010007-234	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 100-1 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-234&store_num=		
GeoTracker Data:	Not Reported		

A3 **WSW** **0 - 1/8 Mile** **Higher**	**CA WELLS**	**12242**

Seq:	12242	Prim sta c:	14S/21E-17E02 M
Frds no:	1010007297	County:	10
District:	11	User id:	AGE
System no:	1010007	Water type:	G
Source nam:	WELL 100-2	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	364256.0	Longitude:	1194303.0
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1010007	System nam:	Fresno, City Of
Hqname:	Not Reported	Address:	2326 FRESNO STREET
City:	FRESNO	State:	CA
Zip:	93721	Zip ext:	2988
Pop serv:	390350	Connection:	99005
Area serve:	CITY OF FRESNO		
Sample date:	09-MAR-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	18-FEB-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	21-JAN-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	16-DEC-14	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-NOV-14	Finding:	1.3
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	18-NOV-14	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-OCT-14	Finding:	39.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	16-SEP-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	06-AUG-14	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	16-JUL-14	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-JUN-14	Finding:	38.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-MAY-14	Finding:	35.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-APR-14	Finding:	34.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-APR-14	Finding:	350.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	02-APR-14	Finding:	0.69
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	02-APR-14	Finding:	33.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-APR-14	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	02-APR-14	Finding:	5.
Chemical:	COLOR	Report units:	UNITS

Dlr:	0.		
Sample date:	02-APR-14	Finding:	560.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	02-APR-14	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	02-APR-14	Finding:	220.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	02-APR-14	Finding:	260.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	02-APR-14	Finding:	230.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	02-APR-14	Finding:	49.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-APR-14	Finding:	26.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-APR-14	Finding:	24.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-APR-14	Finding:	2.6
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	02-APR-14	Finding:	17.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	02-APR-14	Finding:	33.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	10-FEB-14	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-JAN-14	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-DEC-13	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-NOV-13	Finding:	37.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	10-OCT-13	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-SEP-13	Finding:	37.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-AUG-13	Finding:	36.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-JUL-13	Finding:	4.42
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	10-JUL-13	Finding:	1.64
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	10-JUL-13	Finding:	0.348
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	09-JUL-13	Finding:	34.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-JUN-13	Finding:	31.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-MAY-13	Finding:	37.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-MAR-13	Finding:	34.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-MAR-13	Finding:	34.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	06-FEB-13	Finding:	34.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-JAN-13	Finding:	33.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-DEC-12	Finding:	34.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	01-NOV-12	Finding:	33.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-OCT-12	Finding:	32.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	07-SEP-12	Finding:	35.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

4
West
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000176807**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	014S021E18H001M	Type:	Well
Description:	Not Reported	HUC:	18030012
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1963-02-01
Feet below surface:	49.22	Feet to sea level:	Not Reported
Note:	Not Reported		

5
East
1/4 - 1/2 Mile
Higher

CA WELLS **CADDW0000010916**

Well ID:	1010007-678	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 331 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-678&store_num=		
GeoTracker Data:	Not Reported		

6
SSW
1/4 - 1/2 Mile
Lower

CA WELLS **CADDW0000008657**

Well ID:	1010007-682	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 341 - INACTIVE	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-682&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
B7 **ENE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAUSGSN00002557**

Well ID:	USGS-364300119420001	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-364300119420001	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-364300119420001&store_num=		
GeoTracker Data:	Not Reported		

B8 **ENE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAUSGS000002685**

Well ID:	S3-MACK-K33	Well Type:	MUNICIPAL
Source:	United States Geological Survey		
Other Name:	S3-MACK-K33	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGS&samp_date=&global_id=&assigned_name=S3-MACK-K33&store_num=		
GeoTracker Data:	Not Reported		

---

9 **WNW** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADPR0000001130**

Well ID:	84193	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	84193	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=84193&store_num=		
GeoTracker Data:	Not Reported		

C10 **SE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAUSGSN00018981**

Well ID:	USGS-364200119420003	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-364200119420003	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-364200119420003&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
C11 **SE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAUSGSN00017162**

Well ID:	USGS-364200119420004	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-364200119420004	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-364200119420004&store_num=		
GeoTracker Data:	Not Reported		

C12 **SE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADPR0000002552**

Well ID:	84186	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	84186	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=84186&store_num=		
GeoTracker Data:	Not Reported		

C13 **SE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAUSGSN00007398**

Well ID:	USGS-364200119420001	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-364200119420001	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-364200119420001&store_num=		
GeoTracker Data:	Not Reported		

C14 **SE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAUSGS000002300**

Well ID:	KINGFP-02	Well Type:	MUNICIPAL
Source:	United States Geological Survey		
Other Name:	KINGFP-02	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGS&samp_date=&global_id=&assigned_name=KINGFP-02&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
C15 **SE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAUSGSN00008633**

Well ID:	USGS-364200119420002	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-364200119420002	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-364200119420002&store_num=		
GeoTracker Data:	Not Reported		

C16 **SE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAUSGS000000030**

Well ID:	KINGFP-01	Well Type:	MUNICIPAL
Source:	United States Geological Survey		
Other Name:	KINGFP-01	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGS&samp_date=&global_id=&assigned_name=KINGFP-01&store_num=		
GeoTracker Data:	Not Reported		

C17 **SE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADDW0000011635**

Well ID:	1010007-348	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 180-1 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-348&store_num=		
GeoTracker Data:	Not Reported		

C18 **SE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADDW0000018927**

Well ID:	1010007-349	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 180-2 - INF	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-349&store_num=		
GeoTracker Data:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
19 **NW** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CAEDF0000017697**

Well ID:	AGW080013691-HOME WELL	Well Type:	MONITORING
Source:	Agricultural Lands	Other Name:	HOME WELL
GAMA PFAS Testing:	Not Reported		
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=AGLAND&samp_date=&global_id=AGW080013691&assigned_name=HOME WELL&store_num=		
GeoTracker Data:	Not Reported		

D20 **SW** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADDW0000022824**

Well ID:	1000342-001	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	2575 S WILLOW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1000342-001&store_num=		
GeoTracker Data:	Not Reported		

---

21 **ESE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**12244**

Seq:	12244	Prim sta c:	14S/21E-17R02 M
Frds no:	1010007349	County:	10
District:	11	User id:	AGE
System no:	1010007	Water type:	G
Source nam:	WELL 180-2	Station ty:	WELL/AMBNT/MUN
Latitude:	364240.0	Longitude:	1194212.0
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1010007	System nam:	Fresno, City Of
Hqname:	Not Reported	Address:	2326 FRESNO STREET
City:	FRESNO	State:	CA
Zip:	93721	Zip ext:	2988
Pop serv:	390350	Connection:	99005
Area serve:	CITY OF FRESNO		
Sample date:	26-SEP-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-SEP-17	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		

Sample date:	19-SEP-17	Finding:	16.
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-SEP-17	Finding:	940.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	300.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	370.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-SEP-17	Finding:	0.14
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		
Sample date:	19-SEP-17	Finding:	0.84
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	600.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	2.7
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	19-SEP-17	Finding:	130.
Chemical:	BARIUM	Report units:	UG/L
Dlr:	100.		
Sample date:	19-SEP-17	Finding:	92.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	19-SEP-17	Finding:	37.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	3.5
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	50.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	46.
Chemical:	MAGNESIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	19-SEP-17	Finding:	85.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	400.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	18-SEP-17	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-SEP-17	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-SEP-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-AUG-17	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-AUG-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	15-AUG-17	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-AUG-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-AUG-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-JUL-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	20-JUL-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-JUL-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-JUL-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JUN-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	22-JUN-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-JUN-17	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-JUN-17	Finding:	18.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-JUN-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-MAY-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-MAY-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	10-MAY-17	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-MAY-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-APR-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-APR-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	10-APR-17	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-APR-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-MAR-17	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-MAR-17	Finding:	18.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-JUN-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-JUN-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	23-MAY-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-MAY-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-MAY-16	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	04-MAY-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-APR-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-APR-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-APR-16	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-APR-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-MAR-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-MAR-16	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-MAR-16	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-MAR-16	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-FEB-16	Finding:	17.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-FEB-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-FEB-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	02-FEB-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-JAN-16	Finding:	16.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-DEC-15	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-DEC-15	Finding:	73.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-DEC-15	Finding:	72.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-DEC-15	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-NOV-15	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-NOV-15	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	16-NOV-15	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-NOV-15	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-NOV-15	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-OCT-15	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-OCT-15	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-OCT-15	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	06-OCT-15	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-SEP-15	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	24-SEP-15	Finding:	66.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-SEP-15	Finding:	66.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-SEP-15	Finding:	63.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	31-AUG-15	Finding:	64.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-MAY-14	Finding:	71.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-MAY-14	Finding:	390.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	20-MAY-14	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-MAY-14	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-MAY-14	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	01-MAY-14	Finding:	79.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	42.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	46.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	3.5
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	79.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	01-MAY-14	Finding:	120.
Chemical:	BARIUM	Report units:	UG/L
Dlr:	100.		

Sample date:	01-MAY-14	Finding:	580.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	1.
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	01-MAY-14	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	370.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	360.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	300.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	880.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	35.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	29-APR-14	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-APR-14	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-APR-14	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-APR-14	Finding:	71.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	31-MAR-14	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-MAR-14	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	05-MAR-14	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-FEB-14	Finding:	66.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	18-FEB-14	Finding:	71.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-FEB-14	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-FEB-14	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-JAN-14	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-JAN-14	Finding:	72.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-JAN-14	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-JAN-14	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-DEC-13	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-DEC-13	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	16-DEC-13	Finding:	73.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-DEC-13	Finding:	71.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-DEC-13	Finding:	71.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-NOV-13	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	18-NOV-13	Finding:	71.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-NOV-13	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-NOV-13	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	28-OCT-13	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-OCT-13	Finding:	72.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-OCT-13	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-OCT-13	Finding:	71.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-OCT-13	Finding:	71.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-SEP-13	Finding:	72.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	18-SEP-13	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-SEP-13	Finding:	71.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-SEP-13	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-AUG-13	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-AUG-13	Finding:	71.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-AUG-13	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-AUG-13	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	29-JUL-13	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-JUL-13	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-JUL-13	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-JUL-13	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-JUL-13	Finding:	73.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-JUN-13	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-JUN-13	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-JUN-13	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-JUN-13	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	28-MAY-13	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-MAY-13	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-MAY-13	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-MAY-13	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-APR-13	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-APR-13	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	15-APR-13	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-APR-13	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-APR-13	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-DEC-12	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-DEC-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-NOV-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-NOV-12	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-NOV-12	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-NOV-12	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-OCT-12	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-OCT-12	Finding:	72.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-OCT-12	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-OCT-12	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-OCT-12	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-SEP-12	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-SEP-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	11-SEP-12	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-SEP-12	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	28-AUG-12	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-AUG-12	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-AUG-12	Finding:	71.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	06-AUG-12	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-JUL-12	Finding:	70.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-JUL-12	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	16-JUL-12	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-JUL-12	Finding:	65.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-JUL-12	Finding:	65.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-JUN-12	Finding:	66.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	18-JUN-12	Finding:	65.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-JUN-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-JUN-12	Finding:	66.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	29-MAY-12	Finding:	66.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-MAY-12	Finding:	71.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-MAY-12	Finding:	66.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-MAY-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-MAY-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-APR-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-APR-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-APR-12	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-APR-12	Finding:	66.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-MAR-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-MAR-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-MAR-12	Finding:	66.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-MAR-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	28-FEB-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-FEB-12	Finding:	68.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-FEB-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	09-FEB-12	Finding:	66.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-JAN-12	Finding:	66.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-JAN-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-JAN-12	Finding:	65.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-JAN-12	Finding:	69.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-JAN-12	Finding:	67.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

D22
SW
1/2 - 1 Mile
Lower

CA WELLS 12247

Seq:	12247	Prim sta c:	14S/21E-18Q01 M
Frds no:	1000342001	County:	10
District:	40	User id:	10C
System no:	1000342	Water type:	G
Source nam:	2575 S WILLOW	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	364232.0	Longitude:	1194335.0
Precision:	3	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		
System no:	1000342	System nam:	The Willows
Hqname:	Not Reported	Address:	2800 28th st., #222
City:	SANTA MONICA	State:	CA
Zip:	90405	Zip ext:	Not Reported
Pop serv:	5	Connection:	262
Area serve:	Not Reported		

E23
NE
1/2 - 1 Mile
Higher

CA WELLS CADDW0000001096

Well ID:	1010007-036	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 225 - INF	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-036&store_num=		

GeoTracker Data: Not Reported

24
ENE **CA WELLS** **CADDW0000007735**
1/2 - 1 Mile
Higher

Well ID:	1010007-650	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 337 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-650&store_num=		
GeoTracker Data:	Not Reported		

E25
NE **CA WELLS** **12221**
1/2 - 1 Mile
Higher

Seq:	12221	Prim sta c:	14S/21E-08Q01 M
Frds no:	1010007036	County:	10
District:	11	User id:	AGE
System no:	1010007	Water type:	G
Source nam:	WELL 225 - STANDBY	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	364322.0	Longitude:	1194213.0
Precision:	2	Status:	SU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010007	System nam:	Fresno, City Of
Hqname:	Not Reported	Address:	2326 FRESNO STREET
City:	FRESNO	State:	CA
Zip:	93721	Zip ext:	2988
Pop serv:	390350	Connection:	99005
Area serve:	CITY OF FRESNO		

Sample date:	21-FEB-18	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	13-FEB-18	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	12-FEB-18	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	06-FEB-18	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	30-JAN-18	Finding:	9.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	30-JAN-18	Finding:	1.06
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	30-JAN-18	Finding:	0.348
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	30-JAN-18	Finding:	4.03
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	26-JAN-18	Finding:	3.52
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	26-JAN-18	Finding:	1.06
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	26-JAN-18	Finding:	0.33
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	22-JAN-18	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-JAN-18	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	10-JAN-18	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-JAN-18	Finding:	9.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-DEC-17	Finding:	9.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-DEC-17	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-DEC-17	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-DEC-17	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-NOV-17	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	20-NOV-17	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	13-NOV-17	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-NOV-17	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	30-OCT-17	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-OCT-17	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-OCT-17	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-OCT-17	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	04-OCT-17	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-SEP-17	Finding:	9.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-SEP-17	Finding:	9.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-SEP-17	Finding:	8.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-17	Finding:	8.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-AUG-17	Finding:	9.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-AUG-17	Finding:	9.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-AUG-17	Finding:	8.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-AUG-17	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	02-AUG-17	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JUL-17	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-JUL-17	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-JUL-17	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-JUL-17	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JUN-17	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	20-JUN-17	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-JUN-17	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-JUN-17	Finding:	9.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-JUN-17	Finding:	9.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-MAY-17	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-MAY-17	Finding:	9.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-MAY-17	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-MAY-17	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-APR-17	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-APR-17	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	10-APR-17	Finding:	9.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-APR-17	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-MAR-17	Finding:	9.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-MAR-17	Finding:	9.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-MAR-17	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-MAR-17	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-FEB-17	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	9.5
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-FEB-17	Finding:	310.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	2.8
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	28-FEB-17	Finding:	24.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	28-FEB-17	Finding:	20.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	2.8
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	28.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	25.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	28-FEB-17	Finding:	49.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	220.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-FEB-17	Finding:	240.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	200.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	550.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	28-FEB-17	Finding:	0.45
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	27-FEB-17	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-FEB-17	Finding:	9.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-FEB-17	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-FEB-17	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	30-JAN-17	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-JAN-17	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-JAN-17	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-JAN-17	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	04-JAN-17	Finding:	9.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-DEC-16	Finding:	9.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-DEC-16	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-DEC-16	Finding:	9.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-DEC-16	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-NOV-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-NOV-16	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-NOV-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-OCT-16	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-OCT-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-OCT-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-OCT-16	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-SEP-16	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-SEP-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-SEP-16	Finding:	9.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	08-SEP-16	Finding:	9.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-AUG-16	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-JUL-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-JUL-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-JUL-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-JUL-16	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-JUN-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-JUN-16	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-JUN-16	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-JUN-16	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	31-MAY-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-MAY-16	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-MAY-16	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-MAY-16	Finding:	9.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-MAY-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-APR-16	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	22-APR-16	Finding:	8.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-APR-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-APR-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-MAR-16	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-MAR-16	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-MAR-16	Finding:	9.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-MAR-16	Finding:	9.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-MAR-16	Finding:	9.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-FEB-16	Finding:	9.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-FEB-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-FEB-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-FEB-16	Finding:	9.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-JAN-16	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-JAN-16	Finding:	9.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-JAN-16	Finding:	9.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	05-JAN-16	Finding:	9.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-DEC-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-DEC-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-DEC-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-DEC-15	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-NOV-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-NOV-15	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	16-NOV-15	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-NOV-15	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-NOV-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-OCT-15	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-OCT-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-OCT-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-OCT-15	Finding:	39.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-SEP-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-SEP-15	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	15-SEP-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-SEP-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-SEP-15	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-AUG-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-AUG-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-AUG-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-AUG-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	28-JUL-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-JUL-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-JUL-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-JUL-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-JUN-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-JUN-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-JUN-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-JUN-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	02-JUN-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-MAY-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	18-MAY-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-MAY-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-MAY-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-APR-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-APR-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-APR-15	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-APR-15	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-MAR-15	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-MAR-15	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	16-MAR-15	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-MAR-15	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-MAR-15	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-FEB-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-FEB-15	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	09-FEB-15	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	06-FEB-15	Finding:	40.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-JAN-15	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-DEC-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-DEC-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-DEC-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-DEC-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-DEC-14	Finding:	2.9
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	04-DEC-14	Finding:	36.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-SEP-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-SEP-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-SEP-14	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-SEP-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-SEP-14	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-AUG-14	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	18-AUG-14	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-AUG-14	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-AUG-14	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-JUL-14	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-JUL-14	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-JUL-14	Finding:	46.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-JUL-14	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-JUL-14	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-JUN-14	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-JUN-14	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-JUN-14	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-JUN-14	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-MAY-14	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-MAY-14	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-MAY-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-MAY-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	01-MAY-14	Finding:	350.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	23.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	01-MAY-14	Finding:	20.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	2.5
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	27.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	25.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	46.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	220.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	210.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	540.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	0.64
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	01-MAY-14	Finding:	13.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	250.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		

Sample date:	29-APR-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-APR-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-APR-14	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-APR-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	31-MAR-14	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-MAR-14	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-MAR-14	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-JAN-14	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-DEC-13	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-DEC-13	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	16-DEC-13	Finding:	46.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-DEC-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-DEC-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-NOV-13	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	18-NOV-13	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-NOV-13	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	07-NOV-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	28-OCT-13	Finding:	46.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-OCT-13	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-OCT-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-OCT-13	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-OCT-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-SEP-13	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	18-SEP-13	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-SEP-13	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-SEP-13	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-AUG-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-AUG-13	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-AUG-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-AUG-13	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-JUL-13	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	22-JUL-13	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-JUL-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-JUL-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-JUL-13	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-JUN-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-JUN-13	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-JUN-13	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-JUN-13	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	28-MAY-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-MAY-13	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-MAY-13	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-MAY-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-APR-13	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-APR-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-APR-13	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-APR-13	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	04-APR-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-MAR-13	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-MAR-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-MAR-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-MAR-13	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-FEB-13	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	19-FEB-13	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-FEB-13	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-DEC-12	Finding:	46.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-DEC-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	10-DEC-12	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-DEC-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-NOV-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-NOV-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-NOV-12	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	05-NOV-12	Finding:	46.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-OCT-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-OCT-12	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-OCT-12	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-OCT-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-OCT-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-SEP-12	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-SEP-12	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-SEP-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	05-SEP-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	27-AUG-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-AUG-12	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-AUG-12	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-AUG-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-JUL-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-JUL-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L

Dlr:	2.		
Sample date:	16-JUL-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-JUL-12	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-JUL-12	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	25-JUN-12	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	18-JUN-12	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-JUN-12	Finding:	41.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-JUN-12	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-MAY-12	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	21-MAY-12	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	15-MAY-12	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-MAY-12	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	01-MAY-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-APR-12	Finding:	45.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-APR-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-APR-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Sample date:	05-APR-12	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-MAR-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-MAR-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-MAR-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	08-MAR-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	28-FEB-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-FEB-12	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	14-FEB-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-FEB-12	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	30-JAN-12	Finding:	42.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	23-JAN-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	17-JAN-12	Finding:	43.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	11-JAN-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	03-JAN-12	Finding:	44.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

Map ID Direction Distance Elevation	Database	EDR ID Number
F26 **NW** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADDW0000006843**

Well ID:	1010007-359	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 164-2 INF	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-359&store_num=		
GeoTracker Data:	Not Reported		

F27 **NW** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CAUSGSN00011085**

Well ID:	USGS-364326119434001	Well Type:	UNK
Source:	United States Geological Survey		
Other Name:	USGS-364326119434001	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=USGSNEW&samp_date=&global_id=&assigned_name=USGS-364326119434001&store_num=		
GeoTracker Data:	Not Reported		

F28 **NW** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADDW0000001826**

Well ID:	1010007-276	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 164-1 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-276&store_num=		
GeoTracker Data:	Not Reported		

F29 **NW** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000176895**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	014S021E07P001M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19920925	Well Depth:	735
Well Depth Units:	ft	Well Hole Depth:	748
Well Hole Depth Units:	ft		

Map ID Direction Distance Elevation	Database	EDR ID Number
30 **SW** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**CADDW0000017892**

Well ID:	1010007-705	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 338-1 RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-705&store_num=		
GeoTracker Data:	Not Reported		

G31 **NNE** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**12218**

Seq:	12218	Prim sta c:	14S/21E-08F01 M
Frds no:	1010007275	County:	10
District:	11	User id:	AGE
System no:	1010007	Water type:	G
Source nam:	WELL 153-1	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	364342.0	Longitude:	1194240.0
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010007	System nam:	Fresno, City Of
Hqname:	Not Reported	Address:	2326 FRESNO STREET
City:	FRESNO	State:	CA
Zip:	93721	Zip ext:	2988
Pop serv:	390350	Connection:	99005
Area serve:	CITY OF FRESNO		

Sample date:	19-MAR-18	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	14-MAR-18	Finding:	3.1e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		

Sample date:	14-MAR-18	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	06-MAR-18	Finding:	4.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	28-FEB-18	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	21-FEB-18	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	13-FEB-18	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-FEB-18	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-FEB-18	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	30-JAN-18	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JAN-18	Finding:	1.06
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	26-JAN-18	Finding:	0.365
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	26-JAN-18	Finding:	4.53
Chemical:	GROSS ALPHA	Report units:	PCI/L
Dlr:	3.		
Sample date:	23-JAN-18	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-JAN-18	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	10-JAN-18	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-JAN-18	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-DEC-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-DEC-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	15-DEC-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-DEC-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	06-DEC-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-DEC-17	Finding:	3.1e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	27-NOV-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	20-NOV-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-NOV-17	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-NOV-17	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	30-OCT-17	Finding:	5.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-OCT-17	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-OCT-17	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-OCT-17	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	04-OCT-17	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-SEP-17	Finding:	3.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-SEP-17	Finding:	3.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-SEP-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-AUG-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	22-AUG-17	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-AUG-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-AUG-17	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	31-JUL-17	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-JUL-17	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	20-JUL-17	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-JUL-17	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-JUL-17	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JUN-17	Finding:	4.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	20-JUN-17	Finding:	4.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-JUN-17	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-JUN-17	Finding:	4.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-JUN-17	Finding:	4.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-MAY-17	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-MAY-17	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	10-MAY-17	Finding:	3.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-MAY-17	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-APR-17	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-APR-17	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	10-APR-17	Finding:	3.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-APR-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-MAR-17	Finding:	3.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-MAR-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-MAR-17	Finding:	3.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-MAR-17	Finding:	3.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-MAR-17	Finding:	220.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	03-MAR-17	Finding:	2.9e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	03-MAR-17	Finding:	3.4
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	03-MAR-17	Finding:	0.11
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	03-MAR-17	Finding:	7.9
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	03-MAR-17	Finding:	11.
Chemical:	CHLORIDE	Report units:	MG/L

Dlr:	0.		
Sample date:	03-MAR-17	Finding:	2.1
Chemical:	POTASSIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-MAR-17	Finding:	37.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-MAR-17	Finding:	13.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-MAR-17	Finding:	26.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	03-MAR-17	Finding:	3.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-MAR-17	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	03-MAR-17	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	03-MAR-17	Finding:	8.
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	03-MAR-17	Finding:	360.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	03-MAR-17	Finding:	0.12
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	03-MAR-17	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	03-MAR-17	Finding:	3.6
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-MAR-17	Finding:	120.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	27-FEB-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-FEB-17	Finding:	3.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	13-FEB-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-FEB-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	30-JAN-17	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-JAN-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-JAN-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-JAN-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-JAN-17	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-DEC-16	Finding:	3.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-DEC-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-DEC-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-DEC-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-DEC-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-NOV-16	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	15-NOV-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-NOV-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-OCT-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	19-OCT-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-OCT-16	Finding:	4.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-OCT-16	Finding:	4.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-SEP-16	Finding:	4.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-SEP-16	Finding:	4.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	15-SEP-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-16	Finding:	4.1
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	30-AUG-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-AUG-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-AUG-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	10-AUG-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-AUG-16	Finding:	4.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-JUL-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	18-JUL-16	Finding:	4.
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-JUL-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	07-JUL-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-JUN-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-JUN-16	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-JUN-16	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-JUN-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	31-MAY-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-MAY-16	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-MAY-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-MAY-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-MAY-16	Finding:	3.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-APR-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-APR-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-APR-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-APR-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-MAR-16	Finding:	3.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-MAR-16	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	14-MAR-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-MAR-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-MAR-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-FEB-16	Finding:	3.9
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-FEB-16	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-FEB-16	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-FEB-16	Finding:	3.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-JAN-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-JAN-16	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	11-JAN-16	Finding:	3.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-JAN-16	Finding:	3.7
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-SEP-15	Finding:	28.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	26-NOV-14	Finding:	3.5
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	14-JUL-14	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-JUN-14	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		

Sample date:	09-JUN-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-JUN-14	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	09-JUN-14	Finding:	0.47
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-JUN-14	Finding:	230.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JUN-14	Finding:	5.7e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	09-JUN-14	Finding:	11.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	09-JUN-14	Finding:	13.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JUN-14	Finding:	34.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JUN-14	Finding:	14.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JUN-14	Finding:	29.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JUN-14	Finding:	130.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JUN-14	Finding:	210.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	09-JUN-14	Finding:	8.3
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	09-JUN-14	Finding:	400.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	30-APR-14	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	30-APR-14	Finding:	2.
Chemical:	POTASSIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	30-APR-14	Finding:	12.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	11.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	30-APR-14	Finding:	2.2
Chemical:	ARSENIC	Report units:	UG/L
Dlr:	2.		
Sample date:	30-APR-14	Finding:	63.
Chemical:	COPPER	Report units:	UG/L
Dlr:	50.		
Sample date:	30-APR-14	Finding:	5.3e-002
Chemical:	DIBROMOCHLOROPROPANE (DBCP)	Report units:	UG/L
Dlr:	1.e-002		
Sample date:	30-APR-14	Finding:	240.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	0.36
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	30-APR-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	30-APR-14	Finding:	29.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	130.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	390.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	30-APR-14	Finding:	35.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	14.
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	170.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	30-APR-14	Finding:	200.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		

Sample date:	23-SEP-13	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-SEP-13	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	29-JUL-13	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-JUL-13	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	02-JUL-13	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	20-MAY-13	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-MAY-13	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	22-APR-13	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	12-MAR-13	Finding:	38.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	04-JAN-13	Finding:	33.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	24-APR-12	Finding:	20.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

32
SE
1/2 - 1 Mile
Higher

CA WELLS 12245

Seq:	12245	Prim sta c:	14S/21E-17R03 M
Frds no:	1010007348	County:	10
District:	11	User id:	AGE
System no:	1010007	Water type:	G
Source nam:	WELL 180-1	Station ty:	WELL/AMBNT
Latitude:	364228.0	Longitude:	1194212.0
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

System no:	1010007	System nam:	Fresno, City Of
Hqname:	Not Reported	Address:	2326 FRESNO STREET
City:	FRESNO	State:	CA
Zip:	93721	Zip ext:	2988
Pop serv:	390350	Connection:	99005
Area serve:	CITY OF FRESNO		

Sample date:	12-MAR-18	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-FEB-18	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JAN-18	Finding:	1.06
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	26-JAN-18	Finding:	0.246
Chemical:	GROSS ALPHA COUNTING ERROR	Report units:	PCI/L
Dlr:	0.		
Sample date:	03-JAN-18	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-DEC-17	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	30-OCT-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	04-OCT-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-SEP-17	Finding:	2.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-SEP-17	Finding:	2.3
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-SEP-17	Finding:	2.4e-002
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	200.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	3.8
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		

Sample date:	19-SEP-17	Finding:	0.12
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	19-SEP-17	Finding:	3.1
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	19-SEP-17	Finding:	11.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	41.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	7.4
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	17.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	73.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	2.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-SEP-17	Finding:	160.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	130.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	19-SEP-17	Finding:	310.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	18-SEP-17	Finding:	2.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-SEP-17	Finding:	2.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-SEP-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	29-AUG-17	Finding:	2.3
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	23-AUG-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	15-AUG-17	Finding:	2.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-AUG-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-AUG-17	Finding:	2.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-JUL-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	20-JUL-17	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	13-JUL-17	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	03-JUL-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-JUN-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-JUN-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	12-JUN-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	06-JUN-17	Finding:	2.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-JUN-17	Finding:	2.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	25-MAY-17	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	16-MAY-17	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	10-MAY-17	Finding:	2.2
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-MAY-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	24-APR-17	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-APR-17	Finding:	2.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	10-APR-17	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-APR-17	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-MAR-17	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	21-MAR-17	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-JUN-16	Finding:	2.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	01-JUN-16	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-MAY-16	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-MAY-16	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	09-MAY-16	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	04-MAY-16	Finding:	2.3
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-APR-16	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	19-APR-16	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L

Dlr:	0.4		
Sample date:	11-APR-16	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	05-APR-16	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	22-MAR-16	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	14-MAR-16	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	07-MAR-16	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-MAR-16	Finding:	2.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	23-FEB-16	Finding:	2.5
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	17-FEB-16	Finding:	2.6
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	08-FEB-16	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	02-FEB-16	Finding:	2.8
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	28-JAN-16	Finding:	2.4
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	26-NOV-14	Finding:	3.3
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	01-MAY-14	Finding:	8.3
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	0.16
Chemical:	LANGELIER INDEX @ 60 C	Report units:	Not Reported
Dlr:	0.		

Sample date:	01-MAY-14	Finding:	190.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	3.9
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	01-MAY-14	Finding:	11.
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	41.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	7.3
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	17.
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	72.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	160.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	140.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	01-MAY-14	Finding:	300.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		

G33
NNE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000003991**

Well ID:	1010007-293	Well Type:	MUNICIPAL
Source:	Department of Health Services		
Other Name:	WELL 153-2 INF	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-293&store_num=		
GeoTracker Data:	Not Reported		

G34
NNE
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000005401**

Well ID:	1010007-275	Well Type:	MUNICIPAL
Source:	Department of Health Services		

Other Name:	WELL 153-1 - RAW	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=1010007-275&store_num=		
GeoTracker Data:	Not Reported		

G35
NNE
1/2 - 1 Mile
Higher

FED USGS **USGS40000176946**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	014S021E08F002M	Type:	Well
Description:	Not Reported	HUC:	Not Reported
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19940624	Well Depth:	260
Well Depth Units:	ft	Well Hole Depth:	265
Well Hole Depth Units:	ft		

36
NW
1/2 - 1 Mile
Lower

CA WELLS **CALLNL000001037**

Well ID:	101431	Well Type:	MUNICIPAL
Source:	Lawrence Livermore National Laboratory		
Other Name:	14S/21E-01P01 M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	Not Reported		
GeoTracker Data:	Not Reported		

Chemical:	Helium-3/Helium-4	Results:	.000000606175
Units:	atom ratio	Date:	05/27/2003
Chemical:	Neon	Results:	.000000208912
Units:	cm3STP/g	Date:	05/27/2003
Chemical:	Argon	Results:	.000337486
Units:	cm3STP/g	Date:	05/27/2003
Chemical:	Helium-4	Results:	.000000378423
Units:	cm3STP/g	Date:	05/27/2003
Chemical:	Krypton	Results:	.0000000749942
Units:	cm3STP/g	Date:	05/27/2003
Chemical:	Tritium (Hydrogen 3)	Results:	1.09
Units:	pCi/L	Date:	06/24/2003

Map ID Direction Distance Elevation	Database	EDR ID Number
37 **West** **1/2 - 1 Mile** **Lower**	**CA WELLS**	**12163**

Seq:	12163	Prim sta c:	14S/20E-13R01 M
Frds no:	1010007011	County:	10
District:	11	User id:	AGE
System no:	1010007	Water type:	G
Source nam:	WELL 206	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	364300.0	Longitude:	1194400.0
Precision:	8	Status:	AR
Comment 1:	FORMERLY CALWA CWD	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	1010007	System nam:	Fresno, City Of
Hqname:	Not Reported	Address:	2326 FRESNO STREET
City:	FRESNO	State:	CA
Zip:	93721	Zip ext:	2988
Pop serv:	390350	Connection:	99005
Area serve:	CITY OF FRESNO		

Sample date:	14-FEB-18	Finding:	0.52
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		

Sample date:	27-JAN-17	Finding:	0.41
Chemical:	TURBIDITY, LABORATORY	Report units:	NTU
Dlr:	0.1		

Sample date:	27-JAN-17	Finding:	110.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		

Sample date:	27-JAN-17	Finding:	0.16
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		

Sample date:	27-JAN-17	Finding:	3.2
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		

Sample date:	27-JAN-17	Finding:	6.7
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		

Sample date:	27-JAN-17	Finding:	7.8
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	27-JAN-17	Finding:	4.8
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	27-JAN-17	Finding:	7.9
Chemical:	CALCIUM	Report units:	MG/L
Dlr:	0.		

Sample date:	27-JAN-17	Finding:	40.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JAN-17	Finding:	0.51
Chemical:	NITRATE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-JAN-17	Finding:	57.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JAN-17	Finding:	46.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	27-JAN-17	Finding:	7.8
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	27-JAN-17	Finding:	120.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	27-JAN-17	Finding:	0.51
Chemical:	NITRATE + NITRITE (AS N)	Report units:	MG/L
Dlr:	0.4		
Sample date:	27-JAN-17	Finding:	11.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	23-JAN-17	Finding:	1.49
Chemical:	GROSS ALPHA MDA95	Report units:	PCI/L
Dlr:	0.		
Sample date:	25-NOV-14	Finding:	1.7
Chemical:	CHROMIUM, HEXAVALENT	Report units:	UG/L
Dlr:	1.		
Sample date:	07-MAY-14	Finding:	0.12
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dlr:	0.1		
Sample date:	07-MAY-14	Finding:	5.
Chemical:	SULFATE	Report units:	MG/L
Dlr:	0.5		
Sample date:	07-MAY-14	Finding:	4.1
Chemical:	CHLORIDE	Report units:	MG/L
Dlr:	0.		
Sample date:	07-MAY-14	Finding:	12.
Chemical:	SODIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-MAY-14	Finding:	6.7
Chemical:	MAGNESIUM	Report units:	MG/L
Dlr:	0.		
Sample date:	07-MAY-14	Finding:	13.
Chemical:	CALCIUM	Report units:	MG/L

Dlr:	0.		
Sample date:	07-MAY-14	Finding:	60.
Chemical:	HARDNESS (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-MAY-14	Finding:	94.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dlr:	0.		
Sample date:	07-MAY-14	Finding:	77.
Chemical:	ALKALINITY (TOTAL) AS CACO3	Report units:	MG/L
Dlr:	0.		
Sample date:	07-MAY-14	Finding:	8.2
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-MAY-14	Finding:	170.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dlr:	0.		
Sample date:	07-MAY-14	Finding:	130.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dlr:	0.		
Sample date:	07-MAY-14	Finding:	6.2
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	07-MAY-14	Finding:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dlr:	0.		
Sample date:	07-NOV-13	Finding:	6.7
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		
Sample date:	13-JUN-12	Finding:	7.
Chemical:	NITRATE (AS NO3)	Report units:	MG/L
Dlr:	2.		

38
NW **CA WELLS** **CADWR0000037265**
1/2 - 1 Mile
Lower

Well ID:	14S21E07H002M	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	14S21E07H002M	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=14S21E07H002M&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
93725	21	1

Federal EPA Radon Zone for FRESNO County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 93725

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	2.400 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

ACOUSTICAL ANALYSIS

OLIVE LANE SUBDIVISION
FRESNO, CALIFORNIA

WJVA Project No. 22-04

PREPARED FOR

CENTURY COMMUNITIES, CENTRAL VALLEY DIVISION
7815 NORTH PALM AVENUE, SUITE 101
FRESNO, CA 93711

PREPARED BY

WJV ACOUSTICS, INC.
VISALIA, CALIFORNIA

wjv acoustics

FEBRUARY 8, 2022

INTRODUCTION

The project (Olive Lane Subdivision) is a proposed 74-lot single-family residential development to be located in Fresno, California. The project site is located at the northeast corner of S. Peach Avenue and E. Church Avenue. The City of Fresno has requested an acoustical analysis to quantify project site noise exposure and determine noise mitigation requirements. This analysis, prepared by WJV Acoustics, Inc. (WJVA), is based upon a project site plan prepared by QK (dated 1/19/22), traffic data provided by the Fresno Council of Governments (Fresno COG) and the findings of on-site noise level measurements. Revisions to the site plan may affect the findings and recommendations of this report. The site plan is provided as Figure 1.

Appendix A provides a description of the acoustical terminology used in this report. Unless otherwise stated, all sound levels reported are in A-weighted decibels (dB). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighting, as it provides a high degree of correlation with human annoyance and health effects. Appendix B provides typical A-weighted sound levels for common noise sources.

NOISE EXPOSURE CRITERIA

General Plan

The City of Fresno General Plan Noise Element provides noise level criteria for land use compatibility for both transportation and non-transportation noise sources. The General Plan sets noise compatibility standards for transportation noise sources in terms of the Day-Night Average Level (L_{dn}). The L_{dn} represents the time-weighted energy average noise level for a 24-hour day, with a 10 dB penalty added to noise levels occurring during the nighttime hours (10:00 p.m.-7:00 a.m.). The L_{dn} represents cumulative exposure to noise over an extended period of time and are therefore calculated based upon *annual average* conditions. Table I provides the General Plan noise level standards for transportation noise sources.

TABLE I

CITY OF FRESNO GENERAL PLAN NOISE LEVEL STANDARDS TRANSPORTATION (NON-AIRCRAFT) NOISE SOURCES

Noise-Sensitive Land Use	Outdoor Activity Areas[1]	Interior Spaces	
	L_{dn}/CNEL, dB	L_{dn}/CNEL, dB	L_{eq} dB[2]
Residential	65	45	---
Transient Lodging	65	45	---
Hospitals, Nursing Homes	65	45	---
Theaters, Auditoriums, Music Halls	---	---	35
Churches, Meeting Halls	65	---	45
Office Buildings	---	---	45
Schools, Libraries, Museums	---	---	45

1 Where the location of the outdoor activity areas is unknown or is not applicable, the exterior noise level standard shall be applied to the property line of the receiving land use.

2 As determined for a typical worst-case hour during periods of use.

Source: City of Fresno General Plan

Implementation Policy NS-1-a of the General Plan provides guidance in regards to the development of new noise sensitive land uses (including residential developments).

> ***Desirable and Generally Acceptable Exterior Noise Environment.*** *Establish 65 dBA L_{dn} or CNEL as the standard for the desirable maximum average exterior noise levels for defined usable exterior areas of residential and noise-sensitive uses for noise, but designate 60 dBA L_{dn} or CNEL (measured at the property line) for noise generated by stationary sources impinging upon residential and noise- sensitive uses. Maintain 65 dBA L_{dn} or CNEL as the maximum average exterior noise levels for non-sensitive commercial land uses, and maintain 70 dBA L_{dn} or CNEL as maximum average exterior noise level for industrial land uses, both to be measured at the property line of parcels where noise is generated which may impinge on neighboring properties.*

The General Plan also provides noise level standards for non-transportation (stationary) noise sources. The General Plan noise level standards for non-transportation noise sources are identical to those provided in the City's Municipal code, provided below in Table II.

Implementation Policy NS-1-i of the General Plan Noise Element provides guidance in regards to mitigation for new developments and projects that have potential to result in a noise-related impact at existing noise-sensitive land uses.

> ***Mitigation by New Development.*** *Require an acoustical analysis where new development of industrial, commercial or other noise generating land uses (including transportation facilities such as roadways, railroads, and airports) may result in noise levels that exceed the noise level exposure criteria established by [Table I] and [Table II] to determine impacts, and require developers to mitigate these impacts in conformance with Tables 9-2 and 9-3 as a condition of permit approval through appropriate means.*
>
> *Noise mitigation measures may include:*

- *The screening of noise sources such as parking and loading facilities, outdoor activities, and mechanical equipment;*
- *Providing increased setbacks for noise sources from adjacent dwellings;*
- *Installation of walls and landscaping that serve as noise buffers;*
- *Installation of soundproofing materials and double-glazed windows; and*
- *Regulating operations, such as hours of operation, including deliveries and trash pickup.*

> *Alternative acoustical designs that achieve the prescribed noise level reduction may be approved by the City, provided a qualified Acoustical Consultant submits information demonstrating that the alternative designs will achieve and maintain the specific targets for outdoor activity areas and interior spaces. As a last resort, developers may propose to construct noise walls along roadways when compatible with aesthetic concerns and neighborhood character. This would be a developer responsibility, with no City funding.*

Implementation Policy NS-1-j of the General Plan Noise Element provides guidance in regards to the establishment of a significance threshold when determining an increase in noise levels over existing ambient noise levels.

Significance Threshold. *Establish, as a threshold of significance for the City's environmental review process, that a significant increase in ambient noise levels is assumed if the project would increase noise levels in the immediate vicinity by 3 dB L_{dn} or CNEL or more above the ambient noise limits established in this General Plan Update.*

Commentary: When an increase in noise would result in a "significant" impact (increase of three dBA or more) to residents or businesses, then noise mitigation would be required to reduce noise exposure. If the increase in noise is less than three dBA, then the noise impact is considered insignificant and no noise mitigation is needed. By setting a specific threshold of significance in the General Plan, this policy facilitates making a determination of environmental impact, as required by the California Environmental Quality Act. It helps the City determine whether (1) the potential impact of a development project on the noise environment warrants mitigation, or (2) a statement of overriding considerations will be required.

Municipal Code

Section 15-2506 of the City of Fresno Municipal code establishes hourly acoustical performance standards for non-transportation noise sources. The standards, provided in Table II, are made more restrictive during the nighttime hours of 10:00 p.m. to 7:00 a.m. Additionally, the municipal code states that when ambient noise levels exceed or equal the levels described in Table II, mitigation shall only be required to limit noise to the existing ambient noise levels, plus five (5) dB. Section 15-2506 of the Municipal Code is consistent with Implementing Policy NS-1-I of the Noise Element of the City of Fresno General Plan (adopted 12/18/14).

TABLE II

NON-TRANSPORTATION NOISE LEVEL STANDARDS, dBA
CITY OF FRESNO MUNICIPAL CODE, SECTION 15-2506

Daytime (7 a.m.-10 p.m.)		Nighttime (10 p.m.-7 a.m.)	
L_{eq}	L_{max}	L_{eq}	L_{max}
50	70	45	60

Source: City of Fresno Municipal Code

Additional guidance is provided in Section 10-102(b) of the City's Municipal Code. Section 10 provides existing ambient noise levels to be applied to various districts, further divided into various hours of the day. Table III describes the assumed minimum ambient noise levels by district and time. Section 10-102(b) states *"For the purpose of this ordinance, ambient noise level is the level obtained when the noise level is averaged over a period of fifteen minutes, without inclusion of the offending noise, at the location and time of day at which a comparison with the offending noise is to be made. Where the ambient noise level is less than that designated in this section, however, the noise level specified herein shall be deemed to be the ambient noise level for that location".*

TABLE III ASSUMED MINIMUM AMBIENT NOISE LEVEL, dBA CITY OF FRESNO MUNICIPAL CODE, SECTION 10-102(B)		
DISTRICT	TIME	SOUND LEVEL, dB L_{eq}
RESIDENTIAL	10 PM TO 7 AM	50
RESIDENTIAL	7 PM TO 10 PM	55
RESIDENTIAL	7 AM TO 7 PM	60
COMMERCIAL	10 PM TO 7 AM	60
COMMERCIAL	7 AM TO 10 PM	65
INDUSTRIAL	ANYTIME	70
Source: City of Fresno Municipal Code		

Section 10-106 (Prima Facie Violation) States *"Any noise or sound exceeding the ambient noise level at the properly line of any person offended thereby, or, if a condominium or apartment house, within any adjoining living unit, by more than five decibels shall be deemed to prima facie evidence of a violation of Section 8-305."*

For noise sources that are not transportation related, which usually includes commercial or industrial activities and other stationary noise sources (such as amplified music), it is common to assume that a 3-5 dB increase in noise levels represents a substantial increase in ambient noise levels. This is based on laboratory tests that indicate that a 3 dB increase is the minimum change perceptible to most people, and a 5 dB increase is perceived as a "definitely noticeable change."

Appendix A provides definitions of the acoustical terminology used in this report. Unless otherwise stated, all sound levels reported in this analysis are A-weighted sound pressure levels in decibels (dB). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighted sound levels, as they correlate well with public reaction to noise. Appendix B provides typical A-weighted sound levels for common noise sources.

PROJECT SITE NOISE EXPOSURE

The project site is located at the northeast corner of S. Peach Avenue and E. Church Avenue, in Fresno, California. The project site is exposed traffic noise associated with vehicles on S. Peach Avenue and E. Church Avenue. The distance from center of the backyards of the closest proposed lots to the centerline of S. Peach Avenue is approximately 180 feet. The distance from the center of the backyards of the closest proposed lots to E. Church Avenue is approximately 65 feet.

Traffic Noise Exposure

Noise exposure from traffic on S. Peach Avenue and E. Church Avenue was calculated for existing and future (2035) conditions using the FHWA Traffic Noise Model and traffic data obtained from Fresno COG. A description of the noise model, applied data, methodology and findings is provided below.

WJVA utilized the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108). The FHWA Model is a standard analytical method used for roadway traffic noise calculations. The model is based upon reference energy emission levels for automobiles, medium trucks (2 axles) and heavy trucks (3 or more axles), with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within ±1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical day and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Noise level measurements and concurrent traffic counts were conducted by WJVA staff at two locations within the project site on January 10, 2022. The purpose of the measurement was to evaluate the accuracy of the FHWA Model in describing traffic noise exposure within the project site. The traffic noise measurement sites were located at a distance of approximately 65 feet from the centerline of E. Church Avenue and approximately 140 feet from the centerline of S. Peach Avenue. The speed limit was assumed to be 40 mph (miles per hour). The project vicinity and noise monitoring site location are provided as Figure 2. Photographs showing the E. Church Avenue and S. Peach Avenue noise measurement sites are provided as Figure 3 and Figure 4, respectively.

Noise monitoring equipment consisted of Larson-Davis Laboratories Model LDL-820 sound level analyzer equipped with a B&K Type 4176 1/2" microphone. The equipment complies with the specifications of the American National Standards Institute (ANSI) for Type I (Precision) sound level meters. The meter was calibrated in the field prior to use with a B&K Type 4230 acoustic calibrator to ensure the accuracy of the measurements. The microphone was located on a tripod at 5 feet above the ground. The project site presently consists of undeveloped land and a portion is currently used for industrial purposes.

Noise measurements were conducted in terms of the equivalent energy sound level (L_{eq}). Measured L_{eq} values were compared to L_{eq} values calculated (predicted) by the FHWA Model

using as inputs the traffic volumes, truck mix and vehicle speed observed during the noise measurements. The results of the comparison are shown in Table IV.

From Table IV it may be determined that the traffic noise levels predicted by the FHWA Model were 0.9 dB higher than those measured for the conditions observed at the time of the noise measurements for S. Peach Avenue and 0.3 dB higher than those measured for the conditions observed at the time of noise measurements for E. Church Avenue. This is considered to be reasonable agreement with the model and therefore no adjustments to the model are necessary.

TABLE IV

COMPARISON OF MEASURED AND PREDICTED (FHWA MODEL) NOISE LEVELS OLIVE LANE SUBDIVISION, FRESNO

	S. Peach Ave	E. Church Ave.
Measurement Start Time	2:30 p.m.	2:50 p.m.
Observed # Autos/Hr.	624	348
Observed # Medium Trucks/Hr.	36	12
Observed # Heavy Trucks/Hr.	12	0
Observed Speed (MPH)	40	40
Distance, ft. (from center of roadway)	140	65
L_{eq}, dBA (Measured)	57.9	59.8
L_{eq}, dBA (Predicted)	58.8	59.5
Difference between Predicted and Measured L_{eq}, dBA	**0.9**	**0.3**

Note: FHWA "soft" site assumed for calculations.
Source: WJV Acoustics, Inc.

Annual Average Daily Traffic (AADT) data for E. Church Avenue and S. Peach Avenue, in the project vicinity was obtained from Fresno COG. Truck percentages and the day/night distribution of traffic were estimated by WJVA, based upon previous studies conducted in the project vicinity since project-specific data were not available from government sources. A speed limit of 40 mph was assumed for both roadways. Table V summarizes annual average traffic data used to model noise exposure within the project site.

TABLE V TRAFFIC NOISE MODELING ASSUMPTIONS OLIVE LANE SUBDIVISION, FRESNO				
	S. Peach Ave.		E. Church Ave.	
	Existing	2035	Existing	2035
Annual Avenue Daily Traffic (AADT)	8,514	11,278	5,971	5,810
Day/Night Split (%)	90/10			
Assumed Vehicle Speed (mph)	40			
% Medium Trucks (% AADT)	2			
% Heavy Trucks (% AADT)	1			

Sources: Fresno COG
WJV Acoustics, Inc.

Using data from Table V, the FHWA Model, annual average traffic noise exposure was calculated for the closest proposed backyards from S. Peach Avenue and E. Church Avenue. Table VI provides the noise exposure levels for both roadways, at the closest proposed residential lots to the roadway.

TABLE VI MODELED TRAFFIC NOISE LEVELS, dB, L_{dn} OLIVE LANE SUBDIVISION		
Roadway	Existing Conditions	2035 Conditions
S. Peach Avenue (north of E. Church Avenue)	63	64
E. Church Avenue (east of S. Peach Avenue	55	54

Source: WJV Acoustics
Fresno COG

Reference to Table VI indicates that the traffic noise exposure at the closest lots to S. Peach Avenue would be approximately 63 dB L_{dn} for existing conditions and approximately 64 dB L_{dn} for future (2035) traffic conditions. Reference to Table VI also indicates that the traffic noise exposure at the closest lots to E. Church Avenue would be approximately 55 dB L_{dn} for existing conditions and approximately 54 dB L_{dn} for future (2035) traffic conditions. Such noise exposure levels do not exceed the City's 65 dB L_{dn} exterior noise level standard and mitigation measures are not required for compliance with the City's exterior noise level standard.

Interior Noise Exposure:

The City of Fresno interior noise level standard is 45 dB L_{dn}. The worst-case noise exposure within the proposed residential development would be approximately 64 dB L_{dn} (2035 conditions along S. Peach Avenue). This means that the proposed residential construction must be capable of providing a minimum outdoor-to-indoor noise level reduction (NLR) of approximately 19 dB (64-45=19).

A specific analysis of interior noise levels was not performed. However, it may be assumed that residential construction methods complying with current building code requirements will reduce exterior noise levels by approximately 25 dB if windows and doors are closed. This will be sufficient for compliance with the City's 45 dB L_{dn} interior standard at all proposed lots. Requiring that it be possible for windows and doors to remain closed for sound insulation means that air conditioning or mechanical ventilation will be required.

CONCLUSIONS AND RECOMMENDATIONS

The proposed 74-lot single-family residential development will comply with all City of Fresno exterior and interior noise level standards without the need for the implementation of mitigation measures.

The conclusions and recommendations of this acoustical analysis are based upon the best information known to WJV Acoustics Inc. (WJVA) at the time the analysis was prepared concerning the proposed lot layout plan, project site elevation, traffic volumes and roadway configurations. Any significant changes in these factors will require a reevaluation of the findings of this report. Additionally, any significant future changes in motor vehicle technology, noise regulations or other factors beyond WJVA's control may result in long-term noise results different from those described by this analysis.

Respectfully submitted,

Walter J. Van Groningen
President

WJV:wjv

FIGURE 1: SITE PLAN

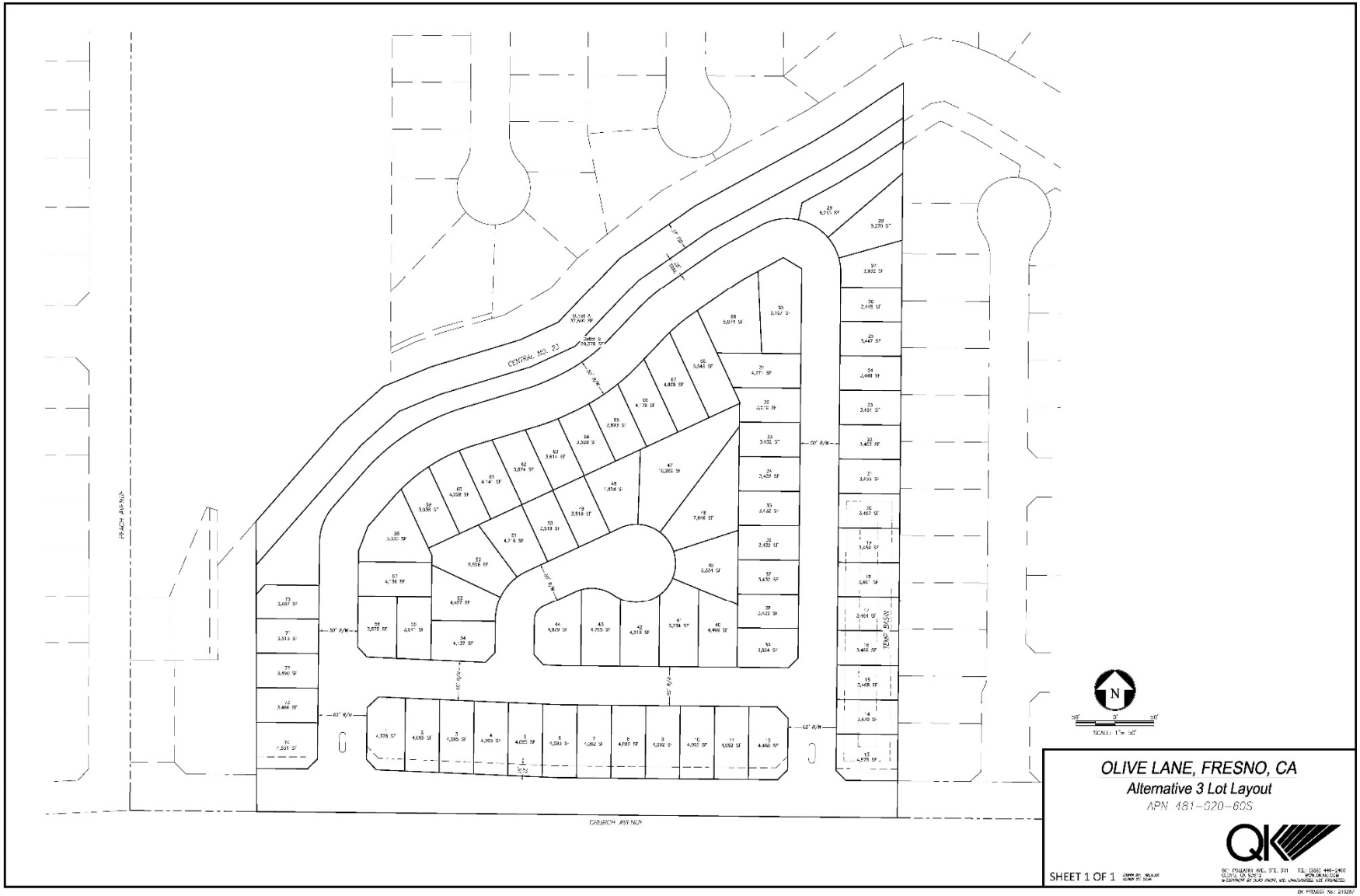


FIGURE 2: PROJECT SITE VICINITY AND NOISE MEASUREMENT LOCATIONS

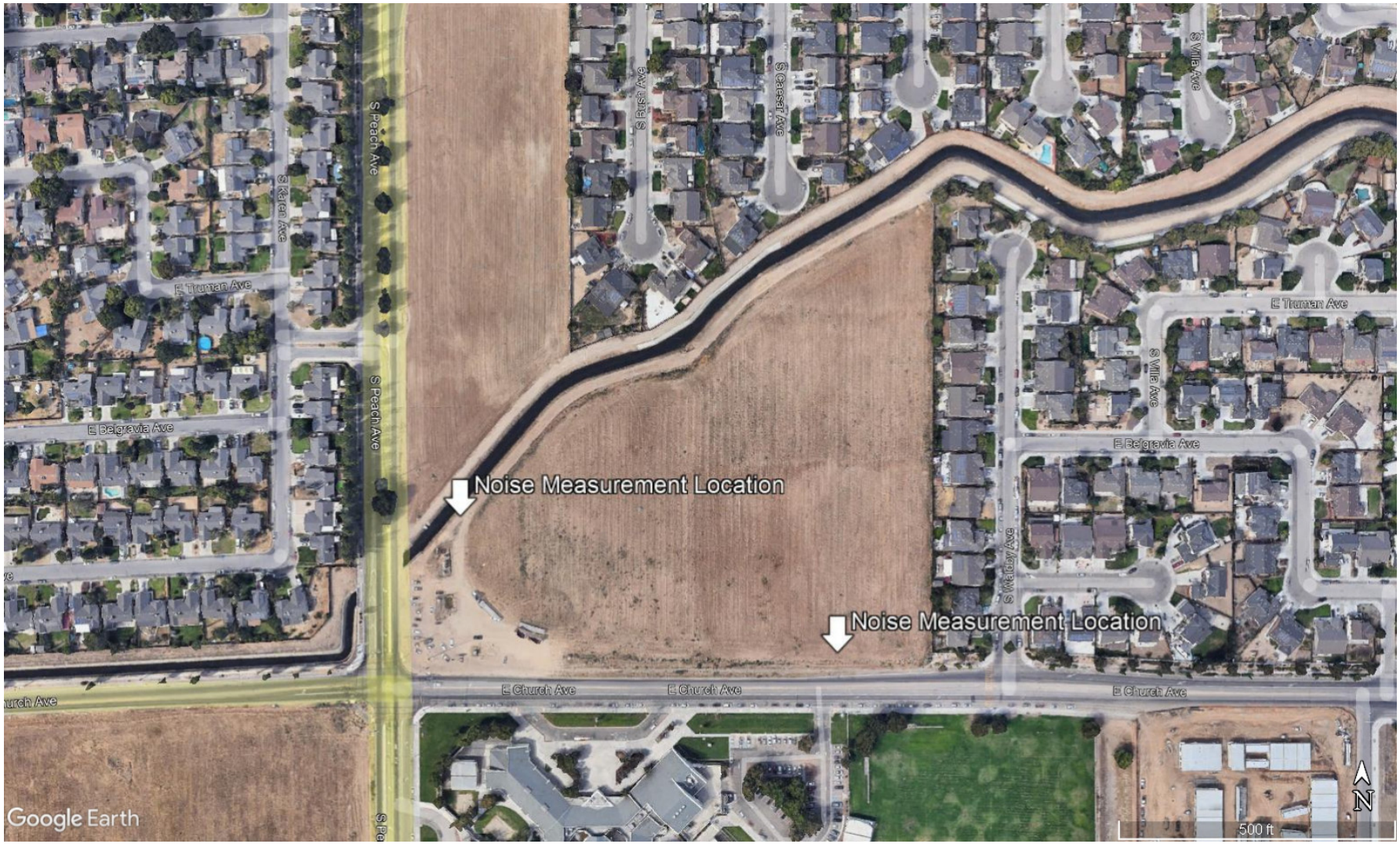


FIGURE 3: E. CHURCH AVENUE NOISE MEASUREMENT SITE

FIGURE 4: S. PEACH AVENUE NOISE MEASUREMENT SITE

APPENDIX A

ACOUSTICAL TERMINOLOGY

AMBIENT NOISE LEVEL: The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

CNEL: Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

DECIBEL, dB: A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

DNL/L_{dn}: Day/Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.

L_{eq}: Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over 1, 8 and 24-hour sample periods.

NOTE: The CNEL and DNL represent daily levels of noise exposure averaged on an annual basis, while L_{eq} represents the average noise exposure for a shorter time period, typically one hour.

L_{max}: The maximum noise level recorded during a noise event.

L_n: The sound level exceeded "n" percent of the time during a sample interval (L_{90}, L_{50}, L_{10}, etc.). For example, L_{10} equals the level exceeded 10 percent of the time.

A-2

ACOUSTICAL TERMINOLOGY

NOISE EXPOSURE CONTOURS: Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and DNL contours are frequently utilized to describe community exposure to noise.

NOISE LEVEL REDUCTION (NLR): The noise reduction between indoor and outdoor environments or between two rooms that is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of "noise level reduction" combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.

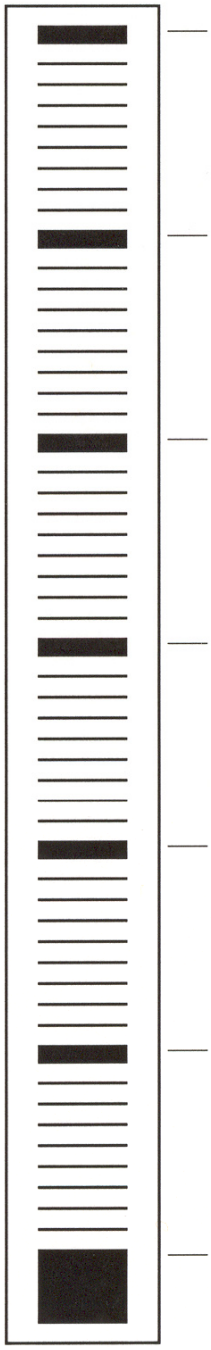
SEL or SENEL: Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

SOUND LEVEL: The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

SOUND TRANSMISSION CLASS (STC): The single-number rating of sound transmission loss for a construction element (window, door, etc.) over a frequency range where speech intelligibility largely occurs.

APPENDIX B
EXAMPLES OF SOUND LEVELS

NOISE SOURCE	SOUND LEVEL	SUBJECTIVE DESCRIPTION
AMPLIFIED ROCK 'N ROLL	120 dB	
JET TAKEOFF @ 200 FT		DEAFENING
	100 dB	
BUSY URBAN STREET		VERY LOUD
	80 dB	
FREEWAY TRAFFIC @ 50 FT		LOUD
CONVERSATION @ 6 FT	60 dB	
TYPICAL OFFICE INTERIOR		MODERATE
SOFT RADIO MUSIC	40 dB	
RESIDENTIAL INTERIOR		FAINT
WHISPER @ 6 FT	20 dB	
HUMAN BREATHING		VERY FAINT
	0 dB	



Fresno COG Vehicle Miles Traveled Analysis Tool Summary Report

Tool Version: *Version 1.38* *Report Date:* *5/30/2022*

Project Information

Name:	Olive Lane
Jurisdiction	Jurisdiction
TAZ ID	1172

Project Land Use

Residential	Single-family:	73	DU	Multi-family:	0	DU
	Total:	73	DU	Percent Affordable:	0	%
Non-Residential	Office:	0	EMP	Others:		TSF

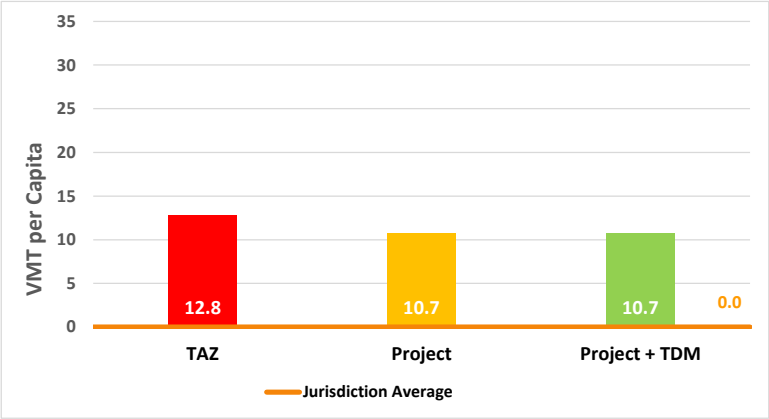
Project TDM measures (VMT reduction strategies)

TDM Strategy	Included in the project	TDM Quantification	% VMT/Capita Reduction	% VMT/Employment Reduction	
Implement Project Specific Vanpool Program	No		N/A		
Implement Project Specific Carpool Program	No			N/A	

Project VMT Results

Residential

Project's VMT/Capita



Project VMT per Capita:	10.7
City VMT / Capita:	
Significant Impact:	#VALUE!
Project VMT per Capita with TDM Measures:	10.7
Significant Impact with TDM measures:	#VALUE!