COUNTY OF TULARE
RESOURCE MANAGEMENT AGENCY

5961 South Mooney Boulevard
Visalia, CA 93277

DRAFT
Initial Study and Mitigated Negative Declaration

Derrel's Mini Storage
(GPA 22-001, PZC 22-002)

July 2022

Prepared by:
County of Tulare Resource Management Agency
Economic Development and Planning Branch
Environmental Planning Division

INITIAL STUDY CHECKLIST

1. **Project Title:** Derrel's Mini Storage, GPA 22-001 & PZC 22-002

2. **Lead Agency:** County of Tulare
Resource Management Agency
5961 S. Mooney Blvd.
Visalia, CA 93277

3. **Contact Persons:** Chuck Przybylski, Planner IV (Project Planner) – 559-624-7131
Hector Guerra, Chief, Environmental Planning Division – 559-624-7121

4. **Project Location:** 15570 Avenue 292, Visalia, CA. The Project site is located in the Exeter Quadrangle USGS 7.5 Minute Series in Tulare County, directly east of the City of Visalia city limits, generally south of Noble Avenue and west of Road 156. It lies within Section 35, Township 19 South, Range 25 East, Mount Diablo Meridian within APNs 101-090-014, 101-090-015, 101-100-005, and-101-100-009.

5. **Applicant:** Greg Dowds
3500 S. Tamarack St.
Visalia, CA 93277

6. **Owner(s)** Vanderplan Development, LLC
P.O. Box 1267
Visalia, CA 93279

Ronda Hash
15570 Avenue 292
Visalia, CA 93292

7. **General Plan Designation:** Visalia Area Land Use Plan "Agriculture"

8. **Zoning:** PD-C-3-SC (Planned Development – Service Commercial – Scenic Corridor Combining Zone) and AE-20 (Exclusive Agriculture – 20 Acre Minimum)

9. **Description of Project (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)** The applicant is requesting is to modify the previously approved Sequoia Drive-In Business Park Master Development Guidelines PPD 20-001, Development Agreement No. DEV 20-002, and Vesting Tentative Subdivision Map No. TSM 834 (Castlewood LLC/Visalia) in order to accommodate the establishment of the first phase of Derrel's Mini-Storage within the footprint of the previously approved project (APNs: 101-090-014 & -015 and 101-100-009). This modification would also add twenty (20) acres of additional territory (APN: 101-100-005) to the Project site to accommodate the second phase of Derrel's Mini-Storage. The area that is proposed to be added currently is planted to walnuts, has a land use designation of "Valley Agricultural", and is located in the AE-20 (Exclusive Agricultural Zone – 20 Acre Minimum). In addition, the applicant is requesting a Lot Line Adjustment to adjust the boundaries between three existing parcels (APNs: 101-090-014 & -015 and 101-100-009) to coincide with the three (3) phases of the proposed Project. The proposed Project site is located approximately one-quarter mile east of the City of Visalia. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage and resident manager housing. The proposed use (min–storage/RV storage) where the expansion would occur is not allowed in the AE-20 Zone; therefore, the Project will require a change of zone to PD-C-3-SC from its existing AE-20 zone. A Williamson Act Cancellation must also occur

to cancel Contract No. 10335 for APN 101-100-005 as part of this Project. The Project will include a water feature fronting Avenue 296, access from Avenue 296, an on-site storm water retention basin, and an emergency fire access point from Road 156 to comply with Fire Department conditions.

Figure 4 shows site plan of existing uses located at this property.

10. **Surrounding land uses and setting (Brief description):**
    North: approved mini-storage and business park;
    South: agriculture and rural residence with five out buildings;
    East: two rural residences;
    West: agriculture and rural residences

11. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):** Regional Water Quality Control Board, San Joaquin Valley Unified Air Pollution Control District, Caltrans, other TBD.

12. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that include, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** Pursuant to AB 52, a Sacred Land File search was requested from the Native American Heritage Commission (NAHC) on July 1, 2022. On July 5, 2022, tribal consultation notices were sent to 18 tribal contacts representing seven (7) Native American tribes. On July 13, 2022, an additional tribe was provided a tribal consultation opportunity and provided an immediate response (on 7/13/22) declining tribal consultation. As of the date of release of this environmental document, a response has not been received from the NAHC indication SLF search results. Also, the County has not received any other response(s) from the tribes within the 30-day response time. It is noted that mitigation measures have been included in the project to reduce potential impacts on tribal cultural resources in the unlikely event that any are unearthed during construction-related activities.

Figure 1. Vicinity Map

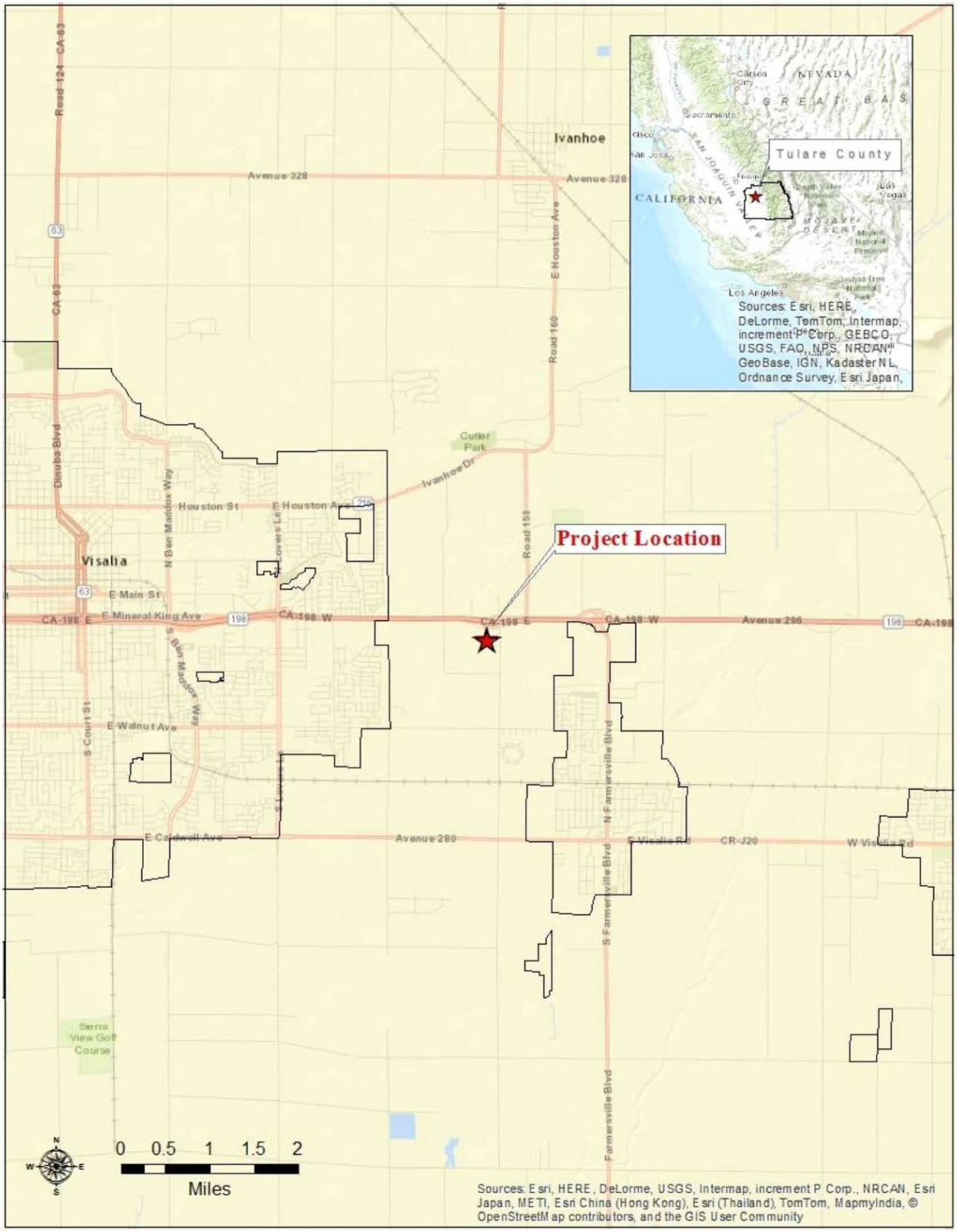


Figure 2. Aerial View of proposed Project Site

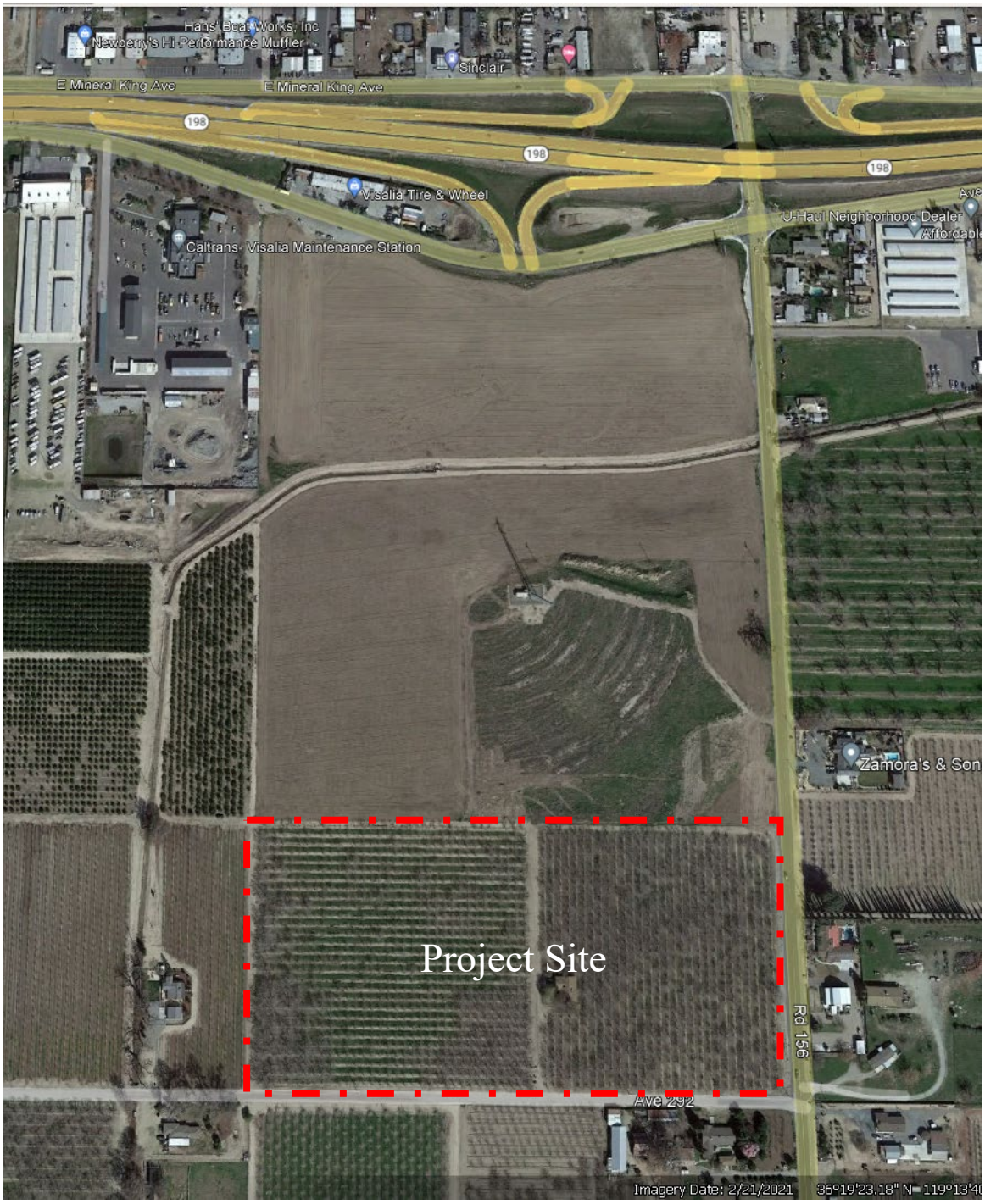


Figure 4a. Derrel's Mini Storage Site Plan
within the Existing Area of Sequoia Drive-In Business Park

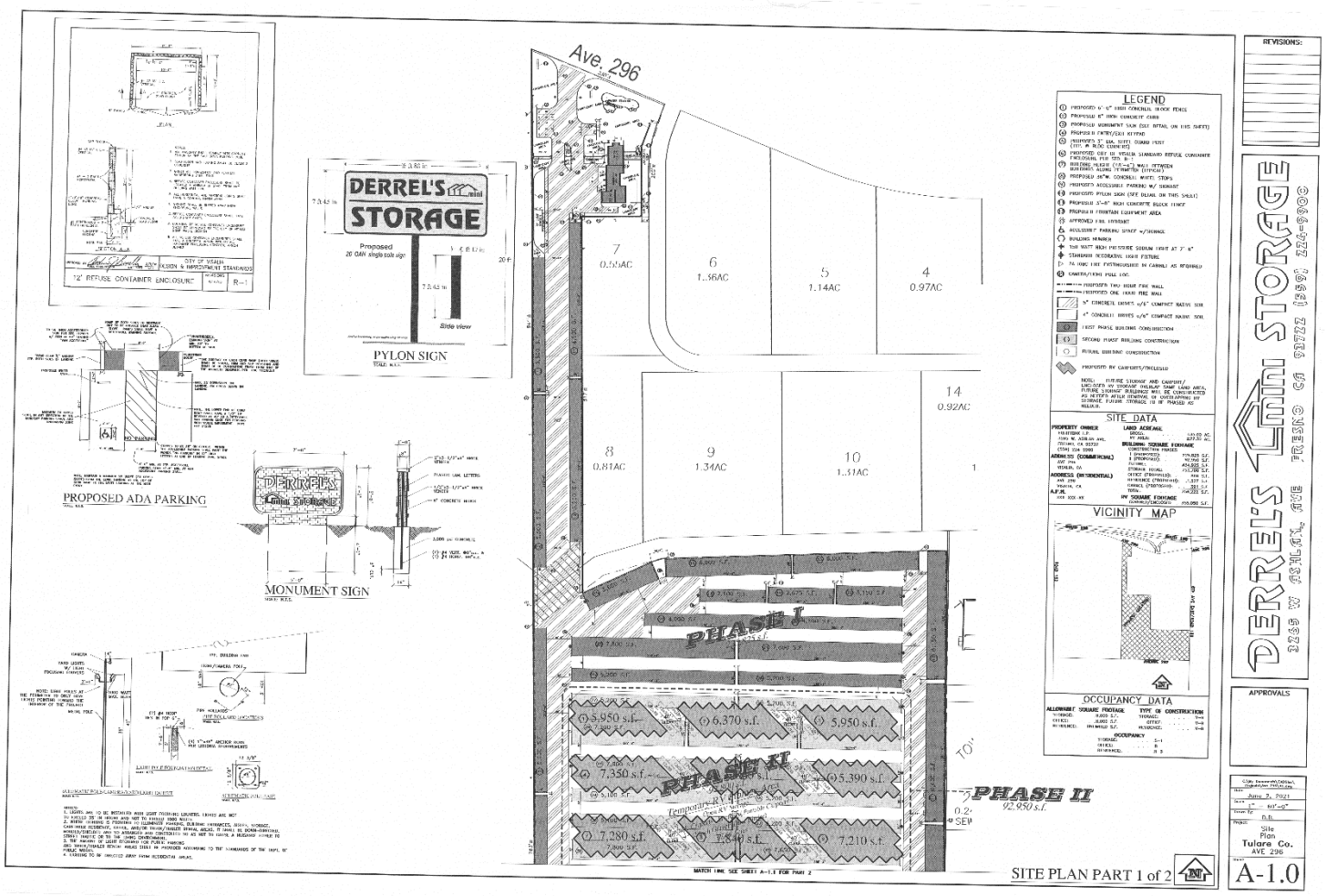
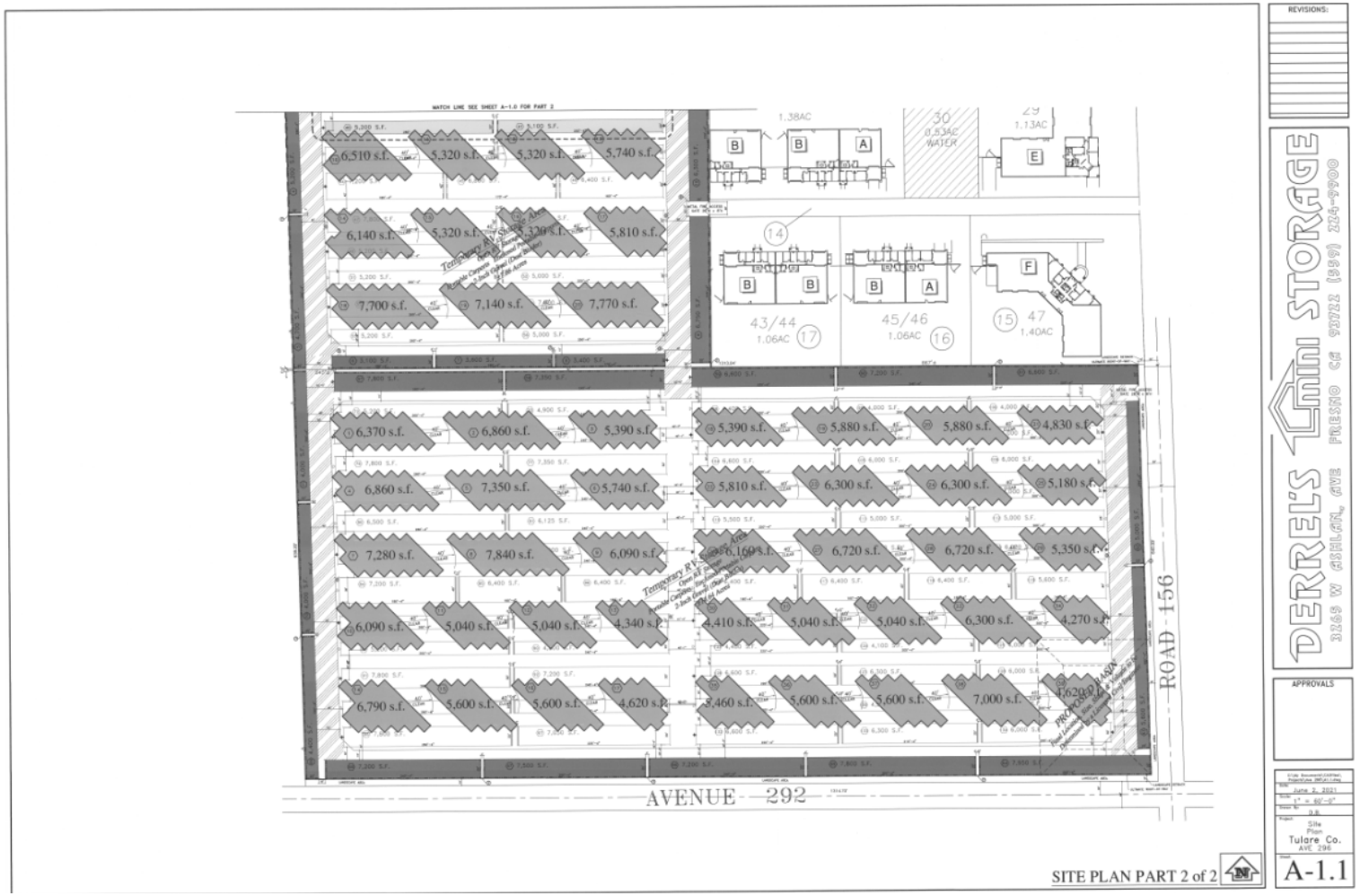


Figure 4b. Derrel's Mini Storage Site Plan
Within the Area Proposed for Addition to Sequoia Drive-In Business Park



A. 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 / 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

B. DETERMINATION:

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.

☒ 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 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** 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 **ENVIRONMENTAL IMPACT REPORT** 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.

Signature: _____ Date: 7/19/22

Hector Guerra
Printed Name

Chief Environmental Planner
Title

Signature: _____ Date: 7.19.22

Reed Schenke, P.E.
Printed Name

Environmental Assessment Officer
Title

C. EVALUATION OF ENVIRONMENTAL IMPACTS:

1) 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).

2) 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.

3) 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.

4) "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 (5) below, may be cross-referenced).

5) 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©(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 an 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.

6) 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.

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

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

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.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
1.	**AESTHETICS**					
	Would the project:					
	a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
	b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
	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 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?	☐	☐	☐	☒
	d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Aesthetics, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

Tulare County is located in a predominately agricultural region of central California. The terrain in the County varies. The western portion of the County includes a portion of the San Joaquin Valley (Valley), and is generally flat, with large agricultural areas with generally compact towns interspersed. In the eastern portion of the County are foothills and the Sierra Nevada mountain range. The project site is located on the Valley floor, which is very fertile and has been intensively cultivated for many decades. Agriculture and related industries such as agricultural packing and shipping operations and small and medium sized manufacturing plants make up the economic base of the Valley region. Many communities are small and rural, surrounded by agricultural uses such as row crops, orchards, and dairies. From several locations on major roads and highways throughout the County, electric towers and telephone poles are noticeable. Mature trees, residential, commercial, and industrial development, utility structures, and other vertical forms are highly visible in the region because of the flat terrain. Where such vertical elements are absent, views are expansive. Most structures are small; usually one story in height, through occasionally two story structures can be seen commercial or industrial agricultural complexes. The County provides a wide range of views from both mobile and stationary locations… [1]

The Project site is located on the San Joaquin Valley floor in an unincorporated area. The original 46-acre Project site is east of the City of Visalia, just south of the State Route 198 corridor. The northern ~27 acres of the original Project site is within the City of Visalia's (City) adopted Sphere of Influence, while the remaining southern ~20 acres is within the City's adopted Planning Area. The site is currently fallow; however, the site has historically been wheat farmed for weed management with the southern portion of the site being the location of a former drive-in movie theater. Approximately half of the original Project site is bordered by urban development while the remaining half is bordered by land in active agricultural uses. The Caltrans Visalia Maintenance building is to the west while various commercial buildings are on the northern side of SR 198, north of the original Project site. A cluster of

[1] Tulare County 2030 General Plan: Recirculated Draft EIR (RDEIR). Page 3.1-11. Accessed in July 2022 at: http://generalplan.co.tulare.ca.us/documents/generalplan2010/RecirculatedDraftEIR.pdf

approximately 12 residences is immediately east of the site and beyond that is a RV and mini storage facility. The Little Tulare Irrigation Ditch bisects the center of the site while a wireless communications tower is located on the southern portion of the site. Surrounding agricultural lands consist of stone fruit orchards, row crops and other farmed lands. The proposed 20-acres of additional territory to the original Project site would accommodate the second phase of Derrel's Mini-Storage. The area that is proposed to be added currently contains a walnut orchard, has a land use designation of "Valley Agricultural", and is located in the AE-20 (Exclusive Agricultural Zone – 20 Acre Minimum). The proposed Project site is also located approximately one-quarter mile east of the City of Visalia. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage and resident manager housing. The Project will include a water feature fronting Avenue 296/Noble Avenue, access from Avenue 296, an on-site storm water retention basin, and an emergency fire access point from Road 156 (to comply with Fire Department conditions of approval).

Regulatory Setting

Federal

Aesthetic resources are protected by several federal regulations, none of which are relevant to this Project because it will not be located on lands administered by a federal agency nor is the Project applicant requesting federal funding or any federal permits.

State

Title 24 Outdoor Lighting Standards

"The 2019 Building Energy Efficiency Standards improve upon the 2016 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Buildings whose permit applications are dated on or after January 1, 2020, must comply with the 2019 Standards. The California Energy Commission updates the standards every three years."[2] Title 24 Outdoor Lighting Standards were adopted by the State of California Energy Commission (Commission) (Title 24, Parts 1 and 6, Building Energy Efficiency Standards (Standards) went into effect on January 1, 2020. The changes focus on "four key areas: smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements."[3] "The significant changes for outdoor lighting systems in the 2019 update to the Energy Standards include:

- Changes to outdoor lighting power allowances with the allowance values based on LED lighting technologies. Revisions to the general hardscape lighting values in Tables 140.7-A and the specific lighting application values in Table 140.7-B for all Lighting Zones (LZ) – Lighting Zone 1 thru Lighting Zone 4.
- Add separate lighting power allowance values for concrete-surfaced and for asphalt-surfaced hardscape lighting application in Table 140.7-A.
- Add new lighting power allowances for narrow band spectrum light sources used in applications for minimizing outdoor lighting impacts on professional astronomy and nocturnal habitat. (Table 140.7-A)
- Revision and streamlining outdoor lighting control requirements. (§130.2(c))
- Healthcare facilities overseen by the California Office of Statewide Health Planning and Development (OSHPD) have to comply with the Energy Standards including the outdoor lighting requirements for all outdoor areas of healthcare facilities."[4]

Outdoor Lighting Zones

"The basic premise of the Energy Standards is to base allowable outdoor lighting power on the brightness of the surrounding conditions. The Energy Standards contain lighting power allowances for new lighting installations and specific alterations that are dependent on the lighting zone in which the project is located.

Five categories of outdoor lighting zones are defined, and they are LZ0, LZ1, LZ2, LZ3 and LZ4. Lighting zones with lower numbers are darker from LZ0 which is in national parks and other areas intended to be very dark at night to LZ4 for high intensity nighttime use,

[2] California Energy Commission (CEC). Accessed July 2022 at: 2019 Building Energy Efficiency Standards (ca.gov)

[3] CEC. Accessed July 2022 at: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation (ca.gov)

[4] CEC. Outdoor Lighting – Overview. 6.1. Overview. What's new for the 2019 California Energy Code. Page 6-1Accessed July2022 at: Outdoor Lighting (ca.gov)

such as entertainment or commercial districts or areas with special security considerations requiring very high light levels. The eyes adapt to darker surrounding conditions and less light is required to properly see; when the surrounding conditions get brighter, more light is needed to see."[5]

"The least power is allowed in Lighting Zone 1 and increasingly more power is allowed in Lighting Zones 2, 3, and 4. Lighting Zone 0 is intended for undeveloped spaces in parks and wildlife preserves and is very low ambient illumination.

The following summarizes the default locations for outdoor lighting zones as specified in §10-114:

- Lighting Zone 0 areas are undeveloped areas of government designated parks, recreation areas, and wildlife preserves;
- Lighting Zone 1 areas are developed portions of government designated parks, recreation areas and wildlife preserves;
- Rural areas are Lighting Zone 2;
- Urban areas are Lighting Zone 3;
- Lighting Zone 4 is a special use district that may be created by a local government through application to the Energy Commission."[6]

California Scenic Highway Program

The California Scenic Highway Program was established by the state Legislature in 1963 for the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated. The state laws governing the scenic highways program are found in The Streets and Highways Code Sections 260-263.[7] In Tulare County, portions of State Routes 180, 190, and 198 are designated as state scenic highways.[8]

Local

Tulare County General Plan 2030 Update

The Tulare County General Plan Update 2030 Part 1: Goals and Policies Report (GPR) (August 2012) includes a number of goals and policies relating to scenic protection of County resources. The Goals and Policies Report Framework Concept No. 3 addresses Scenic Landscapes:

"The scenic landscapes in Tulare County will continue to be one of the County's most visible assets. The Tulare County General Plan emphasizes the enhancement and preservation of these resources as critical to the future of the County. The County will continue to assess the recreational, tourism, quality of life, and economic benefits that scenic landscapes provide and implement programs that preserve and use this resource to the fullest extent."[9]

The Tulare County General Plan 2030 Update: Chapter 7 – Scenic Landscapes, contains the following goals and policies that relate to aesthetics, preservation of scenic vistas and daytime lighting/nighttime glare and which have potential relevance to the Project's CEQA review: *SL-1.1 Natural Landscapes* which requires new development to not significantly impact or block views of Tulare County's natural landscapes*; SL-1.2 Working Landscapes* which requires that new non-agricultural structures and infrastructure located in or adjacent to croplands, orchards, vineyards, and open rangelands be sited so as to not obstruct important viewsheds and to be designed to reflect unique relationships with the landscape; *SL-2.1 Designated Scenic Routes and Highways* which is intended

[5] Ibid. Outdoor Lighting Zones. 6-4.

[6] Op. Cit.

[7] California Department of Transportation (Caltrans). Scenic Highway Program. Frequently Asked Questions. Accessed July 2022 at: Scenic Highways - Frequently Asked Questions | Caltrans

[8] County of Tulare. Tulare County General Plan 2030 Update. Goals and Policies Report. Designated Candidate Scenic and County Scenic Routes Figure 7-1. Page 7-5.Accessed July 2022 at: http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/000General%20Plan%202030%20Part%20I%20and%20Part%20II/GENERAL%20PLAN%202012.pdf

[9] Ibid. C. Environment. Environmental Landscapes. Concept 1: Scenic Landscapes. C-1.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

to protect views of natural and working landscapes along the County's highways and roads by maintaining a designated system of County scenic routes and State scenic highways; *LU-5.3 Storage Screening* which shall require adequate landscaping and screening of industrial storage areas to minimize visual impacts and enhance the quality of the environment; *LU-5.6 Industrial Use Buffer* wherein, Unless mitigated, the County shall prohibit new heavy industrial uses to a minimum of 500 feet from schools, hospitals, or populated residential areas (more than 10 dwelling units within a quarter mile diameter area). The buffer area may be used for activities not creating impacts to adjoining sensitive land uses for uses accessory to the heavy industrial use. The establishment of a buffer may not be required when mitigated or may not apply to industrial uses that do not impact adjoining uses identified herein. The buffer area shall be landscaped and maintained; *LU-7.6 Screening* wherein the County shall require landscaping to adequately screen new industrial uses to minimize visual impacts; *ERM-5.19 Night Sky Protection* where Upon demonstrated interest by a community, mountain service center, or hamlet, the County will determine the best means by which to protect the visibility of the night sky; and *ERM-1.15 Minimize Lighting Impacts* where in the County shall ensure that lighting associated with new development or facilities (including street lighting, recreational facilities, and parking) shall be designed to prevent artificial lighting from illuminating adjacent natural areas at a level greater than one foot candle above ambient conditions.

"Tulare County's existing General Plan identifies State designated scenic highways and County designated eligible highways. There are three highway segments designated as eligible by the State. These include State Route 198 from Visalia to Three Rivers, State Route 190 from Porterville to Ponderosa, and State Route 180 extending through Federal land in the northern portion of Tulare County. State Route 198 closely follows around Lake Kaweah and the Kaweah River, while State Route 190 follows around Lake Success and the Tule River. Both Scenic Highways travel through agricultural areas of the valley floor to the foothills and the Sierra Nevada Range. Additionally, the General Plan Update identifies preserving the rural agricultural character of SR 99 and SR 65 as valuable to the County and communities."[10] As noted earlier, the segment of SR 99 between Visalia and Three Rivers is designated as eligible as a scenic road; however, it currently is not a designated scenic highway.

a) **No Impact:** The proposed Project site is located in the Valley portion of Tulare County. The site is generally flat (planted to an existing walnut orchard) with unobstructed views toward the surrounding agricultural lands, adjacent residences, and State Route 198, immediately to the north. Neither the proposed Project site nor any of the surrounding land uses contains features typically associated with scenic vistas (e.g. ridgelines, peaks, overlooks). Therefore, no opportunity exists for the Project's development to obscure views of scenic vistas that may be located within the immediate area of the proposed Project site. Although the proposed Project may be visible from SR 198, Avenue 296/Noble Avenue, Avenue 292, and Road 156, it is anticipated that design features will minimize negative visual impacts to those viewing the site. On-site landscaping and landscaping along Avenue 296 will be in accordance with City of Visalia standards and will also contain a water feature. Any structure developed on the site will not exceed 75 feet in height (per Section 12.5 of the County of Tulare Zoning Ordinance for Service Commercial (C-3) Zone District); therefore, the height will be consistent with those allowed in a commercial zone. Additionally, the proposed Project will not impair unobstructed views of the Sierra Nevada from Road 156 to the east, once the Project is fully built-out. The proposed Project will not include any structures that would exceed a maximum of 75 feet in height. As noted earlier, there are no designated scenic vistas within visible distance of the Project site. Therefore, the Project would have no impact on a scenic vista.

b) **No Impact:** There are no rock outcroppings, historic buildings, or other designated scenic resources within or near the Project site. The California Scenic Highway Program allows counties to nominate an eligible scenic highway to be approved by the California Department of Transportation and placed under the scenic corridor protection program. In Tulare County, there is currently one officially designated scenic highway, and two highways that are eligible for designation. State Route (SR) 180 is the nearest Officially Designated State Scenic Highway, approximately 27 miles north of the proposed Project site. An approximate 3.12 mile length of SR 180 is within Tulare County. State Route 198, immediately north of the proposed Project site is described as an Eligible State Scenic Highway – Not Officially Designated by Caltrans. The Tulare County General Plan 2030 Update also lists a series of Scenic County Routes, several of which are in agricultural areas; however, none are in the proposed Project vicinity. There will be no impact to this Checklist Item.

c) **No Impact:** Agricultural landscapes throughout Tulare County are typically considered scenic and visually appealing. While the proposed Project is not located on a Scenic County Road or Eligible State Scenic Highway, the proposed Project site is

[10] Tulare County General Plan 2030 Update. August 2012. Recirculated Draft EIR. Page 3.1-11. Accessed in July 2022 at: http://generalplan.co.tulare.ca.us/documents/generalplan2010/RecirculatedDraftEIR.pdf

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

located in an area with large agricultural fields under cultivation which are generally considered visually pleasing. At full build-out, implementation of the proposed Project will alter the visual character of the site from non-productive agricultural land to a commercial development. The proposed Project will be required to comply with the substantial design review and design limitations required by the City of Visalia's adopted design guidelines and zoning regulations, which require setbacks, landscaping and designs to limit impact to neighboring properties. As such, the County does not anticipate that the commercial development of the proposed Project would create a visually degraded character or quality to the Project site or to the properties near and around the Project site. Therefore, the Project would result in no impact on the visual character within or adjacent to the Project site. The project would not conflict with applicable zoning and other regulations governing scenic quality resulting in no impact to this resource.

Figure 1-2 Typical front landscaping of Derrel's Mini Storage



d) No Impact: Lighting impacts are often associated with the use of artificial light during the evening and nighttime hours. Impacts could potentially include light emanating from building interiors (seen through windows) and light from exterior sources, such as security lighting, street lighting, etc. Glare is typically a daytime occurrence caused by light reflecting off highly polished surfaces such as window glass or polished metallic surfaces. The proposed Project will include new street and commercial lighting within the development and all new lighting will be consistent with current City of Visalia standards, which will minimize light spillage or other negative lighting impacts. Other than typical daylight reflecting from commercial windows, no other sources of glare (such as light reflecting off highly polished surfaces) would occur as a result of the Project. Therefore, a less than significant impact to this Checklist Item will occur.

Cumulative Impact Analysis: **Less Than Significant Impact** - The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County General Plan 2030 Update, Tulare County General Plan Background Report, and the Tulare County General Plan 2030 Update EIR. As the proposed Project would not create any project specific visual impacts, a less than significant cumulative impact on visual character will occur.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
2.	**AGRICULTURAL AND FOREST RESOURCES**					
	In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the Rural Valley Lands Plan point evaluation system prepared by the County of Tulare 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?	☐	☐	☒	☐
	b)	Conflict with existing zoning for agriculture use, or a Williamson Act contract?	☐	☐	☒	☐
	c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources code 12220(g), timberland (as defined in Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
	d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
	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 discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Agriculture and Forest Resources, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

The Project site is located in the San Joaquin Valley portion of Tulare County. This area is characterized by rich, highly productive farmland. Agriculture is the most important sector in Tulare County's economy, and agriculture and related industries make Tulare County one of the two most productive agricultural counties in the United States, according to Tulare County Farm Bureau statistics.[11] "Agricultural lands (crop and commodity production and grazing) also provide the County's most visible source of open

[11] Tulare County Farm Bureau, "Agricultural Facts," Accessed July 2022 at: http://www.tulcofb.org/index.php?page=agfacts

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

space lands. As such, the protection of agricultural lands and continued growth and production of agriculture industries is essential to all County residents."[12]

The *2020 Tulare County Annual Crop and Livestock Report* stated "Tulare County's total gross production value for 2020 as $7,140,076,500 . This represents a decrease of $365,275,600 or 4.9% below 2019's value of $7,505,352,100. Milk represents 26.1% of the total crop and livestock value for 2020. Total milk production increased by 1.5%. Livestock and Poultry's gross value of $671,896,000 represents an increase of 1% above that of 2019, mostly due to the higher per unit value for both cattle and poultry. The total value of all Field Crop production was $504,947,000, an increase of 1.8% from the previous year. Fruit and Nut commodities were valued at $3,832,212,000 a decrease of 15.9%. This decrease can be partially attributed to the decrease in Almond, Grape, Peach, and Tangerine values. Nursery Products increased by 49.3% compared to 2019, with an overall value of $108,697,000. Vegetable Crops were valued at $26,289,000, representing a 31.9% increase.

Tulare County's agricultural strength is based on the diversity of the crops produced. The 2020 crop report covers more than 120 different commodities, 43 of which have a gross value in excess of $1,000,000. Although individual commodities may experience difficulties from year to year, Tulare County continues to produce high-quality crops that provide food and fiber to more than 96 countries throughout the world."[13]

According to the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP), in 2012 agricultural lands in Tulare County included 860,120 acres of important farmland (designated as FMMP Prime, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance) and 439,940 acres of grazing land, for a total of 1,300,060 acres of agricultural land.[14]

Important Farmland Trends

Using data collected by the FMMP, farmland acreage has been consistently decreasing for each two-year period since 1998. Tulare County lost 13,815 acres of important farmland, and 14,424 acres of total farmland between 2010 and 2012.[15]

According to the DOC, much of Tulare County's farmland is under California Land Conservation Act (Williamson Act) contracts, a program designed to prevent premature conversion of farmland to residential or other urban uses. As of January 1, 2012, there were 1,096,299 acres of farmland under Williamson Act or Farmland Security Zone contracts in Tulare County. This total includes 571,904 acres of Williamson Act prime, 513,243 acres nonprime, and 11,152 acres of Farmland Security Zone lands.[16] The acreage totals also include 6,040 acres Williamson Act prime contracted land in nonrenewal and 7,513 acres of Williamson Act nonprime in nonrenewal.[17]

According to the Tulare County Subvention Report (Fiscal Year 2015-2016), much of Tulare County's farmland is under California Land Conservation Act (Williamson Act) contracts, a program designed to prevent premature conversion of farmland to residential or other urban uses. As of January 1, 2015, there were 1,097,728 acres of farmland under Williamson Act or Farmland Security Zone contracts in Tulare County. As presented in **Table AG-1**, this total includes 565,190 acres of Williamson Act prime, 505,645 acres nonprime, and 11,101 acres of Farmland Security Zone lands. (The acreage totals also include Williamson Act prime contract land in nonrenewal and nonprime contract land in nonrenewal).[18] As shown in **Table AG-2**, a total of 1,298,053 acres are included in the Farmland Category.

[12] Tulare County General Plan 2030 Update. August 2012. Page 3-4.

[13] 2020 Tulare County Annual Crop and Livestock Report. April 2021. Cover letter from Tom Tucker, Agricultural Commissioner. Accessed July 2022 at: https://agcomm.co.tulare.ca.us/standards-and-exclusion/crop-reports1/crop-reports-2011-2020/2020-crop-and-livestock-report/.

[14] California Department of Conservation, California Farmland Conversion Report, Table A-44: Tulare County 2010-2012 Land Use Conversion. Page 72.

[15] California Department of Conservation. Division of Land Resource Protection. FMMP. "Tulare County 2008-2010 Land Use Conversion" Report. Table A-44.

[16] California Department of Conservation. The California Land Conservation Act 2014 Status Report. Table A-1: Total Reported Enrollment 2012. Page 34 Accessed July 2022 at: http://www.conservation.ca.gov/dlrp/lca/stats_reports/Documents/2014%20LCA%20Status%20Report_March_2015.pdf

[17] Ibid. Table A-5: Cumulative Nonrenewal Acreage. 38.

[18] California Department of Conservation, Division of Land Resource Protection. Farmland Mapping and Monitoring Program California Farmland Conversion Report 2015. Accessed July 2022 at: https://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2010-2012/FCR/FCR%202015_complete.pdf.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

Table AG-1[19]:
2014 Tulare County Lands under Williamson Act or Farmland Security Zone Contracts

Acres	Category
565,190	Total prime = Prime active + NR Prime
505,645	Total Nonprime = Nonprime active + NR Prime
11,101	Farmland Security Zone
1,081,936	TOTAL ACRES in Williamson Act and Farmland Security Zone contracts

Table AG-2
Tulare County FMMP-Designated Land (1998-2016)

Farmland Category	Total Acres Inventoried								
	1998[20]	2000[21]	2002[22]	2004[23]	2006[24]	2010[25]	2012[26]	2014[27]	2016[28]
Prime Farmland	396,130	393,030	387,620	384,340	379,760	370,249	368,527	366,414	366,136
Farmland of Statewide Importance	357,220	351,720	345,760	339,580	332,160	323,599	321,296	320,886	322,355
Unique Farmland	11,790	11,720	12,750	12,530	12,220	11,593	11,474	11,421	11,691
Important Farmland Subtotal	**765,140**	**756,470**	**746,130**	**736,450**	**724,140**	**705,441**	**701,297**	**859,171**	**858,119**
Farmland of Local Importance	110,040	124,140	126,820	137,440	143,830	154,550	158,823	160,450	157,937
Grazing Land	439,960	434,050	440,550	440,620	440,140	440,042	439,940	439,961	439,934
Total	1,315,140	1,314,660	1,313,500	1,314,560	1,308,110	1,300,033	1,300,060	1,299,132	1,298,053

TABLE AG-3
SOIL INFORMATION FOR PROJECT SITE

Map Unit Symbol	Map Unit Name	Non-Irrigated Capability Class	Rating Grade	Acreage/Site Percentage
130	Nord fine sandy loam, 0 to 2% slopes	4	1 Excellent (81-100)	100%

Source: USDA/NRCS 2020 accessed at: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

[19] Ibid.
[20] Tulare County General Plan 2030 Update Recirculated Draft EIR Sch#2006041162. Table 3.10-4.
[21] Ibid.
[22] Op. Cit.
[23] Op. Cit.
[24] Op. Cit.
[25] Tulare County Resource Management Agency. Tulare County Subvention Report for Fiscal Year 2012-2013 (submitted to Department of Conservation, November 2012).
[26] Ibid.
[27] California Department of Conservation, Division of Land Resource Protection. Department of Conservation, Farmland Mapping and Monitoring Program, *Table 2014-2016. Table A-44, Part I.* Accessed July 2022 at: https://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx.
[28] Ibid.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

Forest Lands

"Timberlands that are available for harvesting are located in the eastern portion of Tulare County in the Sequoia National Forest. Hardwoods found in the Sequoia National Forest are occasionally harvested for fuel wood, in addition to use for timber production. Since most of the timberlands are located in Sequoia National Forest, the U.S. Forest Service has principal jurisdiction, which encompasses over 3 million acres. The U.S. Forest Service leases these federal lands for timber harvests."[29]

As the proposed Project is located on the Valley floor, there is no timberland or forest in the Project vicinity.

Regulatory Setting

Federal

Federal regulations for agriculture and forest resources are not relevant to this project because it is not a federal undertaking (the Project site is not located on lands administered by a federal agency, and the Project applicant is not requesting federal funding or any federal permits).

State

California Environmental Quality Act (CEQA) Definition of Agricultural Lands

Public Resources Code Section 21060.1 defines "agricultural land" for the purposes of assessing environmental impacts using the FMMP. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP serves as a tool to analyze agricultural land use and land use changes throughout California. As such, this Project is being evaluated using the FMMP pursuant to CEQA.

California Department of Conservation, Division of Land Resource Protection

The California Department of Conservation (DOC) applies the Natural Resources Conservation Service (NRCS) soil classifications to identify agricultural lands. These agricultural designations are used in planning for the present and future of California's agricultural land resources. Pursuant to the DOC's FMMP, these designated agricultural lands are included in the Important Farmland Maps (IFM). As noted earlier the FMMP was established in 1982 to assess the location, quality and quantity of agricultural lands, and the conversion of these lands. The FMMP serves as tool to analyze agricultural land use and land use changes throughout California. The DOC has a minimum mapping unit of 10 acres, with parcels that are smaller than 10 acres being absorbed into the surrounding classifications.

The following list provides a comprehensive description of all the categories mapped by the DOC. Collectively, lands classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are referred to as Farmland.[30]

- Prime Farmland. Farmland that has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Farmland of Statewide Importance. Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Unique Farmland. Farmland of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated groves or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

[29] Ibid. 4-20.

[30] California Department of Conservation. FMMP – Important Farmland Map Categories. Accessed July 2022 at: https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx

- Farmland of Local Importance. Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
- Grazing Land. Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
- Urban and Builtup Land. Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- Other Land. Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

California Land Conservation Act (Williamson Act)

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. The Department of Conservation assists all levels of government, and landowners in the interpretation of the Williamson Act related government code. The Department also researches, publishes and disseminates information regarding the policies, purposes, procedures, and administration of the Williamson Act according to government code. Participating counties and cities are required to establish their own rules and regulations regarding implementation of the Act within their jurisdiction. These rules include but are not limited to: enrollment guidelines, acreage minimums, enforcement procedures, allowable uses, and compatible uses.[31]

Williamson Act Contracts are formed between a county or city and a landowner for the purpose of restricting specific parcels of land to agricultural or related open space use. Private land within locally-designated agricultural preserve areas are eligible for enrollment under a contract. The minimum term for contracts is ten years. However, since the contract term automatically renews on each anniversary date of the contract, the actual term is essentially indefinite. Landowners receive substantially reduced property tax assessments in return for enrollment under a Williamson Act contract. Property tax assessments of Williamson Act contracted land are based upon generated income as opposed to potential market value of the property.[32]

Forestry Resources

State regulations regarding forestry resources are not relevant to the proposed project because no forestry resources exist at the Project site.

Local

County of Tulare

The Tulare County General Plan has several policies that apply to projects within the County of Tulare. Policies that relate to the proposed Project are listed as follows: *AG-1.1 - Primary Land Use* – wherein the County shall maintain agriculture as the primary land use in the valley region of the County, not only in recognition of the economic importance of agriculture, but also in terms of agriculture's real contribution to the conservation of open space and natural resources; *AG-1.7 Preservation of Agricultural Lands* - wherein the County shall promote the preservation of its agricultural economic base and open space resources through the implementation of resource management programs such as the Williamson Act, Rural Valley Lands Plan, Foothill Growth Management Plan or similar types of strategies and the identification of maximum growth parameters for all urban areas located in the County; *AG-*

[31] California Department of Conservation. Williamson Act Program. Accessed July 2022 at: https://www.conservation.ca.gov/dlrp/wa.

[32] Ibid. Williamson Act Contracts. Accessed July 2022 at https://www.conservation.ca.gov/dlrp/wa/Pages/contracts.aspx

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

1.14 Right-to-Farm Noticing - wherein the County shall condition discretionary permits for special uses and residential development within or adjacent to agricultural areas upon the recording of a Right-to-Farm Notice (Ordinance Code of Tulare County, Part VII, Chapter 29, Section 07-29-1000 and following), which is an acknowledgement that residents in the area should be prepared to accept the inconveniences and discomfort associated with normal farming activities and that an established agricultural operation shall not be considered a nuisance due to changes in the surrounding area; and *AG-1.17 Agricultural Water Resources* – wherein the County shall seek to protect and enhance surface water and groundwater resources critical to agriculture.

a) Less Than Significant Impact: As noted earlier, the entire 20-acre area of the proposed Project is mapped Prime Farmland. As such, the Project would result in the Conversion of 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. Although the site is currently planted to walnuts, it is the landowner's desire to discontinue farming as urban-type development has occurred north, and particularly, west of the site. The site is ideally suited for the proposed Project as it would be situated within and adjacent to the previously approved Sequoia Drive-In Business Park and would, therefore, result in a reasonable continuity of urban-type development. Locating the proposed Project at this site would provide a buffer between urban-type uses and agricultural-uses and would result in a loss of 0.000015% of 1, 298,053 total acres of agricultural lands and 0.000054% of 366,136 acres of all Prime Farmlands within Tulare County. Therefore, the impact is less than significant.

Less Than Significant Impact: The proposed Project site is currently zoned AE-20 (Exclusive Agriculture- 40 acre minimum). The Project conflicts with existing zoning, as commercial operations are not permitted in the AE-20 Zone. Therefore, the Proposed project applicant seeks a zone change to PD-C-3-SC (Planned Development – Service Commercial – Scenic Corridor Combining) Zone thereby allowing the proposed Project. The Project parcel is under a Williamson Act Contract (Contract No. 10335 for APN 101-100-005), as such, there would be an impact to a Williamson Act Contract. As noted in Item a), the site is currently planted to walnuts; however, it is the landowner's desire to discontinue farming as urban-type development has occurred north, and particularly, west of the site. The site is ideally suited for the proposed Project as it would be situated within and adjacent to the previously approved Sequoia Drive-In Business Park and would, therefore, result in a reasonable continuity of urban-type development. Locating the proposed Project at this site would provide a buffer between urban-type uses and agricultural-uses and would result in a loss of 0.000015% of 1, 298,053 total acres of agricultural lands and 0.000054% of 366,136 acres of all Prime Farmlands within Tulare County. Therefore, the impact is less than significant.

c) No Impact: The Project will not occur on land zoned as forest land or timberland, or result in a loss of forest land. As such, the Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources code 12220(g), timberland (as defined in Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). There is no impact.

d) No Impact: As noted above, the Project will not occur on land zoned as forest land or timberland, or result in a loss of forest land. As such, the Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources code 12220(g), timberland (as defined in Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). There is no impact.

e) No Impact: The Project site is not located near land zoned as forest land or timberland and therefore would not result in any changes in the environment that might convert forest land to non-forest land. Therefore, no other changes to the environment are anticipated that could result in the conversion of adjacent farmland to non-farmland. There is no impact.

Cumulative Impact Analysis: **Less Than Significant Impact** - The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County General Plan 2030 Update, Tulare County General Plan Background Report, the Tulare County General Plan 2030 Update EIR, and the Sequoia Drive-In Business Park EIR. As the proposed Project would result in a less than significant cumulative impact on this resource.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
3.	**AIR QUALITY**					
	Where available, the significance criteria established by the applicable air quality management district 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?	☐	☐	☒	☐
	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?	☐	☐	☒	☐
	c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
	d)	Result is other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Air Quality Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

The proposed Project is located in the San Joaquin Valley Air Basin (SJVAB), a continuous inter-mountain air basin. The Sierra Nevada Range forms the eastern boundary; the Coast Range forms the western boundary; and the Tehachapi Mountains form the southern boundary. These topographic features restrict air movement through and beyond the SJVAB. The SJVAB is comprised of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, and Tulare Counties and the valley portion of Kern County; it is approximately 25,000 square miles in area. Tulare County lies within the southern portion of the SJVAB. Air resources in the SJVAB is managed by the San Joaquin Valley Air Pollution Control District (Air District, District, or SJVAPCD).

Regulatory Setting

Both the federal government (through the United State Environmental Protection Agency (EPA)) and the State of California (through the California Air Resources Board (ARB)) have established health-based ambient air quality standards (AAQS) for six air pollutants, commonly referred to as "criteria pollutants." The six criteria pollutants are: carbon monoxide (CO), ozone (O_3), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb).

Federal

National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for each criteria pollutant to protect the public health and welfare. The federal and state standards were developed independently with differing purposes and methods, although both processes are intended to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California state standards are more stringent.

The Federal Clean Air Act (CAA) requires EPA to set NAAQS for the six criteria pollutants, noted above, that occur throughout the United States. Of the six pollutants, particle pollution and ground-level ozone are the most widespread health threats. EPA regulates the criteria pollutants by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels. The set of limits based on human health is called primary standards. Another set of limits intended to prevent environmental and property damage is called secondary standards.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

EPA is required to designate areas as meeting (attainment) or not meeting (nonattainment) the air pollutant standards. The Federal CAA further classifies nonattainment areas based on the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious. The Federal CAA requires areas with air quality violating the NAAQS to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures that states will use to attain the NAAQS. The Federal CAA amendments of 1990 require states containing areas that violate the NAAQS to revise their SIP to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of air basins as reported by the agencies with jurisdiction over them. The EPA reviews SIPs to determine if they conform to the mandates of the Federal CAA amendments and will achieve air quality goals when implemented. If the EPA determines a SIP to be inadequate, it may prepare a Federal Implementation Plan (FIP) for the nonattainment area and impose additional control measures.

The SJVAB is considered to be in attainment for federal and state air quality standards for carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2); attainment for federal and non-attainment for state air quality standards for respirable particulate matter (PM_{10}); and non-attainment of state and federal air quality standards for ozone (O_3) and fine particulate matter ($PM_{2.5}$). To meet federal Clean Air Act requirements, the Air District has adopted the following attainment plans: the 2004 Extreme Ozone Attainment Demonstration Plan (for the 1-hour standard); the 2007 Ozone Plan (for the 1997 8-hour standard); the 2009 RACT SIP; the 2013 Plan for the Revoked 1-Hour Ozone Standard; the 2014 RACT SIP; the 2016 Plan for the 2008 8-Hour Ozone Standard; the 2020 RACT Demonstration; the 2007 PM10 Maintenance Plan; the 2008 PM2.5 Plan (for the 1997 annual standard); the 2012 PM2.5 Plan (for the 2006 24-hour standard); the 2015 Plan for the 1997 PM2.5 Standard (for annual and 24-hour standards); 2016 Moderate Area Plan for the 2012 PM2.5 Standard; 2018 Plan for the 1997, 2006, and 2012 PM2.5 Standards; and the 2004 Revision to the California State Implementation Plan for Carbon Monoxide. The State does not have an attainment deadline for the ozone standards; however, it does require implementation of all feasible measures to achieve attainment at the earliest date possible. State PM_{10} and $PM_{2.5}$ standards have no attainment planning requirements but must demonstrate that all measures feasible for the area have been adopted.[33]

It is reiterated that the Project does not contain a new development proposal; rather, the Project involves improvements to an existing, non-conforming use, which will include an emergency access road and second entry point on the western edge of the property. The subject site has been operating for over 13 years, and contains structures, mobile homes, storage units, and material stockpiles. The Project is subject to various Air District rules/regulations, thresholds, and/or permitting requirements, as applicable. As indicated below and depending upon a final determination by the Air District, the Project would not result in the exceedance of any Air District thresholds.

State

The California Air Resources Board (CARB or ARB) is the state agency responsible for implementing the federal and state Clean Air Acts. ARB has established California Ambient Air Quality Standards (CAAQS), which include all criteria pollutants established by the NAAQS, but with additional regulations for Visibility Reducing Particles, sulfates, hydrogen Sulfide (H_2S), and vinyl chloride.

The Project is located within the SJVAB, which includes San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and parts of Kern counties and is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD, Air District, or District).

Air basins are designated as attainment or nonattainment. Attainment is achieved when monitored ambient air quality data is in compliance with the standards for a specified pollutant. Non-compliance with an established standard will result in a nonattainment designation and an unclassified designation indicates insufficient data is available to determine compliance for that pollutant.

Standards and attainment status for listed pollutants in the Air District can be found in **Table AQ-1**. Note that both state and federal standards are presented.

[33] SJVAPCD. Air Quality Attainment Plans. Ozone Plans. Accessed July 2022 at http://valleyair.org/Air_Quality_Plans/Ozone_Plans.htm; Particulate Matter Plans at http://valleyair.org/Air_Quality_Plans/PM_Plans.htm.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

Table AQ-1
SJVAB Attainment Status

	Designation/Classification	
Pollutant	**Federal Standards**	**State Standards**
Ozone – one hour	No Federal Standard[1]	Nonattainment/Severe
Ozone – eight hour	Nonattainment/Extreme[2]	Nonattainment
PM_{10}	Attainment[3]	Nonattainment
$PM_{2.5}$	Nonattainment[4]	Nonattainment
CO	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Vinyl Chloride	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified

1 Effective June 15, 2005, the U.S. EPA revoked the federal 1-hour ozone standard, including associated designations and classifications. However, EPA had previously classified the SJVAB as extreme nonattainment for this standard. Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.

2 Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010)

3 On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM_{10} National Ambient Air Quality Standard (NAAQS) and approved the PM_{10} Maintenance Plan.

4 The Valley is designated nonattainment for the 1997 $PM_{2.5}$ NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 NAAQS on November 13, 2009 (effective December 14, 2009).

Source: San Joaquin Valley Unified Air Pollution Control District. Ambient Air Quality Standards & Valley Attainment Status. http://www.valleyair.org/aqinfo/attainment.htm. Accessed April 2021.

Local

San Joaquin Valley Air Pollution Control District

The Air District is the local agency charged with preparing, adopting, and implementing mobile, stationary, and area air emission control measures and standards. The Air District has several rules and regulations that may apply to the Project, following is an example of those rules/regulations which likely apply to this Project:

- Rule 3135 (Dust Control Plan Fees) – This rule requires the project applicant to submit a fee in addition to a Dust Control Plan. The purpose of this rule is to recover the Air District's cost for reviewing these plans and conducting compliance inspections.

- Rule 4101 (Visible Emissions) – This rule applies to any source of air contaminants and prohibits the visible emissions of air contaminants.

- Rule 4102 (Nuisance) – This rule applies to any source of air contaminants and prohibits any activity which creates a public nuisance.

- Regulation VIII (Fugitive PM10 Prohibitions) – This regulation is a series of eight rules designed to reduce PM_{10} emissions by reducing fugitive dust emissions. Regulation VIII requires implementation of control measures to ensure that visible dust emissions are substantially reduced.

Tulare County General Plan 2030 Update

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: *AQ-1.1 Cooperation with Other Agencies* requiring the County to cooperate with other local, regional, Federal, and State agencies (e.g., Valley Air District) in developing and implementing air quality plans to achieve State and federal Ambient Air Quality Standards to achieve better air quality conditions locally and regionally; *AQ-1.5 California Environmental Quality Act (CEQA) Compliance* where the County will ensure that air quality impacts identified during the CEQA review process are consistently and reasonable mitigated when feasible*; AQ-2.2 Indirect Source Review* regarding mitigating air quality impacts associated with the Project to Valley Air District's Rule 9510*; AQ-3.4 Landscape* regarding the use of ecologically based landscape design principles that can improve local air quality by absorbing CO_2, producing oxygen, providing shade that reduces energy required for cooling, and filtering particulates*;* and *AQ-4.2 Dust Suppression Measures* regarding implementation of dust suppression measures during excavation, grading, and site preparation activities consistent with SJVAPCD Regulation VIII – Fugitive Dust Prohibitions.

a) Less Than Significant Impact: Air quality plans (also known as attainment plans) and subsequent rules are used to bring the applicable air basin into attainment with federal ambient air quality standards designed to protect the health and safety of residents within that air basin. In the event development proposals were to occur following approval of the proposed Project, such developments will be required to comply with all applicable Air District rules and regulations including, but not limited to, Regulation VIII (Fugitive PM10 Prohibitions) requirements. The Air District's *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI) states, "…the District has established thresholds of significance for criteria pollutant emissions, which are based on District New Source Review (NSR) offset requirements for stationary sources. Stationary sources in the District are subject to some of the toughest regulatory requirements in the nation. Emission reductions achieved through implementation of District offset requirements are a major component of the District's air quality plans. Thus, projects with emissions below the thresholds of significance for criteria pollutants would be determined to "Not conflict or obstruct implementation of the District's air quality plan."[34]

"Determination of whether a project would exceed the applicable thresholds of significance for criteria pollutants requires quantification of project specific emissions. To streamline the process of assessing significance of criteria pollutant emissions from commonly encountered projects, the District has developed the screening tool, Small Project Analysis Level (SPAL). Using project type and size, the District has pre-quantified emissions and determined a size below which it is reasonable to conclude that a project would not exceed applicable thresholds of significance for criteria pollutants."[35]

Construction activities of the proposed Project would result in emissions of criteria pollutants including ozone precursors such as ROG and NOx as well as particulate matter. The Air District's 2016 Plan for the 2008 8-Hour Ozone Standard , 2013 Plan for the Revoked 1-Hour Ozone Standard, 2007 Ozone Plan, 2007 PM10 Maintenance Plan and Request for Redesignation, 2008 PM2.5 Plan, 2012 PM2.5 Plan, 2015 Plan for the 1997 PM2.5 Standard, the 2016 Moderate Area Plan for the 2012 PM2.5 Standard, and the 2018 Plan for the 1997, 2006, and 2012 PM2.5 Standards outline a number of control strategies to help the SJVAPCD reach attainment for the revoked federal 1-hour ozone standard, the 24-hour PM_{10} standard, and the federal and state $PM_{2.5}$ standards, respectively.[36] The San Joaquin Valley Air Basin is in attainment for CO, SO_2, and lead, so there are no attainment plans for those pollutants.

Control measures outlined in the ozone plans focus primarily on control of stationary and indirect sources such as housing and commercial developments that may generate substantial vehicle trips during operations. The primarily source of criteria pollutant emissions generated by the proposed Project would be associated with construction-related activities, which would be short-term and temporary. Therefore, the proposed Project would not create a permanent substantial source of ozone precursor emissions, and would not obstruct implementation of the SJVAPCD's ozone attainment plan.

The 2008 $PM_{2.5}$ Plan, 2012 $PM_{2.5}$ Plan, and 2015 Plan for the 1997 $PM_{2.5}$ Standard focus specifically on $PM_{2.5}$, although the control strategies from previous PM10 plans (particularly those related to fugitive dust control) have already improved the SJVAB ambient $PM_{2.5}$ levels. Therefore, because fugitive dust controls continue to be addressed in the PM_{10} plan, the plans contain a comprehensive list of strict regulatory and incentive-based measures to reduce directly-emitted $PM_{2.5}$ and precursor

[34] SJVAPCD. Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI). Page 65. www.valleyair.org/transportation/GAMAQI_3-19-15.pdf

[35] Ibid. 85.

[36] SJVAPCD Attainment Plans are available online at http://valleyair.org/Air_Quality_Plans/air-quality-plans.htm.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

emissions. However, the Project would result in relatively negligible $PM_{2.5}$ emissions from those types of sources, with the vast majority of $PM_{2.5}$ emissions associated with the Project arising from the $PM_{2.5}$ component of fugitive dust.

The Air District has determined that projects with emissions below the thresholds of significance for criteria pollutants would not conflict or obstruct implementation of the Air District's air quality plan. As discussed below with respect to item b), unmitigated emissions during construction-related activities would not exceed the Air District significance thresholds. The Project would be required to comply with applicable Air District rules and regulations, such as Regulation VIII (Fugitive PM10 Prohibitions) and Rule 9510 (Indirect Source Review), further reducing Project-related emissions.

According to the Air District's GAMAQI, a project would be considered to contribute considerably to a significant cumulative impact if it would result in an increase in ROG, NO_x, SO_2, CO, PM10, or $PM_{2.5}$ of more than its respective significance thresholds. As presented in **Table AQ-2**, proposed Project construction- and operational-related activities emissions would not exceed the annual SJVAPCD thresholds of significance for ROG, NO_x, SO_2, CO, PM_{10}, and $PM_{2.5}$.

The Air District recommends a three-tiered approach to determine project significance using pre-calculated levels for comparison. The Air District uses these recommended thresholds of significance for determining whether projects have a significant adverse air quality impacts as defined by CEQA (See **Tables 3-1 and 3-2**).[37] The three levels are as follows:

- Small Project Analysis Level (SPAL) – A level at which there is virtually no possibility of exceeding the Air District's thresholds of significance;
- Cursory Analysis Level (CAL) – Projects over the SPAL but may be close to the Air District's thresholds of significance (and may be able to drop below the CAL with effective mitigation)
- Full Analysis Level (FAL) – Projects of sufficient magnitude that the emissions would definitely be greater than the Air District's thresholds of significance.

"Small Project Analysis Level (SPAL) – Project size

The District has established thresholds of significance for criteria pollutant emissions, which are based on District New Source Review (NSR) offset requirements for stationary sources. Using project type and size, the District has pre-quantified emissions and determined a size below which it is reasonable to conclude that a project would not exceed applicable thresholds of significance for criteria pollutants.

In the interest of streamlining CEQA requirements, projects that fit the descriptions and project sizes provided below are deemed to have a less than significant impact on air quality and as such are excluded from quantifying criteria pollutant emissions for CEQA purposes."[38] Following are SPAL thresholds based on Vehicle Trips and Project Type.

As indicated in Checklist Item 17 Transportation of this MND, the Project (including Phase 1 of Derrel's Mini Storage project) is expected to generate 456 daily vehicle trips, which will not exceed the Air District's SPAL threshold for vehicle trips per day. Also, as the proposed Project contains 318,775 sq. ft.2 of buildings (i.e., mini storage units, an office, a residence, and a garage), it also does not exceed the Air District's SPAL threshold of 510,000 ft2 as the mini-storage is comparable to a light industrial-type use. As the Project falls below the SPAL limits for both vehicle trips and project size, the Project will not have a significant impact on air quality

Although not required by the Air District for projects qualifying under SPAL, for purposes of full disclosure, an emissions analysis was prepared by RMA staff with air quality expertise (Jessica Willis, Planner IV) which is included in Attachment "A" of this document. The California Emissions Estimator Model (CalEEMod) was used to quantify Project related construction and operation criteria pollutant emissions. This model is accepted by the Air District for calculating potential air emissions for

[37] SJVAPCD. CEQA Project Analysis Levels. Accessed July 2022 at http://www.valleyair.org/transportation/ceqaanalysislevels.htm.

[38] SJVAPCD. Small Project Analysis Level (SPAL). March 1, 2017. Accessed July 2022 at: http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI-SPAL.PDF.

specific projects. The model results are then compared to the Air District's annual emissions thresholds of significance which are identified in Table 3-3.

Table 3-1
Small Project Analysis Level (SPAL) by Vehicle Trips

Land Use Category	Project Size
Residential Housing	1,453 trips/day
Commercial	1,673 trips/day
Office	1,628 trips/day
Institutional	1,707 trips/day
Industrial	1,506 trips/day

Source: Air District. Small Project Analysis Level (SPAL), Table 5-2. March 1, 2017

Table 3-2
Small Project Analysis Level (SPAL) by Project Type

Land Use Category	Project Size
General Light Industry	510,000 ft^2
Heavy Industry	920,000 ft^2
Industrial Park	370,000 ft^2
Manufacturing	400,000 ft^2

Source: Air District. Small Project Analysis Level (SPAL), Table 5-3(d). March 1, 2017.

Table 3-3
Air Quality Thresholds of Significance – Criteria Pollutants

Pollutant/ Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment/Activity	Non- Permitted Equipment/Activity
	Tons per Year (tpy)	Tons per Year (tpy)	Tons per Year (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: Air District, GAMAQI, Table 2, page 80

The emissions were evaluated for a worst-case scenario and were modeled assuming construction of the entire project could be completed in an 18-month period (January 2022 through July 2026). The *CalEEMod* model run is included as a component of Attachment "A" of this MND. **Table 3-4** provides summary results of Project related construction and operational emissions. As indicated in **Table 3-4**, the emissions model results provided annual operation related emissions of ROG, NOx, PM_{10}, $PM_{2.5}$, CO, and SOx, which are below the Air District's threshold for each pollutant. The model results indicate that the proposed Project falls below SPAL thresholds for vehicle trip and project size and all Project related emissions are below the Air District's thresholds of significance at a project specific level. Therefore, the proposed Project will not potentially conflict with or obstruct the implementation of the any Air District air quality plans. As such, the impact is less than significant.

As shown in **Table 3-4**, the Project falls below the Air District's SPAL levels and Project related emissions will not exceed the Air District's thresholds of significance; therefore, the Project will not conflict with or obstruct implementation of the applicable air quality plan. Therefore, this Project would result in a less than significant impact.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

Table 3-4
Project-Related Criteria Air Pollutant Emissions

	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Construction Emissions (tons per year)						
Year 2022	0.0243	0.2485	0.1518	2.9000e -004	0.0849	0.0461
Year 2023	0.3759	3.2059	3.3766	8.5200e -003	0.6136	0.2844
Year 2024	0.3275	2.4901	3.2385	8.8800e -003	0.1061	0.1870
Year 2025	0.3031	2.3416	3.1402	8.7100e -003	0.1056	0.1756
Year 2026	4.7731	0.6904	1.0481	2.3800e -003	0.232	0.0479
Construction Total (tons/year)	5.8039	8.9765	10.9552	2.8780e -003	1.1422	0.741
CEQA Significance Threshold	10	10	100	27	15	15
Exceeds Threshold?	No	No	No	No	No	No
Total Construction (pounds/day) [a]	44.6454	69.0500	84.2708	0.2214	8.7862	5.70000
AAQA Screening Threshold	100	100	100	100	100	100
Exceeds Threshold?	No	No	No	No	No	No
Operational Emissions (tons per year)						
Year 2026	3.6361	0.9356	5.0333	0.0116	1.1290	0.3115
CEQA Significance Threshold	10	10	100	27	15	15
Exceeds Threshold?	No	No	No	No	No	No
Year 2026 (pounds /day) [b]	3.6361	5.1978	27.9628	0.0644	6.2722	1.7306
AAQA Screening Threshold	100	100	100	100	100	100
Exceeds Threshold?	No	No	No	No	No	No

a Value based on the sum of all construction and for worst-case scenario assumes all construction occurs in one year (260 work days)
b Values based on 360 operational days per year.

Source: CalEEMod report (see Attachment "A").

b) Less Than Significant Impact: As discussed earlier in item a), the Air Basin is currently designated as non-attainment for the 1-hour state ozone standard as well as for the federal and state 8-hour standards. Additionally, the Air Basin is designated as non-attainment for the state 24-hour and annual arithmetic mean PM_{10} standards, as well as the state annual arithmetic mean and the national 24-hour $PM_{2.5}$ standards. See **Table AQ-1** for designations and classifications of all criteria pollutants.

The contribution of a project's individual air emissions to regional air quality impacts is, by its nature, a cumulative effect. Emissions from past, present, and future projects in the region also have or will contribute to adverse regional air quality impacts on a cumulative basis. No single project by itself would be sufficient in size to result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality conditions. The project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

According to the Air District's GAMAQI, a project would be considered to contribute considerably to a significant cumulative impact if it would result in an increase in ROG, NO_x, SO_2, CO, PM10, or $PM_{2.5}$ of more than its respective significance thresholds (SJVAPCD, 2015). As presented in **Table AQ-2**, proposed Project construction- and operational-related activities

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

emissions would not exceed the annual SJVAPCD thresholds of significance for ROG, NO_x, SO_2, CO, PM_{10}, and $PM_{2.5}$. Therefore, this Project would result in a less than significant impact.

c) Less Than Significant Impact:. Diesel particulate matter (DPM) represents the primary toxic air contaminates (TAC) of concern associated with the proposed Project. DPM emissions are primarily the result of the operation of internal combustion engines in equipment (e.g., loaders, backhoes, and cranes, as well as haul trucks) commonly associated with construction-related activities. Since activities associated with the operation-related activities of the proposed Project would result in short-term, temporary, and intermittent use of mobile or stationary sources of DPM (e.g., maintenance workers driving to and from the Project site, and the occupational use of off-road equipment to move equipment), operation-related activities of the proposed Project would not expose nearby sensitive receptors to DPM emissions that would result in a health risk. Therefore, health risks associated only with proposed Project construction-related activities are evaluated below.

The dose to which receptors are exposed is the primary factor affecting health risk from TACs. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. According to the State of California Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments (which determine the exposure of sensitive receptors to TAC emissions), should be based on 9, 30, and/or 70-year exposure periods when assessing TACs (such as DPM) that have only cancer or chronic non-cancer health effects. However, such health risk assessments should be limited to the duration of the emission-producing activities associated with the Project, unless the activities occur for less than 6-months. Activities that would last more than 2-months, but less than 6 months, are recommended to be evaluated as if they would last for 6-months. The OEHHA does not recommend assessing cancer risk for projects lasting less than 2-months near the maximum exposed individual resident (MEIR). Since construction-related activities of the proposed Project would occur over a one-month period and the nearest sensitive receptors (property owners to the east) are located within 200 feet from the proposed Project's western boundary, the proposed Project has the potential to temporarily and intermittently expose off-site sensitive receptors to increased criteria pollutant emission concentrations from diesel powered construction-related equipment during the short-term, temporary construction-related phase.

The Air District recommends conducting a screening analysis for projects that have the potential to expose sensitive receptors to TAC emissions (e.g. DPM during project construction-related activities) that could pose a significance health risk. The SJVAPCD has developed a prioritization tool to evaluate whether a Health Risk Assessment (HRA) should be prepared, which is based on the California Air Pollution Control Officers Association's (CAPCOA) latest methodology and OEHHA guidance. According to the Air District guidance, projects that obtain a prioritization score of 10 or more is considered to be potentially significant and an HRA would be required for the project.

d) Less Than Significant Impact: Operation of the proposed Project would not create odorous emissions. However, proposed Project construction-related activities would include fuels and other odor sources (such as diesel-fueled equipment), could result in the creation of objectionable odors. Since construction-related activities would be short-term, temporary, and spatially dispersed (i.e., intermittent), and occur in a predominantly rural area, these activities would not affect a substantial number of people. Therefore, odors generated by construction-related activities of the Project would result in a less than significant impact.

Cumulative Impact Analysis: **Less Than Significant –** The geographic area of this cumulative analysis is SJVAB. This cumulative analysis is based on the information provided in the Air Quality Analysis in Attachment "A" of this MND. Development adjacent to the proposed Project site includes the Caltrans Visalia Maintenance building (to the west), while various commercial buildings are on the northern side of SR 198 (north of the original Project site), a cluster of approximately 12 residences is immediately east of the site and beyond that is a RV and mini storage facility. Surrounding agricultural lands consist of stone fruit orchards, row crops and other farmed lands. There are no County-related projects either adjacent to or in the vicinity of the proposed Project and there are there are no projects within the jurisdiction of the City of Visalia in the vicinity of the proposed Project. No other potential or actual sources of emissions are in the vicinity of the proposed Project. As noted earlier, the Project qualifies as a Small Project Analysis Level (SPAL) as defined in the Valley Air District's GAMAQI. No mitigation measures are required or necessary reduce Project air quality impacts. The impacts as a result of the Project will be less than significant as well as less than cumulatively significant.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
4.	**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?	☐	☒	☐	☐
	b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
	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?	☐	☐	☐	☒
	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?	☐	☐	☐	☒
	e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
	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 discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Biological Resources, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

As previously noted, the Project site is located on the San Joaquin Valley floor in an unincorporated area. The original 46-acre Project site is east of the City of Visalia, just south of the State Route 198 corridor. The northern ~27 acres of the original Project site is within the City of Visalia's (City) adopted Sphere of Influence, while the southern ~20 acres is within the City's adopted Planning Area. The site is currently fallow; however, the site has historically been wheat farmed for weed management with the southern portion of the site being the location of a former drive-in movie theater. Approximately half of the original Project site is bordered by urban development while the remaining half is bordered by land in active agricultural uses. The Caltrans Visalia Maintenance building is to the west while various commercial buildings are on the northern side of SR 198, north of the original

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

Project site. A cluster of approximately 12 residences is immediately east of the site and beyond that is a RV and mini storage facility. The Little Tulare Irrigation Ditch bisects the center of the site while a wireless communications tower is located on the southern portion of the site. Surrounding agricultural lands consist of stone fruit orchards, row crops and other farmed lands. The proposed 20-acres of additional territory to the original Project site would accommodate the second phase of Derrel's Mini-Storage. The proposed Project site is also located approximately one quarter mile east of the City of Visalia. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage and resident manager housing, a water feature fronting Avenue 296, access from Avenue 296, an on-site storm water retention basin, and an emergency fire access point from Road 156.

On December 15, 2020, the Sequoia Drive-In Business Park Draft Environmental Impact Report (DEIR) was adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933. A Reconnaissance-Level Biological Evaluation (BE) study area was completed by Kamanksy's Ecological Consulting for the Sequoia Drive-In Business Park DEIR ("original project") which encompasses part of the proposed Project area. As the proposed Project is immediately adjacent to and lies within the same habitat area contained in the BE, the discussion regarding Environmental Setting, CEQA requirements, Regulatory Setting Chapter 3.4 Biological Resources, contained in the Sequoia Drive-In Business Park DEIR are incorporated herein in their entirety. Where necessary and if available, additional site specific facts, data, information, etc. are included in this discussion.

Environmental Setting

The proposed Project site is located in central Tulare County, between the Cities of Visalia and Farmersville, immediately south of State Route198. The topography of the proposed Project site (and the original site) is relatively flat as both sites are currently in a fallow state of agricultural use. The Tulare Irrigation District canal bisects the original site in an east-west fashion and a mobile communication tower is at the original site's center. The proposed Project area is devoid of any trees, vegetation, or structures; it is essentially barren, fallow, and unproductive land.

As part of the proposed Derrell's Mini Storage project is within the original project site, it is reasonable to rely on the BE included in the original project's EIR (which is included in this document at Attachment B) as part of the proposed Project includes acreage withing the original site and 20 acres immediately adjacent to and south of the original site. The BE included a reconnaissance-level biological field survey for biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law and identified 37 special status species and four native plant communities which are knows to occur in the proposed Project vicinity. might occur onsite or in the proposed Project vicinity. Sources of information used in KEC's research included: (1) the California Natural Diversity Data Base (CNDDB), and (2) manuals, reports, and references related to plants and animals of the San Joaquin Valley region. It is noted that the BE evaluated both the immediate project site, and also included areas immediately adjacent to AND within the vicinity of the proposed Project site. As is typical for a BE, in addition to the quadrant where the original project is located, the BE also included special status species searches within the eight surrounding quadrants which also includes the proposed Project site. In addition, Attachment "B" also includes a more recent CNDDB search result which, in summary, indicates that no special status species other than those included in the original BE are known inhabit the original and proposed Project sites. As such, it is appropriate and applicable to incorporate the findings/determinations contained in the biological evaluation for the original Sequoia Drive-In Business Park project EIR.

As noted in the BE regarding site vegetation, "The land on the subject property is disturbed and does not support historical flora. According to the natural community classification scheme used by Holland (1986), the Sequoia Drive-In Business Park is located in a part of the southern San Joaquin Valley that originally contained components of two natural communities prior to development: Valley Grassland and Valley Oak Riparian Woodland."[39] "Because the subject property was farmed and disked, it currently supports relatively low species richness of wild, native plants. There are no substantial (>1/4 -acre) patches of native vegetation on the subject property. Three large (>15" diameter at breast height) and several smaller Valley oaks (*Quercus lobata*) grow on the subject property."[40] As noted earlier, the additional 20 acres of the proposed Project is currently planted to walnuts.

Also as noted in the BE regarding invertebrates and vertebrates, "The site is within close proximity (<1 mile) to row crop fields where there are rich invertebrate species. These animals provide food for many predators, including hawks, which were observed in the

[39] Reconnaissance-Level Biological Evaluation of Potential Impacts Sensitive and Listed Species on an Approximately 47.17-acre, Land Parcel in Farmersville, Tulare County, California. Page 11. Prepared by Kamansky's Ecological Consulting. April 28, 2016, and included in Attachment "B" of this MND.

[40] Ibid.

area."[41]

"No special status species were recorded on the Sequoia Drive-In Business Park other than red-tailed hawks. Twelve vertebrate, common species were observed at the Sequoia Drive-In Business Park during field surveys. California ground squirrels were observed on the site whose burrows provide habitat for other species, some of which are special status, e.g. burrowing owls."[42] "One amphibian species was observed on the subject property during field work. Bullfrogs (*Lighobates catesbeianus*) were observed along the Tulare Irrigation canal."[43] "No reptiles were observed on the subject property during field work. The site does provide habitat for common species such as western fence lizards (*Sceloporus occidentalis*)." [44] "Nine bird species were observed on the site during survey times and dates. The grasslands on the site support common species such as doves and the treed areas support winter resident birds, neotropical migrants such as kingbirds (*Tyrannus verticalis*) and raptors such as red-tailed hawks (*Buteo jamacansis*), barn owls (*Tyto alba*, these were observed on the site) and potentially Swainson's hawks (no Swainson's hawks were observed adjacent to the site, but they are known to nest in the vicinity)."[45] "Mammals such as Botta's pocket gopher (*Thommomys bottae*), California ground squirrel (*Spermophilus beechyi*), and racoon (*Procyon lotor*), occupy the site and were observed during surveys."[46]

There are two habitat conservation plans that apply in Tulare County: 1) Recovery Plan for Upland Species of the San Joaquin Valley, and 2) the Kern Water Bank Habitat Conservation Plan. The Recovery Plan for Upland Species of the San Joaquin Valley identifies the species that are important in the San Joaquin Valley; the only species that could apply to the site is the San Joaquin kit fox (SJKF). Although not seen on either the original or proposed Project site, mitigation measures contained in the original project EIR regarding SJKF are incorporated by reference. The Kern Water Bank Habitat Conservation Plan also applies to Tulare County; however, this Plan area is limited to an area in Allensworth (approximately33 miles southwest of the proposed Project site).

Regulatory Setting

Applicable Federal, State, and local regulations specific to biological resources are described below. The following environmental regulatory settings were summarized, in part, from information contained in the Tulare County General Plan 2010 Background Report.

Federal Agencies and Regulations

Federal Endangered Species Act

"The U.S. Fish and Wildlife Service (USFWS) administers the Federal Endangered Species Act (16 USC Section 153 et seq.) and thereby has jurisdiction over federally listed threatened, endangered, and proposed species. Projects that may result in a "take" of a listed species or critical habitat must consult with the USFWS. "Take" is broadly defined as harassment, harm, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collection; any attempt to engage in such conduct; or destruction of habitat that prevents an endangered species from recovering (16 USC 1532, 50 CFR 17.3). Federal agencies that propose, fund, or must issue a permit for a project that may affect a listed species or critical habitat are required to consult with the USFWS under Section 7 of the Federal Endangered Species Act. If it is determined that a federally listed species or critical habitat may be adversely affected by the federal action, the USFWS will issue a "Biological Opinion" to the federal agency that describes minimization and avoidance measures that must be implemented as part of the federal action. Projects that do not have a federal nexus must apply for a take permit under Section 10 of the Act. Section 10 of the Act requires that the project applicant prepare a habitat conservation plan as part of the permit application (16 USC 1539)."[47]

"Under Section 4 of the Federal Endangered Species Act, a species can be removed, or delisted, from the list of threatened and endangered species. Delisting is a formal action made by the USFWS and is the result of a determined successful recovery of a species.

[41] Ibid.
[42] Ibid.
[43] Ibid. 12.
[44] Ibid.
[45] Ibid.
[46] Ibid.
[47] Tulare County 2030 General Plan RDEIR. Page 3.11-1.

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This action requires posts in the federal registry and a public comment period before a final determination is made by the USFWS."[48]

Habitat Conservation Plans

"Habitat Conservation Plans (HCPs) are required for a non-federal entity that has requested a take permit of a federal listed species or critical habitat under Section 10 of the Endangered Species Act. HCPs are designed to offset harmful effects of a proposed project on federally listed species. These plans are utilized to achieve long-term biological and regulatory goals. Implementation of HCPs allows development and projects to occur while providing conservation measures that protect federally listed species or their critical habitat and offset the incidental take of a proposed project. HCPs substantially reduce the burden of the Endangered Species Act on small landowners by providing efficient mechanisms for compliance with the ESA, thereby distributing the economic and logistic effects of compliance. A broad range of landowner activities can be legally protected under these plans (County of Tulare, 2010 Background Report, pages 9-6 and 9-7, 2010a). There are generally two types of HCPs, project-specific HCPs which typically protect a few species and have a short duration and multi-species HCPs which typically cover the development of a larger area and have a longer duration."[49]

There are two habitat conservation plans that apply in Tulare County: The Kern Water Habitat Conservation Plan, which applies to an area in Allensworth; and the U.S. Fish and Wildlife's "The Recovery Plan for Upland Species in the San Joaquin Valley," which includes sensitive species in the San Joaquin Valley, several of which may be found in Tulare County.

Migratory Bird Treaty and Bald and Golden Eagle Protection Act

"The Migratory Bird Treaty Act (MBTA, 16 USC Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668) protect certain species of birds from direct "take". The MBTA protects migrant bird species from take by setting hunting limits and seasons and protecting occupied nests and eggs. The Bald and Golden Eagle Protection Act (16 USC Sections 668-668d) prohibits the take or commerce of any part of Bald and Golden Eagles. The USFWS administers both acts, and reviews federal agency actions that may affect species protected by the acts."[50]

Clean Water Act - Section 404

"Wetlands and other waters of the U.S. are subject to the jurisdiction of the U.S. Army Corp of Engineers (USACE) and U.S. Environmental Protection Agency (EPA) under Section 404 of the Clean Water Act (33 U.S.C. 1251 et seq., 1972). Together, the EPA and the USACE determine whether they have jurisdiction over the non-navigable tributaries that are not relatively permanent based on a fact-specific analysis to determine if there is a significant nexus. These non-navigable tributaries include wetlands adjacent to non-navigable tributaries that are not relatively permanent and wetlands adjacent to but that does not directly abut a relatively permanent non-navigable tributary."[51]

"Wet areas that are not regulated by this Act do not have a hydrologic link to other waters of the U.S., either through surface or subsurface flow and include ditches that drain uplands, swales or other erosional features. The USACE has the authority to issue a permit for any discharge, fill, or dredge of wetlands on a case-by-case basis, or by a general permit. General permits are handled through a Nationwide Permit (NWP) process. These permits allow specific activities that generally create minimal environmental effects. Projects that qualify under the NWP program must fulfill several general and specific conditions under each applicable NWP. If a proposed project cannot meet the conditions of each applicable NWP, an individual permit would likely be required from the USACE."[52]

State Agencies and Regulations

California Department of Fish and Wildlife (formerly Dept. of Fish and Game)

The California Department of Fish and Wildlife (DFW) regulates the modification of the bed, bank, or channel of a waterway under

[48] Ibid.
[49] Op. Cit. 3.11-2.
[50] Op. Cit.
[51] Op. Cit. 3.11-1 and 3.11-2.
[52] Op. Cit.

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Sections 1601-1607 of the California Fish and Game Code. Also included are modifications that divert, obstruct, or change the natural flow of a waterway. Any party who proposes an activity that may modify a feature regulated by the Fish and Game Code must notify DFW before project construction. DFW will then decide whether to enter into a Streambed Alteration Agreement with the project applicant either under Section 1601 (for public entities) or Section 1603 (for private entities) of the Fish and Game Code.

California Endangered Species Act

DFW administers the California Endangered Species Act of 1984 (Fish and Game Code Section 2080), which regulates the listing and "take" of endangered and threatened State-listed species. A "take" may be permitted by California Department of Fish and Game through implementing a management agreement. "Take" is defined by the California Endangered Species Act as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" a State-listed species (Fish and Game Code Sec. 86). Under State laws, DFW is empowered to review projects for their potential impacts to State-listed species and their habitats.

The DFW maintains lists for Candidate-Endangered Species (SCE) and Candidate-Threatened Species (SCT). California candidate species are afforded the same level of protection as State-listed species. California also designates Species of Special Concern (CSC) that are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species do not have the same legal protection as listed species, but may be added to official lists in the future. The CSC list is intended by DFW as a management tool for consideration in future land use decisions (Fish and Game Code Section 2080).[53]

All State lead agencies must consult with DFW under the California Endangered Species Act when a proposed project may affect State-listed species. DFW would determine if a project under review would jeopardize or result in taking of a State-listed species, or destroy or adversely modify its essential habitat, also known as a "jeopardy finding" (Fish and Game Code Sec. 2090). For projects where DFW has made a jeopardy finding, DFW must specify reasonable and prudent alternatives to the proposed project to the State lead agency (Fish and Game Code Sec. 2090 et seq.).[54]

Natural Communities Conservation Planning Act

The Natural Communities Conservation Planning Act allows a process for developing natural community conservation plans (NCCPs) under DFW direction. NCCPs allow for regional protection of wildlife diversity, while allowing compatible development. DFW may permit takings of State-listed species whose conservation and management are provided in a NCCP, once a NCCP is prepared (Fish and Game Code Secs. 2800 et seq.).[55]

Federally and State-Protected Lands

Ownership of California's wildlands is divided primarily between federal, state, and private entities. State-owned land is managed under the leadership of the Departments of Fish and Game (CDFW), Parks and Recreation, and Forestry and Fire Protection (CDF [CalFire]). Tulare County has protected lands in the form of wildlife refuges, national parks, and other lands that have large limitations on appropriate land uses. Some areas are created to protect special status species and their ecosystems.[56]

California Wetlands Conservation Policy

The California Wetlands Conservation Policy's goal is to establish a policy framework and strategy that will ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California. Additionally, the policy aims to reduce procedural complexity in the administration of State and federal wetlands conservation programs and to encourage partnerships with a primary focus on landowner incentive programs and cooperative planning efforts. These objectives are achieved through three policy means: statewide policy initiatives, three geographically based regional strategies in which wetland programs can be implemented, and creation of interagency wetlands task force to direct and coordinate administration and implementation of the policy. Leading agencies include the Resources Agency and the California Environmental

[53] General Plan Background Report. Pages 9-7 and 9-8.

[54] Ibid. 9-8.

[55] Op. Cit.

[56] Op. Cit. 9-9.

Protection Agency (Cal/EPA) in cooperation with Business, Transportation and Housing Agency, Department of Flood and Agriculture, Trade and Commerce Agency, Governor's Office of Planning and Research, Department of Fish and Game, Department of Water Resources, and the State Water Resources Control Board.[57]

Birds of Prey

Birds of Prey are protected under the California Fish and Game Code Section 3503.5, which states:

> *"It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."*

This includes any construction disturbance which could lead to nest abandonment, which is considered a "taking" by the DFW.

CEQA and Oak Woodland Protection

CEQA Statute Section 21083.4, "Counties; Conversion of Oak Woodlands; Mitigation Alternatives," requires that counties determine whether a development will have potential impacts on oak woodlands:

> 21083.4(a): "For purposes of this section, "oak" means a native tree species in the genus Quercus, not designated as Group A or Group B commercial species pursuant to regulations adopted by the State Board of Forestry and Fire Protection pursuant to Section 4526, and that is 5 inches or more in diameter at breast height."
>
> 21083.4(b): "…a county shall determine whether a project within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment. If a county determines that there may be a significant effect to oak woodlands, the county shall require one or more of the…[listed] oak woodlands mitigation alternatives…"

Local Policy and Regulations

Tulare County General Plan 2030 Update Policies

The following Tulare County General Plan 2030 Update Environmental Resources Management Element policies for this resource apply to this Project: *ERM-1.1 Protection of Rare and Endangered Species* - wherein the County shall ensure the protection of environmentally sensitive wildlife and plant life, including those species designated as rare, threatened, and/or endangered by State and/or Federal government, through compatible land use development; *ERM-1.2 Development in Environmentally Sensitive Areas* - wherein the County shall limit or modify proposed development within areas that contain sensitive habitat for special status species and direct development into less significant habitat areas. Development in natural habitats shall be controlled so as to minimize erosion and maximize beneficial vegetative growth; *ERM-1.4 Protect Riparian Areas* - wherein the County shall protect riparian areas through habitat preservation, designation as open space or recreational land uses, bank stabilization, and development controls; *ERM-1.6 Management of Wetlands* - wherein the County shall support the preservation and management of wetland and riparian plant communities for passive recreation, groundwater recharge, and wildlife habitats; *ERM-1.7 Planting of Native Vegetation* – wherein the County shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation and wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained; *ERM-1.15 Minimize Lighting Impacts*; - wherein the County shall ensure that lighting associated with new development or facilities (including street lighting, recreational facilities, and parking) shall be designed to prevent artificial lighting from illuminating adjacent natural areas at a level greater than one foot candle above ambient conditions; and *ERM-1.16 Cooperate with Wildlife Agencies* - wherein the County shall cooperate with State and federal wildlife agencies to address linkages between habitat areas.

a) Less than Significant Impact with Mitigation Incorporated: As noted earlier, the Project is a 20-acre addition to the previously approved Sequoia Drive-In Business Park (original project) to accommodate Phase 2 of Derrel's Mini Storage. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards,

[57] Op. Cit.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The Tulare Irrigation Ditch bisects the original Project site. The proposed Project will be located directly south and adjacent to the original site and is currently planted to walnuts.

According to the CNDDB search and as described in Attachment "B" of this MND, 13 Special Status plant species, 20 Special Status animal species, and four special habitats are known to occur in the general proposed Project vicinity. A detailed description of these 33 special status species and four special habitats can be found on Pages 12-21 of the biological evaluation included in Attachment "B" of this MND. A more recent CNDDB search conducted by RMA staff for the proposed Project (also included in Attachment "B") indicated no change in special status species (or habitat) has occurred after the CNDDB search results in the original project's EIR.

On-site Special Status Plant Species

"The current nature of the site and its long disturbance history does not provide suitable habitat for many of the Special Status plant species that are listed in the CNDDB. No Special Status plant species were present on the site during the survey."[58] The recent CNDDB search conducted by RMA staff for the proposed Project remains consistent with the CNDDB search results in the original project's EIR.

On-site Special Status Animal Species

"Twenty three (23) Special Status animal species are known to occur in the general vicinity of the Sequoia Drive-In Business Park. KEC inspected the site and noted that all lands on the Project site have been disturbed to some degree by leveling, disking, farming, and the site was an outdoor movie theater.

Various large nesting trees border or are present on the site. No raptors or nests were observed on the site, but are present in the general vicinity (see Attachment "C" of this MND]). Although the site is sub-optimal kit fox habitat, it is within the range of this species and potential kit fox dens were observed directly adjacent to the site. Dens could also be used by burrowing owls and badgers could be present on the site. Neo-tropical migratory birds occupied the site at the time of the biological surveys."[59]

Significant Impacts to these Special Status species could occur due to proposed Project implementation; however, the incorporation of **Mitigation Measures 4-1** through **4-19** would reduce potential Project-specific impacts related to this Checklist Item to less than significant with mitigation

The proposed Project will not have a significant direct or cumulative impact, or create an unusual circumstance that will cause the proposed Project to have a significant effect on the biological resources of the area and environment. With implementation of **Mitigation Measures 4-1** through **4-19**, impacts to special status animal species will be less than significant with mitigation.

b) - d) No Impact: The proposed Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service; would not result in an 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; and it would not 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. The nearest body of water is Evans Ditch, approximately 280 feet south of the Project site. There would be no impact.

e) and f) No Impact: The proposed Project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances. Moreover, the proposed Project is not expected to conflict with the goals or policies of the Tulare County General Plan that protect biological resources. Also, as the Project is not within or in the vicinity

[58] Reconnaissance-Level Biological Evaluation of Potential Impacts Sensitive and Listed Species on an Approximately 47.17-acre, Land Parcel in Farmersville, Tulare County, California. Page 25. Prepared by Kamansky's Ecological Consulting. April 28, 2016 and included in Attachment "B" of this MND.

[59] Ibid. 26.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

of any approved habitat conservation plans, natural community conservation plans, or regional or state habitat conservation plans in effect, the Project would result in no impact to these resources within the vicinity of the proposed Project site.

Cumulative Impact Analysis: Less Than Significant Impact - The geographic area of this cumulative analysis is the San Joaquin Valley. While the study area is limited to Tulare County, sensitive species with similar habitat requirements may exist in other portions of the San Joaquin Valley, and therefore cumulative impacts would extend beyond Tulare County's jurisdictional boundaries. The proposed Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. As the proposed Project does not result in significant loss of habitat or direct impact to these special status species, a less than significant cumulative impact with mitigation will occur.

Mitigation Measure(s): **Mitigation Measure 4-1** through **4-19**

Consultants KEC recommended the following Mitigation Measures as contained in the Biological Evaluation (See Attachment "B" of this MND) for the original project which are also applicable, and incorporated by reference in their entirety, for this proposed Project. For easier reading, the Mitigation Measures contained in the Biological Evaluation have been sequenced differently and numbered rather than using the format contained in the Biological Evaluation. Following is a summarized version of the mitigation measures; the full text is available in the Attachment "F", Mitigation Monitoring and Reporting Program (MMRP).

Swainson's hawk:

4-1 Pre-construction surveys.
4-2 Tree inspection for Swainson's hawk nests.
4-3. Surveys if Swainson's hawk are present.

San Joaquin kit fox:

4-4 Pre-construction/pre-activity survey.
4-5 Avoidance of dens.
4-6 Natal/pupping den discovery.
4-7 Destruction of den(s).
4-8 Discovery of fox in den(s).
4-9 Vehicle speed limitations.
4-10 Prevention of inadvertent entrapment.
4-11 Entrapment/Injury of/to SJKF.
4-12 Securing food-related trash.
4-13 No pets (e.g., cats or dogs).
4-14 Restrictions on use of rodenticides and herbicides.
4-15 Contact representative.
4-16 Employee education.
4-17 Reporting death or injury of SJKF.
4-18 Reporting new SJKF sighting(s).

Burrowing owl

4-19 Surveys, avoidance surveys, site surveillance, minimization, and buffer mitigation measures.

Therefore, implementation of **Mitigation Measure 4-1** through **4-19**, as applicable, would reduce impacts to less than significant.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
5.	**CULTURAL RESOURCES**					
	Would the project:					
	a)	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☒	☐	☐
	b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
	c)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Cultural Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

As noted previously, the Project site is located on the San Joaquin Valley floor in an unincorporated area. The original 46-acre Sequoia Drive-In Business Park (original site) and the proposed Project site are east of the City of Visalia, just south of the State Route 198 corridor. The northern ~27 acres of the original Project site is within the City of Visalia's (City) adopted Sphere of Influence, while the southern ~20 acres is within the City's adopted Planning Area. The original site is currently fallow; however, the site has historically been wheat farmed for weed management with the southern portion of the site being the location of a former drive-in movie theater. Approximately half of the original Project site is bordered by urban development while the remaining half is bordered by land in active agricultural uses. The Caltrans Visalia Maintenance building is to the west while various commercial buildings are on the northern side of SR 198, north of the original Project site. A cluster of approximately 12 residences is immediately east of the site and beyond that is a RV and mini storage facility. The Little Tulare Irrigation Ditch bisects the center of the site while a wireless communications tower is located on the southern portion of the site. Surrounding agricultural lands consist of stone fruit orchards, row crops and other farmed lands. The proposed 20-acres of additional territory to the original Project site (currently planted to walnuts) would accommodate Phase 2 of Derrel's Mini-Storage. The proposed Project site is also located approximately one quarter mile east of the City of Visalia. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage and resident manager housing, a water feature fronting Avenue 296, access from Avenue 296, an on-site storm water retention basin, and an emergency fire access point from Road 156.

In 2020, the Sequoia Drive-In Business Park Draft Environmental Impact Report (DEIR) was prepared to evaluate environmental effects of the 46-acre commercial development within the original project area. Information provided by the Southern San Valley Historical Resources Information Center, at California State University, Bakersfield (Center) and the California Native American Heritage Commission Sacred Lands File search (included in Attachment "C" of this document) were used as the basis for determining that this Project would result in a less than significant impact with mitigation incorporated for the original project site. The proposed Project is a 20-acre addition to the previously approved Sequoia Drive-In Business Park (original project) to accommodate Phase 2 of Derrel's Mini Storage. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The Tulare Irrigation Ditch bisects the original Project site. The proposed Project will be located directly south and adjacent to the original site and currently planted to walnuts. As such, the discussion regarding Environmental Setting, CEQA requirements, Regulatory Setting in Chapter 3.5 Cultural Resources contained in the Sequoia Drive-In Business Park DEIR, are incorporated herein in their entirety and included in Attachment "C" of this MND. Where necessary, and if available, specific facts, data, information, etc. are included in this discussion.

Environmental Setting

Cultural Background

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

"Tulare County lies within a culturally rich province of the San Joaquin Valley. Studies of the prehistory of the area show inhabitants of the San Joaquin Valley maintained fairly dense populations situated along the banks of major waterways, wetlands, and streams. Tulare County was inhabited by aboriginal California Native American groups consisting of the Southern Valley Yokuts, Foothill Yokuts, Monache, and Tubatulabal. Of the main groups inhabiting the Tulare County area, the Southern Valley Yokuts occupied the largest territory."[60]

"California's coast was initially explored by Spanish (and a few Russian) military expeditions during the late 1500s. However, European settlement did not occur until the arrival into southern California of land-based expeditions originating from Spanish Mexico starting in the 1760s. Early settlement in the Tulare County area focused on ranching. In 1872, the Southern Pacific Railroad entered Tulare County, connecting the San Joaquin Valley with markets in the north and east. About the same time, valley settlers constructed a series of water conveyance systems (canals, dams, and ditches) across the valley. With ample water supplies and the assurance of rail transport for commodities such as grain, row crops, and fruit, a number of farming colonies soon appeared throughout the region."[61]

"The colonies grew to become cities such as Tulare, Visalia, Porterville, and Hanford. Visalia, the County seat, became the service, processing, and distribution center for the growing number of farms, dairies, and cattle ranches. By 1900, Tulare County boasted a population of about 18,000. New transportation links such as SR 99 (completed during the 1950s), affordable housing, light industry, and agricultural commerce brought steady growth to the valley. The California Department of Finance estimated the 2007 Tulare County population to be 430,167."[62]

Tulare County's Documented Cultural Resources

Tulare County's known and recorded cultural resources were identified through historical records, such as those found in the National Register of Historic Places, the Historic American Building Survey/Historic American Engineering Record (HABS/HAER), the California Register of Historic Resources, California Historical Landmarks, and the Tulare County Historical Society list of historic resources. These resources are available to the general public. They have been summarized in the Tulare County General Plan Update 2030 Background Report (2010).[63]

The California Historical Resources Information Center (CHRIS), Southern San Joaquin Valley Historical Resources Information Center (SSJVIC) located at California State University, Bakersfield (Center) conducted a search for the original Sequoia Drive-In Business Park project as requested by Tulare County RMA. In summary, the Center's search response letter indicated that one recorded resource (P-54-004884, the Tulare Irrigation Canal) is located within the original Project site and six recorded resources are within the one-half mile radius, including a prehistoric era mound, a historic period ranch, barn, single-family residence, canal, and drive-in theater. The Center also recommended that the NAHC be contacted regarding cultural resources that may not be included in the CHRIS inventory (see later dated September 27, 2016, in Attachment "C"). Tulare County RMA also requested a Sacred Lands File (SLF) search from the California Native American Heritage Commission (NAHC). The NAHC provided a letter dated September 8, 2016 showing "negative" results which indicates there are no documented Sacred Lands within the Project area (see letter dated September 8, 2016; also in Attachment "C"). Updated CHRIS, NAHC, and SLF search results for the proposed Project indicate have not been received as of the release date of this MND.

Regulatory Setting

Federal

Cultural resources are protected by several federal regulations, none of which are relevant to this project because it will not be located on lands administered by a federal agency and the project applicant is not requesting federal funding and does not require any permits from any federal agencies.

[60] Tulare County 2030 General Plan. Page 8-5.

[61] Ibid.

[62] Op. Cit. 8-6.

[63] Tulare County General Plan Background Report. Pages 9-57 to 9-59.

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State

California State Office of Historic Preservation (OHP)

"The California State Office of Historic Preservation (OHP) is responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration and protection of California's irreplaceable archaeological and historical resources under the direction of the State Historic Preservation Officer (SHPO), appointed by the governor, and the State Historical Resources Commission, a gubernatorial appointee, and the State Historic Resources Commission."[64]

"OHP's responsibilities include: Identifying, evaluating, and registering historic properties; Ensuring compliance with federal and state regulatory obligations; Encouraging the adoption of economic incentives programs designed to benefit property owners; Encouraging economic revitalization by promoting a historic preservation ethic through preservation education and public awareness and, most significantly, by demonstrating leadership and stewardship for historic preservation in California."[65]

"The California Historical Resources Information System (CHRIS) maintains a wide range of documents and materials relating to historical resources (e.g., buildings, structures, objects, historic and archaeological sites, landscapes, districts). The CHRIS operates structurally through the California Office of Historic Preservation (OHP), nine Information Centers (ICs), and the State Historical Resources Commission (SHRC). The OHP administers and coordinates the CHRIS and presents proposed CHRIS policies to the SHRC, which approves these polices in public meetings, under authorization of Public Resources Code 5020.4(a)(2) and 5020.4(a)(3). Policies are codified in the CHRIS Information Center Rules of Operations Manual.[66]

"The CHRIS Information Centers (ICs) are located on California State University and University of California campuses in regions throughout the state. The nine ICs provide historical resources information, generally on a fee-for-service basis, to local governments, state and federal agencies, Native American tribes, and individuals with responsibilities under the National Environmental Policy Act, the National Historic Preservation Act, and the California Environmental Quality Act (CEQA), as well as to the general public. Currently, the OHP and the ICs each maintain separate parts of the CHRIS Inventory. The OHP's portion of the Inventory is forwarded to the ICs according to their county-based service areas so that it can be accessed by CHRIS users. It is statewide in scope, but primarily includes information that has been submitted directly to the OHP. Each of the ICs maintains a part of the CHRIS Inventory that although it is geographically limited to that IC's service area, includes both information forwarded from the OHP and information that has been submitted directly to that IC by users of the CHRIS. These different parts of the CHRIS Inventory are a combination of paper documents and maps and digital files (whether submitted digitally or converted to that format by the CHRIS). The collective information managed electronically in the CHRIS Inventory is generally referred to as the CHRIS Database."[67] Tulare, Fresno, Kern, Kings and Madera counties are served by the Southern San Joaquin Valley Historical Resources Information Center (Center), located at California State University, Bakersfield, in Bakersfield, CA. The Center provides information on known historic and cultural resources to governments, institutions, and individuals.[68]

A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it meets the following four Criteria for Designation:

> "Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
>
> Associated with the lives of persons important to local, California or national history (Criterion 2).
>
> Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important

[64] California State Parks. Office of Historic Preservation. Mission and Responsibilities. Accessed July 2022 at: https://ohp.parks.ca.gov/?page_id=1066.

[65] Ibid.

[66] California State Parks. California Office of Historic Preservation. California Historical Resources Information System. Accessed July 2022 at: http://ohp.parks.ca.gov/?page_id=1068.

[67] California State Parks. California Office of Historic Preservation. About the CHRIS Information Centers. Accessed July 2022 at: http://ohp.parks.ca.gov/?page_id=28730.

[68] California State Parks. California Office of Historic Preservation. CHRIS Information Center Locations and Contacts. Accessed July 2022 at: https://ohp.parks.ca.gov/?page_id=30331.

creative individual, or possesses high artistic values (Criterion 3).

Has yielded, or may be likely to yield, information important in prehistory or local, California or national history (Criterion 4)."[69]

CEQA Guidelines: Historical Resources Definition

CEQA Guidelines Section 15064.5(a) defines a historical resource as:

"(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code Section 5024.1; Title 14 CCR, Section 4850 et seq.).

(2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code Section 5024.1; Title 14 CCR, Section 4852) including the following:

(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history.

(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1."[70]

CEQA Guidelines: Archaeological Resources

Section 15064.5(c) of CEQA Guidelines provides specific guidance on the treatment of archaeological resources as noted below.

"(1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subdivision (a).

(2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.

[69] California State Parks. Office of Historic Preservation. California Register of Historical Resources. Accessed April 2022 at: http://www.ohp.parks.ca.gov/?page_id=21238.

[70] CEQA Guidelines. Section 15064.5(d).

(3) If an archaeological site does not meet the criteria defined in subdivision (a), but does meet the definition of a unique archeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of Section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c–f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.

(4) If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process."[71]

CEQA Guidelines: Human Remains

Section 15064.5 of CEQA Guidelines provides specific guidance on the treatment of human remains pursuant to Public Resources Code § 5097.98, which provides specific guidance on the disposition of Native American burials (human remains), and fall within the jurisdiction of the Native American Heritage Commission:

"(d) When an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the Native American Heritage Commission. Action implementing such an agreement is exempt from:

(1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).

(2) The requirements of CEQA and the Coastal Act."[72]

"(e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

(1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

(A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

(B) If the coroner determines the remains to be Native American:

1. The coroner shall contact the Native American Heritage Commission within 24 hours.

2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.

3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or

(2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American

[71] Ibid. Section 15064.5(c).

[72] Op. Cit. Section 15064.5(d).

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

(A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.

(B) The descendant identified fails to make a recommendation; or

(C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner."[73]

(f) As part of the objectives, criteria, and procedures required by Section 21082 of the Public Resources Code, a lead agency should make provisions for historical or unique archaeological resources accidentally discovered during construction. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place."[74]

Paleontological Resource/Public Resources Code §5097.5

California Public Resources Code §5097.5 prohibits excavation or removal of any "vertebrate paleontological site…or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands." Public lands are defined to include lands owned by or under the jurisdiction of the state or any city, county, district, authority or public corporation, or any agency thereof. Section 5097.5 states that any unauthorized disturbance or removal of archaeological, historical, or paleontological materials or sites located on public lands is a misdemeanor.

Human Remains/Health and Safety Code 7050.5

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

Tribal Consultation Requirements: SB 18 (Burton, 2004)[75]

On September 29, 2004, Governor Schwarzenegger signed Senate Bill 18, Tribal Consultation Guidelines, into law. This bill amended Section 815.3 of the Civil Code, to amend Sections 65040.2, 65092, 65351, 65352, and 65560 of, and to add Sections 65352.3, 65352.4, and 65562.2 to, the Government Code, relating to traditional tribal cultural Places. SB 18, enacted March 1, 2005, creates a mechanism for California Native American Tribes to identify culturally significant sites that are located within public or private lands within the city or county's jurisdiction. SB 18 requires cities and counties to contact, and offer to consult with, California Native American Tribes before adopting or amending a General Plan, a Specific Plan, or when designating land as Open Space, for the purpose of protecting Native American Cultural Places (PRC 5097.9 and 5097.993). The Native American Heritage Commission (NAHC) provides local governments with a consultation list of tribal governments with traditional lands or cultural places located within the Project Area of Potential Effect. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe.[76]

[73] Op. Cit. Section 15064.5(e).

[74] Op. Cit. Section 15064.5(f).

[75] Senate Bill No. 18, Chapter 905. Accessed July 2022. http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200320040SB18.

[76] CA Government Code §65352.3 Accessed July 2022 at: Section 65352.4 - Consultation defined, Cal. Gov. Code § 65352.4 | Casetext Search + Citator

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As this Project is not adopting or amending a General Plan, a Specific Plan, or when designating land as Open Space, for the purpose of protecting Native American Cultural Places (PRC 5097.9 and 5097.993); Tribal Consultation for SB 18 compliance is not required.

Tribal Consultation Requirements: AB 52 (Gatto, 2014)[77]

This bill was approved by Governor Brown on September 25, 2014 and became effective July 1, 2015. This bill amended Section 5097.94 of, and to add Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to, the Public Resources Code, relating to Native Americans. The bill specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. This bill requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated (can be a tribe anywhere within the State of California) with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project.

Existing law establishes the NAHC and vests the commission with specified powers and duties. This bill required the NAHC to provide each California Native American tribe, as defined, on or before July 1, 2016, with a list of all public agencies that may be a lead agency within the geographic area in which the tribe is traditionally and culturally affiliated, the contact information of those agencies, and information on how the tribe may request those public agencies to notify the tribe of projects within the jurisdiction of those public agencies for the purposes of requesting consultation.

The NAHC provides protection to Native American burials from vandalism and inadvertent destruction, provides a procedure for the notification of most likely descendants regarding the discovery of Native American human remains and associated grave goods, brings legal action to prevent severe and irreparable damage to sacred shrines, ceremonial sites, sanctified cemeteries and place of worship on public property, and maintain an inventory of sacred places.[78]

Upon written request, the NAHC is required to conduct a Sacred Lands File search for sites located on or near a project site. As discussed in further detail in Chapter 3.17 Tribal Cultural Resources, a Sacred Lands File check indicated negative results (that is, no Sacred Lands were identified) for the Project location (See Appendix "D" of the DEIR at NAHC Sacred Lands File search letter dated September 8, 2018). Also discussed in further detail in Chapter 3.17, an opportunity has been provided to Native American tribes listed by the Native American Heritage Commission during the CEQA process as required by AB 52, and no tribes responded to the consultation requests within the mandatory response time-frames; therefore, this DEIR has been completed consistent and compliant with AB 52 (see Appendix "D" of the DEIR regarding Tribal consultation process).

Local

Tulare County General Plan 2030 Update

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: *ERM-6.1 Evaluation of Cultural and Archaeological Resources* which states that the County shall participate in and support efforts to identify its significant cultural and archaeological resources using appropriate State and Federal standards; *ERM-6.2 Protection of Resources with Potential State or Federal Designations* wherein the County shall protect cultural and archaeological sites with demonstrated potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources. Such sites may be of Statewide or local significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values as determined by a qualified archaeological professional; *ERM-6.3 Alteration of Sites with Identified Cultural Resources* which states that when planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. Development can be permitted in these areas only after a site specific investigation has been

[77] CA Assembly Bill No. 52 Chapter 532. Accessed July 2022 at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB52.

[78] CA Native American Heritage Commission. About the Native American Heritage Commission Accessed July 2022 at: http://www.nahc.ca.gov/about/.

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conducted pursuant to CEQA to define the extent and value of resource, and mitigation measures proposed for any impacts the development may have on the resource; *ERM-6.4 Mitigation* – which states that if preservation of cultural resources is not feasible, every effort shall be made to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records; *ERM-6.7 Cooperation of Property Owners* where the County should encourage the cooperation of property owners to treat cultural resources as assets rather than liabilities, and encourage public support for the preservation of these resources; *ERM-6.8 Solicit Input from Local Native Americans* (which is consistent with AB 52 in regards to Tribal Consultation) wherein the County shall continue to solicit input from the local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance; *ERM-6.9 Confidentiality of Archaeological Sites* which is also consistent with AB 52) where the County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts; and *ERM-6.10 Grading Cultural Resources Sites* wherein the County shall ensure all grading activities conform to the County's Grading Ordinance and California Code of Regulations, Title 20, § 2501 et. seq.

a) and b) Less Than Significant Impact With Mitigation: As noted previously, the Project site is located on the San Joaquin Valley floor in an unincorporated area. The original 46-acre Sequoia Drive-In Business Park (original site) and the proposed Project site are east of the City of Visalia, just south of the State Route 198 corridor. The northern ~27 acres of the original Project site is within the City of Visalia's (City) adopted Sphere of Influence, while the southern ~20 acres is within the City's adopted Planning Area. In 2020, the Sequoia Drive-In Business Park Draft Environmental Impact Report (DEIR) was prepared to evaluate environmental effects of the 46-acre commercial development within the original project area. Information provided by the Southern San Valley Historical Resources Information Center, at California State University, Bakersfield (Center) and the California Native American Heritage Commission Sacred Lands File search (included in Attachment "C" of this document) were used as the basis for determining that this Project would result in a less than significant impact with mitigation incorporated for the original project site. The proposed Project is a 20-acre addition to the previously approved Sequoia Drive-In Business Park (original project) to accommodate Phase 2 of Derrel's Mini Storage. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project will be located directly south and adjacent to the original site and is currently planted to walnuts. As such, the discussion regarding Environmental Setting, CEQA requirements, Regulatory Setting in Chapter 3.5 Cultural Resources contained in the Sequoia Drive-In Business Park DEIR, are incorporated herein in their entirety and included in Attachment "C" of this MND. Where necessary, and if available, specific facts, data, information, etc. are included in this discussion Although no cultural resources were identified within the proposed Project area in the records search, there is a possibility that subsurface resources could be uncovered during proposed Project construction-related activities. In such an event, potentially significant impacts to previously unknown subsurface resources may occur. However, implementation of the **Mitigation Measures 5-1** through 5-**3** will reduce potential impacts in the unlikely event of encountering a historical or archaeological resource to a less than significant impact with mitigation.

c) Less Than Significant Impact With Mitigation: As noted in Items a) and b), CHRIS, NAHC, SLF searches, and consultation with Native American tribes did not identify any known remains or formal cemeteries. However unlikely, there is a possibility that subsurface resources could be uncovered during construction-related activities. However unlikely, there is a possibility that subsurface resources could be uncovered during construction-related activities. In such an event, potentially significant impacts to previously unknown subsurface resources may occur. With the implementation of **Mitigation Measure 5-3**. Inadvertent Disturb any human remains, including those interred outside of formal cemeteries Discovery of Human Remains, by requiring work to halt in the vicinity of a find until the County coroner determines whether the remains are Native American in origin and, if they are, contacting the Native American Heritage Commission.

Cumulative Impact Analysis: **Less Than Significant Impact -** The geographic area of this cumulative analysis is Tulare County. The Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. With implementation of **Mitigation Measure 5-1** through **5-3**, potential Project-specific impacts would be reduced to less than significant levels. Therefore, the Project's cumulative impacts would be less than significant with mitigation. Also see the Mitigation Monitoring and Reporting Program (MMRP) in Attachment "F".

Mitigation Measures: **Mitigation Measures 5-1** through **5-3**

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

Mitigation Measure 5-1: In the event that historical, archaeological or paleontological resources are discovered during site excavation, the County shall require that grading and construction work on the Project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. In this event, the specialists shall provide recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recovery, excavation analysis, and curation of archaeological or paleontological materials. County staff shall consider such recommendations and implement them where they are feasible in light of Project design as previously approved by the County.

Mitigation Measure 5-2: If cultural resources are encountered during construction or land modification activities work shall stop and the County shall be notified at once to assess the nature, extent, and potential significance of any cultural resources. If such resources are determined to be significant, appropriate actions shall be determined. Depending upon the nature of the find, mitigation could involve avoidance, documentation, or other appropriate actions to be determined by a qualified archaeologist. For example, activities within 50 feet of the find shall be ceased.

If it is determined that the Project could damage a significant cultural resource, mitigation should be implemented with a preference for preservation in place, consistent with the priorities set forth in CEQA Guidelines Section 15126.4(b)(3). If avoidance is not feasible, a qualified archaeologist should prepare and implement a detailed treatment plan in consultation with the County of Tulare and, for prehistoric resources, the ethnographically associated Native American tribe. If the resource is determined to be a tribal cultural resource, as defined by Public Resources Code 21074, the County of Tulare, in consultation with the ethnographically associated Native American tribe, should, if feasible, minimize significant adverse impacts by avoiding the resource or treating the resource with culturally appropriate dignity, which includes protecting the cultural character and integrity of the resource, protecting the traditional use of the resource, and protecting the confidentiality of the resource.

Mitigation Measure 5-3: Consistent with Section 7050.5 of the California Health and Safety Code and (CEQA Guidelines) Section 15064.5, if human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). In the event of the accidental [that is, unanticipated] discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
    a. The Tulare County Coroner/Sheriff must be contacted to determine that no investigation of the cause of death is required; and
    b. If the coroner determines the remains to be Native American:
    i. The coroner shall contact the Native American Heritage Commission within 24 hours.
        ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
        iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or
2. Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
    a. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
    b. The descendant fails to make a recommendation; or
    c. The landowner or his authorized representative rejects the recommendation of the descendent.

Therefore, implementation of **Mitigation Measures 5-1** through **5-3** would result in a less than significant impact to this item. See Attachment "F", Mitigation Monitoring and Reporting Program (MMRP).

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
6.	**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?	☐	☐	☒	☐
	b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Energy Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Energy consumption is analyzed in an EIR because of the environmental impacts associated with its production and usage. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) and emission of pollutants during both the production and consumption phases. Energy usage is typically quantified using the British Thermal Unit (BTU). The BTU is the amount of energy that is required to raise the temperature of one pound of water by one degree Fahrenheit. As points of reference, the approximate amount of energy contained in a gallon of gasoline, a cubic foot of natural gas, and a kilowatt hour (kWhr) of electricity are 123,000 BTUs, 1,000 BTUs, and 3,400 BTUs, respectively. Natural gas usage is expressed in therms. A therm is equal to 100,000 BTU. Energy conservation is embodied in many federal, state and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the EnergyStar™ program) and transportation (e.g., fuel efficiency standards). At the state level, Title 24 of the California Administrative Code sets energy standards for buildings, rebates/tax credits are provided for installation of renewable energy systems, and the Flex Your Power program promotes conservation in multiple areas. Also, as described further in this section, the Tulare County General Plan currently contains policies that promotes energy conservation and efficiency measures, energy conservation awareness, and renewable energy.

Environmental Quality Act (CEQA) Requirements

"In 1974, the Legislature adopted the Warren-Alquist State Energy Resources Conservation and Development Act. (Pub. Resources Code, § 25000 et seq.) That act created what is now known as the California Energy Commission, and enabled it to adopt building energy standards. (See, e.g., id. at § 25402.) At that time, the Legislature found the "rapid rate of growth in demand for electric energy is in part due to wasteful, uneconomic, inefficient, and unnecessary uses of power and a continuation of this trend will result in serious depletion or irreversible commitment of energy, land and water resources, and potential threats to the state's environmental quality." (Id. at § 25002; see also § 25007 ("It is further the policy of the state and the intent of the Legislature to employ a range of measures to reduce wasteful, uneconomical, and unnecessary uses of energy, thereby reducing the rate of growth of energy consumption, prudently conserve energy resources, and assure statewide environmental, public safety, and land use goals"))

The same year that the Legislature adopted Warren-Alquist, it also added section 21100(b)(3) to CEQA, requiring environmental impact reports to include "measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." As explained by a court shortly after it was enacted, the "energy mitigation amendment is substantive and not procedural in nature and was enacted for the purpose of requiring the lead agencies to focus upon the energy problem in the preparation of the final EIR." (People v. County of Kern (1976) 62 Cal.App.3d 761, 774 (emphasis added)). It compels an affirmative investigation of the project's potential energy use and feasible ways to reduce that use.

Though Appendix F of the CEQA Guidelines has contained guidance on energy analysis for decades, implementation among lead agencies has not been consistent. (See, e.g., California Clean Energy Committee v. City of Woodland, supra, 225 Cal.App.4th 173, 209.) While California is a leader in energy conservation, the importance of addressing energy impacts has not diminished since 1974.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

On the contrary, given the need to avoid the effects of climate change, energy use is an issue that we cannot afford to ignore. As the California Energy Commission's Integrated Energy Policy Report (2016) explains:

> Energy fuels the economy, but it is also the biggest source of greenhouse gas emissions that lead to climate change. Despite California's leadership, Californians are experiencing the impacts of climate change including higher temperatures, prolonged drought, and more wildfires. There is an urgent need to reduce greenhouse gas emissions and increase the state's resiliency to climate change. With transportation accounting for about 37 percent of California's greenhouse gas emissions in 2014, transforming California's transportation system away from gasoline to zero emission and near-zero-emission vehicles is a fundamental part of the state's efforts to meet its climate goals. Energy efficiency and demand response are also key components of the state's strategy to reduce greenhouse gas emissions. (Id. at pp. 5, 8, 10.) Appendix F was revised in 2009 to clarify that analysis of energy impacts is mandatory. OPR today proposes to add a subdivision in section 15126.2 on energy impacts to further elevate the issue, and remove any question about whether such an analysis is required."[79]

Further, an "Explanation of Proposed Amendments" contained in the Proposed Update (and now adopted amendments) to the CEQA Guidelines documents stated that OPR proposed to add a new subdivision (b) to section 15126.2 which discusses the required contents of an environmental impact report. The new subdivision would specifically address the analysis of a project's potential energy impacts. This addition is necessary for several reasons explained as follows. [80]

> "The first sentence clarifies that an EIR must analyze whether a project will result in significant environmental effects due to "wasteful, inefficient, or unnecessary consumption of energy." This clarification is necessary to implement Public Resources Code section 21100(b)(3). Since the duty to impose mitigation measures arises when a lead agency determines that the project may have a significant effect, section 21100(b)(3) necessarily requires both analysis and a determination of significance in addition to energy efficiency measures. (Pub. Resources Code, § 21002.)
>
> The second sentence further clarifies that all aspects of the project must be considered in the analysis. This clarification is consistent with the rule that lead agencies must consider the "whole of the project" in considering impacts. It is also necessary to ensure that lead agencies consider issues beyond just building design. (See, e.g., California Clean Energy Com. v. City of Woodland, supra, 225 Cal.App.4th at pp. 210-212.) The analysis of vehicle miles traveled provided in proposed section 15064.3 (implementing Public Resources Code section 21099 (SB 743)) on transportation impacts may be relevant to this analysis.
>
> The third sentence signals that the analysis of energy impacts may need to extend beyond building code compliance. (Ibid.) The requirement to determine whether a project's use of energy is "wasteful, inefficient, and unnecessary" compels consideration of the project in its context. (Pub. Resources Code, § 21100(b)(3).) While building code compliance is a relevant factor, the generalized rules in the building code will not necessarily indicate whether a particular project's energy use could be improved. (Tracy First v. City of Tracy (2009) 177 Cal.App.4th 912, 933 (after analysis, lead agency concludes that project proposed to be at least 25% more energy efficient than the building code requires would have a less than significant impact); see also CEQA Guidelines, Appendix F, § II.C.4 (describing building code compliance as one of several different considerations in determining the significance of a project's energy impacts).) That the Legislature added the energy analysis requirement in CEQA at the same time that it created an Energy Commission authorized to impose building energy standards indicates that compliance with the building code is a necessary but not exclusive means of satisfying CEQA's independent requirement to analyze energy impacts broadly.
>
> The new proposed [now adopted] subdivision (b) also provides a cross-reference to Appendix F. This cross-reference is necessary to direct lead agencies to the more detailed provisions contained in that appendix. Finally, new proposed subdivision (b) cautions that the analysis of energy impacts is subject to the rule of reason, and must focus on energy demand actually caused by the project. This sentence is necessary to place reasonable limits on the analysis. Specifically, it signals that a full "lifecycle" analysis that would account for energy used in building materials and consumer products will generally not be required. (See also Cal. Natural Resources Agency, Final Statement of Reasons for Regulatory Action: Amendments to the

[79] State of California. Office of Planning and Research. Proposed Update to the CEQA Guidelines. November 2017. Pages 65-66. Accessed July 2022 at: http://opr.ca.gov/docs/20171127_Comprehensive_CEQA_Guidelines_Package_Nov_2017.pdf

[80] Ibid. 66.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97 (Dec. 2009) at pp. 71-72.)"[81]

Specifically, Section 15121.6 added new sub-section (b), to wit: "(b) Energy Impacts. If the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption of energy, the EIR shall analyze and mitigate that energy use. This analysis should include the project's energy use for all project phases and components, including transportation-related energy, during construction and operation. In addition to building code compliance, other relevant considerations may include, among others, the project's size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project. (Guidance on information that may be included in such an analysis is presented in Appendix F.) This analysis is subject to the rule of reason and shall focus on energy demand that is caused by the project. This analysis may be included in related analyses of air quality, greenhouse gas emissions or utilities in the discretion of the lead agency."[82]

CEQA Thresholds of Significance

- Result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption of energy.
- The project's energy use for all project phases and components, including transportation-related energy, during construction and operation.
- The project's size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project.
- Analysis is subject to the rule of reason and shall focus on energy demand that is caused by the project.

Environmental Setting

As previously noted, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). As noted previously, the Project site is located on the San Joaquin Valley floor in an unincorporated area. The original 46-acre site and the proposed Project site are east of the City of Visalia, just south of the State Route 198 corridor. The northern ~27 acres of the original Project site is within the City of Visalia's (City) adopted Sphere of Influence, while the southern ~20 acres is within the City's adopted Planning Area. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage. The proposed Project will be located directly south and adjacent to the original site and is currently planted to walnuts. Both project sites are within the service areas of Southern California Electricity (SCE) and Southern California Gas (SoCalGas) companies.

Natural Gas and Electric Service

"Southern California Edison provides electric service to the majority of Tulare County, including the majority of the San Joaquin Valley and the foothills. Natural gas service is primarily provided by The Gas Company (formerly Southern California Gas Company). Pacific Gas & Electric also serves northern Tulare County's electric needs on limited basis. The electrical facilities network includes both overhead and underground lines, with new development required to install underground service lines. All utility providers indicate that additional service should be available to new development, depending on the necessary load of the services requested."[83]

Existing Energy Consumption

Electrical and natural gas services for the Project area are provided by SCE & SoCalGas. In 2020, SCE and SoCalGas provided 83,532.630.620 GWh of electricity and 5,231,452. 869 million therms of natural gas; respectively, within its entire service area; which

[81] Op. Cit. 66-67.

[82] Op. Cit. 67-68.

[83] Tulare County General Plan 2030 Update. Recirculated Draft EIR. 3.4 Energy and Global Climate Change. February 2010. Page 3.4-14. Accessed July 2022 at: http://generalplan.co.tulare.ca.us/documents/generalplan2010/RecirculatedDraftEIR.pdf

includes the northern areas of Tulare County. In 2019, Tulare County consumed 4,642.806.091 gigawatt-hours (GWh) of electricity and 159.463.309 million therms of natural gas (see **Table 6-1**).

Table 6-1
2020 County and State Energy Demands on Energy Providers
SCE and SoCal Gas

Demand by:	Electricity (in MWh)[84]	Gas (in Therms)[85]
Tulare County	[1]4,642,806.091	[2]159,463,309
SCE & SoCalGas Service Area	[1]83,532,630.620	[2]5,231,452,869

Notes: 1 Converted to MWh as CEC Energy Reports expresses in Millions of kWh (GWh).
2 Converted to MWh as CEC Energy Reports expresses in Millions of Therms.

Regulatory Setting

Federal

Energy Policy Act of 2005

The Energy Policy Act of 2005[86] seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under the Act, consumers and businesses can obtain federal tax credits for purchasing fuel efficient appliances and products, including buying hybrid vehicles, building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

State

California Energy Commission[87]

The California Energy Commission (CEC) was created in 1975 to serve as the state's primary energy policy and planning agency. The CEC is tasked with reducing energy costs and environmental impacts of energy use - such as greenhouse gas emissions - while ensuring a safe, resilient, and reliable supply of energy. The CEC's research, programs and policies remain crucial today as the state plans for 100% clean energy and carbon neutrality by mid-century.

California 2008 Energy Action Plan Update[88]

The 2008 update to the 2005 Energy Action Plan II is the State's principal energy planning and policy document. The updated document examines the state's ongoing actions in the context of global climate change. The 2005 Energy Action Plan II continues the goals of the original 2003 Energy Action Plan, describes a coordinated implementation plan for state energy policies, and identifies specific action areas to ensure that California's energy resources are adequate, affordable, technologically advanced, and environmentally sound. In accordance with this plan, the first-priority actions to address California's increasing energy demands are energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods to address system reliability and support the best use of energy infrastructure). Additional priorities include the use of renewable sources of power and distributed generation (i.e., the use of relatively small power plants near or at centers of high demand). To the extent that these

[84] California Energy Commission. California Energy Consumption Database. Electricity Consumption by County and Plan Area. Energy reports accessed July 2022 at: http://ecdms.energy.ca.gov/elecbycounty.aspx and http://ecdms.energy.ca.gov/elecbyplan.aspx

[85] Ibid. Gas Consumption by County and Plan Area. Energy reports accessed July 2022 at: http://ecdms.energy.ca.gov/gasbycounty.aspx and http://ecdms.energy.ca.gov/gasbyplan.aspx

[86] Congress.GOV. Energy Policy Act of 2005. H.R. 6, Public Law No. 109-58. Accessed July 2022 at: https://www.congress.gov/bill/109th-congress/house-bill/6 and https://www.govinfo.gov/content/pkg/BILLS-109hr6enr/pdf/BILLS-109hr6enr.pdf.

[87] California Energy Commission. About. Accessed July 2022 at: https://www.energy.ca.gov/about.

[88] California Energy Commission. 2008 Energy Action Plan. February 2008. Accessed April 2022 at https://www.cpuc.ca.gov/industries-and-topics/natural-gas/energy-action-plans.

actions are unable to satisfy the increasing energy demand and transmission capacity needs, clean and efficient fossil-fired generation is supported. The California 2008 Energy Action Plan Update examines policy changes in the areas of energy efficiency, demand response, renewable energy, electricity reliability and infrastructure, electricity market structure, natural gas supply and infrastructure, research and development, and climate change.

2019 California Energy Efficiency Action Plan[89]

The 2019 California Energy Efficiency Action Plan (2019 EE Action Plan) is the state's roadmap for an energy-efficient and low-carbon future for buildings. Energy efficiency is a key piece of California's efforts to lessen the impacts of climate change, reduce the economic burden of energy consumption on low-income populations, and complement sustainability efforts in the state. The CEC's 2019 EE Action Plan charts the progress toward doubling energy efficiency savings in buildings, industry, and agriculture; achieving increased energy efficiency in existing buildings; and reducing greenhouse gas emissions (GHGs) from buildings. Through robust, sustainable marketplaces, California can achieve its energy and climate goals and deliver benefits to California residents

State of California Integrated Energy Policy (SB 1389)[90]

In 2002, the Legislature passed Senate Bill 1389, which required the CEC to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for Zero Emission Vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicles miles traveled and accommodate pedestrian and bicycle access.

The CEC adopted the 2019 Integrated Energy Policy Report on February 20, 2020.[91] The 2013 Integrated Energy Policy Report provides the results of the CEC's assessment of a variety of issues, including:

- Decarbonizing buildings;
- Integrating renewables;
- Energy efficiency;
- Energy equity;
- Integrating renewable energy;
- Updates on Southern California electricity reliability;
- Climate adaptation activities for the energy sector;
- Natural gas assessment;
- Transportation energy demand forecast; and,
- California Energy Demand Forecast.

California Senate Bill 1037[92] and Assembly Bill 2021[93]

[89] California Energy Commission. 2019 California Energy Efficiency Action Plan. Executive Summary. Page 1 Accessed July 2022 at: https://www.energy.ca.gov/filebrowser/download/1900.

[90] California Legislative Information. Senate Bill No. 1389, Bowen (2002). July 2022 at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200120020SB1389

[91] Energy Commission. 2019 Integrated Energy Policy Report. February 2020. Accessed July 2022 at: https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2019-integrated-energy-policy-report.

[92] California Legislative Information. Senate Bill No. 1037 (Kehoe, 2005). Accessed July 2022 at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200520060SB1037.

[93] California Legislative Information. Assembly Bill 2021 (Levine, 2006). Accessed July 2022 at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200520060AB2021.

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In 2003, the CPUC and CEC adopted an Energy Action Plan that prioritized resources for meeting California's future energy needs, with energy efficiency identified as the highest priority. Since then, this policy goal has been codified as SB 1037 and AB 2021 into statute through legislation that requires electric utilities to meet their resource needs first with energy efficiency. SB 1037 and AB 2021 directed electricity and gas corporations; respectively, subject to CPUC's authority and publicly owned electricity and natural gas utilities to first meet their unmet resource needs through all available energy efficiency and demand response resources that are cost-effective, reliable, and feasible.[94]

California Global Warming Solutions Act of 2006 (Assembly Bill 32)

Assembly Bill 32 (Health and Safety Code Sections 38500–38599; AB 32), also known as the California Global Warming Solutions Act of 2006, commits the state to achieving year 2000 GHG emission levels by 2010 and year 1990 levels by 2020. To achieve these goals, AB 32 tasked the California Public Utilities Commission and CEC with providing information, analysis, and recommendations to the California Air Resources Board regarding ways to reduce GHG emissions in the electricity and natural gas utility sectors.

California Energy Code (Title 24, Part 6, Building Energy Efficiency Standards)

California Code of Regulations Title 24, Part 6 comprises the California Energy Code, which was adopted to ensure that building construction, system design and installation achieve energy efficiency. The California Energy Code was first established in 1976 by the CEC in response to a legislative mandate to reduce California's energy consumption, and apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential buildings. The standards are updated periodically (every three years) to increase the baseline energy efficiency requirements. The 2013 Building Energy Efficiency Standards focused on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings and include requirements to enable both demand reductions during critical peak periods and future solar electric and thermal system installations. Although it was not originally intended to reduce greenhouse gas (GHG) emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions. The 2016 update to the standards also include residential improvements for attics, walls, water heating, and lighting; and nonresidential improvement including alignment with the ASHRAE 90.1 2013 national standards, as well as efficiency requirements for elevators and direct digital controls[95] The 2016 standards were implemented to reduce new single family residential usage by 28 percent for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards.[96] The 2019 update to the standards also include residential improvements for attics, walls, water heating, and lighting; and nonresidential improvement including alignment with the ASHRAE 90.1 2017 national standards, as well as efficiency requirements for elevators and direct digital controls.[97] The 2019 standards require solar photovoltaic systems and encourage demand responsive technologies for new homes; established requirements for newly constructed healthcare facilities; and update lighting requirements making maximum use of LED technology in nonresidential buildings.[98]

California Green Building Standards Code (Title 24, Part II, CALGreen)[99]

The California Building Standards Commission adopted the California Green Buildings Standards Code (CALGreen in Part 11 of the Title 24 Building Standards Code) for all new construction statewide on July 17, 2008. Originally a volunteer measure, the code

[94] California Legislative Information. Senate Bill No. 1037 (Kehoe, 2005). Accessed July 2022 at: http://www.leginfo.ca.gov/pub/05-06/bill/sen/sb_1001-1050/sb_1037_bill_20050929_chaptered.pdf.

[95] California Energy Commission. 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings for the 2016 Building Efficiency Standards. Accessed July 2022 at: https://www.energy.ca.gov/publications/2015/building-energy-efficiency-standards-residential-and-nonresidential-buildings.

[96] California Energy Commission. 2016 Building Energy Efficiency Standards Frequently Asked Questions. Accessed July 2022 AT: https://www.calbo.org/sites/main/files/file-attachments/2016_building_energy_efficiency_standards_faq.pdf?1520982927.

[97] California Energy Commission. 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings for the 2019 Building Efficiency Standards. Accessed July 2022at: https://www.energy.ca.gov/publications/2008/2019-building-energy-efficiency-standards-residential-and-nonresidential.

[98] California Energy Commission. 2019 Building Energy Efficiency Standards Frequently Asked Questions. March 2018. Accessed July 2022at: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf.

[99] California Department of General Services, Building Standards Commission. CALGreen. Accessed July 2022at: https://www.dgs.ca.gov/BSC/CALGreen

became mandatory in 2010. The most recent update (2019) went into effect on January 1, 2020.[100] CALGreen sets targets for energy efficiency, water consumption, dual plumbing systems for potable and recyclable water, diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design, including eco-friendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; water use; weather resistance and moisture management; construction waste reduction, disposal, and recycling; building maintenance and operation; pollutant control; indoor air quality; environmental comfort; and outdoor air quality. Mandatory measures for residential development pertain to green building; planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; environmental quality; and installer and special inspector qualifications.

Clean Energy and Pollution Reduction Act (SB 350)[101]

The Clean Energy and Pollution Reduction Act (SB 350) was passed by California Governor Brown on October 7, 2015, and establishes new clean energy, clean air, and greenhouse gas reduction goals for the year 2030 and beyond. SB 350 establishes a greenhouse gas reduction target of 40 percent below 1990 levels for the State of California, further enhancing the ability for the state to meet the goal of reducing greenhouse gas emissions by 80 percent below 1990 levels by the year 2050.[102]

Renewable Portfolio Standard (SB 1078 and SB 107)

Established in 2002 under SB 1078,[103] the state's Renewables Portfolio Standard (RPS) was amended under SB 107[104] to require accelerated energy reduction goals by requiring that by the year 2010, 20 percent of electricity sales in the state be served by renewable energy resources. In years following its adoption, Executive Order S-14-08[105] was signed, requiring electricity retail sellers to provide 33 percent of their service loads with renewable energy by the year 2020. In 2011, SB X1-2[106] was signed, aligning the RPS target with the 33 percent requirement by the year 2020. This new RPS applied to all state electricity retailers, including publicly owned utilities, investor-owned utilities, electrical service providers, and community choice aggregators. All entities included under the RPS were required to adopted the RPS 20 percent by year 2020 reduction goal by the end of 2013, adopt a reduction goal of 25 percent by the end of 2016, and meet the 33 percent reduction goal by the end of 2020. In addition, the Air Resources Board, under Executive Order S-21-09,[107] was required to adopt regulations consistent with these 33 percent renewable energy targets.

Local Policy & Regulations

Tulare County General Plan 2030 Update

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: *ERM-4.1 Energy Conservation and Efficiency Measures* – wherein the County shall encourage the use of solar energy, solar hot water panels, and other energy conservation and efficiency features in new construction and renovation of existing structures in accordance with State

[100] International Code Council. Guide to the 2019 California Green Building Standards Code, Nonresidential. Pages viii – ix. Accessed July 2022at: https://codes.iccsafe.org/content/GCGBSCNR2019/guide-to-the-2019-california-green-building-standards-code-includes-verification-guidelines-nonresidential

[101] California Legislative Information. Senate Bill No. 350 (2015). Accessed July 2022 at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350.

[102] California Energy Commission. Clean Energy and Pollution Reduction Act – SB 350. Accessed July 2022 at: https://www.energy.ca.gov/rules-and-regulations/energy-suppliers-reporting/clean-energy-and-pollution-reduction-act-sb-350.

[103] California Legislative Information. Senate Bill No. 1078 (Sher, 2002). Accessed July 2022 at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200120020SB1078.

[104] California Legislative Information. Senate Bill No. 107 (2006). Accessed July 2022at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200520060SB107.

[105] California State Library. Executive Order S-14-08 (Schwarzenegger, 2008). Accessed July 2022 at: https://www.library.ca.gov/wp-content/uploads/GovernmentPublications/executive-order-proclamation/38-S-14-08.pdf.

[106] California Legislative Information. Senate Bill No. SBX1-2 (2011). Accessed July 2022 at: http://www.leginfo.ca.gov/pub/11-12/bill/sen/sb_0001-0050/sbx1_2_bill_20110412_chaptered.html.

[107] California State Library. Executive Order S-21-09 (Schwarzenegger, 2009). Accessed July 2022 at: https://www.library.ca.gov/wp-content/uploads/GovernmentPublications/executive-order-proclamation/38-S-21-09.pdf.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

law; *ERM-4.2 Streetscape and Parking Area Improvements for Energy Conservation* – wherein the County shall promote the planting and maintenance of shade trees along streets and within parking areas of new urban development to reduce radiation heating; *ERM-4.3 Local and State Programs* wherein the County shall participate, to the extent feasible, in local and State programs that strive to reduce the consumption of natural or man-made energy sources; *ERM-4.4 Promote Energy Conservation Awareness – wherein the County should coordinate with local utility providers to provide public education on energy conservation programs; and AQ-3.5 Alternative Energy Design – wherein the County shall encourage all new development, including rehabilitation, renovation, and redevelopment, to incorporate energy conservation and green building practices to maximum extent feasible.*

a) Less than Significant Impact: During project construction there would be an increase in energy consumption related to worker trips and operation of construction equipment. This energy use would be limited to the greatest extent possible through compliance with local, state, and federal regulations. Also, construction-related energy consumption is short-term, temporary, and intermittent and will cease once construction-related activities are completed. Operations energy usage would be limited to the office, on-site manager's residence, evening security lighting, and other small energy uses (e.g., security gate, sprinkler systems, etc.) and would be significantly less than 1% of the electricity/natural gas providers' capacity.

Based on existing energy demands and capacity of service providers, estimated operational demand for electricity as part of the Project would represent less than 1% of Tulare County's and SCE's total electricity demands based on 2020 electricity consumption data. Estimated operational demand for natural gas as part of the Project would represent approximately less than 1% of Tulare County's and of SoCal Gas' total gas demands based on 2020 natural gas consumption data.

Its relatively central location in the San Joaquin Valley, its proximity to 198 (and connectivity to other local and regional transportation corridors), its less than 1% use of electricity energy demand from SCE, less than 1% of natural gas demand from SoCal Gas, and its less than 1% use of gasoline and diesel fuels of the entire State's supply demonstrate that the Project will not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operations, nor will it conflict with or obstruct a state or local plan for renewable energy or energy efficiency. As such, the Project would result in a less than significant impact to these resources.

b) Less than Significant Impact: See response to Impact a), above, the impact is less than significant.

Cumulative Impact Analysis: Less than Significant - The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and technical study provided in Attachment A.

The proposed Project would incrementally contribute to adverse impacts on energy resource demand and conservation when considering the cumulative impact of concurrently planned projects; however, like the proposed Project, discretionary actions requiring agency approval are required to comply with local, regional, state, and federal policies designed to reduce wasteful energy consumption, and improve overall energy conservation and sustainability. For instance, all local projects involving the development of new buildings must be designed to conform to CALGreen and the current California Energy Code (for this Project it will be the 2019 Code). Therefore, it is anticipated that the Project's contribution to cumulative impacts would not result in a significantly considerable wasteful use of energy resources, such that the Project, and other cumulative projects, would not have a cumulative effect on energy conservation. The proposed Project will not have a direct or cumulative impact, or create wasteful, inefficient, or unnecessary consumption of energy resources during project construction-related activities or operations, nor will it conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, Project-specific and Cumulative Impacts as of a result of the Project would be less than significant.

7.	**GEOLOGY/SOILS**					
	Would the project:					
	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-	☐	☐	☒	☐

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
		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 No. 42.				
	ii)	Strong seismic ground shaking?	☐	☐	☒	☐
	iii)	Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
	iv)	Landslides?	☐	☐	☐	☒
	b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
	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?	☐	☐	☒	☐
	d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
	e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
	f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Geology/soils Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

As previously noted, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The Project site is located on the San Joaquin Valley floor in an unincorporated area. The original 46-acre site and the proposed Project site are east of the City of Visalia, just south of the State Route 198 corridor. The northern ~27 acres of the original Project site is within the City of Visalia's (City) adopted Sphere of Influence, while the southern ~20 acres is within the City's adopted Planning Area. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage. The proposed Project will be located directly south and adjacent to the original site and is currently planted to walnuts.

"Tulare County is divided into two major physiographic and geologic provinces: the Sierra Nevada Mountains and the Central Valley. The Sierra Nevada Physiographic Province, in the eastern portion of the county, is underlain by metamorphic and igneous rock. It consists mainly of homogeneous granitic rocks, with several islands of older metamorphic rock. The central and western parts of the county are part of the Central Valley Province, underlain by marine and non-marine sedimentary rocks. It is basically a

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

flat, alluvial plain, with soil consisting of material deposited by the uplifting of the mountains. The foothill area of the county is essentially a transition zone, containing old alluvial soils that have been dissected by the west-flowing rivers and streams that carry runoff from the Sierra Nevada Mountains. This gently rolling topography is punctured in many areas by outcropping soft bedrock. The native mountain soils are generally quite dense and compact"[108]

"The Central Valley is an asymmetrical structural trough filled with marine and continental sediments up to 15-kilometers (km) thick covering an area of more than 50,000 square kilometers (km2), bounded by the Cascade Range to the north, the Sierra Nevada ranges to the east, the Klamath Mountains and Coast Ranges to the west, and the Tehachapi Mountains to the south. The aquifer system in the Central Valley comprises unconfined, semi-confined, and confined aquifers, which are primarily contained within the upper 300 meters (m; though some wells exceed that depth) of alluvial sediments deposited by streams draining the surrounding Sierra Nevada and Coast Ranges (Page, 1986; California Department of Water Resources, 2003; Faunt, 2009). The [Sacramento] SAC occupies the northern third of the Central Valley and the [San Joaquin Valley] SJV occupies the southern two-thirds of the Central Valley (Fig. 1 [in the Scientific Investigations Report 2019-506]). The SJV is often further divided into the San Joaquin River Basin, which occupies the northern half of the SJV, and the Tulare Basin, which occupies the southern half of SJV. The Tulare Basin is, hydrologically, a closed basin, but it receives imported water from the San Joaquin and Sacramento Rivers. These will collectively be referred to as the SJV. In much of the western side of the SJV, the aquifer system is divided into an upper and lower zone by the Corcoran Clay Member of the Tulare Formation, a regionally extensive clay layer that limits vertical movement of groundwater (Page, 1986; Williamson and others, 1989; Belitz and Heimes, 1990; Burow and others, 2004). Both zones of the aquifer in the area of the Corcoran Clay generally are tapped for groundwater withdrawals (Shelton and others, 2013; Fram, 2017)."[109]

Geology & Seismic Hazards

Seismic hazards, such as earthquakes, can cause loss of human life and property damage, disrupt the local economy, and undermine the fiscal condition of a community. Secondary seismic hazards, including subsidence and liquefaction, can cause building and infrastructure damage.

Seismicity

"Seismicity varies greatly between the two major geologic provinces represented in Tulare County. The Central Valley is an area of relatively low tectonic activity bordered by mountain ranges on either side. The Sierra Nevada Mountains, partially located within Tulare County, are the result of movement of tectonic plates which resulted in the creation of the mountain range. The Coast Range on the west side of the Central Valley is also a result of these forces, and the continued uplifting of Pacific and North American tectonic plates continues to elevate these ranges. The remaining seismic hazards in Tulare County generally result from movement along faults associated with the creation of these ranges.

Earthquakes are typically measured in terms of magnitude and intensity. The most commonly known measurement is the Richter Scale, a logarithmic scale which measures the strength of a quake. The Modified Mercalli Intensity Scale measures the intensity of an earthquake as a function of the following factors:

- Magnitude and location of the epicenter;
- Geologic characteristics;
- Groundwater characteristics;
- Duration and characteristic of the ground motion;
- Structural characteristics of a building."[110]

Faults

[108] Tulare County 2030 General Plan 2030 Update Background Report. Page 8-4 through 8-5.

[109] United States Department of the Interior United States Geologic Survey. "Delineation of Spatial Extent, Depth, Thickness, and Potential Volume of Aquifers Used for Domestic and Public Water-Supply in the Central Valley, California. Scientific Investigations Report 2019-5076 (SIR). Page 2. Accessed July 2022 at: https://pubs.usgs.gov/sir/2019/5076/sir20195076.pdf.

[110] Tulare County General Plan 2030 Update. Appendix B General Plan Background Report. Page 8-5. http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/Appendix%20B%20-%20Background%20Report.pdf .

"Faults are the indications of past seismic activity. It is assumed that those that have been active most recently are the most likely to be active in the future. Recent seismic activity is measured in geologic terms. Geologically recent is defined as having occurred within the last two million years (the Quaternary Period). All faults believed to have been active during Quaternary time are considered "potentially active."[111]. "In 1973, five counties within the Southern San Joaquin Valley undertook the preparation of the Five County Seismic Safety Element to assess seismic hazards… In general, zones C1, S1, and V1 are safer than zones C2, S2, and V2. Hazards due to groundshaking are considered to be "minimal" in the S1 Zone and "minimal" to "moderate" in the S2 and S2S Zones. Development occurring within the S1 Seismic Zone must conform to the Uniform Building Code-Zone II; while development within the S2 Zone must conform to Uniform Building Code-Zone III. There are three faults within the region that have been, and will be, principal sources of potential seismic activity within Tulare County. These faults are described below:

- **San Andreas Fault** is located approximately 40 miles west of the Tulare County boundary and [approximately] 60 miles west of the project area. This fault has a long history of activity, and is thus the primary focus in determining seismic activity within the County. Seismic activity along the fault varies along its span from the Gulf of California to Cape Mendocino. Just west of Tulare County lays the "Central California Active Area," section of the San Andreas Fault where many earthquakes have originated.

- **Owens Valley Fault Group** is a complex system containing both active and potentially active faults, located on the eastern base of the Sierra Nevada Mountains approximately [approximately] 60 miles east of the project area. The Group is located within Tulare and Inyo Counties and has historically been the source of seismic activity within Tulare County.

- **Clovis Fault** is considered to be active within the Quaternary Period, although there is no historic evidence of its activity, and is therefore classified as "potentially active." This fault lies approximately six miles south of the Madera County boundary in Fresno County and [approximately] 70 miles north of the project area. Activity along this fault could potentially generate more seismic activity in Tulare County than the San Andreas or Owens Valley fault systems. In particular, a strong earthquake on the Fault could affect northern Tulare County. However, because of the lack of historic activity along the Clovis Fault, inadequate evidence exists for assessing maximum earthquake impacts." [112]

There are other unnamed faults north of Bakersfield and near Tulare Buttes about 30 miles north of Porterville. These faults are small and have exhibited activity in the last 1.6 million years, but not in the last 200 years. It is also possible, but unlikely, that previously unknown faults could become active in the area. [113] As shown in **Figure 7-1**, the proposed Project parcel site is not within an earthquake fault zone.[114]

Settlement

"Settlement can occur in poorly consolidated soils during ground-shaking. During settlement, the soil materials are physically rearranged by the shaking and result in reduced stabling alignment of the individual minerals. Settlement of sufficient magnitude to cause significant structural damage is normally associated with rapidly deposited alluvial soils, or improperly founded or poorly compacted fill. These areas are known to undergo extensive settling with the addition of irrigation water, but evidence due to ground-shaking is not available. Fluctuating groundwater levels also may have changed the local soil characteristics. Sufficient subsurface data is lacking to conclude that settlement would occur during a large earthquake; however, the data is sufficient to indicate that the potential exists in Tulare County."[115]

Other Geologic Hazards

Landslides

[111] Op. Cit.

[112] Op. Cit. 8-5 through 8-7.

[113] California Geological Survey. Accessed July 2022. Fault Activity Map of California

[114] California Department of Conservation. EQ Zapp: California Earthquake Hazards Zone Application. Earthquake Zones of Required Investigation. Accessed July 2022. See: https://maps.conservation.ca.gov/cgs/EQZApp/app/

[115] Op. Cit. 8-9.

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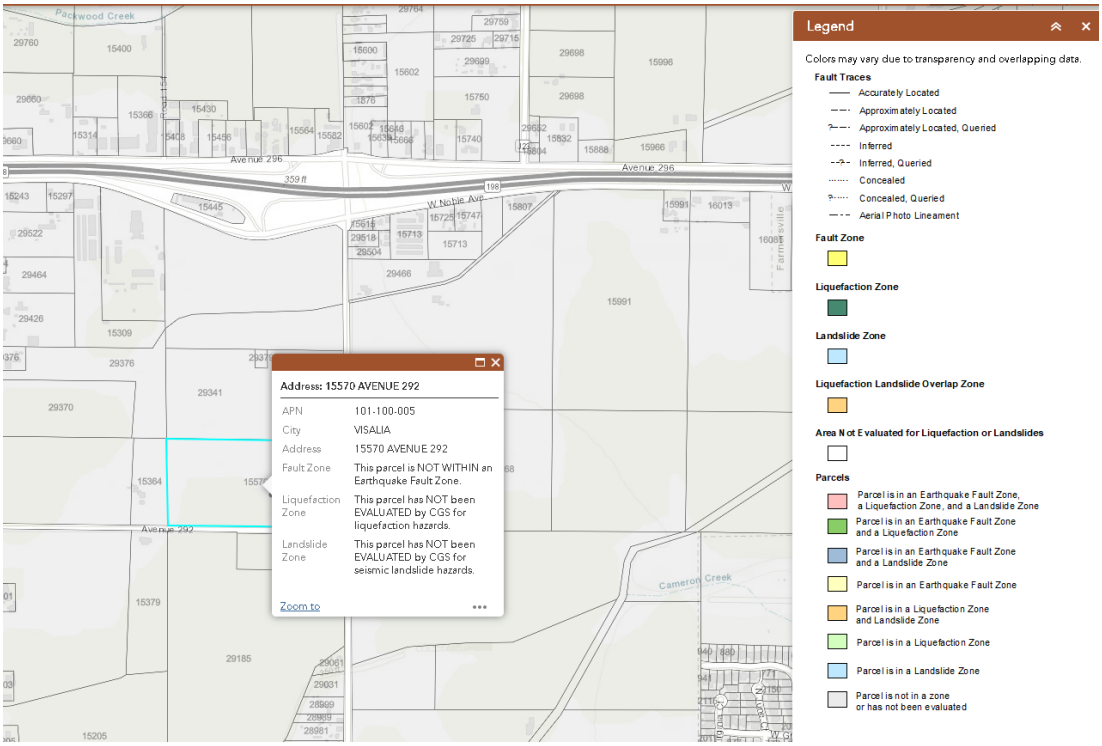
"Landslides are a primary geologic hazard and are influenced by four factors:

- Strength of rock and resistance to failure, which is a function of rock type (or geologic formation);
- Geologic structure or orientation of a surface along which slippage could occur;
- Water (can add weight to a potentially unstable mass or influence strength of a potential failure surface); and,
- Topography (amount of slope in combination with gravitation forces).

Figure 7-1
Earthquake Fault Map of Project Site



"As of June 2009, the California Geological Survey had not developed landslide hazard identification maps for Tulare County. However, it is reasonable to assume that certain areas in Tulare County are more prone to landslides than other areas… [As such,] There is no risk of large landslides in the valley area of the county due to its relatively flat topography."[116]

Subsidence

"Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. Soils that are particularly subject to subsidence include those with high silt or clay content. Subsidence caused by groundwater withdrawal generally presents a more serious problem, since it can affect large areas. Oil and gas withdrawal, on the other hand, tends to affect smaller, localized areas. Some areas of the Central Valley have subsided more than 20 feet during the past 50 years." [117]

Seiche

"A seiche is a standing wave produced in a body of water such as a reservoir, lake, or harbor, by wind, atmospheric changes, or earthquakes. Seiches have the potential to damage shoreline structures, dams, and levees…Since this is less than wave heights that

[116] Op. Cit. 8-10.

[117] Op. Cit. 8-10 through 8-11.

could be expected from wind induced waves, earthquake-induced seiches are not considered a risk in Tulare County. In addition, the effects from a seiche would be similar to the flood hazard for a particular area, and the risk of occurrence is perceived as considerably less than the risk of flooding."[118]

Volcanic Hazard

"The nearest volcanoes lie to the northeast of Tulare County in Mono County, in the Mammoth Lakes/Long Valley area. The most serious effect on Tulare County of an eruption in the Mammoth Lakes, area according to the California Geological Survey, would be ash deposition."[119] "A volcanic eruption during the winter could result in snowmelt and lead to flooding. The state has formulated a contingency plan, the "Long Valley Caldera Response Plan," designed to notify the public in the event of an earthquake in the Long Valley area (outside of Tulare County)."[120]

Paleontology

"Paleontological resources are any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth, with the exception of materials associated with an archaeological resource (as defined in Section 3(1) of the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470bb[1]), or any cultural item as defined in Section 2 of the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001)."[121] " According to the University of California Museum of Paleontology (UCMP), 12 paleontological resources have been recorded in Tulare County, generally within the valley portion of the County. These resources primarily consist of invertebrates, vertebrate, and plant fossils (UCMP, 2009)."[122] CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) §15126.4 (a)(1)). California Public Resources Code §5097.5 also applies to paleontological resources.

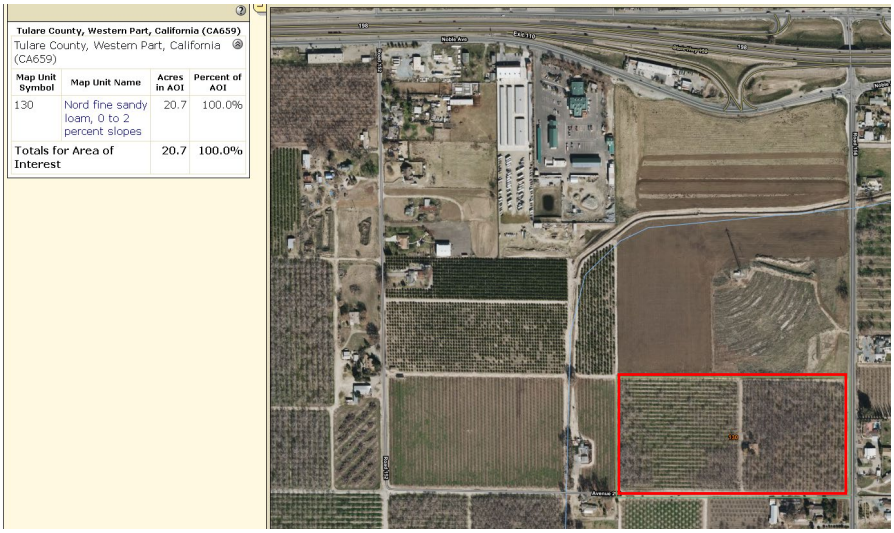
Soil Characteristics

"The San Joaquin Valley portion of Tulare County is located on alluvial deposits, which tend to experience greater groundshaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from groundshaking than those located in the foothill and mountain areas. However, existing alluvium valleys and weathered or decomposed zones are scattered throughout the mountainous portions of the county which could also experience stronger intensities than the surrounding solid rock areas. The geologic characteristics of an area can therefore be a greater hazard than its distance to the epicenter of the quake."[123]

Figure 7-2 shows the soil type(s) found on the site as provided by the USDA Natural Resources Conservation Service.[124] The Nord fine sandy loam series consists of deep, well drained soils that formed from mixed alluvium. Nord fine sandy loam soils are on alluvial fans and flood plains. They have slope gradients from 0 to 2 percent. Elevations are 190 to 520 feet. Nord fine sandy loam soils are well drained with negligible runoff and moderate to moderately slow permeability.[125]

[118] Op. Cit. 8-11.
[119] Op. Cit.
[120] Op. Cit.
[121] Op. Cit. 9-43.
[122] Op. Cit. 9-53.
[123] Tulare County General Plan 2030 Update. Background Report. Page 8-7.
[124] United States Department of Agriculture (USDA). Natural Resources Conservation Service (NRCS). Accessed July 2022 at: Web Soil Survey (usda.gov)
[125] United States Department of Agriculture, Natural Resources Conservation Service, Official Soil Series. Accessed July 2022. https://soilseries.sc.egov.usda.gov/OSD_Docs/S/SASSAFRAS.html

Figure 7-2
Soil Type(s) at Project site



Tulare County, Western Part, California (CA659)

Tulare County, Western Part, California (CA659)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
130	Nord fine sandy loam, 0 to 2 percent slopes	20.7	100.0%
Totals for Area of Interest		20.7	100.0%

REGULATORY SETTING

Federal

None that apply to the Project.

State

Seismic Hazards Mapping Act

"Under the Seismic Hazards Mapping Act, the State Geologist is responsible for identifying and mapping seismic hazards zones as part of the California Geologic Survey (CGS). The CGS provides zoning maps of non-surface rupture earthquake hazards (including liquefaction and seismically induced landslides) to local governments for planning purposes. These maps are intended to protect the public from the risks associated with strong ground shaking, liquefaction, landslides or other ground failure, and other hazards caused by earthquakes. For projects within seismic hazard zones, the Seismic Hazards Mapping Act requires developers to conduct geological investigations and incorporate appropriate mitigation measures into project designs before building permits are issued."[126]

California Building Code

"The California Building Code is another name for the body of regulations known as the California Code of Regulations (C.C.R.), Title 24, Part 2, which is a portion of the California Building Standards Code. Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards."[127]

Alquist-Priolo Earthquake Fault Zoning Act

"The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate

[126] Op. Cit. 3.6-9.

[127] Tulare County. Revised Draft General Plan 2030 Update. August 2012. Page. 8-3.

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development on or near active fault traces to reduce the hazards associated with fault rupture and to prohibit the location of most structures for human occupancy across these traces."[128]

State Water Resources Control Board and Regional Water Quality Control Board

National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity- Water Quality Order 99-08 DWQ.

Typically, General Construction Storm Water NPDES permits are issued by the RWQCB for grading and earth-moving activities. The General Permit is required for construction activities that disturb one or more acres. The General Permit requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which specifies practices that include prevention of all construction pollutants from contacting stormwater with the intent of keeping all products of erosion form moving off site into receiving waters. The NPDES permits are issued for a five-year term. NPDES general permits require adherence to the Best Management Practices (BMPs) including:

- Site Planning Consideration- such as preservation of existing vegetation.
- Vegetation Stabilization- through methods such as seeding and planting.
- Physical Stabilization- through use of dust control and stabilization measures.
- Diversion of Runoff – by utilizing earth dikes and temporary drains and swales.
- Velocity Reduction – through measures such as slope roughening/terracing.
- Sediment Trapping/Filtering – through use of silt fences, straw bale and sand bag filters, and sediment traps and basins.

Local

Tulare County General Plan Policies

The General Plan has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the Project include: *HS-1.11 Site Investigations* wherein the County shall conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding; *HS-2.1 Continued Evaluation of Earthquake Risks* wherein the County shall continue to evaluate areas to determine levels of earthquake risk; *HS-2.4 Structure Siting* The wherein the County shall permit development on soils sensitive to seismic activity permitted only after adequate site analysis, including appropriate siting, design of structure, and foundation integrity; *HS-2.7 Subsidence* wherein the County shall confirm that development is not located in any known areas of active subsidence; *HS-2.8 Alquist-Priolo Act Compliance* wherein The County shall not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones; *WR-2.2 NPDES Enforcement* wherein the County shall continue to support the State in monitoring and enforcing provisions to control non-point source water pollution contained in the U.S. EPA NPDES program as implemented by the Water Quality Control Board; *WR-2.3 Best Management Practices* wherein the County shall continue to require the use of feasible BMPs and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities, agricultural operations requiring a County Permit and urban runoff in coordination with the Water Quality Control Board; and *WR-2.4 Construction Site Sediment Control* wherein the County shall continue to enforce provisions to control erosion and sediment from construction sites.

Five County Seismic Safety Element (FCSSE)

The FCSSE report represents a cooperative effort between the governmental entities within Fresno, Kings, Madera, Mariposa and Tulare Counties to develop an adoptable Seismic Safety Element as required by State law. Part I, the Technical Report, is designed to be used when necessary to provide background for the Summary document. Part II, the Summary Report, establishes the framework and rationale for evaluation of seismic risks and hazards in the region. Part II of the Seismic Safety Element, the Policy Report, has been prepared as a "model" report designed to address seismic hazards as delineated in the Technical Report. The intent has been to develop a planning tool for use by county and city governments in implementing their seismic safety elements. The planning process utilized to develop the Element was developed through the efforts of Technical and Policy Committees, composed

[128] Ibid.

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of both staff and elected representatives from Cities, Counties, and Special Districts or Areawide Planning Organizations in cooperation with the consulting firms of Envicom Corporation and Quinton-Redgate.[129]

Would the project:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) **Less Than Significant Impact:** "There have been no past or present indications of faults occurring at the Site. The closest fault is the Pond Fault located approximately 40-miles south-southwest of the Site near the Hamlet of Pond, California. Based on California Divisions of Mines and Geology (CDMG), the Pond fault is a 2/3-mile wide zone of northwesterly trending normal faults, downthrown to the southwest and dipping approximately 50 to 70 degrees (Smith, 1983). The CDMG postulates that groundwater withdrawal and subsequent subsidence in the 1970's and 1980's initiated creep along the dip-slip fault surface. Six small earthquake epicenters were located within 6 miles of the Pond fault. The CDMG report concluded the Pond fault might be seismically active but could not conclude with certainty.

From the project location there are currently no active faults within 40 to 50 miles based on the Department of Conservation's Alquist-Priolo (AP) maps. As of January 2010, Tulare County is not affected by Alquist Priolo Earthquake Fault Zones (CDC, 2016). According to the 2012 Tulare County General Plan 2030 Update, there is no presence of active faults within the county where the effects of large earthquakes are felt. Faults with potential seismic activity include the San Andreas, Owens Valley, and Clovis Faults (Tulare County General Plan Background Report, 2010 and Recirculated Draft, 2010). The Owens Valley Fault group located west of the project is said to be the source of seismic activity in the past." [130]

According to the Five County Seismic Safety Element (FCSSE), Tulare County is located in the V-1 zone. This zone includes most of the eastern San Joaquin Valley, and is characterized by a relatively thin section of sedimentary rock overlying a granitic basement. Amplification of shaking that would affect low to medium-rise structures is relatively high, but the distance of the faults that are expected sources of the shaking is sufficiently great that the effects should be minimal. The requirements of Zone II of the Uniform Building Code should be adequate for normal facilities. Therefore, any impacts resulting from the rupture of a known earthquake fault would be less than significant.

ii) *Ground Shaking:* "The geological hazard features surrounding the proposed property of concern, pertain to the active faults found near the site. From 1950 through 2012, there have been zero (0) state and federal declared earthquake disasters in Tulare County (SHMP, 2013)." [131] "…the probability of an earthquake with magnitude > 6.0 within 30 years & 50 kilometers (31 miles) from the site is between 4% and 6%. Based on the distance and probability of magnitude 6.0 or greater at the site, there is a less than significant potential for impact from strong seismic shaking."[132] As such, the impact due to ground shaking would be less than significant.

iii) *Ground Failure and Liquefaction:* "Liquefaction is a failure mechanism in water-saturated, well sorted fine sands. Liquefaction occurs as a result of rearrangement of sand grains. Shaking or vibration can cause the grains to rearrange to a denser soil thus decreasing porosity leaving excess water in the interstices. The grains no longer support the overburden and the soil behaves as a liquid. If the soil mass is saturated and the water cannot escape, the material turns into a viscous fluid that can damage foundations or generate slope failures. This is normally caused by earthquakes. Liquefaction generally occurs in areas with shallow water tables or near waterbodies. Based on soil types and depth to groundwater beneath the site, liquefaction potential will be very low…"[133] As such, there would be no impact caused by seismic-related ground failure, including liquefaction.

[129] Five County Seismic Safety Element. Fresno, Kings, Madera, Mariposa, & Tulare Counties. 1974. Pages 4-7. Prepared by Envicom Corporation. Accessed May 2021 at https://tularecounty.ca.gov/rma/index.cfm/planning-building/environmental-planning/environmental-planning-resources/five-county-seismic-safety-element-1974/.

[130] Geological, Hydrological & Sustainability Report for Sequoia Drive-in Business Park. Prepared by 4Creeks, Inc. Page 5. Included in Attachment "D" of this MND.

[131] Ibid.

[132] Op. Cit.

[133] Op. Cit. 6.

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iv) *Landslides:* Topography of the site is relatively flat sloping down to the west less than approximately 0.2%. The nearest naturally formed slopes are foothills located approximately four miles northeast of the site. Potential for slope failure from these nearby hills to affect the site are unlikely. The site has a representative slope rating of 1.0. Based on this slope rating, the site is listed as "Nearly Level". Potential for on or off-site landslides or lateral spreading is very low based on topography of the site.[134] Therefore, there is no risk of landslides within or near the Project area.

b) Less Than Significant Impact: Site construction-related activities will include trenching, earth-moving, pouring concrete, and grading. These activities could expose soils to erosion processes. The extent of erosion will vary depending on slope steepness/stability, vegetation/cover, concentration of runoff, and weather conditions. The site has little slope (i.e., a slight grade from east to west of 0 to 2%) and will have a flat topography after minimal grading.

"Erosion is the wearing away of soil or rock by natural occurrence and transportation of these materials from one location to another. Common causes of erosion include wind and water. The Natural Resource Conservation Web Soil Survey in Appendix A lists the Nord fine sandy loam as surface soil covering the entire Site. Less dense, finer grained soil particles are more susceptible to erosion than denser, coarser particles. The web soil survey report in Attachment "D" lists soils at the site as having "slight" susceptibility with little or no potential for erosion."[135]

As noted earlier, General Construction Storm Water NPDES permits are issued by the RWQCB for grading and earth-moving activities. The General Permit is required for construction activities that disturb one or more acres. The General Permit requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which specifies practices that include prevention of all construction pollutants from contacting stormwater with the intent of keeping all products of erosion form moving off site into receiving waters. As such, the Project would not result in substantial soil erosion or loss. There would be a less than significant impact.

c) Less Than Significant Impact: "…topography of the site is relatively flat sloping down to the west less than approximately 0.2%. The nearest naturally formed slopes are foothills located approximately four miles northesast of the site. Potential for slope failure from these nearby hills to affect the site are unlikely. The NRCS Web Soil Survey Report included in Attachment "E" of this DEIR [Attachment "D" of this MND] indicates the site has a representative sloe rating of 1.0. Based on this slope rating, the site is listed as "Nearly Level". Potential for on or off-site landslides or lateral spreading is very low based on topography of the site.

According to NRCS, the site is located on the Nord fine sandy loam. On June 3, 2015, CTL-See's drilled soils borings with a hollow stem auger drilling rig. Soils were visually classified. Soil types at the site were logged according to the Unified Soil Classification System (USCS) and generally include silty sands, sandy silts, and sands. Borings were conducted to a maximum depth of 51.5' from the existing ground surface where groundwater was not encountered during the field investigation."[136] It is reasonable to concluded that since the same soil series (Nord fine sandy loam) constitutes 100% of the proposed Project; the result from the soil borings would remain identical to the original project results.

"Subsidence is characterized as the settling of the ground surface with minimal horizontal change. Often this is caused through the extraction of natural resources found below the surface including water, natural gas, and oil. As of now the Kaweah River Basin is considered to be in an overdraft. This was based on the findings in the Water Resources Investigation of the Kaweah Delta Water Conservation District report (Fugro, 2003). Based on the site investigations and findings from the Department of Water Resources (DWR), the groundwater surface elevations are decreasing. Regional subsidence throughout the San Joaquin Valley, including the area underneath the site is experiencing subsidence resultant from regional groundwater pumping. This may potentially have an impact on the properties susceptibility to subsidence.

A continuous Global Positioning System (GPS) station (P566) is located on the west border of the site. Subsidence data from station P566 indicate a total subsidence of approximately 120 millimeters (4.7 inches) from November, 2005 through April, 2016. Subsidence affecting the site is regional in scale and is attributed to groundwater overdraft throughout the Central Valley. Although the site may be affected by regional scale subsidence, it is not anticipated that the effects of the subsidence will significantly affect

[134] Op. Cit. 7.
[135] Op. Cit.
[136] Op. Cit.

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the site in particular.

Compaction of site soil during construction is expected to take place within three to five feet of the surface. It is not anticipated that compactive efforts during construction will contribute to collapse of naturally deposited soils beneath the site."[137] It is reasonable to concluded that since the same soil series (Nord fine sandy loam) constitutes 100% of the proposed Project; subsidence would remain identical to the original project analysis.

d) **Less Than Significant Impact:** "Based on Table 18-1-B of the 1994 Uniform Building Code, soils with an expansion index less than 20 have very low expansion potential. There are no known instances of expansive soils in direct proximity to the site. Soil types encountered during the May 2015 field investigation by CTL-SEE's included sands and silty sands with the exception of a sandy clay in the northwest corner of the site. Given the soil types at the site and no known instances of expansive soils in the area, significant shrink-swell behavior is not anticipated at the site."[138] As such, the Project would result in a less than significant impact and would not create substantial direct or indirect risks to life or property.

e) **Less Than Significant Impact:** "Soils at the site such as sands and silty sands have characteristics favorable to septic tank or alternative waste water disposal systems. The site is located in an area with a mix of suburban and rural properties, many of these utilizing septic tanks systems or alternative waste water disposal systems."[139]. As such, the Project would result in a less than significant impact

f) **Less Than Significant Impact:** There are no known paleontological resources within the Project area, nor are there any known geologic features in the proposed Project area. The CHRIS and NAHC/SLF searches did not identify any paleontological (or cultural) resources. Additionally, no paleontological resources or sites, or unique geologic features have previously been encountered in the Project area. Project construction will not be anticipated to disturb any paleontological resources not previously disturbed; however unlikely, there is a possibility that subsurface resources could be uncovered during construction-related activities. In such an event, potentially significant impacts to previously unknown subsurface resources may occur. With the implementation of **Mitigation Measure(s) 5-1** thru **5-3**, as specified in Item V Cultural Resources (as applicable), will ensure that any impact will be less than significant.

Cumulative Impact Analysis: Less than Significant - The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, the Tulare County 2030 General Plan EIR, and Sequoia Drive-In Business Park project Environmental Impact Report, less than significant cumulative impacts will occur.

8.	**GREENHOUSE GAS EMISSIONS**					
	Would the project:					
	a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
	b)	Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Greenhouses Gases, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

[137] Op. Cit.

[138] Geological, Hydrological & Sustainability Report for Sequoia Drive-in Business Park. Page 8. Prepared by 4Creeks, Inc. See Attachment "D" of this MND.

[139] Ibid. 9.

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Analysis:

Environmental Setting

"An increase in the near surface temperature of the earth. Global warming has occurred in the distant past as the result of natural influences, but the term is most often used to refer to the warming predicted to occur as a result of increased emissions of greenhouse gases. Scientists generally agree that the earth′s surface has warmed by about 1 degree Fahrenheit in the past 140 years, but warming is not predicted evenly around the globe. Due to predicted changes in the ocean currents, some places that are currently moderated by warm ocean currents are predicted to fall into deep freeze as the pattern changes."[140] "The warming of the earth′s atmosphere attributed to a buildup of CO_2 or other gases; some scientists think that this build-up allows the sun′s rays to heat the earth, while making the infra-red radiation atmosphere opaque to infrared radiation, thereby preventing a counterbalancing loss of heat. Ibid. Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). The major concern is that increases in GHGs are causing global climate change. Global climate change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation and temperature. The gases believed to be most responsible for global warming are water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)."[141] "Enhancement of the greenhouse effect can occur when concentrations of GHGs exceed the natural concentrations in the atmosphere. Of these gases, CO_2 and methane are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills. SF6 is a GHG commonly used in the utility industry as an insulating gas in transformers and other electronic equipment. There is widespread international scientific agreement that human-caused increases in GHGs has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming."[142] "Some of the potential resulting effects in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CARB, 2006). Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC, 2001):

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas; o Increase of heat index over land areas; and
- More intense precipitation events."[143]

"Snowpack and snowmelt may also be affected by climate change. Much of California's precipitation falls as snow in the Sierra Nevada and southern Cascades Mountain ranges, and snowpack represents approximately 35 percent of the state's useable annual water supply."[144] "The snowmelt typically occurs from April through July; it provides natural water flow to streams and reservoirs after the annual rainy season has ended."[145] "As air temperatures increase due to climate change, the water stored in California's snowpack could be affected by increasing temperatures resulting in: (1) decreased snowfall, and (2) earlier snowmelt."[146]

"In 2007, Tulare County generated approximately 5.2 million tonnes of Carbon Dioxide Equivalent (CO_2e). The largest portion of these emissions (63 percent) is attributed to dairies/feedlots, while the second largest portion (16 percent) is from mobile sources, the third largest portion (11%) is from electricity sources."[147] Table 6-7 [**Table 7-1** in this document] identifies Tulare County's emissions by sector in 2007."[148]

[140] Tulare County General Plan 2030 Update Background Report. Page 6-31.
[141] Ibid. 6-16 and 6-20.
[142] Op. Cit. 6-31.
[143] Op. Cit.
[144] Op. Cit. 8-85.
[145] Op. Cit.
[146] Op. Cit.
[147] Op. Cit. 6-36.
[148] Op. Cit. 6-38.

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"In 2030, Tulare County is forecast to generate approximately 6.1 million tonnes of CO2e. The largest portion of these emissions (59%) is attributed to dairies/feedlots, while the second largest portion (20%) is from mobile sources, and third largest portion (11%) is from electricity as shown on Table 6-8 [**Table 7-2** in this document]. Per capita emissions in 2030 are projected to be approximately 27 tonnes of CO2e per resident."[149]

The Tulare County General Plan contains the following: Enhancement of the greenhouse effect can occur when concentrations of GHGs exceed the natural concentrations in the atmosphere. Of these gases, CO2 and methane are emitted in the greatest quantities from human activities. Emissions of CO2 are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills. SF6 is a GHG commonly used in the utility industry as an insulating gas in transformers and other electronic equipment. There is widespread international scientific agreement that human-caused increases in GHGs has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming.[150]

Table 7-1
GHG Emissions by Sector in 2007[151]

Sector	CO2e (tons/year)	% of Total
Electricity	542,690	11%
Natural Gas	321,020	6%
Mobile Sources	822,230	16%
Dairy/Feedlots	3,294,870	63%
Solid Waste	227,250	4%
Total	5,208,060	100%
Per Capita	*36.1*	

Table 7-2
GHG Emissions by Sector in 2030[152]

Sector	CO_{2e} (tons/year)	% of Total
Electricity	660,560	11%
Natural Gas	384,410	6%
Mobile Sources	1,212,370	20%
Dairy/Feedlots	3,601,390	59%
Solid Waste	246,750	4%
Total	6,105,480	100%
Per Capita	*27.4*	

The San Joaquin Valley Air Pollution Control District (Air District) proposed, and subsequently adopted, the following process for determining the cumulative significance of project specific GHG emissions on global climate change when issuing permits for stationary source projects:

- "Projects determined to be exempt from the requirements of CEQA would be determined to have a less than significant individual and cumulative impact for GHG emissions and would not require further environmental review, including analysis of project specific GHG emissions. Projects exempt under CEQA would be evaluated consistent with established rules and regulations governing project approval and would not be required to implement [Best Performance Practices] BPS.
- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to

[149] Op. Cit.
[150] Op. Cit. 6-31.
[151] Op. Cit.
[152] Op. Cit.

have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS.

- Projects implementing Best Performance Standards would not require quantification of project specific GHG emissions. Consistent with CEQA Guideline, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.
- Projects not implementing Best Performance Standards would require quantification of project specific GHG emissions and demonstration that project specific GHG emissions would be reduced or mitigated by at least 29%, compared to [Business As Usual] BAU, including GHG emission reductions achieved since the 2002-2004 baseline period, consistent with GHG emission reduction targets established in ARB's AB 32 Scoping Plan. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.
- Project requiring preparation of an Environmental Impact Report would require quantification of project specific GHG emissions. Projects implementing BPS or achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG."[153]

Regulatory Setting

Federal

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years.

The USEPA Mandatory Reporting Rule (40 CFR Part 98), which became effective December 29, 2009, requires that all facilities that emit more than 25,000 metric tons CO2-equivalent per year beginning in 2010, report their emissions on an annual basis. On May 13, 2010, the USEPA issued a final rule that established an approach to addressing GHG emissions from stationary sources under the CAA permitting programs. The final rule set thresholds for GHG emissions that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities.

In addition, the Supreme Court decision in Massachusetts v. EPA (Supreme Court Case 05-1120) found that the USEPA has the authority to list GHGs as pollutants and to regulate emissions of GHGs under the CAA. On April 17, 2009, the USEPA found that CO2, CH4, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride may contribute to air pollution and may endanger public health and welfare. This finding may result in the USEPA regulating GHG emissions; however, to date the USEPA has not proposed regulations based on this finding.

State

In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. AB 1493 requires the Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions; these regulations applied to automobiles and light trucks beginning with the 2009 model year.

California has taken action to reduce GHG emissions. In June 2005, Governor Schwarzenegger signed Executive Order S-3-05 to address climate change and GHG emissions in California. This Order sets the following goals for statewide GHG emissions:

- Reduce to 2000 levels by 2010

[153] SJVAPCD. District Policy. Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency. Page 8 and 9. Accessed in July 2020 at: https://www.valleyair.org/Programs/CCAP/12-17-09/2%20CCAP%20-%20FINAL%20District%20Policy%20CEQA%20GHG%20-%20Dec%2017%202009.pdf

- Reduce to 1990 levels by 2020
- Reduce to 80 percent below 1990 levels by 2050

In 2006, California passed AB 32, the California Global Warming Solutions Act of 2006. The Act requires ARB to design and implement emission limits, regulations, and other feasible cost-effective measures to reduce statewide GHG emissions to 1990 levels by 202014. Senate Bill 97 was signed into law in August 2007. The Senate Bill required the Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resource Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions by July 1, 2009. On April 13, 2009, the OPR submitted to the Secretary for Natural Resources its recommended amendments to the State CEQA Guidelines for addressing GHG emissions. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting the amendments. Following a 55-day public comment period and 2 public hearings, and in response to comments, the Natural Resources Agency proposed revisions to the text of the proposed Guidelines amendments. The Natural Resources Agency transmitted the adopted amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative Law approved the amendments, and filed them with the Secretary of State for inclusion in the CCR. The Amendments became effective on March 18, 2010.

The AB 32 Scoping Plan contains the main strategies California will use to reduce GHG emissions that cause climate change. The scoping plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms (such as a cap-and-trade system), and an AB 32 cost of implementation fee regulation to fund the program. The first regulation adopted by the ARB pursuant to AB 32 was the regulation requiring mandatory reporting of GHG emissions. The regulation requires large industrial sources emitting more than 25,000 metric tons of CO2 per year to report and verify their GHG emissions from combustion of both fossil fuels and biomass-derived fuels. The California Cap and Trade program is being developed and the ARB must adopt regulations by January 1, 2011.Also, Governor Schwarzenegger directed the ARB, pursuant to Executive Order S-21-09, to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020.

California Environmental Quality Act (CEQA) Requirements

Section 15064.4 Determining the Significance of Impacts from Greenhouse Gas Emissions

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

(1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or

(2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be

adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.[154]

Local

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update: Chapter 9 – Air Quality contains a number of policies that apply to projects within Tulare County that support GHG reduction efforts and which have potential relevance to the Project's CEQA review: *AQ-1.3 Cumulative Air Quality Impacts* wherein the County shall require development to be located, designed, and constructed in a manner that would minimize cumulative air quality impacts; *AQ-1.5 California Environmental Quality Act (CEQA) Compliance* wherein the County shall ensure that air quality impacts identified during the CEQA review process are consistently and reasonably mitigated when feasible; *AQ-1.7 Support Statewide Climate Change Solutions* wherein the County shall monitor and support the efforts of Cal/EPA, CARB, and the SJVAPCD, under AB 32 (Health and Safety Code §38501 et seq.), to develop a recommended list of emission reduction strategies, as appropriate, the County will evaluate each new project under the updated General Plan to determine its consistency with the emission reduction strategies; *AQ-1.8 Greenhouse Gas Emissions Reduction Plan/Climate Action Plan* wherein the County will develop a Greenhouse Gas Emissions Reduction Plan (Plan) that identifies greenhouse gas emissions within the County as well as ways to reduce those emissions. The Plan will incorporate the requirements adopted by the California Air Resources Board specific to this issue. In addition, the County will work with the Tulare County Association of Governments and other applicable agencies to include the following key items in the regional planning efforts.

1. Inventory all known, or reasonably discoverable, sources of greenhouse gases in the County,
2. Inventory the greenhouse gas emissions in the most current year available, and those projected for year 2020, and
3. Set a target for the reduction of emissions attributable to the County's discretionary land use decisions and its own internal government operations.

Tulare County Climate Action Plan

The Tulare County Climate Action Plan (CAP) serves as a guiding document for County of Tulare ("County") actions to reduce greenhouse gas emissions and adapt to the potential effects of climate change. The CAP is an implementation measure of the 2030 General Plan Update. The General Plan provides the supporting framework for development in the County to produce fewer greenhouse gas emissions during Plan buildout. The CAP builds on the General Plan's framework with more specific actions that will be applied to achieve emission reduction targets consistent with California legislation.[155]

GHG emissions from construction and operation of the Project were estimated using CalEEMod from a previously approved Derrel's Mini Storage located on south Mooney Blvd. (Derrel's Mooney Blvd.) in Visalia. As air and GHG emissions are linear in nature, it is reasonable to estimate GHG emissions by analogy; as such, the proposed Project is approximately 88.12% the size of the Derrel's Mooney Blvd. resulting in the GHG emissions shown in **Table 7-1**. Additionally, combined CalEEMod outputs and emissions calculations for the original Sequoia Drive-In Business Park and this proposed Project are also provided in Attachment "A".

a) Less Than Significant Impact: The Project includes the construction of 318,775 square foot mini-storage facility. The Project will result in direct GHG emissions from the construction of the Project and from the operations of the proposed buildings (heating and cooling, cleaning supplies, etc.) as well as from on-road vehicles used in the transport of customers and employees to and from the site.

[154]. California Environmental Quality Act (CEQA). Section 15064.4 Determining the Significance of Impacts from Greenhouse Gas Emissions

[155] Tulare County Climate Action Plan. Page 1. Accessed July 2022 at: http://generalplan.co.tulare.ca.us/documents.html.; then select tab noted as "Climate Action Plan February 2010 Draft"

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

The CAP requires projects to achieve an average of a 6-percent reduction in greenhouse gases over and above reductions achieved by adopted regulations. The CAP identifies a number of strategies and measures that can be used to achieve the required reductions. As indicated in **Table 7-3**, the Project is consistent with the GHG emissions reductions required by the CAP.

Table 7-3. Project GHG Emission Reductions

Source Category	Unmitigated Emissions (tons per year)	Mitigated Emissions (tons per year)	Percent Reduction (%)
Area	5.6749e-003	5.4017	1.27
Energy	221.1607	221.1607	0.00
Mobile	747.1261	669.3551	9.17
Waste	138.5376	135.5376	0.00
Water	176.2322	138.8709	17.65
Total	1,277.7749	1,165.2862	7.75

Source: CalEEMod Emissions Modeling results from Derrel's Mini Storage Project MND, Attachment "D"

It should be noted that; "In 2030, Tulare County is forecast to generate approximately 6.1 million tonnes of CO2e. The largest portion of these emissions (59 percent) is attributed to dairies/feedlots, while the second largest portion (20 percent) is from mobile sources. Per capita emissions in 2030 are projected to be approximately 27 tonnes of CO2E per resident." As shown in Table 7-1 the Project is consistent with the County's policies to reduce overall GHG emissions and will be required to reduce GHG emissions by 6% consistent with the CAP. Therefore, Project related GHG emissions will result in a less than significant impact. Therefore, the Project is presumed to not generate a cumulatively considerable GHG impact nor would it conflict with any applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. The impact is less than significant.

b) Less Than Significant Impact: The SJVAPCD is responsible for regulating GHG emissions within the project area to meet statewide GHG emission reduction objectives. The regulations and standards enforced by the SJVAPCD are designed to ensure that the region meets the goals of AB 32, SB 1078, SB 107, and Executive Order S-14-08. The project is not in conflict with any local or statewide plans, policies or regulations adopted to reduce GHG emissions. The impact is less than significant. Since the proposed Project is located in an unincorporated area of Tulare County, the most applicable GHG plan is the Tulare County Climate Action Plan (CAP) (County of Tulare, 2010), Executive Order S-3-05, Executive Order B-30-15, SB 350, SB 100, AB 32, and SB 32, including the potential for the Project to conflict with the recommended actions identified by CARB in its 2017 Climate Change Scoping Plan.

The CAP serves as a guiding document for County actions to reduce GHG emissions and adapt to the potential effects of climate change. The CAP requires projects on average achieve a reduction that is six percent in excess of the reductions stated in the ARB Scoping Plan and by regional regulations and programs. AB 32 requires the California Air Resources Board to design and implement feasible and cost-effective emissions limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions).

The proposed Project involves the construction of Phase 2 of a Derrel's Mini Storage (and RV storage). As discussed earlier, the construction-related activities would generate a very small amount of GHGs. As the Project is consistent with the General Plan and the CAP, the Project will not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. As such, a less than significant impact would occur as a result of this Project.

Cumulative Impact Analysis: Less Than Significant Impact - The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR. With less than significant Project-specific impacts, a less than significant cumulative impact will also occur.

9.	**HAZARDS AND HAZARDOUS MATERIALS**					
	Would the project:					
	a)	Create a significant hazard to the public or the environment through the routine	☐	☐	☒	☐

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
		transport, use, or disposal of hazardous materials?				
	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?	☐	☐	☒	☐
	c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
	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?	☐	☐	☐	☒
	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 or excessive noise for people residing or working the project area?	☐	☐	☐	☒
	f)	Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
	g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Hazards/Hazardous Materials Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

"A hazardous material is defined by the California Code of Regulations (CCR) as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating, illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of (CCR, Title 22, Division 4.5, Chapter 10, Article 2, Section 66260.10)."[156]

"Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. According to Title 22 of the CCR, hazardous materials and hazardous wastes are classified according to four properties: toxic, ignitable, corrosive, and reactive (CCR, Title 22, Chapter

[156] Tulare County General Plan 2030 Update Background Report. Page 8-26.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

11, Article 3)."[157]

As noted earlier, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The Project site is located on the San Joaquin Valley floor in an unincorporated area. The original 46-acre site and the proposed Project site are east of the City of Visalia, just south of the State Route 198 corridor. The northern ~27 acres of the original Project site is within the City of Visalia's (City) adopted Sphere of Influence, while the southern ~20 acres is within the City's adopted Planning Area. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage. The proposed Project will be located directly south and adjacent to the original site and is currently planted to walnuts.

The nearest airport (Exeter Airport, in the City of Exeter), is approximately 6.5 miles southeast of the proposed Project site. The nearest operational landfill is Visalia Landfill, approximately 9.5 miles northwest of the proposed Project site.

The nearest elementary school (East Union Elementary School) is located approximately 0.32 miles north of the Project site, while Mineral King Elementary School is approximately 1.38 miles east of the Project site.

Regulatory Setting

Federal

The NFPA 70®: National Electrical Code® is adopted in all 50 states. It includes requirements for electrical wiring and equipment. Article 705 covers interconnecting generators, windmills, and solar and fuel cells with other power supplies. The federal Resource Conservation and Recovery Act (RCRA) and California Hazardous Waste Control Law regulate the disposal of solar PV cells. The local hazardous waste regulatory authority is the County of Tulare.

State

The California Department of Industrial Relations, Division of Occupational Safety and Health, is the administering agency designed to protect worker health and general facility safety. The California Department of Forestry and Fire Protection (CalFire) has designated the area that includes the project site as a Local Responsibility Area which is defined as an area where the local fire jurisdiction is responsible for emergency fire response. The project area is also defined as "Unzoned," which means that the fire hazard severity of the site has not been determined.[158]

Local

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update (at Chapter 10 – Health and Safety) contains the following goals and policies that relate to hazards and hazardous materials, and which have potential relevance to the Project's CEQA review: *HS-4.1 Hazardous Materials* wherein the County shall strive to ensure hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and Federal safety standards, including the Hazardous Waste Management Plan, Emergency Operations Plan, and Area Plan; *HS-4.2 Establishment of Procedures to Transport Hazardous Wastes* wherein the County shall continue to cooperate with the California Highway Patrol (CHP) to establish procedures for the movement of hazardous wastes and explosives within the County; *HS-4.3 Incompatible Land Uses* wherein the County shall prevent incompatible land uses near properties that produce or store hazardous waste; and *HS-4.4 Contamination Prevention* wherein the County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination.

[157] Ibid. 8-26.

[158] California Department of Forestry and Fire Protection. 2007. Draft Fire Severity Zones in LRA Map. Accessed July 2022 at: https://osfm.fire.ca.gov/media/6832/fhszl06_1_map54.pdf.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

a) and b) Less Than Significant Impact: As previously noted, the proposed Project is an addition to and improvements of a non-conforming existing use. As a result, the Project will not create a new source of a significant hazard to the public or the environment. Proposed Project construction for the 500 ft long emergency access road may require the transport and use of small quantities of hazardous materials in the form of gasoline, diesel, and oil. There is the potential for small leaks due to refueling of the construction equipment; however, standard construction Best Management Practices (BMPs) will reduce the potential for accidental release of construction-related fuels and other hazardous materials. These BMPs will prevent, minimize, or remedy storm water contamination from spills or leaks, control the amount of runoff from the site, and require proper disposal or recycling of hazardous materials. Therefore, the proposed Project will not result in a significant hazard to the public or the environment and impacts will be less than significant.

c) No Impact: The Project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The nearest school is East Union Elementary School (located approximately 0.32 miles north of the Project site, while the next nearest school (Mineral King Elementary School) is approximately 1.38 miles east. There will be no impact.

d) No Impact: The Project will not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, it will not create a significant hazard to the public or the environment. An online search through Envirostor was conducted on July 2022 which indicated that there are no known hazards or toxic sites in the vicinity of the project site.

e) No Impact: The nearest airport, Exeter Airport, is approximately 6.5 miles southeast of the Project site. As noted earlier, the proposed Project site is currently planted to walnuts. Since existing conditions have not changed, the proposed Project would not result in a safety hazard or excessive noise for people residing or working the project area. There is no impact.

f) No Impact: The proposed Project will not impair the implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Per standard conditions of approval, the proposed Project involves the construction of a new emergency access road for enhanced safety. There is no impact.

g) No Impact: The surrounding land is predominantly agricultural and scattered rural residential uses and is not subject or vulnerable to wildland fires. Therefore, the Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires and would result in no impact.

Cumulative Impact Analysis: Less Than Significant Impact - The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, Tulare County 2030 General Plan EIR, and the Sequoia Drive-In Business Park EIR. With less than significant Project-specific impacts, a less than significant cumulative impact will also occur.

10.	**HYDROLOGY AND WATER QUALITY**					
	Would the project:					
	a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
	b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
	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	☐	☐	☒	☐

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
		impervious surfaces, in a manner which would:				
	i)	Result in substantial erosion or siltation on-or off-site?	☐	☐	☒	☐
	ii)	Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☒	☐
	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?	☐	☐	☒	☐
	iv)	Impede or redirect flood flows?	☐	☐	☐	☒
	d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
	e)	Conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Hydrology/Water Quality Resources, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

Tulare County has a dry climate with evaporation rates that exceeds rainfall. The local climate is considered warm desert with annual precipitation approximately 7 to 9 inches, and variable rainfall rates. The majority of precipitation (roughly 84%) falls during the months of November through April.

Hydrology in the Project vicinity is associated with the Tulare Lake Basin, one of three main water subareas in the county. The Tulare Lake Basin is in the northern alluvial fan and basin subarea which is characterized by southwest-to-south flowing rivers, creeks, and irrigation canal systems that convey water from the Sierra Nevada to the west toward the Tulare Lake Bed. The southern portion of the basin is internally drained by the Kings, Kaweah, Tule, and Kern Rivers.[159] The Tulare Lake Basin comprises the drainage area of the San Joaquin Valley south of the San Joaquin River, and is essentially a closed basin because surface water drains north into the San Joaquin River only in years of extreme rainfall.

As previously noted, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The Project site is located on the San Joaquin Valley floor in an unincorporated area. The original 46-acre site and the proposed Project site are east of the City of Visalia, just south of the State Route 198 corridor. The northern ~27 acres of the original Project site is within the City of Visalia's (City) adopted Sphere of Influence, while the southern ~20 acres is within the City's adopted Planning Area. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage. The proposed Project will be located directly south and adjacent to the original site and is currently planted to walnuts.

[159] California Department of Water Resources. Draft California's Groundwater Bulletin 118. 2020. Accessed July 2022 at: https://water.ca.gov/Programs/Groundwater-Management/Bulletin-118.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

Regulatory Framework

Federal

Clean Water Act

The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes.

Safe Drinking Water Act

"The Safe Drinking Water Act (SDWA) was established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources.

The Act authorizes EPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. The 1996 amendments to SDWA require that EPA consider a detailed risk and cost assessment, and best available peer-reviewed science, when developing these standards. State governments, which can be approved to implement these rules for EPA, also encourage attainment of secondary standards (nuisance-related). Under the Act, EPA also establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids."[160]

State

The Porter-Cologne Water Quality Control Act

"The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 et seq.), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected,
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason, and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water

[160] U.S. Environmental Protection Agency. Summary of the Safe Drinking Water Act. Accessed July 2022 at: https://www.epa.gov/laws-regulations/summary-safe-drinking-water-act.

Board and Regional Water Boards have numerous NPS-related responsibilities, including monitoring and assessment, planning, financial assistance, and management."[161]

State Water Resources Control Board

The State Water Resources Control Board (SWRCB), located in Sacramento, CA, is the agency with jurisdiction over water quality issues in the State of California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code) which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter-Cologne Act is to regulate factors which may affect the quality of waters of the State to attain the highest quality which is reasonable, considering a full range of demands and values. Much of the implementation of the SWRCB's responsibilities is delegated to its nine Regional Boards. The Project site is located within the Central Valley Region.

Regional Water Quality Control Board

The Central Valley Regional Water Quality Control Board (RWQCB) administers the NPDES storm water-permitting program in the Central Valley region. Construction activities on one acre or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The plan will include specifications for Best Management Practices (BMPs) that will be implemented during proposed Project construction to control degradation of surface water by preventing the potential erosion of sediments or discharge of pollutants from the construction area. The General Construction Permit program was established by the RWQCB for the specific purpose of reducing impacts to surface waters that may occur due to construction activities. BMPs have been established by the RWQCB in the California Storm Water Best Management Practice Handbook (2003), and are recognized as effectively reducing degradation of surface waters to an acceptable level. Additionally, the SWPPP will describe measures to prevent or control runoff degradation after construction is complete, and identify a plan to inspect and maintain these facilities or project elements.

SB 610 (Costa) & SB 221 (Kuehl) 2001

"Senate Bills 610 (Chapter 643, Statutes of 2001) and Senate Bill 221 (Chapter 642, Statutes of 2001) amended state law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 are companion measures which seek to promote more collaborative planning between local water suppliers and cities and counties. Both statutes require detailed information regarding water availability to be provided to the city and county decision-makers prior to approval of specified large development projects. Both statutes also require this detailed information be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects. Both measures recognize local control and decision making regarding the availability of water for projects and the approval of projects.

Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912 [a]) subject to the California Environmental Quality Act. Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply."[162]

Local Policy and Regulations

Tulare County Environmental Health Services

"The County Health and Human Services Agency (HHSA), Environmental Health Division has been granted primacy by the DHS, is responsible for the administration and enforcement of the Safe Drinking Water Act involving those systems in Tulare County with less than 200 connections. County Environmental Health staff are also responsible for development review, approval and enforcement related to private wells and septic systems, for properties not served by water or wastewater districts or other public entities."[163]

[161] California Environmental Protection Agency. State Water Resources Control Board. OA. Accessed July 2022 at: Federal, State and Local Laws, Policy and Regulations. http://www.waterboards.ca.gov/water_issues/programs/nps/encyclopedia/0a_laws_policy.shtml.

[162] California Department of Water Resources. Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001 to assist water suppliers, cities, and counties in integrating water and land use planning. Page iii. Accessed July 2022 at: https://cawaterlibrary.net/wp-content/uploads/2017/06/guidebook.pdf

[163] Tulare County General Plan 2030 Update RDEIR. Page 3.6-13.

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Tulare County Land Development Regulations

The Tulare County Resource Management Agency (RMA) is responsible for review, approval, and enforcement of planning and land development throughout the unincorporated portions of Tulare County. County of Tulare regulations that direct planning and land development (and related water and wastewater utilities) include the Tulare County General Plan, Zoning Ordinance, Subdivision Ordinance, and CEQA procedures. These responsibilities are divided between Planning Branch, Public Works Branch, and other divisions or departments of RMA, and in coordination with the Environmental Health Division of the Tulare County Health and Human Services Agency, and the Tulare County Fire Department.

The County's flood damage prevention code is intended to promote public health, safety, and general welfare in addition to minimizing public and private losses due to flood conditions. The County code provisions to protect against flooding include requiring uses vulnerable to floods be protected against flood damage at the time of initial construction; controlling the alteration of natural flood plains; and preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas. The County flood damage prevention code, most recently amended by Ord. No. 3212 and effective October 29, 1998, is modeled based upon FEMA guidance.

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update: (Chapter 10 – Health and Safety and Chapter 11 – Water Resources) contains the following goals and policies that relate to hydrology and water quality and which have potential relevance to the Project's California Environmental Quality Act (CEQA) review: *AG-1.17 Agricultural Water Resources* wherein the County shall seek to protect and enhance surface water and groundwater resources critical to agriculture; *HS-4.4 Contamination Prevention* wherein the County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination; *HS-5.2 Development in Floodplain Zones* – wherein the County shall regulate development in the 100-year floodplain zones as designated on maps prepared by FEMA in accordance with the following:

1. Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted.
2. Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible.
3. New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions;

HS-5.4 Multi-Purpose Flood Control Measures – wherein the County shall encourage multipurpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the County's streams, creeks, and lakes. Where appropriate, the County shall also encourage the use of flood and/or stormwater retention facilities for use as groundwater recharge facilities; *HS-5.9 Floodplain Development Restrictions* – wherein the County shall ensure that riparian areas and drainage areas within 100-year floodplains are free from development that may adversely impact floodway capacity or characteristics of natural/riparian areas or natural groundwater recharge areas; *HS-5.11 Natural Design* – wherein the County shall encourage flood control designs that respect natural curves and vegetation of natural waterways while retaining dynamic flow and functional integrity; *WR-1.1 Groundwater Withdrawal* wherein the County shall cooperate with water agencies and management agencies during land development processes to help promote an adequate, safe, and economically viable groundwater supply for existing and future development within the County. These actions shall be intended to help the County mitigate the potential impact on ground water resources identified during planning and approval processes; *WR-2.1 Protect Water Quality* wherein all major land use and development plans shall be evaluated as to their potential to create surface and groundwater contamination hazards from point and non-point sources. This policy requires the County to confer with other appropriate agencies, as necessary, to assure adequate water quality review to prevent soil erosion; direct discharge of potentially harmful substances; ground leaching from storage of raw materials, petroleum products, or wastes; floating debris; and runoff from the site; *WR-2.2 National Pollutant Discharge Elimination System (NPDES) Enforcement* wherein the County shall continue to support the State in monitoring and enforcing provisions to control non-point source water pollution contained in the U.S. EPA NPDES program as implemented by the Water Quality Control Board; *WR-2.3 Best Management Practices (BMPs)* wherein the County shall continue to require the use of feasible BMPs and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities, agricultural operations requiring a County Permit and urban runoff in coordination with the Water Quality Control Board; *WR-2.4 Construction Site Sediment Control* wherein the County shall continue to enforce provisions to control erosion and sediment from construction sites *WR-2.5 Major Drainage Management* - wherein the County shall continue to promote

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

protection of each individual drainage basin within the County based on the basins unique hydrologic and use characteristics; *WR-2.6 Degraded Water Resources* - wherein the County shall encourage and support the identification of degraded surface water and groundwater resources and promote restoration where appropriate; *WR-2.8 Point Source Control* - wherein the County shall work with the Regional Water Quality Control Board to ensure that all point source pollutants are adequately mitigated (as part of the California Environmental Quality Act review and project approval process) and monitored to ensure long-term compliance; *WR-3.3 Adequate Water Availability* - wherein the County shall review new development proposals to ensure the intensity and timing of growth will be consistent with the availability of adequate water supplies. Projects must submit a Will-Serve letter as part of the application process, and provide evidence of adequate and sustainable water availability prior to approval of the tentative map or other urban development entitlement; *WR-3.5 Use of Native and Drought Tolerant Landscaping* - wherein the County shall encourage the use of low water consuming, drought-tolerant and native landscaping and emphasize the importance of utilizing water conserving techniques, such as night watering, mulching, and drip irrigation; *WR-3.6 Water Use Efficiency* - wherein the County shall support educational programs targeted at reducing water consumption and enhancing groundwater recharge; and *WR-3.10 Diversion of Surface Water* - Diversions of surface water or runoff from precipitation should be prevented where such diversions may cause a reduction in water available for groundwater recharge.

a) Less Than Significant Impact with Mitigation: As previously noted, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The Project site is located on the San Joaquin Valley floor in an unincorporated area. The original 46-acre site and the proposed Project site are east of the City of Visalia, just south of the State Route 198 corridor. The northern ~27 acres of the original Project site is within the City of Visalia's (City) adopted Sphere of Influence, while the southern ~20 acres is within the City's adopted Planning Area. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage. The proposed Project will be located directly south and adjacent to the original site and is currently planted to walnuts. As part of the proposed Derrell's Mini Storage project is within the original project site, it is reasonable to rely on the *"Hydrological & Sustainability Report for Sequoia Drive-in Business Park"* (prepared by expert consultants 4Creeks prepared for the original project's EIR (and is included in this document at Attachment) as part of the proposed Project includes acreage withing the original site and 20 acres immediately adjacent to and south of the original site.

Water Quality Standards

"On May 12, 2015, 4Creeks collected one groundwater sample from groundwater the north agriculture well designated as "GW1". Field measurements of pH, specific conductance, and temperature were recorded with a YSI ProPlus water sensor. The groundwater sample was delivered to BSK laboratories and analyzed for general minerals, metals, E. Coli and Fecal Coliform, and volatile organic compounds (VOCS)."[164] Detected analytes are listed in **Table 3.9-1** – Ground Quality – Well GW1. "The results were compared to California Department of Public Health (CDPH) maximum contaminant levels (MCLs) for drinking water in the state of California. The laboratory analytical report is presented in Appendix "C" [of the original EIR][165] and included in Attachment "D" of this MND.

"This well has not been in use for many years. The well was sampled without being purged or while in operation. However, there are surrounding domestic wells in the near vicinity that serve the public from the same aquifer. This water sample serves as an initial investigation of possible contamination and feasibility for the proposed project. The presence of Coliform may be due to the well not being purged prior to the sample being taken. However, Coliform can be treated. The water produced by this well will need to meet the quality and monitoring requirements of the State Water Board and California Department of Public Health for a Community Water System."[166] It is anticipated that the proposed Project would tie-in to the water supply of Phase 1 of the Derrel's Mini Storage/RV Storage project. If the water produced by the existing well does not meet the quality and monitoring requirements, potentially significant impacts could occur; however, implementation of **Mitigation Measure 9-1** will be implemented such that water quality impacts would be less than significant with mitigation.

Waste Discharge Requirements

[164] 4Creeks. Geological, Hydrological & Sustainability Report for Sequoia Drive-in Business Park. Page 16. Included in Attachment "D" of this MND.
[165] Ibid.
[166] Op. Cit.

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"Constituents found in urban runoff may degrade both surface water quality and eventually groundwater quality. Development of urban uses on the proposed Project site would result in alteration in the existing site conditions and the introduction of urban pollutant sources. Urban runoff typically contains oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals) and other household pollutants. Precipitation early in the rain season displaces these pollutants into storm water resulting in high pollutant concentrations in initial wet weather runoff. This initial runoff with peak pollutant levels can be referred to as the "first flush" of storm events.

A Stormwater Plan was prepared by 4Creeks which analyzed the Project's hydrologic characteristics, stormwater runoff and collection system. The amount of runoff generated by the proposed Project would be greater than the runoff occurring under existing conditions due to a significant increase in impervious surfaces. There would be a corresponding increase in urban runoff pollutants and "first flush" roadway contaminants such as heavy metals, oil, grease, as well as an increase in nutrients (i.e., fertilizers), and other chemicals from landscaped areas. These constituents will result in water quality impacts that have the potential to be significant.

The proposed Project will be served by an onsite storm water system which is subject to the requirements of the NPDES Storm Water Permit adopted by the SWRCB. It is anticipated that the proposed Project would tie-in to the on-site storm water system for Phase 1 of the Derrel's Mini Storage/RV Storage project. This permit requires that discharges of pollutants from areas of new development be reduced to the maximum extent practicable. Compliance with this standard requires that control measures be incorporated into the design of new development to reduce pollution discharges in site runoff over the life of the project.

The Central Valley Regional Water Quality Control Board (CVRWQCB) is responsible for administering NPDES permit requirements, such as the use of construction and operational BMPs, to ensure that projects are in compliance with water quality standards as set forth in the CWA. The SWRCB through the creation of a Storm Water Quality Task Force has published the California Storm Water Best Management Practice Construction Handbook, which identifies a listing of acceptable BMPs to be used in meeting water standards as outlined by the CWA.

It is anticipated that the proposed Project would tie-in to the wastewater treatment system of Phase 1 of the Derrel's Mini Storage/RV Storage project. The Project will generate typical wastewater (sewer) associated with commercial developments which will be collected and treated with an on-site engineered septic/wastewater treatment system. See Section 3.18 – Utilities for a discussion regarding waste discharge requirements, wastewater characteristics and water quality standards pertaining to Project-related wastewater."[167]

As such, the proposed Project will not result in a violation of any waste discharge requirements with the implementation of **Mitigation Measures 9-2** and **9-3**. As such, any impacts related to Waste Discharge Requirement violation will result in a less than significant impact with mitigation.

b) Less Than Significant Impact: The proposed Project site is located in the Tulare Lake Basin, an area significantly affected by overdraft. The Department of Water Resources (DWR) has estimated the groundwater by hydrologic region and for the Tulare Lake Basin. DWR estimates a total overdraft of 820,000 acre-feet per year (which is the largest overdraft projected in the state, and approximately 56 percent of the statewide total overdraft). The Project site is located within the Tule Sub-basin portion of the regional area.

The Project site does not include impacts to any groundwater recharge areas. The Project would not substantially reduce surface runoff that results in groundwater recharge. Improvements associated with the proposed Project (including those imposed on the original project which includes Phase 1 of Derrel's Mini Storage/RV Storage) would not require a permanent potable supply of water and would not utilize or develop an on-site surface or groundwater supply over the life of the Project. Given the nature of the project (i.e.; mini-/RV storage, lot line adjustment, and change of zone), the Project would not require substantial increased use in water consumption. As such, the impact would be less than significant.

[167] Tulare County. Sequoia Drive-In Business Park. Environmental Impact Report. Chapter 3.9. Hydrology and Water Quality. Page 3.9-20. December 2018. Available upon request at RMA Administrative Office.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

c) Less Than Significant Impact: Overall, the Project would not 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.

i) Erosion and Siltation; Less Than Significant Impact: "The surface topography of the site is relatively flat. The final grading of the site will not affect the drainage pattern of the site or area. The only surface water conveyance on site is the [Little Tulare Irrigation District] LTID ditch that bisects the property from east to west. The LTID will remain in place and not be relocated. Grading for the site will include an engineered grading design approved and permitted by Tulare County. Site drainage will be controlled by grading and stormwater retention ponds. No site runoff will flow from the site into LTID; therefore, no substantial erosion or siltation will occur."[168]

ii) Runoff resulting in Flooding On- or Off-site; Less Than Significant Impact: The site will not result in waters capable of flooding either on- or off-site. The site lies within the Flood Zone X (0.2% annual chance flood hazard) per the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM map).[169] As the proposed Project is an addition to the original project and will be a Phase of the Derrel's Mini Storage/RV Storage development, it will not generate substantial amounts of runoff that would result in on- or off-site flooding due to the scale of the improvements. As such, the Project would result in a less than significant impact to or from this resource Item.

iii) Runoff affecting Drainage Systems and Polluted Runoff; Less Than Significant Impact See Items 10 c) i) and ii): Also, the Project will not require the connection to any existing or planned stormwater drainage system. Therefore, it will not provide any additional sources of polluted runoff. Although the Project involves the construction of a new paved surfaces, the improvements will not generate a substantial amount of runoff that will affect the on-site drainage system. The Project would not 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, and as such, would result in a less than significant impact.

iv) Impede or redirect flood flows; Less than Significant Impact: See items 10 c ii) and iii). In addition, no streams or water features (other than the LTID canal) are within the Project vicinity that would be altered by the improvements associated with the proposed Project. The proposed Project would not substantially alter the surface area of the site as it will be incorporated into the previously approved project area where the Derrel's Mini Storage/RV Storage will be designed to avoid impeding or redirecting of flood flows, as such, the impact would be less than significant.

d) Less than Significant: As noted earlier, the Project is located within Flood Zone X with a 0.20% of annual flooding, as mapped by the Federal Emergency Management Agency FIRM map (Panel 06107C0955E). As the proposed Project is an addition to a previously approved project site and will be Phase 2 of Derrel's Mini Storage/RV Storage, the Project is not anticipated to result in the additional exposure of persons or structures to risks associated with inundation. The Project is not located on or near any areas that would result in or be impact by a flood hazard, tsunami, or seiche zones, that would result in a risk release of pollutants due to project inundation. Moreover, the Project site is not exposed to or near any river, reservoirs, pond, or lake subject to seiches from earthquake activity; and it is approximately 110 miles east of the nearest coastline that would be subject to tsunami. Therefore, the impact from potential inundation by the flood hazard, tsunami, or seiches would be less than significant.

e) No Impact: The proposed Project will use the same water supply as Phase 1 of Derrel's Mini Storage/RV Storage, and will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Due to the nature of the Project (i.e.; mini-/RV storage, lot line adjustment, and change of zone), the Project would not conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan.

Cumulative Impact Analysis: **Less Than Significant Impact -** The geographic area of this cumulative analysis is the Tulare Lake Basin. This cumulative analysis is based on information provided in the Water Quality Control Plan for the Tulare Lake Basin, the requirements of Tulare County Environmental Health, Tulare County 2030 General Plan, Tulare County General Plan Background

[168] 4Creeks. Geological, Hydrological & Sustainability Report for Sequoia Drive-in Business Park. Page 14. Included in Attachment "D" of this MND.

[169] U.S. Department of Homeland Security. Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel 06107C0955E June 15, 2009. Accessed July 2022 at: map https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-119.24027126756349,36.137670866489145,-119.15718716111826,36.17232174266695

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Report , Tulare County 2030 General Plan EIR, and the Sequoia Drive-In Business Park EIR.

The proposed Project will be required to comply with all applicable requirements of the Central Valley Water Board and Tulare County Health Services Division (TCHSD). The proposed Project will be required to comply with applicable Central Valley Water Board and TCHSD rules/regulations and permit requirements as a component of project design features, the proposed Project will not contribute to any cumulative impacts related to this Checklist Item. As such, the proposed Project would have a less than significant cumulative impact with mitigation to this resource item. Also see the Mitigation Monitoring and Reporting Program (MMRP) in Attachment "F".

Mitigation Measure(s): **Mitigation Measures 9-1** through **9-3**

9-1 Once the well is retrofitted for the proposed Project, a second round of sampling and analysis shall be conducted. The southern well that was not sampled shall also be sampled with analysis once it is retrofitted for the proposed Project. Sampling and analysis shall occur during the initial phases of retrofitting; specifically, during pump testing. If water quality does not meet the State of California standards as discussed above, steps shall be taken during the design of the site such as disinfection, to ensure the water is potable for proposed Project use. Once the redesign is completed, the well shall undergo another round of sampling and analysis. This procedure shall continue until the quality of water produced by the well meets the State of California standards.

9-2 The Project applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP) according to the latest regulations to be retained onsite. The SWPPP must include best management practices that, when implemented, prevent storm water quality degradation to the extent practical by preventing sediments and other pollutants from leaving the Project site.

9-3 New sewage disposal systems shall be designed by an Engineer, Registered Environmental Health Specialist, Geologist, or other competent persons, all of whom must be registered and/or licensed professionals knowledgeable and experienced in the field of sewage disposal system and design. The specifications and engineering data for the system shall be submitted to the TCEHSD for review and approval prior to the issuance of a building permit.

11.	**LAND USE AND PLANNING**					
	Would the project:					
	a)	Physically divide an established community?	☐	☐	☐	☒
	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 discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Land Use/Planning Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

As previously noted, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The Project site is located on the San Joaquin Valley floor in an unincorporated area. The original 46-acre site and the proposed Project site are east of the City of Visalia, just south of the State Route 198 corridor. The northern ~27 acres of the original Project site is within the City of Visalia's (City) adopted Sphere of Influence, while the southern ~20 acres is within the City's adopted Planning Area. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage. The proposed Project will be located directly south and adjacent to the original site and is currently planted to walnuts. The applicant is requesting is to modify the

previously approved Sequoia Drive-In Business Park Master Development Guidelines PPD 20-001, Development Agreement No. DEV 20-002, and Vesting Tentative Subdivision Map No. TSM 834 (Castlewood LLC/Visalia) in order to accommodate the establishment of the first phase of Derrel's Mini-Storage within the footprint of the previously approved project (APNs: 101-090-014 & -015 and 101-100-009). This modification would also add twenty (20) acres of additional territory (APN: 101-100-005) to the Project site to accommodate the second phase of Derrel's Mini-Storage. The area that is proposed to be added currently has a land use designation of "Valley Agricultural" and is located in the AE-20 (Exclusive Agricultural Zone – 20 Acre Minimum). In addition, the applicant is requesting a Lot Line Adjustment to adjust the boundaries between three existing parcels (APNs: 101-090-014 & -015 and 101-100-009) to coincide with the three (3) phases of the proposed Project. The proposed Project site is located approximately one-quarter mile east of the City of Visalia. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage and resident manager housing. The proposed use (mini–storage/RV storage) where the expansion would occur is not allowed in the AE-20 Zone; therefore, the Project will require a change of zone to PD-C-3-SC from its existing AE-20 zone. A Williamson Act Cancellation must also occur to cancel Contract No. 10335 for APN 101-100-005 as part of this Project. The Project will include a water feature fronting Avenue 29f6, access from Avenue 296, an on-site storm water retention basin, and an emergency fire access point from Road 156 to comply with Fire Department conditions.

Existing land uses in Tulare County have been organized into generalized categories that are summarized on **Table 11-1**. These lands total 3,930 square miles or approximately 81 percent of Tulare County. Open space, which includes wilderness, national forests, monuments and parks, and county parks, encompass 1,230 square miles, or approximately 25 percent of the County. Agricultural uses total over 2,150 square miles or about 44 percent of the entire county. Incorporated cities in Tulare County capture less than three percent of the entire County.

Table 11-1
County of Tulare Summary of Assessed Land by Generalized Use Categories[170]

Generalized Land Use Category	Square Miles[1]	Percentage[2]
Residential	110	2
Commercial	10	Less than 1%
Industrial	10	Less than 1%
Agriculture	2,150	44
Public (including airports, charitable organizations, churches, fraternal organizations, government owned land, hospitals and rest homes, institutional facilities, rehab facilities and schools)	420	9
Open Space (including national forests and parks, timber preserves)	1,230	25
Classified Subtotal	**3,930**	**81**
Unclassified (includes streets and highways, rivers, canals, etc.)	780	16
Unincorporated County Subtotal	**4,710**	**97**
Incorporated Cities	130	3
Total County	**4,840**	**100**

1 One square mile = 640 acres.
2 Percent reflect those estimated for the total land area of the County and may not equal 100 due to rounding.

Regulatory Setting

Federal

Federal regulations for land use are not relevant to the Project because it is not a federal undertaking (the Project site is not located on lands administered by a federal agency, and the project applicant is not requesting federal funding or a federal permit).

State

The Project is being evaluated pursuant to CEQA; however, there are no state regulations, plans, programs, or guidelines associated with land use and planning that are applicable to the proposed Project.

Local Policies and Regulations

[170] Tulare County General Plan 2030 Update Background Report. Page 3-53.

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Tulare County Association of Governments

"[The Tulare County Association of Governments] TCAG is committed to improving the quality of life for residents and visitors throughout Tulare County. We prove our commitment by addressing congestion using a preventative approach. We coordinate regional transit programs to make getting around easy and convenient. We have improved air quality and strive to continue to meet national standards. We responsibly use the extra hard earned tax dollars that the people of Tulare County bring in to us from the passage of Measure R under the supervision of the board and citizen's review committee. We address current and future rail needs and possibilities with a forward thinking approach. We gather important data which is used by the census and the public to properly forecast housing and transit needs. We also manage the abandoned vehicle program for the county, and do a whole lot more."[171].

Tulare County General Plan 2030 Update

The General Plan contains the following policies aimed at reducing potential land use conflicts, promoting an efficient urban form, and ensuring consistency with local land use and environmental plans. General Plan policies that relate to the proposed Project are listed as follows.

ED-2.2 Land Requirements – wherein the County shall ensure there is capacity for new and expanding businesses by: Reserving sufficient locations for industry, recognizing industry's need for greater land requirements; Recognizing the need for a variety of locations to avoid creation of a monopoly of the industrial land market and to reflect varying requirements for transportation facilities and utility services; and Reserving land for exclusive industrial use to encourage development of like industries that complement each other and to prevent encroachment on industrial areas by incompatible uses ; *ED-2.11 Industrial Parks* – As part of new or updated community plans, the County shall designate sites for industrial development to meet projected demand; *ED-3.1 Diverse Economic Base* – wherein the County shall actively promote the development of a diversified economic base by continuing to promote agriculture, recreation services, and commerce, and by expanding its efforts to encourage industrial development including the development of energy resources; *ERM-2.9 Compatibility* – wherein the County will encourage the development of mineral deposits in a manner compatible with surrounding land uses; *PF-1.1 Maintain Urban Edges* – wherein the County shall strive to maintain distinct urban edges for all unincorporated communities within the valley region or foothill region, while creating a transition between urban uses and agriculture and open space; *PF-1.2 Location of Urban Development* – wherein the County shall ensure that urban development only takes place in the following areas:

1. Within incorporated cities and CACUDBs;
2. Within the UDBs of adjacent cities in other counties, unincorporated communities, planned community areas, and HDBs of hamlets;
3. Within foothill development corridors as determined by procedures set forth in Foothill Growth Management Plan;
4. Within areas set aside for urban use in the Mountain Framework Plan and the mountain sub-area plans; and
5. Within other areas suited for non-agricultural development, as determined by the procedures set forth in the Rural Valley Lands Plan;

PF-1.3 Land Uses in UDBs/HDBs – wherein the County shall encourage those types of urban land uses that benefit from urban services to develop within UDBs and HDBs. Permanent uses which do not benefit from urban services shall be discouraged within these areas. This shall not apply to agricultural or agricultural support uses, including the cultivation of land or other uses accessory to the cultivation of land provided that such accessory uses are time-limited through Special Use Permit procedures; *PF-1.4 Available Infrastructure* – wherein the County shall encourage urban development to locate in existing UDBs and HDBs where infrastructure is available or may be established in conjunction with development. The County shall ensure that development does not occur unless adequate infrastructure is available, that sufficient water supplies are available or can be made available and that there are adequate provisions for long term management and maintenance of infrastructure and identified water supplies; *PF-2.1 Urban Development Boundaries* – Communities – wherein the County shall limit urban development to the area within the designated UDB for each community. Each community's UDB is defined as shown on Figures 2.2-2 thru 2.2-22; *PF-2.4 Community Plans* – wherein the County shall ensure that community plans are prepared, updated, and maintained for each of the communities. These plans shall include the entire area within the community's UDB and shall address the community's short and long term ability to provide necessary urban services; *PF-2.7 Improvement Standards in Communities* – wherein the County shall require development within the designated UDBs to meet an urban standard for improvements. Typical improvements shall include curbs,

[171] Tulare County Association of Governments. About Us. Accessed July 2022 at: https://tularecog.org/tcag/about-us/history-of-tcag/

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

gutters, sidewalks, and community sewer and water systems; *PF-2.8 Inappropriate Land Use* – Areas within UDBs are hereby set aside for those types of urban land uses which benefit from urban services. Permanent uses which do not benefit from such urban services shall be discouraged within the UDBs. This is not intended to apply to agricultural or agricultural supported uses, including the cultivation of land or other uses accessory to the cultivation of land, provided that such accessory uses are time-limited through special use permit procedures; *LU-1.2 Innovative Development* – wherein the County shall promote flexibility and innovation through the use of planned unit developments, development agreements, specific plans, Mixed Use projects, and other innovative development and planning techniques; *LU-2.3 Open Space Character* – wherein the County shall require that all new development requiring a County discretionary approval, including parcel and subdivision maps, be planned and designed to maintain the scenic open space character of open space resources including, but not limited to, agricultural areas, rangeland, riparian areas, etc., within the view corridors of highways. Development shall utilize natural landforms and vegetation in the least visually disruptive way possible and use design, construction and maintenance techniques that minimize the visibility of structures on hilltops, hillsides, ridgelines, steep slopes, and canyons; *LU-3.1 Residential Developments* – wherein the County shall encourage new major residential development to locate near existing infrastructure for employment centers, services, and recreation; *LU-3.2 Cluster Development* – wherein the County shall encourage proposed residential development to be clustered onto portions of the site that are more suitable to accommodating the development, and shall require access either directly onto a public road or via a privately-maintained road designed to meet County road standards; *LU-3.3 High-Density Residential Locations* – wherein the County shall encourage high-density residential development (greater than 14 dwelling units per gross acre) to locate along collector roadways and transit routes, and near public facilities (e.g., schools, parks), shopping, recreation, and entertainment; *LU-5.1 Industrial Developments* – wherein the County shall encourage a wide range of industrial development activities in appropriate locations to promote economic development, employment opportunities, and provide a sound tax base; *LU-5.4 Compatibility with Surrounding Land Use* – wherein the County shall encourage the infill of existing industrial areas and ensure that proposed industrial uses will not result in significant harmful impacts to adjacent land uses; *LU-5.7 Industrial Uses Allowed on Resource Land* – wherein the County shall allow asphalt batch plants and similar processing facilities that are directly associated with the development of a resource to be located at the site of the resource under the following criteria: Any such site shall be developed under the Special Use Permit process, and The Special Use Permit shall not permit any commercial or industrial uses that are not related to the processing of the resource; *LU-6.2 Buffers* – wherein the County shall ensure that residential and other non-compatible land uses are separated and buffered from major public facilities such as landfills, airports, and sewage treatment plants; *LU-7.2 Integrate Natural Features* – wherein the County shall emphasize each community's natural features as the visual framework for new development and redevelopment; and *ED-2.3 New Industries* – wherein the County shall encourage new industries to locate within cities, unincorporated communities, hamlets, regional growth corridors, and other unincorporated County areas where appropriately zoned. The County, in cooperation with cities and communities will identify locations for industrial uses in unincorporated areas around cities consistent with the cities' economic development strategies, taking into account opportunities offered by variations in local environmental conditions.

a) No Impact: The proposed Project site is near the center of Tulare County, less than one mile east of the City of Visalia and less than one mile west of the City of Farmersville. The entire site is within the City of Visalia's adopted Planning Area while the northern ~27 acres of the proposed Project site are within the City of Visalia's adopted Sphere of Influence. There are no roads that cross the site and no roads are planned in any adopted planning documents; and currently there is no public access to the site. The site does not currently divide any established communities nor would the proposed Project. Also as noted earlier, the Project is intended to accomplish a change of zone from AE-20 to PD-C-3-SC (Planned Development, Service Commercial, Scenic Corridor Combining Zone) and will retain that designation if the project is approved. There are no aspects of the site or the proposed project that would result in the division of an established community. Therefore, the Project would result in no impact to this resource.

b) No Impact: Tulare County is located in in an unincorporated area in the Central Valley and does not border a coastline. As such, projects located within Tulare County could not possibly impact a local coastal program. As noted earlier, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The original 46-acre site and the proposed Project site are east of the City of Visalia, just south of the State Route 198 corridor. The northern ~27 acres of the original Project site is within the City of Visalia's (City) adopted Sphere of Influence, while the southern ~20 acres is within the City's adopted Planning Area. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage. The proposed Project will be located directly south and adjacent to the original site and is currently planted to walnuts. The applicant is requesting to modify the previously approved Sequoia Drive-In Business Park Master Development Guidelines PPD 20-001,

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

Development Agreement No. DEV 20-002, and Vesting Tentative Subdivision Map No. TSM 834 (Castlewood LLC/Visalia) in order to accommodate the establishment of the first phase of Derrel's Mini-Storage within the footprint of the previously approved project (APNs: 101-090-014 & -015 and 101-100-009). This modification would also add twenty (20) acres of additional territory (APN: 101-100-005) to the Project site to accommodate the second phase of Derrel's Mini-Storage. The area that is proposed to be added currently has a land use designation of "Valley Agricultural" and is located in the AE-20 (Exclusive Agricultural Zone – 20 Acre Minimum). In addition, the applicant is requesting a Lot Line Adjustment to adjust the boundaries between three existing parcels (APNs: 101-090-014 & -015 and 101-100-009) to coincide with the three (3) phases of the proposed Project. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage and resident manager housing. The proposed use (mini–storage/RV storage) where the expansion would occur is not allowed in the AE-20 Zone; therefore, the Project will require a change of zone to PD-C-3-SC from its existing AE-20 zone. A Williamson Act Cancellation must also occur to cancel Contract No. 10335 for APN 101-100-005 as part of this Project.

The proposed Project is an appropriate use for the site, and as demonstrated in **Table 3.10-1**, the proposed Project will be consistent with applicable objectives, goals and policies outlined in the Tulare County General Plan 2030 Update as well as the City of Visalia General Plan. As such, a less than significant Project-specific impact related to this Checklist Item will occur.

Table 3.10-1 summarizes the proposed Project's consistency with all applicable objectives, goals, and policies of the Tulare County and City of Visalia General Plans.

Cumulative Impact Analysis: **Less Than Significant Cumulative Impacts -** The geographic area of this cumulative analysis is Tulare County, and the cities of Visalia and Farmersville. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, the Tulare County 2030 General Plan EIR, and the Sequoia Drive-In Business Park EIR. As such, a less than significant cumulative impact related to this Checklist Item will occur.

Table 3.10-1
General Plan Consistency Analysis

Chapter – Element	No.	Goal/Objective/Policy Text	Consistency Determination
TULARE COUNTY			
Planning Framework	**1.2**	**Location of Urban Development:** The County shall ensure that urban development only takes place in the following areas: 1. Within incorporated cities and County Adopted City Urban Development Boundaries (CACUDBs); 2. Within the UDBs of adjacent cities in other counties, unincorporated communities, planned community areas, and HDBs of hamlets; 3. Within foothill development corridors as determined by procedures set forth in Foothill Growth Management Plans; 4. Within areas set aside for urban use in the Mountain Framework Plan and the mountain sub-area plans; and **5.** Within other areas suited for non-agricultural development, as determined by the procedures set forth in the in the Rural Valley Lands Plan.	**Yes:** The proposed Project will be located within the Adopted City of Visalia Sphere of Influence and Planning Area boundary.
Planning Framework	**4.1**	**CACUABs for Cities:** The County shall establish CACUABs which define the area where land uses are presumed to have an impact upon the adjacent incorporated city, and within which the cities' concerns may be given consideration as part of the land use review process. The lands within the UAB are considered to be the next logical area in which urban development may occur and the area within which UDBs may ultimately be expanded.	**Yes:** The proposed Project will be located within the Adopted City of Visalia Sphere of Influence and Planning Area Boundary and as such, potential impacts are analyzed with regards to resources in Tulare County as well as the City of Visalia.
Planning Framework	**4.13**	**City Design Standards:** Where the Board of Supervisors finds that it is consistent with General Plan objectives to approve development within the UDBs of incorporated cities, the County may require the project to substantiate sufficient water supply and meet the County adopted city development standards of the city in question.	**Yes:** The proposed Project applicant will provide a will-serve letter from the City of Visalia to substantiate sufficient water supply and the Project will meet the City of Visalia Development Standards.
Planning Framework	**4.14**	The County may ensure proposed development within CACUABs is compatible with future sewer and water systems, and circulation networks as shown in city plans.	**Yes:** The proposed Project will be compatible with future sewer and water systems and circulation networks as shown in the City of Visalia plans.
Planning Framework	**4.15**	**Coordination with Cities on Development Proposals:** The County shall ensure that urban development only take place in CACUDBs if one of the following has occurred:	**Yes:** The City of Visalia does not consent to annex the proposed Project site for development purposes.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

		1. The adjacent city does not consent to annex the property for development purposes (as evidenced through pre-zoning, development agreements, etc.); it shall be conclusively presumed that a city has not consented if it has not submitted an annexation proposal to LAFCo within six months from the date a request to annex is submitted to the city; or 2. Annexation is not possible under the provisions of State law, but it is determined by the County that development of the site does not constitute incompatible development.	
Planning Framework	**4.17**	**Cooperation with Individual Cities:** The County may use the policies set forth under this goal (PF-4A:Cities:Continued) to work with individual cities to further manage development within that CACUDB or CACUAB to the extent that the financial needs of the County are met and the County's ability to provide facilities and County services used by all of the residents in the County and cities is enhanced. The County and cities will establish a working committee to facilitate the policies identified in this section 4A.	**Yes:** The City of Visalia and the County will ensure that the financial needs of the County are met through the development of a Community Owners Association to maintain and operate the infrastructure of the development.
Planning Framework	**4.27**	**Impacts of Development within the County on City Facilities and County Facilities:** The County may work with a city to consider the adoption, imposition and collection for payment to the city pursuant to agreement in Development Impact Fees within the CACUDB, as may be proposed by the city from time to time to offset the impacts of development in the County on city facilities. Reciprocally and under the same conditions, the city will consider the collection of Development Impact Fees within the city to offset the impacts of development within the city on County facilities.	**Yes:** The County will develop a Commercial Owners Association to financially support the proposed development. Additionally, the developer will be required to pay development impact fees for services such as sewer, water, police, fire, and schools.
Land Use	**3.8**	**Rural Residential Interface:** The County shall minimize potential land use conflicts at the interface between urban development and existing developed rural-residential areas.	**Yes.** The proposed Project is located in an area with minimal residential development. It will be similar in appearance and function to other commercial uses in the area.
Land Use	**7.16**	**Water Conservation:** The County shall encourage the inclusion of "extra-ordinary" water conservation and demand management measures for residential, commercial, and industrial indoor and outdoor water uses in all new urban development.	**Yes.** The proposed Project will implement a "Low Impact Development" design which will conserve water on-site.
Public Facilities and Services	**1.4**	**Standards of Approval:** The County should not approve any development unless the following conditions are met: 1. The applicant can demonstrate all necessary infrastructure will be installed and adequately financed; 2. Infrastructure improvements ae consistent with adopted County infrastructure plans and standards; and **3.** Funding mechanisms are provided to maintain, operate, and upgrade the facilities throughout the lie of the project.	**Yes.** All criteria will be met prior to Project approval.
CITY OF VISALIA			
LU	**P-26**	Continue to follow the referral agreement with Tulare County, and work with the County to strengthen the implementation of the Visalia General Plan within the Visalia Urban Area Boundary.	**Yes.** The County will follow the referral agreement.
LU	**P-33**	Work with Tulare County to prevent urban development of agricultural land outside of the current Urban Development Boundary and to promote the use of agricultural preserves, where they will promote orderly development.	**Yes.** The proposed project site is already zoned for non-agricultural uses and the project will not conflict with any agricultural development or policies.

12.	**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?	☐	☐	☐	☒
	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?	☐	☐	☐	☒

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Mineral Resources, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

Per the Tulare County General Plan Background Report, Tulare County is divided into two major physiographic and geologic provinces: the Sierra Nevada Mountains and the Central Valley. The Sierra Nevada Physiographic Province, in the eastern portion of the Tulare County, is underlain by metamorphic and igneous rock. It consists mainly of homogeneous granitic rocks, with several islands of older metamorphic rock. The central and western parts of the County are part of the Central Valley Province, underlain by marine and non-marine sedimentary rocks. It is basically a flat, alluvial plain, with soil consisting of material deposited by the uplifting of the mountains.

Economically, the most important minerals that are extracted in Tulare County are sand, gravel, crushed rock, and natural gas. Other minerals that could be mined commercially include tungsten, which has been mined to some extent, and relatively small amounts of chromite, copper, gold, lead, manganese, silver, zinc, barite, feldspar, limestone, and silica. Minerals that are present but do not exist in the quantities desired for commercial mining include antimony, asbestos, graphite, iron, molybdenum, nickel, radioactive minerals, phosphate, construction rock, and sulfur.

Aggregate resources are the most valuable mineral resource in Tulare County because it is a major component of the Portland cement concrete (PCC) and asphaltic concrete (AC). PCC and AC are essential to constructing roads, buildings, and providing for other infrastructure needs. There are four streams that have provided the main source of high quality sand and gravel in Tulare County: Kaweah River, Lewis Creek, Deer Creek and the Tule River. The highest quality deposits are located at the Kaweah and Tule Rivers. Lewis Creek deposits are considerably inferior to those of the other two rivers.

Regulatory Setting

Federal

There are no federal or local regulations pertaining to mineral resources relevant to the proposed project.

State

California Surface Mining and Reclamation Act of 1975

Enacted by the State Legislature in 1975, the Surface Mining and Reclamation Act (SMARA), Public Resources Code Section 2710 et seq., insures a continuing supply of mineral resources for the State. The act also creates surface mining and reclamation policy to assure that:

- Production and conservation of minerals is encouraged;
- Environmental effects are prevented or minimized;
- Consideration is given to recreational activities, watersheds, wildlife, range and forage, and aesthetic enjoyment;
- Mined lands are reclaimed to a useable condition once mining is completed; and
- Hazards to public safety both now and in the future are eliminated.

Areas in the State (city or county) that do not have their own regulations for mining and reclamation activities rely on the Department of Conservation, Division of Mines and Geology, Office of Mine Reclamation to enforce this law. SMARA contains provisions for the inventory of mineral lands in the State of California. The State Geologist, in accordance with the State Board's Guidelines for Classification and Designation of Mineral Lands, must classify Mineral Resource Zones (MRZ) as designated below:

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

- MRZ-1. Areas where available geologic information indicates that there is minimal likelihood of significant resources.
- MRZ-2. Areas underlain by mineral deposits where geologic data indicate that significant mineral deposits are located or likely to be located.
- MRZ-3. Areas where mineral deposits are found but the significance of the deposits cannot be evaluated without further exploration.
- MRZ-4. Areas where there is not enough information to assess the zone. These are areas that have unknown mineral resource significance.

SMARA only covers mining activities that impact or disturb the surface of the land. Deep mining (tunnel) or petroleum and gas production is not covered by SMARA.

Local

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update: Chapter 8 – Environmental Resources Management contains the following goals and policies that relate to mineral resources and which have potential relevance to the Project's California Environmental Quality Act (CEQA) review: *ERM-2.1 Conserve Mineral Deposits* wherein the County will encourage the conservation of identified and/or potential mineral deposits, recognizing the need for identifying, permitting, and maintaining a 50 year supply of locally available PCC grade aggregate; and *ERM-4.6 Renewable Energy* wherein the County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind, solar, bio-fuels and co-generation.

a) No Impact: Mineral resources located within Tulare County are predominately sand and gravel resources primarily provided by four streams: Kaweah River, Lewis Creek, Deer Creek, and the Tule River. The Tule river is the nearest of these four streams to the proposed Project site and is located approximately 25 miles to the east. Due to the distance from these streams, the Project will not result in the loss of an available known mineral resource. The Tulare County General Plan Update (see Figure 8-2 Mineral Resource Zone in the General Plan) indicates the locations of State-designated Mineral Resource Zones. According to the map, the Project site is not located in or within 10 miles of a Mineral Resource Zone. The California Department of Conservation indicates that the nearest, active mining operation (Kaweah South, mining sand and gravel) is located approximately 9 miles northeast of the Project site.[172] As such, the Project would 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.

b) No Impact: The proposed Project site is not delineated on a local land use plan as a locally important mineral resource recovery site. Therefore, the Project would not 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.

13.	**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?	☐	☐	☒	☐
	b)	Generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐
	c)	For a project located within the vicinity of a private airstrip or an airport land use	☐	☐	☐	☒

[172] State of California Department Of Conservation, Division of Mine Reclamation, Maps: Mines and Mineral Resources Accessed July 2022 at: https://maps.conservation.ca.gov/mol/index.html.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
		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 discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Noise Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

As noted earlier, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The original 46-acre site and the proposed Project site are east of the City of Visalia, just south of the State Route 198 corridor. The northern ~27 acres of the original Project site is within the City of Visalia's (City) adopted Sphere of Influence, while the southern ~20 acres is within the City's adopted Planning Area. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage. The proposed Project will be located directly south and adjacent to the original site and is currently planted to walnuts. The applicant is requesting is to modify the previously approved Sequoia Drive-In Business Park Master Development Guidelines PPD 20-001, Development Agreement No. DEV 20-002, and Vesting Tentative Subdivision Map No. TSM 834 (Castlewood LLC/Visalia) in order to accommodate the establishment of the first phase of Derrel's Mini-Storage within the footprint of the previously approved project (APNs: 101-090-014 & -015 and 101-100-009). This modification would also add twenty (20) acres of additional territory (APN: 101-100-005) to the Project site to accommodate the second phase of Derrel's Mini-Storage. The area that is proposed to be added currently has a land use designation of "Valley Agricultural" and is located in the AE-20 (Exclusive Agricultural Zone – 20 Acre Minimum). In addition, the applicant is requesting a Lot Line Adjustment to adjust the boundaries between three existing parcels (APNs: 101-090-014 & -015 and 101-100-009) to coincide with the three (3) phases of the proposed Project. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage and resident manager housing. The proposed use (mini–storage/RV storage) where the expansion would occur is not allowed in the AE-20 Zone; therefore, the Project will require a change of zone to PD-C-3-SC from its existing AE-20 zone. A Williamson Act Cancellation must also occur to cancel Contract No. 10335 for APN 101-100-005 as part of this Project.

Regulatory Setting

Federal

Federal Vibration Policies

The Federal Railway Administration (FRA) and the Federal Transit Administration (FTA) have published guidance relative to vibration impacts. According to the FRA, fragile buildings can be exposed to ground-borne vibration levels of 0.5 PPV without experiencing structural damage. The FTA has identified the human annoyance response to vibration levels as 80 RMS (Root Mean Square = The square root of the arithmetic average of the squared amplitude of the signal).[173]

State

[173] U.S. Department of Transportation, "The Noise and Vibration Impact Assessment Manual". September 2018. FTA Report No. 0123 Federal Transit Administration Page 113. Accessed July 2022 at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

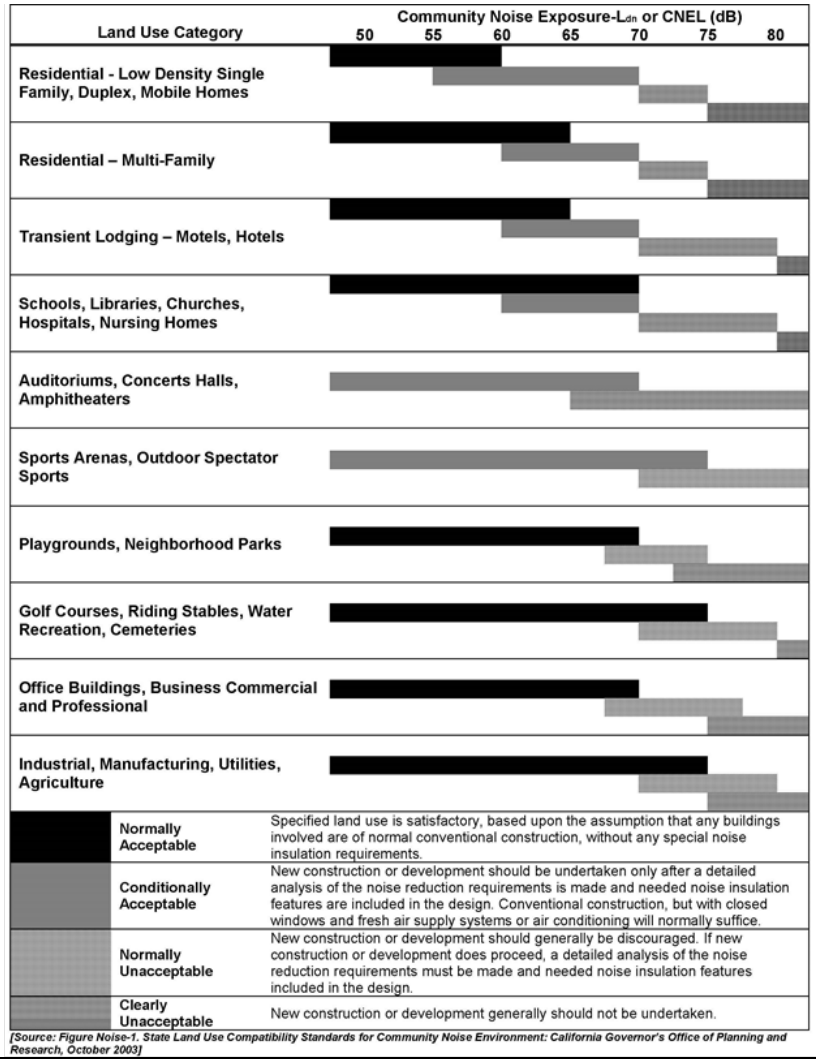
		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

The California Noise Control Act was enacted in 1973 (Health and Safety Code § 46010 et seq.), and states that the Office of Noise Control (ONC) should provide assistance to local communities in developing local noise control programs. It also indicates that ONC staff will work with the OPR to provide guidance for the preparation of the required noise elements in city and county General Plans, pursuant to Government Code § 65302(f). California Government Code § 65302(f) requires city and county general plans to include a noise element. The purpose of a noise element is to guide future development to enhance future land use compatibility.

Local

Analytical noise modeling techniques, in conjunction with actual field noise level measurements, were used to develop generalized Ldn or Community Noise Equivalent Level (CNEL) contours for traffic noise sources within Tulare County for existing conditions. Traffic data representing annual average daily traffic volumes, truck mix, and the day/night distribution of traffic for existing conditions (1986) and future were obtained from the Tulare County Public Works Department and used in the Tulare County Noise Element. The Tulare County General Plan 2030 Update Health & Safety Element (2012) includes noise and land use compatibility standards for various land uses. These are shown in **Table 13-1** Land Use Compatibility for Community Noise Environments[174],:

Table 13-1



[Source: Figure Noise-1. State Land Use Compatibility Standards for Community Noise Environment: California Governor's Office of Planning and Research, October 2003]

[174] Tulare County General Plan 2030 Update. Goals and Policies Report. Page 10-25.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update: Chapter 10 – Health and Safety contains the following goals and policies that relate to noise and which have potential relevance to the Project's California Environmental Quality Act (CEQA) review: *HS-8.2 Noise Impacted Areas* – wherein the County shall designate areas as noise-impacted if exposed to existing or projected noise levels that exceed 60 dB Ldn (or Community Noise Equivalent Level (CNEL)) at the exterior of buildings; *HS-8.3 Noise Sensitive Land Uses* – wherein the County shall not approve new noise sensitive uses unless effective mitigation measures are incorporated into the design of such projects to reduce noise levels to 60 dB Ldn (or CNEL) or less within outdoor activity areas and 45 dB Ldn (or CNEL) or less within interior living spaces; *HS-8.6 Noise Level Criteria* wherein the County shall ensure noise level criteria applied to land uses other than residential or other noise-sensitive uses are consistent with the recommendations of the California Office of Noise Control (CONC); *HS-8.8 Adjacent Uses* wherein the County shall not permit development of new industrial, commercial, or other noise-generating land uses if resulting noise levels will exceed 60 dB Ldn (or CNEL) at the boundary of areas designated and zoned for residential or other noise-sensitive uses, unless it is determined to be necessary to promote the public health, safety and welfare of the County; *HS-8.11 Peak Noise Generators* wherein the County shall limit noise generating activities, such as construction, to hours of normal business operation (7 a.m. to 7 p.m.). No peak noise generating activities shall be allowed to occur outside of normal business hours without County approval; *HS-8.13 Noise Analysis* – wherein the County shall require a detailed noise impact analysis in areas where current or future exterior noise levels from transportation or stationary sources have the potential to exceed the adopted noise policies of the Health and Safety Element, where there is development of new noise sensitive land uses or the development of potential noise generating land uses near existing sensitive land uses. The noise analysis shall be the responsibility of the project applicant and be prepared by a qualified acoustical engineer (i.e., a Registered Professional Engineer in the State of California, etc.). The analysis shall include recommendations and evidence to establish mitigation that will reduce noise exposure to acceptable levels (such as those referenced in Table 10-1 of the Health and Safety Element); *HS-8.14 Sound Attenuation Features* - The County shall require sound attenuation features such as walls, berming, heavy landscaping, between commercial, industrial, and residential uses to reduce noise and vibration impacts; *HS-8.16 State Noise Insulation* – wherein the County shall enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code; *HS-8.18 Construction Noise* wherein the County shall seek to limit the potential noise impacts of construction activities by limiting construction activities to the hours of 7 a.m. to 7 p.m., Monday through Saturday when construction activities are located near sensitive receptors. No construction shall occur on Sundays or national holidays without a permit from the County to minimize noise impacts associated with development near sensitive receptors; *HS-8.19 Construction Noise Control* wherein the County shall ensure that construction contractors implement best practices guidelines (i.e.; berms, screens, etc.) as appropriate and feasible to reduce construction-related noise-impacts on surrounding land uses.

Table 3.12-2
Tulare County Maximum Acceptable Ambient Noise Exposure for Various Land Uses[175]

Land Use	Suggested Maximum Ldn
Residential – low density	60
Residential – high density	65
Transient lodging	65
Schools, libraries, churches, hospitals	65
Playgrounds, parks	65
Commercial	70
Industrial	75

[175] Tulare County 2030 General Plan Update Background Report. Page 8-50.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

a) Less Than Significant Impact: As mentioned earlier, the Project can be summarized as change of zone, lot line adjustment, and addition of 20 acres to the approved Sequoia Drive-In Business Park to accommodate Phase 2 of Derrel's Mini Storage. The proposed Project will be located directly south and adjacent to the original site and is vacant, non-vegetated, fallow land. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage and resident manager housing. Project construction will include site preparation, grading, paving, and construction-related activities. Noise sensitive receptors include approximately (12) scattered rural residences located east of proposed Project site. As indicated in the EIR for the original project, and incorporated herein by reference, both projects would result in construction-related and operations noise and will be required to comply with General Plan Policies, *HS-8 Peak Noise Generators*, *HS-18 construction Noise*, and *HS-19 Construction Noise Control*. The original project's EIR evaluated both Construction and Operational noise impacts as follows:

"Construction Noise Impacts

Proposed Project construction related activities will involve temporary noise sources and will be periodic in nature due to the phased buildout of the Project. Typical construction related equipment include compressors, nail guns, graders, trenchers, small tractors and excavators. During the proposed Project construction, noise from construction related activities will contribute to the noise environment in the immediate vicinity. Activities involved in construction will generate maximum noise levels, as indicated in **Table 3.12-2**, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

Table 3.12-3
Typical Construction Noise Levels

Type of Equipment	dBA at 50 feet	
	Without Feasible Noise Control[1]	With Feasible Noise Control
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time in urban and semi-urban environments. Most residents of these areas recognize this reality and expect to hear construction activities on occasion."[176] As Phase 1 of Derrel's Mini Storage and RV Storage is a part of the original project, it will contribute to short-term, temporary, and intermittent construction-related noise. By their very nature, mini and RV storage operations are inherently very quiet during operation as only traffic-related noise will occur during the hours they are open for use. As such, all phases of Derrel's Mini Storage and RV Storage will likely result in non-significant noise levels when operational.

Although impacts are considered less than significant, the Project will be required to adhere to the County's noise policies *HS-8.11, HS-8.18,* and *HS-8.19*, as noted earlier, to ensure that impacts remain less than significant.

[176] Tulare County. Sequoia Drive-In Business Park. Environmental Impact Report. Chapter 3.12. Noise. Page 3.12-6. December 2018. Available upon request at RMA Administrative Office.

"Operational Noise Impacts

The site is located on the edge of an urban area between the cities of Visalia and Farmersville adjacent to existing development on the north, east and west. Operational noise from the Project will be generated from typical commercial uses such as customer/employee vehicles, delivery trucks, landscape maintenance equipment, air conditioners, and other similar noise sources. However, the primary source of noise will be from Project-related vehicular trips.

Potential sensitive noise receptors in the area include:

North: None. Visalia Tire and Wheel (across Noble Avenue). State Route 198 and Noble Avenue (Avenue 296).
East: Approximately 12 rural, single-family homes.
South: None. Agricultural fields.
West: Commercial facilities and warehouses.

When evaluating whether or not a project will result in a potentially significant increase in noise, the County uses a threshold of an increase of 3 dBA if it affects sensitive receptors. Residential units are considered as sensitive receptors.

According to the Tulare County General Plan EIR, most of the parcels adjacent to SR 198 in the vicinity of the Project are included within a Noise Contour. The segment of SR 198 between SR 63 and Road 168 (Farmersville Boulevard) noise levels are shown in **Table 3.12-3** (the Project is located immediately south of this segment).

The residential units east of the Project site are included within the 65 Ldn (that is, for the units nearest SR 198) and 60 Ldn (for the units furthest in proximity to SR 198) contour lines. The commercial facilities located north and west of the Project site are included within the 65 Ldn (dBA) contour line.

As shown in **Table 3.12-1**, the County's suggested maximum Ldn for rural residential is 60 Ldn (dBA). As shown in **Table 3.12-2**, the existing Ldn (dBA) for several of those residences is 65 and is therefore already in exceedance of the suggested limits. According to a Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol (September 2013), "doubling the traffic on a highway would result in an increase of 3dB. The County's General Plan shows the average daily trips (ADT) of this segment of approximately 20,000. The Project could result in up to 10,221 ADT based on the TIS, not all of which would be dispersed on the highway, nor would be considered new trips solely attributable to the Project. Using a conservative estimate, even if all of the Project trips were considered new trips and were all routed on SR 198, it would not result in a doubling of traffic numbers and, therefore, would not result in an increase of 3dB. In addition, the noise receptors in the Project area are already included within a defined noise contour (therefore, the noise receptor's baseline noise contour currently exceeds above-normal noise levels). Therefore, the Project's traffic noise generation cannot be distinguished from existing noise conditions. As such, the Project would result in a than significant impact.

Table 3.12-3
Noise Contours for SR 198 in the Project Vicinity

Contour Line	Distance in feet from SR 198 Centerline
70 Ldn (dBA)	102
65 Ldn (dBA)	220
60 Ldn (dBA)	473
55 Ldn (dBA(	1,020

The Project will also generate non-traffic related noise from noises associated with commercial facilities (e.g., air conditioning units, landscape maintenance equipment, car doors shutting, voices, etc.). Nearby receptors will experience a small increase in ambient noise due to the Project, but the noise will be similar to existing conditions and will consist of noise that is typical of other commercial developments in the area. The noise generated from the proposed Project will be similar to and will not likely be distinguishable from existing noise sources."[177] As noted earlier, by their very nature, mini and RV storage operations are inherently very quiet during operation as only traffic-related noise will occur during the hours they are open for use. As such, all phases of Derrel's Mini Storage and RV Storage will likely result in non-significant noise levels when operational. Therefore, operational noise impacts would be less than significant.

b) Less Than Significant Impact: Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. Increases in

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

groundborne vibration levels attributable to the proposed Project would be primarily from construction-related activities (e.g., earthmoving operations such as grading, leveling, trenching, etc.). These activities would likely require the use of various off-road equipment, such as tractors, concrete mixers, graders, and haul trucks. The use of major groundborne vibration-generating construction equipment, such as pile drivers, would not be required for this Project. Construction-related vibration would be short-term, temporary, and intermittent. Once operational, the Project will not result in the on-going use of equipment that produces groundbourne vibration.

Groundborne vibration levels associated with representative off-road equipment are summarized in **Table 3.12-4**. Based on the vibration levels presented in Table 3.12-4, ground vibration generated by off-road equipment would not be anticipated to exceed approximately 0.08 inches per second ppv at 25 feet. Predicted vibration levels at the nearest structures would not exceed the minimum recommended criteria for structural damage or human annoyance (0.2 in/sec ppv). Similar to construction-related and operational noise, by their very nature, mini and RV storage operations are inherently very quiet during operation as only traffic-related vibration will occur during the hours they are open for use. As such, all phases of Derrel's Mini Storage and RV Storage will likely result in non-significant vibration levels when operational. Therefore, the Project would result in a less than significant impact and would not generate excessive groundbourne vibration or groundbourne noise.

Table 3.12-4
Vibration Levels for Varying Construction Equipment[178]

Type of Equipment	Peak Particle Velocity @ 25 Feet (inches/second)
Large Bulldozer	0.089
Loaded Trucks	0.076
Small Bulldozer	0.003
Jackhammer	0.035
Vibratory Hammer	0.070
Vibratory Compactor/roller	0.210

c) No Impact: The nearest public airport or public use airport is Exeter Airport (in the City of Exeter) is located approximately nine miles southeast of the Project site. The proposed Project is located outside of the 55 dB CNEL noise contour and will not conflict with Tulare County Airport Land Use Plan policy. Therefore, there will be no impact.

14.	**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)?	☐	☐	☒	☐
	b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

[177] Ibid. 3.12-7 through 3.12-8.
[178] Op Cit.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Population/Housing Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

The California Department of Finance (DOF) provides population estimates for Tulare County. According to DOF population estimates, between 2010 and 2018, Tulare County grew from 442,179 to 481,733[179] persons; an increase of 39,554persons. Between 2010 and 2020, the County experienced an average yearly population growth of 0.82 percent, for a total (Year 2020) population of 481,733.

The annual growth rate for the entire County is anticipated to increase from 1.9 percent to 2.4 percent through 2030. While the percentage of the County's population living in incorporated cities is anticipated to increase by 2030, the percentage of persons living in unincorporated areas in the County will decrease by 2030. The Tulare County Association of Governments (TCAG) projects an additional 313,970 people to be living in Tulare County by 2030 for a total projected population of approximately 742,970.[180]

The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage, a lot line adjustment to include the proposed Project (Phase 2) with Phase 1 of a Derrel's Mini-/RV-Storage sited within the original project, and a change of zone to PD-C-3-SC from its existing AE-20 zone. The applicant is requesting the Lot Line Adjustment to adjust the boundaries between three existing parcels (APNs: 101-090-014 & -015 and 101-100-009) to coincide with the three (3) phases of the proposed Project.

Regulatory Setting

Federal

U.S. Department of Housing and Urban Development (HUD)

"HUD's mission is to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market to bolster the economy and protect consumers; meet the need for quality affordable rental homes: utilize housing as a platform for improving quality of life; build inclusive and sustainable communities free from discrimination; and transform the way HUD does business."[181] However, as the Project does not propose any housing, HUD or other federal regulations do not apply to this Project.

State

California Department of Housing and Community Development (HCD)

HCD's mission is to "Promote safe, affordable homes and strong vibrant communities throughout California."[182] "In 1977, the State Department of Housing and Community Development (HCD) adopted regulations under the California Administrative Code, known as the Housing Element Guidelines, which are to be followed by local governments in the preparation of local housing elements.

[179] State of California. Department of Finance. E-4 Population Estimates for City, Counties, and the State,2011-2021, with 2010 Benchmark. Sacramento, California. May 2021. Accessed in July 2022 athttps://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fdof.ca.gov%2Fwp-content%2Fuploads%2FForecasting%2FDemographics%2FDocuments%2FE-4_2010-2020-Internet-Version.xlsx&wdOrigin=BROWSELINK https://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-4/2010-21/

[180] Tulare County General Plan 2030 Update. General Plan Background Report. Table 2-16. Page 2-31.

[181] U.S. Department of Housing and Urban Development. Mission. Accessed July 2022 at: https://www.hud.gov/about/mission.

[182] California Department of Housing and Community Development. Mission. Accessed July 2022 at: http://www.hcd.ca.gov/about/mission.shtml.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

AB 2853, enacted in 1980, further codified housing element requirements. Since that time, new amendments to State Housing Law have been enacted. Each of these amendments has been considered during development of this Housing Element."[183]

California Relocation Assistance Act

The State of California adopted the California Relocation Assistance Act (California Government Code §7260 et seq.) in 1970. This State law, which follows the federal Uniform Relocation Assistance and Real Property Acquisition Act, requires public agencies to provide procedural protections and benefits when they displace businesses, homeowners, and tenants in the process of implementing public programs and projects. This State law calls for fair, uniform, and equitable treatment of all affected persons through the provision of relocation benefits and assistance to minimize the hardship of displacement on the affected persons.

Local

Tulare County Regional Housing Needs Assessment Plan 2014-2023

The Tulare County Association of Governments (TCAG) was responsible for allocating the State's projections to each local jurisdiction within Tulare County including the County unincorporated area, which is reflected in this Housing Element. Tulare County has no control over the countywide population and housing projections provided to TCAG when it prepared the Regional Housing Needs Assessment Plan.

Tulare County Regional Blueprint 2009

This Blueprint includes the following preferred growth scenario principals:[184]

- Increase densities county-wide by 25% over the status quo densities;
- Establish light rail between cities;
- Extend Highway 65 north to Fresno County;
- Expand transit throughout the county;
- Maintain urban separators around cities; and
- Growth will be directed toward incorporated cities and communities where urban development exists and where comprehensive services and infrastructure are or will be provided.

Tulare County Housing Authority

"The Housing Authority of the County of Tulare (HATC) has been officially designated as the local public housing agency for the County of Tulare by the Board of Supervisors and was created pursuant to federal and state laws. …HATC is a unique hybrid: a public sector agency with private sector business practices. Their major source of income is the rents from residents. The HATC mission is "to provide affordable, well-maintained rental housing to qualified low- and very low-income families. Priority shall be given to working families, seniors and the disabled. Tenant self sufficiency and responsibility shall be encouraged. Programs shall be self-supporting to the maximum extent feasible."

HATC provides rental assistance to very low and moderate-income families, seniors and the handicapped throughout the county. HATC offers many different programs, including the conventional public housing program, the housing choice voucher program (Section 8), the farm labor program for families with farm labor income, senior housing programs, and other programs. They also own or manage some individual subsidized rental complexes that do not fall under the previous categories, and can provide information about other affordable housing that is available in Tulare County. All programs are handicap accessible. Almost all of the complexes have 55-year recorded affordability covenants." [185]

[183] Tulare County Housing Element 2015 Update. Page 1-3. Accessed July 2022 at: http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/110Part%20I%20Voluntary%20Elements%20Chapters%206,%2012%20and%2015/001CHP%206%20Tulare%20County%20Housing%20Element%20Update%202015/CHP%206%20Tulare%20County%20Housing%20Element%20Update%202015.pdf

[184] TCAG. Tulare County Regional Blueprint. May 2009. Page 18. Accessed at: https://tularecog.org/tcag/planning/regional-transportation-plan-rtp/rtp-20181/tulare-county-blue-print/

[185] Tulare County Housing Element 2015 Update. Page 5-12.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

a) – c) Less than Significant Impact: As noted in the Sequoia Drive-In Business Park EIR for the original project, "Approximately 200 temporary, local construction workers and up to 215 permanent employees are anticipated to be utilized for the proposed Project which will not require additional permanent housing. The employees are anticipated to be part of the existing workforce in Tulare County." [186]The proposed Project will include on-site housing for a resident manager(s) who will be the only employee(s) and likely will not result in additional construction-related workers as it represents Phase 2 of Derrel's Mini Storage and RV Storage development. Thus, depending upon timing (i.e., the year Phase 2 will occur), construction-related workers would be on site during a later stage of overall project development. "Therefore, demand for additional housing as a direct result of the proposed Project will be less than significant and will not induce population growth in the area."[187] There are no existing homes on the proposed Project site and no homes in the immediate vicinity would be displaced because of Project implementation. Also, as there are no existing houses on the proposed Project site, no people will be displaced as a result of Project implementation. Therefore, the Project would result in a less than significant Project-specific Impact related to this Checklist Item.

Cumulative Impact Analysis: **Less than Significant -** The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, Tulare County 2030 General Plan EIR, and the Sequoia Drive-In Business Park EIR.

The proposed Project will not require additional permanent housing, it does not impact existing homes on the proposed Project site; and it will not displace any additional housing units will not result in the conversion of any inhabited housing on-site or off-site. Therefore, the proposed Project will not result in the conversion of any inhabited housing on-site or off-site. As such, No Project-specific or Cumulative Impact related to this Checklist Item will occur.

15.	PUBLIC SERVICES					
	Would the project 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:					
	a)	Fire protection?	☐	☐	☒	☐
	b)	Police protection?	☐	☐	☒	☐
	c)	Schools?	☐	☐	☐	☒
	d)	Parks?	☐	☐	☐	☒
	e)	Other public facilities?	☐	☐	☐	☒

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Public Services Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

The proposed Project can be summarized as essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The original 46-acre site and the proposed Project site are east of the City of Visalia. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage, a lot line adjustment to include the proposed Project (Phase 2) with Phase 1 of a Derrel's Mini-

[186] Tulare County. Sequoia Drive-In Business Park. Environmental Impact Report. Chapter 3.13. Population and Housing. Page 3.13-8. December 2018. Available upon request at RMA Administrative Office

[187] Ibid.

/RV-Storage sited within the original project, and a change of zone to PD-C-3-SC from its existing AE-20 zone. The applicant is requesting the Lot Line Adjustment to adjust the boundaries between three existing parcels (APNs: 101-090-014 & -015 and 101-100-009) to coincide with the three (3) phases of the proposed Project. The proposed Project will be located directly south and adjacent to the original site and is currently planted to walnuts.

"Law enforcement protection for the unincorporated county is divided into 22 areas with four stations… [T]he Porterville substation serves the largest number of areas with 10 patrols, followed by the headquarters in Visalia with six, and Cutler-Orosi and Pixley, each with three areas."[188] As such, the County of Tulare's Sheriff's Office has the capability to provide police protection services to the proposed Project upon development.

Tulare County Fire Department has 28 stations that are situated throughout the County within its most densely populated areas. Tulare County Fire Station #8, located in the community of Ivanhoe, is the nearest County fire station to the proposed Project area (approximately 4.25 miles northeast of the Project site). In the event of mutual response, the City of Visalia's Station #56 is the nearest fire station to the Project site and is located approximately 1.8 miles southwest of the site; according to the City's website, the Project site is located in the service area of Station #56. [189]

The nearest public elementary (East Union Elementary School) is located approximately 0.32 miles north of the Project site, while the next nearest school (Mineral King Elementary School) is approximately 1.38 miles east of the Project site.

The nearest County owned and operated park is Cutler Park (approximately two miles north of the site), the nearest County public library is located in Farmersville (approximately 1.75 miles southeast of the site) and the nearest operational landfill is Visalia Landfill which is located approximately 9.5 miles northwest of the proposed Project site.

Regulatory Setting

Federal

None that are applicable to this Project.

State

California Fire Code and Building Code

The purpose of the California Fire Code (Title 24, Part 9 of the California Code of Regulations) is to establish the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety and general welfare from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations.[190]

Local

Tulare County General Plan 2030 Update

The following Tulare County General Plan 2030 Update, Chapter 14 – Public Facilities and Services, contains the following policies that relate to public services and may apply to this Project: *PFS-7.2 Fire Protection Standards* wherein the County shall require all new development to be adequately served by water supplies, storage, and conveyance facilities supplying adequate volume, pressure, and capacity for fire protection*; PFS-7.3 Visible Signage for Roads and Buildings* – wherein the County shall strive to ensure all roads are properly identified by name or number with clearly visible signs. The County shall strive to ensure all roads are properly identified by name or number with clearly visible signs; *PFS-7.5 Fire Staffing and Response Time Standards* wherein the County

[188] Tulare County General Plan 2030 Update. Background Report. Pages 7-71 to 7-72.
[189] City of Visalia. Accessed July 2022 at: http://www.visalia.city/depts/fire/facilities/default.asp.
[190] 2016 California Fire Code (Title 24, Part 9 of the California Code of Regulations). 1.1.2 Purpose. Page 3. Accessed May 2020. https://www.citymb.info/Home/ShowDocument?id=28089

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

shall strive to maintain fire department staffing and response time goals consistent with National Fire Protection Association (NFPA) standards; *PFS-7.6 Provision of Station Facilities and Equipment* wherein the County shall strive to provide sheriff and fire station facilities, equipment (engines and other apparatus), and staffing necessary to maintain the County's service goals. The County shall continue to cooperate with mutual aid providers to provide coverage throughout the County*; PFS-7.8 Law Enforcement Staffing Ratios* – wherein the County shall strive to achieve and maintain a staffing ratio of 3 sworn officers per 1,000 residents in unincorporated areas; and *PFS-7.9 Sheriff Response Time* wherein the County shall work with the Sheriff's Department to achieve and maintain a response time of:

1. Less than 10 minutes for 90 percent of the calls in the valley region; and
2. 15 minutes for 75 percent of the calls in the foothill and mountain regions; and

PFS-7.12 Design Features for Crime Prevention and Reduction wherein the County shall promote the use of building and site design features as means for crime prevention and reduction

The proposed Project will not rely on the addition or alteration of any public services. The subject site is within the southwestern portion of Tulare County and will utilize existing services provided by Tulare County (an where necessary Mutual Aid from City governments near the proposed Project site. There will be a less than significant impact.

a) Fire Protection – Less Than Significant Impact: The County of Tulare will continue to provide fire protection services to the proposed Project site upon development. The nearest station, Tulare County Fire Station #8, located in the community of Ivanhoe, is located approximately 4.25 miles north of the Project site. As a condition of approval from the Fire Department, the Project will include an emergency second access road from Road 156. The proposed Project is not increasing the service area for the Fire Station. The impact is less than significant.

b) Police Protection – Less Than Significant Impact: The County of Tulare will continue to provide police protection services to the Project site upon development. Emergency response is adequate to the proposed Project. No residential construction is proposed on the site. Based on the nature of the Project (i.e., Mini- and RV-Storage), there will be a less than significant impact.

c) Schools – No Impact: As noted earlier, the nearest public elementary (East Union Elementary School) is located approximately 0.32 miles north of the Project site, while the next nearest school (Mineral King Elementary School) is approximately 1.38 miles east of the Project site. However, the Project will not include construction of any residential structures which could result in an increase in new school students. There will be no impact.

d) Parks – No Impact: As noted earlier, the nearest County owned and operated park is Cutler Park (approximately two miles north of the site). As the proposed Project will not induce population growth, the Project will not create a need for additional park or recreational services. There will be no impact.

e) Other public facilities – No Impact: The proposed Project will rely on an existing septic system and water system. The proposed Project involves an addition of an access road. Since no additional improvements to the site will be made, the Project will not impact service levels for other public facilities, such as wastewater and solid waste. Therefore, there is no impact.

Cumulative Impact Analysis: **Less than Significant to No Impact –** The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, the Tulare County 2030 General Plan EIR, and the Sequoia Drive-In Business Park EIR.

As noted earlier, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The original 46-acre site and the proposed Project site are east of the City of Visalia. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage, a lot line adjustment to include the proposed Project (Phase 2) with Phase 1 of a Derrel's Mini-/RV-Storage sited within the original project, and a change of zone to PD-C-3-SC from its existing AE-20 zone. Based on the nature of the project (that is, mini- and RV-Storage), the proposed Project may result in a less than significant impact on fire and police services; it will have no impact on schools, libraries, parks, solid waste, or other public services.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
16.	**RECREATION**					
	a)	Would the project 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?	☐	☐	☐	☒
	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?	☐	☐	☐	☒

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Recreation Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

As noted earlier, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The original 46-acre site and the proposed Project site are east of the City of Visalia. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage, a lot line adjustment to include the proposed Project (Phase 2) with Phase 1 of a Derrel's Mini-/RV-Storage sited within the original project, and a change of zone to PD-C-3-SC from its existing AE-20 zone. The applicant is requesting the Lot Line Adjustment to adjust the boundaries between three existing parcels (APNs: 101-090-014 & -015 and 101-100-009) to coincide with the three (3) phases of the proposed Project.

"Tulare County contains several county, state, and federal parks. Aside from parks in the county, there are many open space areas as well. This section will highlight these various parks and open space areas and identify recreational opportunities within them."[191] Two new parks were completed and became operational in the unincorporated communities of Plainview (Plainview Community Park) in 2016 and Earlimart (Earlimart Community Park) in 2017. In addition to the 15 parks and recreation facilities that are owned and operated by Tulare County, there are State Parks and Forests, National Parks and National Forests, trails, and recreational areas. Cutler Park (an approximately 4-acre facility) is the nearest park to the Project site and located approximately two miles north of the proposed Project site. Lastly, each incorporated city in the County maintains and operates municipal park and recreation facilities which can also be accessed by the County's total population.

Federal

Lakes Kaweah and Success

"Lake Kaweah was formed after the construction of the Terminus Dam on the Kaweah River in 1962. The lake offers many recreational opportunities including fishing, camping, and boating. Lake Kaweah is located 20 miles east of Visalia on Highway 198 and was constructed by the U.S. Army Corps of Engineers for flood control and water conservation purposes. The lake has a maximum capacity to store 143,000 acre-feet of water. There are a total of 80 campsites at the lake's Horse Creek Campground, which contains toilets, showers and a playground. Campfire programs are also available. Aside from camping, boat ramps are provided at the Lemon Hill and Kaweah Recreation Areas. Both Kaweah and Horse Creek provide picnic areas, barbecue grills and piped water. Swimming is allowed in designated areas. In addition, there is a one-mile hiking trail between Slick Rock and Cobble Knoll, which is ideal for bird watching.

[191] Tulare County General Plan 2030 Update Background Report. February 2010. Page 4-1.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

Lake Success was formed by construction of the Success Dam on the Tule River in 1961. The lake offers many recreational activities including fishing, boating, waterskiing, and picnicking. The U.S. Army Corps of Engineers (USACOE) constructed this reservoir for both flood control and irrigation purposes. The lake has a capacity of 85,000 acre-feet of water. The lake is located eight miles east of Porterville in the Sierra Nevada foothills area. Recreational opportunities include ranger programs, camping at the Tule campground, which provides 104 sites, boating, fishing, picnic sites, playgrounds and a softball field. Seasonal hunting is also permitted in the 1,400-acre Wildlife Management Area."[192]

National Parks and National Forests

"Most of the recreational opportunities in the county are located in Sequoia National Forest, Giant Sequoia National Monument, and in Sequoia and Kings Canyon National Parks (SEKI). Although these parks span adjacent counties, they make a significant contribution to the recreational opportunities that Tulare County has to offer."[193]

Sequoia National Forest

"Sequoia National Forest takes its name from the Giant Sequoia, which is the world's largest tree. There are more than 30 groves of sequoias in the lower slopes of the park. The park includes over 1,500 miles of maintained roads, 1,000 miles of abandoned roads and 850 miles of trails for hikers, off-highway vehicle users and horseback riders. The Pacific Crest Trail connecting Canada and Mexico, crosses a portion of the forest, 78 miles of the total 2,600 miles of the entire trail. It is estimated that 10 to 13 million people visit the forest each year. "[194]

Giant Sequoia National Monument

"The Giant Sequoia National Monument was created in 2000 by President Clinton in an effort to preserve 34 groves of ancient sequoias located in the Sequoia National Forest. The Monument includes a total of 327,769 acres of federal land, and provides various recreational opportunities, including camping, picnicking, fishing, and whitewater rafting. According to the Giant Sequoia National Monument Management Plan EIS, the Monument includes a total of 21 family campgrounds with 502 campsites and seven group campgrounds. In addition, there are approximately 160 miles of system trails, including 12 miles of the Summit National Recreation Trail."[195]

Sequoia and Kings Canyon National Parks (SEKI)

"The U.S. Congress created the Kings Canyon National Park in 1940 and Sequoia National Park in 1890. Because they share many miles of common boundaries, they are managed as one park. The extreme large elevation ranges in the parks (from 1,500 to 14,491 feet above sea level), provide for a wide range of vegetative and wildlife habitats. This is witnessed from exploring Mt. Whitney, which rises to an elevation of 14,491 feet, and is the tallest mountain in the contiguous United States. During the summer months, park rangers lead walks through the parks, and tours of Crystal and Boyden Caves. During the winter, visitors explore the higher elevations of the parks via cross country skis or snowshoes, or hike the trails in the foothills. The SEKI also contains visitor lodges, the majority of which are open year round. According to the National Parks Conservation Association, a combined total of approximately 1.5 million people visit the two parks on an annual basis."[196]

State

Colonel Allensworth State Park

[192] Ibid. 4-7
[193] Op. Cit. 4-8.
[194] Op. Cit. 4-9.
[195] Op. Cit.
[196] Op. Cit.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

"The only State Park in Tulare County is Colonel Allensworth State Historic Park discussed in Section 9.3 [of the General Plan Background Report]. The park contains a museum and a visitor center addressing the town's history, as well as camping facilities. Allensworth is the only California town to be founded, financed and governed by African Americans. The small farming community was founded in 1908 by Colonel Allen Allensworth and a group of others dedicated to improving the economic and social status of African Americans. Uncontrollable circumstances, including a drop in the area's water table, resulted in the town's demise. With continuing restoration and special events, the town is coming back to life as a state historic park. The park's visitor center features a film about the site. A yearly rededication ceremony reaffirms the vision of its pioneers."[197] Colonel Allensworth State Historic Park is located in the unincorporated community of Allensworth in southwestern Tulare County, approximately 33 miles southwest of the Project site.

Mountain Home State Forest

"The Mountain Home State Forest is a State Forest managed by the California Department of Forestry and Fire Protection (CDF). The Forest consists of 4,807 acres of parkland containing a number of Giant Sequoias, and is located just east of Porterville. The Forest is a Demonstration Forest, which is considered timberland that is managed for forestry education, research, and recreation. Fishing ponds, hiking trails, and campsites are some of the amenities that can be found in the Forest."[198]

Other Recreational Facilities

Other recreational resources available in Tulare County include portions of the Pacific Crest Trail, South Sierra Wilderness Area, Dome Land Wilderness Area, Golden Trout Wilderness Area, International Agri-Center, and the Tulare County Fairgrounds.[199]

In addition, there are several nature preserves open to the public which are owned and operated by non-profit organizations, including the Kaweah Oaks Preserve and Dry Creek- Homer Ranch preserves, both owned and operated by Sequoia Riverlands Trust.[200] Incorporated cities in the County also have a number of recreational facilities including neighborhood parks, play lots, pocket parks and other recreation facilities.[201]

Local

Parks

As mentioned earlier, the nearest County owned- and operated- park is Cutler Park located approximately two miles north of the proposed Project site.

Regulatory Setting

Federal

None that apply to this Project.

State

None that apply to this Project.

Local

None that apply to this Project.

[197] Op. Cit. 4-3.
[198] Op. Cit. 4-7.
[199] Tulare County General Plan 2030 Update Recirculated DEIR, February 2010. Page 3.9-32
[200] Ibid. 4-1.
[201] Op Cit. 3.9-29.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

a) No Impact: As discussed in Item 15 e), the Project will not increase the demand for recreational facilities, nor will it put a strain on the existing recreational facilities. The nearest park is Cutler Park (approximately two miles north). As such, the Project would not 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. Therefore, there will be no impact to this resource.

b) No Impact: The Project does not include recreational facilities. Since there is no population growth associated with the Project, there will be no need to construct or expand any recreational facilities as there would be no adverse physical effect on the environment; therefore, there would be impact to this resource.

Cumulative Impact Analysis: **No Impact -** The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, the Tulare County 2030 General Plan EIR, and the Sequoia Drive-In Business Park EIR.

As noted earlier, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The original 46-acre site and the proposed Project site are east of the City of Visalia. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage, a lot line adjustment to include the proposed Project (Phase 2) with Phase 1 of a Derrel's Mini-/RV-Storage located within the original project, and a change of zone to PD-C-3-SC from its existing AE-20 zone.

Based on the nature of the project (that is, mini- and RV-Storage), the proposed Project would not 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. The proposed Project would not result in population growth associated with the Project, as such, there will be no need to construct or expand any recreational facilities as there would be no adverse physical effect on the environment. Therefore, there would be no impact to the Recreation resource.

17.	TRANSPORTATION					
	Would the project:					
	a)	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	☐	☐	☐	☒
	b)	Conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (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)	☐	☐	☐	☒
	d)	Result in inadequate emergency access?	☐	☐	☒	☐

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Transportation Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

As noted earlier, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The original 46-acre site and the proposed Project site are east of the City of Visalia. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage, a lot line adjustment to include the proposed Project (Phase 2) with Phase 1 of a Derrel's Mini-/RV-Storage located within the original project, and a change of zone to PD-C-3-SC from its existing AE-20 zone.

"Tulare County has two major regional highways, State Highway [Route] 99 and 198. State Highway [Route] 99 connects Tulare County to Fresno and Sacramento to the north and Bakersfield to the south. State Highway 198 connects from U.S. Highway 101 on the west and continues eastward to Tulare County, passing through the City of Visalia and into Sequoia National Park. The highway system in the County also includes State highways, County-maintained roads, and local streets within each of the eight cities."[202]

"Tulare County's transportation system is composed of several State Routes, including three freeways, multiple highways, as well as numerous county and city routes. The county's public transit system also includes two common carriers (Greyhound and Orange Belt Stages), the AMTRAK Service Link, other local agency transit and Para transit services, general aviation, limited passenger air service and freight rail service

Travel within Tulare County is a function of the size and spatial distribution of its population, economic activity, and the relationship to other major activity centers within the Central Valley (such as Fresno and Bakersfield) as well as more distant urban centers such as Los Angeles, Sacramento, and the Bay Area. In addition, there is considerable travel between the northwest portions of Tulare County and southern Fresno County and travel to/from Kings County to the west. Due to the interrelationship between urban and rural activities (employment, housing, services, etc.) and the low average density/ intensity of land uses, the private automobile is the dominant mode of travel for residents in Tulare County."[203]

As noted earlier, the proposed Project is essentially an addition of 20 acres to the previously approved Sequoia Drive-In Business Park project (original project). The original 46-acre site and the proposed Project site are east of the City of Visalia, generally southwest of SR 198 and Road 156. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The proposed Project is a 20-acre addition is to accommodate Phase 2 of Derrel's Mini Storage, a lot line adjustment to include the proposed Project (Phase 2) with Phase 1 of a Derrel's Mini-/RV-Storage located within the original project, and a change of zone to PD-C-3-SC from its existing AE-20 zone.

Area Roadways

SR 198 is north of both the original and proposed Project site. SR 198 provides a connection to Visalia on the west, Three Rivers and Sequoia-Kings Canyon National Parks to the east, and SR 99 (to the west) for travelling north/south. The proposed Project will include access/egress via Road 296/Noble Avenue on the north and emergency only access from Road 156.

Airport

There are seven public use airports in Tulare County. These include six publicly owned and operated facilities (Porterville Municipal, Sequoia Field, Tulare Municipal [Mefford Field], Visalia Municipal, Woodlake, Exeter Airport, and Eckert Field." [204] Exeter Airport is the nearest public airport and is located approximately 6.5 miles southeast of the Project site.

Design for Emergency Access

[202] Tulare County General Plan 2030 Update. Page 13-2. Accessed May 2022 at: http://generalplan.co.tulare.ca.us/index.asp.

[203] Tulare County General Plan 2030 Update Background Report. Page 5-4.

[204] Tulare County Comprehensive Airport Land Use Plan. Pages 1-1 and 1-3 Accessed July 2022 at: https://tularecounty.ca.gov/rma/rma-documents/planning-documents/tulare-county-comprehensive-airport-land-use-plan/

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

According to § 21060.3 and § 15359 of the CEQA Guidelines, an "Emergency" means a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. "Emergency" includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage.

Alternative Transportation

"Transit planning in Tulare County is done at the county and local level. The Tulare County Association of Governments (TCAG) is the County's designated Metropolitan Planning Organization (MPO) and also serves as the Tulare County Council of Governments, Transportation Authority, and Regional Transportation Planning Agency. TCAG's nine member agencies include eight incorporated cities (Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia, and Woodlake) and Tulare County."[205] Fixed routes transit services operating in Tulare County are provided by Dinuba Area Regional Transit (DART), Porterville Transit (COLT), Tulare Intermodal Express (TIME), Tulare County Area Transit (TCaT), Visalia Transit, and Visalia-Fresno intercity service (V-Line).[206]

Regulatory Setting

Federal

Several federal regulations govern transportation issues. They include: Title 49, CFR, Sections 171-177 (49 CFR 171-177) which governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles; 49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations which address safety considerations for the transport of goods, materials, and substances over public highways; and 49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, which directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.

State

CEQA Guidelines Section 15064.3, Subdivision (b): Criteria for Analyzing Transportation Impacts

(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be considered to have a less than significant transportation impact.

(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, a lead agency may tier from that analysis as provided in Section 15152.

(3) Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

(4) Methodology. A lead agency has discretion to choose the most appropriate methodology 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

[205] Tulare County Association of Governments (TCAG). Tulare County Long Range Transit Plan. Page 2-2. Accessed July 2022 at: https://tularecog.org/tcag/planning/transit-planning/transit-plans/transit-development-plans-short-and-long-range-transit-plans/tulare-county-regional-long-range-transit-plan/

[206] Ibid. 30-32.

judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions 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.

Caltrans: Transportation Concept Reports

Each District of the State of California Transportation Department (Caltrans) prepares a Transportation Concept Report (TCP) for every state highway or portion thereof in its jurisdiction. The TCR usually represents the first step in Caltrans' long-range corridor planning process. The purpose of the TCR is to determine how a highway will be developed and managed so that it delivers the targeted LOS and quality of operations that are feasible to attain over a 20-year period, otherwise known as the "route concept" or beyond 20 years, for what is known as the "ultimate concept".

Caltrans has prepared a number concept reports for State Routes, Interstate Routes, and U.S. Routes. Tulare County is located in Caltrans District 6. According to the Transportation Concept Report (June 2016) for State Route 198, there is one potential Concept Project in the proposed Project area as follows:

Segment 17 located 0.1 mile west of Packwood Creek to Road 164 (Farmersville Boulevard). The 20-25 Year System Operations and Management Concept for this segment is described as follows: "Construct shoulders and upgrade/install guard rails, pavement rehabilitation, repair bridge girders at Rd 164 OC, vehicle detection system."[207] These improvements will be located on and/or adjacent to SR 198 ROW and will not be impacted from the proposed Project (due to distance from SR 198 and the Project boundaries.

Caltrans Guide for the Preparation of Traffic Impact Studies

The California Department of Transportation (Caltrans) has developed this "Guide for the Preparation of Traffic Impact Studies" to provide a starting point and a consistent basis in which Caltrans evaluates traffic impacts to State highway facilities. The applicability of this guide for local streets and roads (non-State highways) is at the discretion of the effected jurisdiction. Caltrans Guide for the Preparation of Traffic Impact Studies establishes the following criterion as a starting point in determining when a TIS is needed:

1. Generates over 100 peak hour trips assigned to a State highway facility
2. Generates 50 to 100 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS "C" or "D").
3. Generates 1 to 49 peak hour trips assigned to a State highway facility – the following are examples that may require a full TIS or some lesser analysis
   a. Affected State highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS "E" or "F").
   b. The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).
   c. Change in local circulation networks that impact a State highway facility (i.e., direct access to State highway facility, a non-standard highway geometric design, etc.).[208]

Local Policy and Regulations

"Transportation Control Measures (TCM) are designed to reduce vehicle miles traveled, vehicle idling, and/or traffic congestion in order to reduce vehicle emissions. Currently, Tulare County is a nonattainment region under the Federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). Both of these acts require implementation of TCMs. These TCMs for Tulare County are as follows:

- Rideshare Programs;
- Park and Ride Lots;
- Alternate Work Schedules;

[207] Caltrans Transportation Concept Report – SR 198 (June 2016). Page 6.

[208] Caltrans. Guide for the Preparation of Traffic Impact Studies. A. Trip Generation Thresholds. December 2002. Page 2. Accessed July 2022 at: https://www.contracosta.ca.gov/DocumentCenter/View/34121/Caltrans2002-TIS-Guidelines-PDF

- Bicycle Facilities;
- Public Transit;
- Traffic Flow Improvement; and
- Passenger Rail and Support Facilities."[209]

Tulare County Association of Governments (TCAG)

"… [W]ith the passage of Assembly Bill (AB) 69 State law has required the preparation of Regional Transportation Plans (RTPs) to address transportation issues and assist local and state decision makers in shaping California's transportation infrastructure."[210] The Tulare County Association of Government has prepared the 2014 Regional Transportation Plan. Specific policies that apply to the Proposed Project are listed as follows:

System Performance - Objective: Develop an efficient regional road and circulation system that provides maximum achievable mobility and accessibility for vehicles, bicycles, pedestrians, and public transportation.

Policy 1 – Maintain a Level of Service C or better on rural roads and Level of Service D or better on urban roads.

Air Quality and Greenhouse Gases - Objective: Encourage coordinated development to achieve an improved jobs-housing balance in the region.

Policy 1 – Encourage mixed-use developments in urbanized areas and existing small communities, both incorporated and unincorporated.

Tulare County General Plan 2030 Update

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: *LU-7.4 Streetscape Continuity* – wherein the County shall ensure that streetscape elements (e.g., street signs, trees, and furniture) maintain visual continuity and follow a common image for each community; *TC-1.13 Land Dedication for Roadways and Other Travel Modes* - As required by the adopted County Improvement Standards, the County shall require, where warranted, an irrevocable offer of dedication to the right-of-way for roadways and other travel modes, as part of the development review process; *TC-1.14 Roadway Facilities* - As part of the development review process, new development shall be conditioned to fund, through impact fees, tonnage fees, and/or other mechanism, the construction and maintenance of roadway facilities impacted by the project. As projects or locations warrant, construction or payment of pro-rata fees for planned road facilities may also be required as a condition of approval; *TC-1.15 Traffic Impact Study* - The County shall require an analysis of traffic impacts for land development projects that may generate increased traffic on County roads. Typically, applicants of projects generating over 100 peak hour trips per day or where LOS "D" or worse occurs, will be required to prepare and submit this study. The traffic impact study will include impacts from all vehicles, including truck traffic; *TC-1.16 County Level Of Service (LOS) Standards* wherein the County shall strive to develop and manage its roadway system (both segments and intersections) to meet a LOS of "D" or better in accordance with the LOS definitions established by the Highway Capacity Manual; and *HS-1.9 Emergency Access* wherein the County shall require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation.

a) Less Than Significant Impact: The proposed Project site would be accessed/egress from Avenue 296/Noble Avenue and includes the development of up to 318,755 square feet of mini-storage structures. Vehicle trip generation for the RV storage component of the proposed Project is not quantifiable as RV access/egress to the site would be intermittent at best and is typically highest during weekends, holidays, and can be seasonal (summer time) in nature; as such, quantifying RV movements would be speculative.

Trip generation volumes for the proposed Project were calculated using a methodology contained in a previously approved EIR (SCH No. 2104121067, approved by the Tulare County Board of Supervisors on June 16, 2015, via Resolution No. 2015-0419). The methodology was developed by qualified experts Peters Engineering Group as contained in the "Traffic Impact Study Proposed Mini Storage Facility Northwest of the Intersection of Avenue 280 and the Roeben Road Alignment Tulare County,

[209] Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report. Page 3.2-2.

[210] TCAG Transportation Plan. Page 1-11.

California" (included in Appendix "D" of the aforementioned EIR). The trip generation rates shown in **Table 17-1** were used to calculate anticipated traffic volumes for the proposed Project.

Table 17-1
Local Trip Generation Rates – Mini Storage Facilities

Independent Variable	A.M. Peak Hour of Adjacent Street	P.M. Peak Hour of Adjacent Street	Weekday
Net Rentable Area	0.12 trips per 1,000 square feet	0.14 trips per 1,000 square feet	1.43 trips per 1,000 square feet

Source: Peters Engineering Group. "Traffic Impact Study Proposed Mini Storage Facility Northwest of the Intersection of Avenue 280 and the Roeben Road Alignment Tulare County, California" Page 4.

The results of the trip generation calculations show that the Project would generate approximately 456 daily trips, 19 during the AM peak hour and 23 trips during the PM peak hour of a typical weekday. Adding the 456 daily trips to the existing traffic volume on SR 198 would increase the average daily traffic volume by less than 1.0% which would not significantly affect traffic flow on the roadway.

Table 17-2
Weekday Project Trip Generation

Land Use	Units	A.M. Peak Hour Traffic Volumes			P.M. Peak Hour Traffic Volumes			Weekday Traffic Volumes	
		Rate Split	Enter	Exit	Rate Split	Enter	Exit	Rate	Total
Mini Storage	318,775 sq. ft	0.12 50/50	19	19	0.14 50/50	23	23	1.43	456

The proposed Project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system nor would it conflict with an applicable congestion management program. The development of the industrial park would not result in an increase in population and would generate minimal amounts of traffic; therefore, new or modified intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit would not be required. Therefore, the proposed Project would result in a less than significant impact to this Checklist Item.

b) Less Than Significant Impact: In 2020 the County of Tulare prepared the County of Tulare Draft SB 743 Guidelines for the implementation of Senate Bill 743 in the unincorporated area of Tulare County. SB 743 was passed by the legislature and signed into law in the fall of 2013. This legislation led to a change in the way that transportation impacts will be measured under the California Environmental Quality Act (CEQA). Starting on July 1, 2020, automobile delay and level of service (LOS) may no longer be used as the performance measure to determine the transportation impacts of land development projects under CEQA and the new performance measure will be vehicle miles traveled (VMT).

Trip Generation

Trip generation volumes were calculated using the methodology noted earlier. The ADT, AM, and PM Peak hour rates were used to estimate traffic volumes generated by the proposed Project. The results of the trip generation calculations show that the Project would generate approximately 456 daily trips, 23 during the PM peak hour and 19 trips during the AM peak hour of a typical weekday.

Vehicle Miles Traveled (VMT) Evaluation

Guidelines for assessing project VMT as part of a transportation impact analysis under CEQA are contained in the "County of Tulare SB 743 Guidelines," dated June 8, 2020. The advisory contains recommendations regarding VMT assessment, significance thresholds and mitigation measures. Under CEQA, lead agencies have the authority to establish their own VMT

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

significance thresholds and analysis methodologies or rely on thresholds and methodologies recommended by other agencies, provided such guidelines are supported by substantial evidence.

The Tulare County advisory provides "screening thresholds" for identifying whether a land use project should be expected to result in a less than significant transportation impact under CEQA. Projects meeting one or more of these criteria would not be required to undergo a detailed VMT analysis. One of the screening thresholds is described as "Small Projects." Small projects are presumed to have a less than significant transportation impact. The guidelines define a small project to be a project that generated less than 500 trips per day.

The proposed industrial building project would fall within the small project category since the project is anticipated to generate 456 daily trips, which is less than the 500-trip threshold (see **Table 17-2**). Therefore, the project would "screen out" and would result in a less than significant impact to this Checklist Item.

c) ***No Impact*:** The proposed Project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses, (e.g., farm equipment). The internal circulation pattern for the proposed Project is typical for a min-/RV-storage facility as it has slow speeds (10 mph or less), narrow aisles, and adequate turning geometrics to accommodate vehicles using the facility to import/export stored items and RVs.

Although there will be an increase in the volume of vehicles along Avenue 296/Noble Avenue to access/egress the site, the Project will not present a substantial increase in hazards. Therefore, a less than significant Project-specific impact related to this Checklist Item will occur.

d) ***No Impact*:** In the event of a disaster, certain facilities are critical to serve as evacuation centers, provide vital services, and provide for emergency response. Existing critical facilities in Tulare County include hospitals, county dispatch facilities, electrical, gas, and telecommunication facilities, water storage and treatment systems, wastewater treatment systems, schools, and other government facilities. This plan also addresses evacuation routes, which include all freeways, highways, and arterials that are located outside of the 100-year flood plain."

The proposed Project does not involve a change to any emergency response plan. Multiple access/egress points to and from the Project area will be located along the northern and eastern boundaries. Therefore, emergency access to the site (using the primary access/egress point from Avenue 296/Noble Avenue or emergency only access from Road 156) will be adequate. As such, the Project would not result in inadequate emergency access; therefore, there is no impact.

Cumulative Impact Analysis: ***Less Than Significant*** - The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan Background Report, Tulare County 2030 General Plan EIR, and Sequoia Drive-In Business Park EIR. As there will be less than significant Project-specific impacts, there will be less than significant cumulative impacts.

18.	**TRIBAL CULTURAL RESOURCES**					
	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:					
	a)	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)?	☐	☒	☐	☐
	b)	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in	☐	☒	☐	☐

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
		subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?				

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Tribal Consultation Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary, and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

"Tulare County lies within a culturally rich province of the San Joaquin Valley. Studies of the prehistory of the area show inhabitants of the San Joaquin Valley maintained fairly dense populations situated along the banks of major waterways, wetlands, and streams. Tulare County was inhabited by aboriginal California Native American groups consisting of the Southern Valley Yokuts, Foothill Yokuts, Monache, and Tubatulabal. Of the main groups inhabiting the Tulare County area, the Southern Valley Yokuts occupied the largest territory."[211]

As noted previously, the Project site is located on the San Joaquin Valley floor in an unincorporated area. The original 46-acre Sequoia Drive-In Business Park (original site) and the proposed Project site are east of the City of Visalia, just south of the State Route 198 corridor. The original site is currently fallow; however, the site has historically been wheat farmed for weed management with the southern portion of the site being the location of a former drive-in movie theater. Approximately half of the original Project site is bordered by urban development while the remaining half is bordered by land in active agricultural uses. The Caltrans Visalia Maintenance building is to the west while various commercial buildings are on the northern side of SR 198, north of the original Project site. A cluster of approximately 12 residences is immediately east of the site and beyond that is an RV and mini storage facility. The Little Tulare Irrigation Ditch (LTID) bisects the center of the site while a wireless communications tower is located on the southern portion of the site. Surrounding agricultural lands consist of stone fruit orchards, row crops and other farmed lands. The proposed 20-acres of additional territory to the original Project site would accommodate Phase 2 of Derrel's Mini-Storage. The proposed Project site is also located approximately one quarter mile east of the City of Visalia. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage, resident manager housing, a water feature fronting Avenue 296, access from Avenue 296, an on-site storm water retention basin, and an emergency fire access point from Road 156.

In 2020, the Sequoia Drive-In Business Park Draft Environmental Impact Report (DEIR) was prepared to evaluate environmental effects of the 46-acre commercial development within the original project area. Information provided by the Southern San Valley Historical Resources Information Center, at California State University, Bakersfield (Center) and the California Native American Heritage Commission Sacred Lands File search (included in Attachment "C" of this document) were used as the basis for determining that this Project would result in a less than significant impact with mitigation incorporated for the original project site. The proposed Project is a 20-acre addition to the previously approved Sequoia Drive-In Business Park (original project) to accommodate Phase 2 of Derrel's Mini Storage. The original project site (which will include Phase 1 of Derrel's Mini Storage) is undeveloped land, bordered by active orchards, the State Route 198 corridor, service commercial, and a Caltrans maintenance yard. The Tulare Irrigation Ditch bisects the original Project site. The proposed Project will be located directly south and adjacent to the original site and is vacant, non-vegetated, fallow land. As such, the discussion regarding Environmental Setting, CEQA requirements, Regulatory Setting in Chapter 3.5 Cultural Resources contained in the Sequoia Drive-In Business Park DEIR, are incorporated herein in their entirety and included in Attachment "C" of this MND. Where necessary, and if available, specific facts, data, information, etc. are included in this discussion.

Cultural Background

"Tulare County lies within a culturally rich province of the San Joaquin Valley. Studies of the prehistory of the area show inhabitants

[211] Tulare County General Plan 2030 Update. August 2012. Page 8-5.

of the San Joaquin Valley maintained fairly dense populations situated along the banks of major waterways, wetlands, and streams. Tulare County was inhabited by aboriginal California Native American groups consisting of the Southern Valley Yokuts, Foothill Yokuts, Monache, and Tubatulabal. Of the main groups inhabiting the Tulare County area, the Southern Valley Yokuts occupied the largest territory."[212]

"California's coast was initially explored by Spanish (and a few Russian) military expeditions during the late 1500s. However, European settlement did not occur until the arrival into southern California of land-based expeditions originating from Spanish Mexico starting in the 1760s. Early settlement in the Tulare County area focused on ranching. In 1872, the Southern Pacific Railroad entered Tulare County, connecting the San Joaquin Valley with markets in the north and east. About the same time, valley settlers constructed a series of water conveyance systems (canals, dams, and ditches) across the valley. With ample water supplies and the assurance of rail transport for commodities such as grain, row crops, and fruit, a number of farming colonies soon appeared throughout the region."[213]

"The colonies grew to become cities such as Tulare, Visalia, Porterville, and Hanford. Visalia, the County seat, became the service, processing, and distribution center for the growing number of farms, dairies, and cattle ranches. By 1900, Tulare County boasted a population of about 18,000. New transportation links such as SR 99 (completed during the 1950s), affordable housing, light industry, and agricultural commerce brought steady growth to the valley. The California Department of Finance estimated the 2007 Tulare County population to be 430,167."[214]

Tulare County's Documented Cultural Resources

Tulare County's known and recorded cultural resources were identified through historical records, such as those found in the National Register of Historic Places, the Historic American Building Survey/Historic American Engineering Record (HABS/HAER), the California Register of Historic Resources, California Historical Landmarks, and the Tulare County Historical Society list of historic resources. These resources are available to the general public. They have been summarized in the Tulare County General Plan Update 2030 Background Report (2010).[215]

The California Historical Resources Information Center (CHRIS), Southern San Joaquin Valley Historical Resources Information Center (SSJVIC) located at California State University, Bakersfield (Center) conducted a search for the original Sequoia Drive-In Business Park project as requested by Tulare County RMA. In summary, the Center's search response letter indicated that one recorded resource (P-54-004884, the Tulare Irrigation Canal) is located within the original Project site and six recorded resources are within the one-half mile radius, including a prehistoric era mound, a historic period ranch, barn, single-family residence, canal, and drive-in theater. The Center also recommended that the NAHC be contacted regarding cultural resources that may not be included in the CHRIS inventory (see later dated September 27, 2016, in Attachment "C"). Tulare County RMA also requested a Sacred Lands File (SLF) search from the California Native American Heritage Commission (NAHC). The NAHC provided a letter dated September 8, 2016 showing "negative" results which indicates there are no documented Sacred Lands within the Project area (see letter dated September 8, 2016; also in Attachment "C"). Prior to release of this MND, updated CHRIS, NAHC, and SLF searches for the proposed Project have not been received from the respective agencies whom generate the search results.

Regulatory Setting

Federal

<u>The National Historic Preservation Act</u>

With passage of the National Historic Preservation Act (NHPA) in 1966, Congress made the federal government a full partner and a leader in historic preservation. While Congress recognized that national goals for historic preservation could best be achieved by

[212] Tulare County 2030 General Plan. Page 8-5.
[213] Ibid.
[214] Op. Cit. 8-6.
[215] Tulare County General Plan Background Report. Pages 9-57 to 9-59.

supporting the drive, enthusiasm, and wishes of local citizens and communities, it understood that the federal government must set an example through enlightened policies and practices.

In the words of the NHPA, the federal government's role is to "provide leadership" for preservation, "contribute to" and "give maximum encouragement" to preservation, and "foster conditions under which our modern society and our prehistoric and historic resources can exist in productive harmony." Indeed, an underlying motivation for passage of the NHPA was to transform the federal government from an agent of indifference, frequently responsible for needless loss of historic resources, to a facilitator, an agent of thoughtful change, and a responsible steward for future generations.

Section 106 of the NHPA requires that federal agencies take into account the effects of their actions on historic properties and give the ACHP an opportunity to comment on any effects. The ACHP has issued regulations that guide how agencies should fulfill this responsibility.[216]

State

California State Office of Historic Preservation (OHP)

"The California State Office of Historic Preservation (OHP) is responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration and protection of California's irreplaceable archaeological and historical resources under the direction of the State Historic Preservation Officer (SHPO), a gubernatorial appointee, and the State Historical Resources Commission."[217]

"OHP's responsibilities include identifying, evaluating, and registering historic properties; ensuring compliance with federal and state regulatory obligations; encouraging the adoption of economic incentives programs designed to benefit property owners; encouraging economic revitalization by promoting a historic preservation ethic through preservation education and public awareness and, most significantly, by demonstrating leadership and stewardship for historic preservation in California."[218]

A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important to our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.[219]

Native American Heritage Commission

"The Native American Heritage Commission (NAHC), created in statute in 1976, is a nine-member body, appointed by the Governor, to identify and catalog cultural resources (i.e., places of special religious or social significance to Native Americans, and known graves and cemeteries of Native Americans on private lands) in California. The Commission is charged with the duty of preserving and ensuring accessibility of sacred sites and burials, the disposition of Native American human remains and burial items, maintain an inventory of Native American sacred sites located on public lands, and review current administrative and statutory protections related to these sacred sites."[220]

Tribal Consultation Requirements: AB 52 (Gatto, 2014)

[216] Advisory Council on Historic Preservation. Accessed July 2022 at: https://www.achp.gov/preservation-legislation.

[217] State of California. Office of Historic Preservation. Mission and Responsibilities. Accessed July 2022 at: http://ohp.parks.ca.gov/?page_id=1066

[218] Ibid.

[219] State of California. Office of Historic Preservation. California Register of Historic Places. Accessed July 2022 at: http://www.ohp.parks.ca.gov/?page_id=21238

[220] Native American Heritage Commission (NAHC). Welcome. Accessed July 2022 at: http://nahc.ca.gov/

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

"The Public Resources Code now states that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." Pub. Res. Code § 21084.2. To determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project. Pub. Res. Code § 21080.3.1. If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Pub. Res. Code § 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources.".[221]

CEQA Guidelines: Archaeological Resources

Section 15064.5(c) of CEQA Guidelines provides specific guidance on the treatment of archaeological resources as follows:
c) "CEQA applies to archaeological sites.

(1) When a Project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subdivision (a).
(2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.
(3) If an archaeological site does not meet the criteria defined in subdivision (a), but does meet the definition of a unique archeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c–f) do not apply to surveys and site evaluation activities intended to determine whether the Project location contains unique archaeological resources.
(4) If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the Project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process."[222]

CEQA Guidelines: Human Remains

Public Resources Code Sections 5097.94 and 5097.98 provide guidance on the disposition of Native American burials (human remains), and fall within the jurisdiction of the Native American Heritage Commission:[223]

(d) When an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the Project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any Items associated with Native American burials with the appropriate Native Americans as identified by the Native American Heritage Commission. Action implementing such an agreement is exempt from:
    (1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).
    (2) The requirements of CEQA and the Coastal Act.
(e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:
    (1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

[221] State of California.Office of Planning and Research. Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA (June 2017). Page 4. Accessed July 2022 at: https://www.opr.ca.gov/docs/20200224-AB_52_Technical_Advisory_Feb_2020.pdf

[222] California Natural Resources Agency. 15064.5. Determining the Significance of Impacts to Archeological and Historical Resources, Section 15064.5(c). PDF Pages 185-186. Accessed July 2022 at: Statute and Guidelines - California Association of Environmental Professionals (califaep.org)

[223] NAHC. Accessed July 2022 at: https://nahc.ca.gov/codes/california-public-resources-code-5097-9/

(A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

(B) If the coroner determines the remains to be Native American:

1. The coroner shall contact the Native American Heritage Commission within 24 hours.
2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or

(2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

(A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.

(B) The descendant identified fails to make a recommendation; or

(C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

(f) As part of the objectives, criteria, and procedures required by Section 21082 of the Public Resources Code, a lead agency should make provisions for historical or unique archaeological resources accidentally discovered during construction. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place

Local

Tulare County General Plan 2030 Update

The General Plan has a number of policies that apply to Projects within Tulare County. General Plan policies that relate to the proposed Project are listed as follows:

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: *ERM-6.1 Evaluation of Cultural and Archaeological Resources* wherein the County shall participate in and support efforts to identify its significant cultural and archaeological resources using appropriate State and Federal standards; *ERM-6.2 Protection of Resources with Potential State or Federal Designations* wherein the County shall protect cultural and archaeological sites with demonstrated potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources; *ERM-6.3 Alteration of Sites with Identified Cultural Resources* which states that when planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. Development can be permitted in these areas only after a site specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and Mitigation Measures proposed for any impacts the development may have on the resource; *ERM-6.4 Mitigation* which states that if preservation of cultural resources is not feasible, every effort shall be made to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records; *ERM-6.9 Confidentiality of Archaeological Sites* wherein the County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts; and *ERM-6.10 Grading Cultural Resources Sites* wherein the County shall ensure all grading activities conform to the County's Grading Ordinance and California Code of Regulations, Title 20, § 2501 et. seq.

As noted earlier, the Project consists involves improvements to an existing, non-conforming use, which will include an access road and second entry point on the western edge of the property. The subject site has been operating for over 13 years, and contains structures, mobile homes, storage units, and material stock piles.. The intensive use of the Project site have continually been disturbed to the point that there are no evident surface Tribal cultural resources. However, as discussed below, mitigation measures are included in the unlikely event that Tribal cultural resources are encountered.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

a) and b) Less Than Significant Impact With Mitigation: Although no historical, cultural, or tribal cultural resources were identified by the CHRIS or Sacred Lands Files (SLF) searches for this Project and the original project, and all work will be limited to previously disturbed land, it is possible that subsurface discoveries could occur. Also, to date, no responses have been received from the tribes that were notified in compliance with AB 52 requirements through a list of potentially affected tribes provided by the NAHC. As such, it is not anticipated that Native American tribal cultural resources or remains will be found at any site within the Project area. However, **Mitigation Measures 17-1** and **17-2** are included in the unlikely event that Native American remains or tribal cultural resources are unearthed during any ground disturbance activities. "[224] **Mitigation Measures 17-1** through **17-2** would be implemented to reduce the potential level of impact to this resource as less than significant for resources 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 to a resource consider significant to a California Native American tribe. Therefore, the Project would result in a less than significant impact to this resource.

Cumulative Impact Analysis: ***Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, Tulare County 2030 General Plan EIR, and the Sequoia Drive-In Business Park EIR.

As previously discussed, based on the analysis noted earlier, impacts to Tribal Cultural Resources will be reduced to a level of ***Less Than Significant Project-specific and Cumulative Impacts With Mitigation*** with the implementation of **Mitigation Measures 17-1** and **17-2**.

Mitigation Measure(s): **Mitigation Measures 17-1** and **17-2**

17-1 In the event that historical, archaeological or paleontological resources are discovered during site excavation, the County shall require that grading and construction work on the Project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. In this event, the property owner shall retain a qualified archaeologist/paleontologist to provide recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recover, excavation analysis, and curation of archaeological or paleontological materials. County staff shall consider such recommendations and implement them where they are feasible in light of Project design as previously approved by the County.

17-2 Consistent with Section 7050.5 of the California Health and Safety Code and (CEQA Guidelines) Section 15064.5, if human remains of Native American origin are discovered during Project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken**:**

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
   a. The Tulare County Coroner/Sheriff must be contacted to determine that no investigation of the cause of death is required; and
   b. If the coroner determines the remains to be Native American:
      i. The coroner shall contact the Native American Heritage Commission within 24 hours.
      ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
      iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or

[224] Sequoia Gateway Commerce Park Draft Environmental Impact Report. September 2018. Page ES-20. https://tularecounty.ca.gov/rma/index.cfm/projects/planning-projects/applicant-projects/sequoia-gateway-commerce-park/draft-environmental-impact-report-for-the-sequoia-gateway-commerce-and-business-park/

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
		2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. a. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission. b. The descendant fails to make a recommendation; or c. The landowner or his authorized representative rejects the recommendation of the descendent. Therefore, implementation of **Mitigation Measures 17-1** and **17-2** would result in a less than significant impact to Tribal Cultural Resources.				
19.	**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 effects?	☐	☐	☐	☒
	b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
	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?	☐	☐	☐	☒
	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?	☐	☐	☐	☒
	e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Analysis:

The discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Utility/Service Systems Resources, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

"Tulare County and special districts provide many important services to County residents and businesses in unincorporated communities and hamlets such as water, wastewater, storm drainage, solid waste removal, utilities, communications, fire protection, law enforcement, and a number of other community facilities and services (schools, community centers, etc.)."[225]

"Water districts supply water to communities and hamlets throughout the County. Most communities and some hamlets have wastewater treatment systems; however, several communities including Three Rivers, Plainview, Alpaugh, and Ducor rely on individual septic systems. Storm drainage facilities are generally constructed and maintained in conjunction with transportation improvements or new subdivisions in communities. Solid waste collection in the County is divided into service areas, as determined by the Board of Supervisors, with one license for each area. Southern California Edison provides electric service to the south and central areas of Tulare County while PG&E provides electric service in the north. The [Southern California] Gas Company is the primary provider of natural gas throughout the County."[226]

As noted previously, the Project site is located on the San Joaquin Valley floor in an unincorporated area. The original 46-acre Sequoia Drive-In Business Park (original site) and the proposed 20-acre Project site are east of the City of Visalia, just south of the State Route 198 corridor. The original site is currently fallow; however, the site has historically been wheat farmed for weed management with the southern portion of the site being the location of a former drive-in movie theater. Approximately half of the original Project site is bordered by urban development while the remaining half is bordered by land in active agricultural uses. The Caltrans Visalia Maintenance building is to the west while various commercial buildings are on the northern side of SR 198, north of the original Project site. A cluster of approximately 12 residences is immediately east of the site and beyond that is an RV and mini storage facility. The Little Tulare Irrigation Ditch (LTID) bisects the center of the site while a wireless communications tower is located on the southern portion of the site. Surrounding agricultural lands consist of stone fruit orchards, row crops and other farmed lands. The proposed 20-acres of additional territory to the original Project site would accommodate Phase 2 of Derrel's Mini-Storage, a lot line adjustment to include the proposed Project (Phase 2) with Phase 1 of a Derrel's Mini-/RV-Storage sited within the original project, and a change of zone to PD-C-3-SC from its existing AE-20 zone. The applicant is requesting the Lot Line Adjustment to adjust the boundaries between three existing parcels (APNs: 101-090-014 & -015 and 101-100-009) to coincide with the three (3) phases of the proposed Project. The proposed Project site is located approximately one-quarter mile east of the City of Visalia. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage, resident manager housing, a water feature fronting Avenue 296, access from Avenue 296, an on-site storm water retention basin, and an emergency fire access point from Road 156.

Regulatory Setting

Federal

Resource Conservation and Recovery Act (RCRA)

"The Resource Conservation and Recovery Act (RCRA) is our nation's primary law governing the disposal of solid and hazardous waste. RCRA was signed into law on October 21, 1976 to address the increasing problems the nation faced from our growing volume of municipal and industrial waste. RCRA was an amendment to the Solid Waste Disposal Act of 1965, which was the first statute that specifically focused on improving solid waste disposal methods.

Since 1976, RCRA has been amended and strengthened by Congress including in November 1984 with the passage of the federal Hazardous and Solid Waste Amendments (HSWA). Among other mandates, these amendments to RCRA required phasing out land disposal of hazardous waste, corrective action for releases and waste minimization. Waste minimization refers to the use of source reduction and/or environmentally sound recycling methods prior to treating or disposing of hazardous wastes.

RCRA has been amended on two occasions since HSWA:

1. Federal Facility Compliance Act of 1992 – strengthened enforcement of RCRA at federal facilities.

[225] Tulare County General Plan Update 2030. Page 14-3.

[226] Ibid. 14-3.

2. Land Disposal Program Flexibility Act of 1996 – provided regulatory flexibility for land disposal of certain wastes."[227]

State

California Global Warming Solutions Act of 2006 (AB 32)

With the passage of AB 32, the State Board Air Resources Board was required to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990 to be achieved by 2020. To achieve this requirement, a scoping plan was adopted in 2008 that includes high recycling and zero waste as a way to reduce greenhouse gas emissions from landfills. "As virgin raw materials are replaced with recyclables, a large reduction in energy consumption should be realized. Implementing programs with a systems approach that focus on consumer demand, manufacturing, and movement of products will result in the reduction of greenhouse gas emissions and other co-benefits."[228]

State Water Resources Control Board Water Onsite Wastewater Treatment Systems Policy (OWTS)

"The purpose of this Policy is to allow the continued use of OWTS, while protecting water quality and public health. This Policy recognizes that responsible local agencies can provide the most effective means to manage OWTS on a routine basis. Therefore, as an important element, it is the intent of this policy to efficiently utilize and improve upon where necessary existing local programs through coordination between the State and local agencies. To accomplish this purpose, this Policy establishes a statewide, risk-based, tiered approach for the regulation and management of OWTS installations and replacements and sets the level of performance and protection expected from OWTS. In particular, the Policy requires actions for water bodies specifically identified as part this Policy where OWTS contribute to water quality degradation that adversely affect beneficial uses."[229]

Local

Tulare County General Plan 2030 Update

As the Project will not utilize any new or expanded water, wastewater treatment or storm water drainage, natural gas, or telecommunications facilities, the applicable Tulare County General Plan 2030 Update policies for this resource are limited to the following for this resource item: *PFS-2.3 Well Testing* wherein the County shall require new development that includes the use of water wells to be accompanied by evidence that the site can produce the required volume of water without impacting the ability of existing wells to meet their needs; *PFS-3.2 Adequate Capacity* wherein the County shall require development proposals to ensure the intensity and timing of growth is consistent with the availability of adequate wastewater treatment and disposal capacity; *PFS-4.3 Development Requirements* wherein the County shall encourage project designs that minimize drainage concentrations and impervious coverage, avoid floodplain areas, and where feasible, provide a natural watercourse appearance; PFS-4.4 Stormwater Retention Facilities wherein the County shall require on-site detention/retention facilities and velocity reducers when necessary to maintain existing (pre-development) storm flows and velocities in natural drainage systems. The County shall encourage the multi-purpose design of these facilities to aid in active groundwater recharge; *PFS-4.5 Detention/Retention Basins Design* wherein the County shall require that stormwater detention/retention basins be visually unobtrusive and provide a secondary use, such as recreation, when feasible; *PFS-4.7 NPDES Enforcement* wherein the County shall continue to monitor and enforce provisions to control non-point source water pollution contained in the U.S. Environmental Protection Agency National Pollution Discharge Elimination System (NPDES) program; *PFS-5.3 Solid Waste Reduction* wherein the County shall promote the maximum feasible use of solid waste reduction, recycling, and composting of waste, strive to reduce commercial and industrial waste on an annual basis, and pursue financing mechanisms for solid waste reduction programs; *PFS-5.4 County Usage of Recycled Materials and Products* wherein the County shall encourage all industries and government agencies in the County to use recycled materials and products where economically feasible*;* and *PFS-5.8 Hazardous Waste Disposal Capabilities* wherein the County shall require the proper disposal and recycling of hazardous materials in accordance with the County's Hazardous Waste Management Plan*;*.

[227] United States Environmental Protection Agency. History of the Resource Conservation and Recovery Act (RCRA). Accessed July 2022 at: https://www.epa.gov/rcra/history-resource-conservation-and-recovery-act-rcra

[228] California Air Resources Board Climate Change Scoping Plan. December 2008. Page 62. Accessed July 2022 at: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.

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			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
a) – e) No Impact: As noted earlier, the proposed 20-acres of additional territory to the original Project site would accommodate Phase 2 of Derrel's Mini-Storage, a lot line adjustment to include the proposed Project (Phase 2) with Phase 1 of a Derrel's Mini-/RV-Storage sited within the original project, and a change of zone to PD-C-3-SC from its existing AE-20 zone. The applicant is requesting the Lot Line Adjustment to adjust the boundaries between three existing parcels (APNs: 101-090-014 & -015 and 101-100-009) to coincide with the three (3) phases of the proposed Project. No additional improvements are proposed. The proposed and original projects will both utilize existing, on site wells; will utilize septic systems for wastewater disposal; will include on-site storm water retention/detention basins (in the form of swales); would not 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; and it will comply with federal, state, and local management and reduction statutes and regulations related to solid waste as applicable. As such, there will be no impact to these resources.						
20.	**WILDFIRES**					
	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?	☐	☐	☐	☒
	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?	☐	☐	☐	☒
	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?	☐	☐	☐	☒
	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 discussions regarding Environmental Setting, Regulatory Setting, CEQA requirements, Wildfire Resource, etc.; contained in the Tulare County General Plan 2030 Update, Tulare County Environmental Impact Report, and the Sequoia Drive-In Business Park Environmental Impact Report (SCH No. 2017011027; adopted/certified by the Tulare County Board of Supervisors via Resolution No.2020-0933) are incorporated herein in their entirety. Where necessary and if available, additional site-specific facts, data, information, etc., are included in this discussion.

Analysis:

Environmental Setting

As noted earlier, the add twenty (20) acres of to the previously approved Sequoia Drive-In Business Park (original) project. The Project site would accommodate the second phase of Derrel's Mini-Storage in conjunction with the first phase of Derrel's Mini-Storage on the original site. The proposed Project site is located approximately one-quarter mile east of the City of Visalia. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage and resident manager housing. The proposed use (min–storage/RV storage) and a change of from the AE-20 Zone to PD-C-3-SC zone. There are no forest or timber land present at the proposed Project site or in the proposed Project vicinity.

Regulatory Setting

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

Federal

None that apply to the Project.

State

None that apply to the Project.

Local

The Project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: As such, no state responsibility areas or lands classified as high fire hazard severity zones policies contained in the Tulare County General Plan 2030 Update policies would apply to this Project.

a) – b) No Impact*:* According to the State Responsibility Area (SRA) Viewer, the proposed Project site is not located in the SRA[230]The Project does not impair the implementation of any adopted emergency response plan or evacuation plan. As noted earlier, and in summary, the Project would add twenty (20) acres of to the previously approved Sequoia Drive-In Business Park (original) project to accommodate the second phase of Derrel's Mini-Storage in conjunction with the first phase of Derrel's Mini-Storage on the original site. The proposed Project site is located approximately one-quarter mile east of the City of Visalia. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage and resident manager housing. The proposed use (min–storage/RV storage) will require a change from the AE-20 Zone to the PD-C-3-SC Zone. As such, the Project does not impair the implementation of any adopted emergency response plan or evacuation plan. The Project will not exacerbate wildfire risks or expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, due to slope, prevailing winds, and other factors. Therefore, there is no impact.

c) Less than Significant Impact: The Project does not 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. The Project will include the construction of a new access road, as listed as a condition of approval from the Tulare County Fire Department. Although the Project will require the installation of a road that may exacerbate fire risk, the addition is minimal, and designed to enhance the safety of the Project property in the case of a fire. The applicant shall also protect tanks from vehicle impact by barriers complying with 2010 E.D. California Fire Code Section 312 or as determined by Fire Inspector site visit. There would be no impact to this resource.

d) No Impact*:* The Project will not 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. Therefore, the proposed Project will result in no impact related to this resource.

[230] California Department of Forestry and Fire Protection (CalFire). Fire Prevention Fee. Accessed July 2022 at: https://www.cdtfa.ca.gov/taxes-and-fees/fire-prev-fee.htm.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
21.	**MANDATORY FINDINGS OF SIGNIFICANCE**					
	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 a rare or endangered plant or animal species, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
	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)?	☐	☐	☒	☐
	c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Analysis:

The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the Project will have a less than significant effect on the local environment. As noted earlier, the Project add twenty (20) acres of to the previously approved Sequoia Drive-In Business Park (original) project. The Project site would accommodate the second phase of Derrel's Mini-Storage in conjunction with the first phase of Derrel's Mini-Storage on the original site. The proposed Project site is located approximately one-quarter mile east of the City of Visalia. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage and resident manager housing. The proposed use (min–storage/RV storage) will require a change of zoning from the AE-20 Zone to PD-C-3-SC zone.

a) Less Than Significant Impact With Mitigation: The potential for impacts to cultural resources (including tribal cultural resources) from the construction-related activities will be less than significant with the incorporation of the Mitigation Measures **5-1** through **5**-3 as contained in Item 5 Cultural Resources and Mitigation Measures **18-1** and **18-2** as contained in Item 18 Tribal Cultural Resources. The analysis contained in Item 4 Biological Resources concludes that this resource has the potential to be impacted and has included Mitigation Measures **4-1** through **4-19**. Mitigation Measures **5-1** through **5-3** (as contained in Item 5 Cultural Resources), would also apply to Item 7 Geology and Soils, specifically; regarding paleontological resources. Accordingly, the proposed Project will involve no potential for significant impacts due to degradation of the quality of the environment, substantial reductions in the habitat of a fish or wildlife species, causing a fish or wildlife population to drop below self-sustaining levels, threatening to eliminate a plant or animal community, reduction in the number or restriction of the range of a rare or endangered plant or animal or elimination of important examples of the major periods of California history or prehistory. As such, the impact will be less than significant with mitigation for biological resources and less than significant with mitigation for cultural, paleontological, and tribal cultural resources.

b) Less Than Significant Impact: Projects considered in a cumulative analysis include those that would be constructed concurrently with the Project and those that would be in operation at the same time as the Project. Based on the analysis provided earlier for each resource Item, the proposed Project would result in less than significant environmental impacts. Construction-

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT

related impacts (for example, noise) would be temporary, short-term, and intermittent and will cease when construction-related activities a completed. There would be no other impacts related to construction or operation that would substantially to any other concurrent construction programs that may be occurring around the Project area.

The majority of the potential impacts resulting from the Project will be short term, temporary, and intermittent occurring during Project construction-related activities; and with negligible impacts resulting from Project operation as discussed in the earlier environmental analysis. Because construction-related impacts are of a short duration, temporary, intermittent, and localized, they would have to occur concurrently and in proximity of other projects in order to have a cumulative impact. Construction-related impacts (which are primarily associated with air quality, biological resources, noise, and traffic) are not likely to act cumulatively with any other projects in a manner that would result in significant impacts.

Tulare County staff have determined that there are no projects that could have the potential to contribute to cumulative impacts. The Project was determined to have no impacts to Aesthetics, Energy, Land Use and Planning, Mineral Resources, Population and Housing, Recreation and Wildfire. Therefore, the Project will not result in considerable impacts in combination with the other similar construction projects. The following environmental impacts were determined to be less than significant and did not require mitigation: Agricultural Resources, Air Quality, Geology and Soils, Greenhouse Gases, Hazards and Hazardous Materials, Public Services, Transportation, and Utilities and Service Systems. As discussed earlier, the Project will result in less than significant impacts to Biological Resources, Cultural Resources (including Tribal Cultural Resources), Hydrology and Water Quality, and Paleontological resources with incorporation/implementation, as applicable, of mitigation measures identified earlier.

c) Less Than Significant Impact With Mitigation: The proposed Project will not result in substantial adverse effect on human beings, either directly or indirectly. Mitigation measures are provided to reduce the Project's potential effects on, Biological Resources, Cultural Resources, Hydrology and Water Quality, Paleontological, and Tribal Cultural Resources to less than significant (see, **4-1** through **4-19**, **5-1** through **5-3**, **9-1** through **9-3**, and **18-1** through **18-2**; respectively). No additional mitigation measures will be required. Therefore, implementation of the proposed Project would result in a less than significant impact.

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Derrel's Sequoia Drive-In - Tulare County, Annual

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

Derrel's Sequoia Drive-In

Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	673.83	1000sqft	35.00	673,825.00	2

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	51
Climate Zone	7			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total project size is 15 acres in Phase 1 (part of Sequoia Drive-In) and 20 acres in Phase 2 (project expansion).

Construction Phase - Construction timeline updated to remove demolition as none will occur.

Vehicle Trips - Weekday trip rate per the 2015 TIS prepared for the Ave 280 (Caldwell) facility.

Construction Off-road Equipment Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblLandUse	LandUseSquareFeet	673,830.00	673,825.00
tblLandUse	LotAcreage	15.47	35.00
tblLandUse	Population	0.00	2.00

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

tblVehicleTrips	WD_TR	1.74	1.43

2.0 Emissions Summary

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	0.0243	0.2485	0.1518	2.9000e-004	0.1604	0.0121	0.1725	0.0773	0.0111	0.0885	0.0000	25.9678	25.9678	8.1400e-003	3.0000e-005	26.1804
2023	0.3759	3.2059	3.3766	8.5200e-003	0.7650	0.1261	0.8911	0.2848	0.1174	0.4021	0.0000	768.1320	768.1320	0.1274	0.0324	780.9846
2024	0.3275	2.4901	3.2385	8.8800e-003	0.3906	0.0860	0.4765	0.1061	0.0809	0.1870	0.0000	810.6891	810.6891	0.0803	0.0484	827.1208
2025	0.3031	2.3416	3.1402	8.7100e-003	0.3891	0.0744	0.4635	0.1056	0.0700	0.1756	0.0000	797.2309	797.2309	0.0788	0.0469	813.1797
2026	4.7731	0.6904	1.0481	2.3800e-003	0.0858	0.0264	0.1122	0.0232	0.0247	0.0479	0.0000	215.4538	215.4538	0.0326	8.5400e-003	218.8136
Maximum	**4.7731**	**3.2059**	**3.3766**	**8.8800e-003**	**0.7650**	**0.1261**	**0.8911**	**0.2848**	**0.1174**	**0.4021**	**0.0000**	**810.6891**	**810.6891**	**0.1274**	**0.0484**	**827.1208**

Derrel's Sequoia Drive-In - Tulare County, Annual

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

2.1 Overall Construction

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	0.0243	0.2485	0.1518	2.9000e-004	0.0728	0.0121	0.0849	0.0350	0.0111	0.0461	0.0000	25.9678	25.9678	8.1400e-003	3.0000e-005	26.1804
2023	0.3759	3.2059	3.3766	8.5200e-003	0.4875	0.1261	0.6136	0.1670	0.1174	0.2844	0.0000	768.1315	768.1315	0.1274	0.0324	780.9841
2024	0.3275	2.4901	3.2385	8.8800e-003	0.3906	0.0860	0.4765	0.1061	0.0809	0.1870	0.0000	810.6888	810.6888	0.0803	0.0484	827.1204
2025	0.3031	2.3416	3.1402	8.7100e-003	0.3891	0.0744	0.4635	0.1056	0.0700	0.1756	0.0000	797.2306	797.2306	0.0788	0.0469	813.1794
2026	4.7731	0.6904	1.0481	2.3800e-003	0.0858	0.0264	0.1122	0.0232	0.0247	0.0479	0.0000	215.4537	215.4537	0.0326	8.5400e-003	218.8135
Maximum	**4.7731**	**3.2059**	**3.3766**	**8.8800e-003**	**0.4875**	**0.1261**	**0.6136**	**0.1670**	**0.1174**	**0.2844**	**0.0000**	**810.6888**	**810.6888**	**0.1274**	**0.0484**	**827.1204**

	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**	**20.39**	**0.00**	**17.26**	**26.82**	**0.00**	**17.77**	**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	**10-3-2022**	**1-2-2023**	0.3075	0.3075
2	**1-3-2023**	**4-2-2023**	1.1709	1.1709
3	**4-3-2023**	**7-2-2023**	0.9161	0.9161
4	**7-3-2023**	**10-2-2023**	0.7436	0.7436
5	**10-3-2023**	**1-2-2024**	0.7524	0.7524
6	**1-3-2024**	**4-2-2024**	0.7052	0.7052
7	**4-3-2024**	**7-2-2024**	0.6956	0.6956

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

8	**7-3-2024**	**10-2-2024**	0.7034	0.7034
9	**10-3-2024**	**1-2-2025**	0.7122	0.7122
10	**1-3-2025**	**4-2-2025**	0.6572	0.6572
11	**4-3-2025**	**7-2-2025**	0.6550	0.6550
12	**7-3-2025**	**10-2-2025**	0.6624	0.6624
13	**10-3-2025**	**1-2-2026**	0.6719	0.6719
14	**1-3-2026**	**4-2-2026**	0.5488	0.5488
15	**4-3-2026**	**7-2-2026**	2.6886	2.6886
16	**7-3-2026**	**9-30-2026**	2.2107	2.2107
		Highest	2.6886	2.6886

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	3.1007	6.0000e-005	6.1800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0120	0.0120	3.0000e-005	0.0000	0.0128
Energy	5.4100e-003	0.0492	0.0413	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	439.5618	439.5618	0.0336	4.9300e-003	441.8714
Mobile	0.5300	0.8863	4.9857	0.0113	1.1154	9.8700e-003	1.1253	0.2985	9.2600e-003	0.3078	0.0000	1,062.1201	1,062.1201	0.0569	0.0563	1,080.3323
Waste						0.0000	0.0000		0.0000	0.0000	128.5745	0.0000	128.5745	7.5985	0.0000	318.5378
Water						0.0000	0.0000		0.0000	0.0000	49.4355	149.5305	198.9661	5.0901	0.1214	362.4024
Total	**3.6361**	**0.9356**	**5.0333**	**0.0116**	**1.1154**	**0.0136**	**1.1290**	**0.2985**	**0.0130**	**0.3115**	**178.0100**	**1,651.2245**	**1,829.2345**	**12.7792**	**0.1827**	**2,203.1568**

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	3.1007	6.0000e-005	6.1800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0120	0.0120	3.0000e-005	0.0000	0.0128
Energy	5.4100e-003	0.0492	0.0413	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	439.5618	439.5618	0.0336	4.9300e-003	441.8714
Mobile	0.5300	0.8863	4.9857	0.0113	1.1154	9.8700e-003	1.1253	0.2985	9.2600e-003	0.3078	0.0000	1,062.1201	1,062.1201	0.0569	0.0563	1,080.3323
Waste						0.0000	0.0000		0.0000	0.0000	128.5745	0.0000	128.5745	7.5985	0.0000	318.5378
Water						0.0000	0.0000		0.0000	0.0000	39.5484	119.6244	159.1728	4.0721	0.0971	289.9219
Total	**3.6361**	**0.9356**	**5.0333**	**0.0116**	**1.1154**	**0.0136**	**1.1290**	**0.2985**	**0.0130**	**0.3115**	**168.1229**	**1,621.3184**	**1,789.4413**	**11.7612**	**0.1584**	**2,130.6763**

	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**	**5.55**	**1.81**	**2.18**	**7.97**	**13.29**	**3.29**

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	12/10/2022	1/20/2023	5	30	
2	Grading	Grading	1/21/2023	5/5/2023	5	75	
3	Building Construction	Building Construction	5/6/2023	3/6/2026	5	740	

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

4	Paving	Paving	3/7/2026	5/22/2026	5	55	
5	Architectural Coating	Architectural Coating	5/23/2026	8/7/2026	5	55	

Acres of Grading (Site Preparation Phase): 45

Acres of Grading (Grading Phase): 225

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,010,738; Non-Residential Outdoor: 336,913; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

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
Site Preparation	7	18.00	0.00	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
Building Construction	9	283.00	110.00	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
Architectural Coating	1	57.00	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					0.1594	0.0000	0.1594	0.0771	0.0000	0.0771	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0238	0.2481	0.1477	2.9000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	25.0795	25.0795	8.1100e-003	0.0000	25.2823
Total	**0.0238**	**0.2481**	**0.1477**	**2.9000e-004**	**0.1594**	**0.0121**	**0.1715**	**0.0771**	**0.0111**	**0.0882**	**0.0000**	**25.0795**	**25.0795**	**8.1100e-003**	**0.0000**	**25.2823**

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	5.2000e-004	3.8000e-004	4.0600e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0800e-003	2.9000e-004	1.0000e-005	2.9000e-004	0.0000	0.8883	0.8883	3.0000e-005	3.0000e-005	0.8981
Total	**5.2000e-004**	**3.8000e-004**	**4.0600e-003**	**1.0000e-005**	**1.0800e-003**	**1.0000e-005**	**1.0800e-003**	**2.9000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8883**	**0.8883**	**3.0000e-005**	**3.0000e-005**	**0.8981**

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					0.0717	0.0000	0.0717	0.0347	0.0000	0.0347	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0238	0.2481	0.1477	2.9000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	25.0795	25.0795	8.1100e-003	0.0000	25.2823
Total	**0.0238**	**0.2481**	**0.1477**	**2.9000e-004**	**0.0717**	**0.0121**	**0.0838**	**0.0347**	**0.0111**	**0.0458**	**0.0000**	**25.0795**	**25.0795**	**8.1100e-003**	**0.0000**	**25.2823**

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	5.2000e-004	3.8000e-004	4.0600e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0800e-003	2.9000e-004	1.0000e-005	2.9000e-004	0.0000	0.8883	0.8883	3.0000e-005	3.0000e-005	0.8981
Total	**5.2000e-004**	**3.8000e-004**	**4.0600e-003**	**1.0000e-005**	**1.0800e-003**	**1.0000e-005**	**1.0800e-003**	**2.9000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8883**	**0.8883**	**3.0000e-005**	**3.0000e-005**	**0.8981**

3.2 Site Preparation - 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					
Fugitive Dust					0.1594	0.0000	0.1594	0.0771	0.0000	0.0771	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0200	0.2064	0.1368	2.9000e-004		9.5000e-003	9.5000e-003		8.7400e-003	8.7400e-003	0.0000	25.0880	25.0880	8.1100e-003	0.0000	25.2909
Total	**0.0200**	**0.2064**	**0.1368**	**2.9000e-004**	**0.1594**	**9.5000e-003**	**0.1689**	**0.0771**	**8.7400e-003**	**0.0858**	**0.0000**	**25.0880**	**25.0880**	**8.1100e-003**	**0.0000**	**25.2909**

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

3.2 Site Preparation - 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	4.7000e-004	3.3000e-004	3.6800e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0800e-003	2.9000e-004	1.0000e-005	2.9000e-004	0.0000	0.8648	0.8648	3.0000e-005	3.0000e-005	0.8737
Total	**4.7000e-004**	**3.3000e-004**	**3.6800e-003**	**1.0000e-005**	**1.0800e-003**	**1.0000e-005**	**1.0800e-003**	**2.9000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8648**	**0.8648**	**3.0000e-005**	**3.0000e-005**	**0.8737**

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					0.0717	0.0000	0.0717	0.0347	0.0000	0.0347	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0200	0.2064	0.1368	2.9000e-004		9.5000e-003	9.5000e-003		8.7400e-003	8.7400e-003	0.0000	25.0880	25.0880	8.1100e-003	0.0000	25.2908
Total	**0.0200**	**0.2064**	**0.1368**	**2.9000e-004**	**0.0717**	**9.5000e-003**	**0.0812**	**0.0347**	**8.7400e-003**	**0.0434**	**0.0000**	**25.0880**	**25.0880**	**8.1100e-003**	**0.0000**	**25.2908**

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

3.2 Site Preparation - 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	4.7000e-004	3.3000e-004	3.6800e-003	1.0000e-005	1.0800e-003	1.0000e-005	1.0800e-003	2.9000e-004	1.0000e-005	2.9000e-004	0.0000	0.8648	0.8648	3.0000e-005	3.0000e-005	0.8737
Total	**4.7000e-004**	**3.3000e-004**	**3.6800e-003**	**1.0000e-005**	**1.0800e-003**	**1.0000e-005**	**1.0800e-003**	**2.9000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8648**	**0.8648**	**3.0000e-005**	**3.0000e-005**	**0.8737**

3.3 Grading - 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					
Fugitive Dust					0.3451	0.0000	0.3451	0.1370	0.0000	0.1370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1246	1.2943	1.0519	2.3300e-003		0.0534	0.0534		0.0491	0.0491	0.0000	204.5070	204.5070	0.0661	0.0000	206.1606
Total	**0.1246**	**1.2943**	**1.0519**	**2.3300e-003**	**0.3451**	**0.0534**	**0.3986**	**0.1370**	**0.0491**	**0.1862**	**0.0000**	**204.5070**	**204.5070**	**0.0661**	**0.0000**	**206.1606**

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

3.3 Grading - 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	2.6200e-003	1.8400e-003	0.0205	5.0000e-005	5.9700e-003	3.0000e-005	6.0100e-003	1.5900e-003	3.0000e-005	1.6200e-003	0.0000	4.8042	4.8042	1.6000e-004	1.5000e-004	4.8540
Total	**2.6200e-003**	**1.8400e-003**	**0.0205**	**5.0000e-005**	**5.9700e-003**	**3.0000e-005**	**6.0100e-003**	**1.5900e-003**	**3.0000e-005**	**1.6200e-003**	**0.0000**	**4.8042**	**4.8042**	**1.6000e-004**	**1.5000e-004**	**4.8540**

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					0.1553	0.0000	0.1553	0.0617	0.0000	0.0617	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1246	1.2943	1.0519	2.3300e-003		0.0534	0.0534		0.0491	0.0491	0.0000	204.5068	204.5068	0.0661	0.0000	206.1603
Total	**0.1246**	**1.2943**	**1.0519**	**2.3300e-003**	**0.1553**	**0.0534**	**0.2087**	**0.0617**	**0.0491**	**0.1108**	**0.0000**	**204.5068**	**204.5068**	**0.0661**	**0.0000**	**206.1603**

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

3.3 Grading - 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	2.6200e-003	1.8400e-003	0.0205	5.0000e-005	5.9700e-003	3.0000e-005	6.0100e-003	1.5900e-003	3.0000e-005	1.6200e-003	0.0000	4.8042	4.8042	1.6000e-004	1.5000e-004	4.8540
Total	**2.6200e-003**	**1.8400e-003**	**0.0205**	**5.0000e-005**	**5.9700e-003**	**3.0000e-005**	**6.0100e-003**	**1.5900e-003**	**3.0000e-005**	**1.6200e-003**	**0.0000**	**4.8042**	**4.8042**	**1.6000e-004**	**1.5000e-004**	**4.8540**

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	0.1337	1.2227	1.3807	2.2900e-003		0.0595	0.0595		0.0560	0.0560	0.0000	197.0340	197.0340	0.0469	0.0000	198.2058
Total	**0.1337**	**1.2227**	**1.3807**	**2.2900e-003**		**0.0595**	**0.0595**		**0.0560**	**0.0560**	**0.0000**	**197.0340**	**197.0340**	**0.0469**	**0.0000**	**198.2058**

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	0.0106	0.4212	0.1271	1.8900e-003	0.0618	2.6900e-003	0.0645	0.0179	2.5700e-003	0.0204	0.0000	181.7479	181.7479	8.4000e-004	0.0273	189.9147
Worker	0.0841	0.0590	0.6559	1.6600e-003	0.1916	1.0000e-003	0.1926	0.0509	9.2000e-004	0.0519	0.0000	154.0861	154.0861	5.2300e-003	4.9300e-003	155.6849
Total	**0.0946**	**0.4802**	**0.7830**	**3.5500e-003**	**0.2534**	**3.6900e-003**	**0.2571**	**0.0688**	**3.4900e-003**	**0.0723**	**0.0000**	**335.8340**	**335.8340**	**6.0700e-003**	**0.0323**	**345.5995**

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	0.1337	1.2227	1.3807	2.2900e-003		0.0595	0.0595		0.0560	0.0560	0.0000	197.0338	197.0338	0.0469	0.0000	198.2056
Total	**0.1337**	**1.2227**	**1.3807**	**2.2900e-003**		**0.0595**	**0.0595**		**0.0560**	**0.0560**	**0.0000**	**197.0338**	**197.0338**	**0.0469**	**0.0000**	**198.2056**

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	0.0106	0.4212	0.1271	1.8900e-003	0.0618	2.6900e-003	0.0645	0.0179	2.5700e-003	0.0204	0.0000	181.7479	181.7479	8.4000e-004	0.0273	189.9147
Worker	0.0841	0.0590	0.6559	1.6600e-003	0.1916	1.0000e-003	0.1926	0.0509	9.2000e-004	0.0519	0.0000	154.0861	154.0861	5.2300e-003	4.9300e-003	155.6849
Total	**0.0946**	**0.4802**	**0.7830**	**3.5500e-003**	**0.2534**	**3.6900e-003**	**0.2571**	**0.0688**	**3.4900e-003**	**0.0723**	**0.0000**	**335.8340**	**335.8340**	**6.0700e-003**	**0.0323**	**345.5995**

3.4 Building Construction - 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					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

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

3.4 Building Construction - 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	0.0158	0.6491	0.1912	2.8700e-003	0.0953	4.1800e-003	0.0994	0.0275	3.9900e-003	0.0315	0.0000	275.7857	275.7857	1.2400e-003	0.0414	288.1633
Worker	0.1189	0.0799	0.9294	2.4700e-003	0.2953	1.4500e-003	0.2968	0.0785	1.3300e-003	0.0798	0.0000	231.1811	231.1811	7.2200e-003	6.9700e-003	233.4397
Total	**0.1347**	**0.7289**	**1.1206**	**5.3400e-003**	**0.3906**	**5.6300e-003**	**0.3962**	**0.1061**	**5.3200e-003**	**0.1114**	**0.0000**	**506.9668**	**506.9668**	**8.4600e-003**	**0.0484**	**521.6029**

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	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

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

3.4 Building Construction - 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	0.0158	0.6491	0.1912	2.8700e-003	0.0953	4.1800e-003	0.0994	0.0275	3.9900e-003	0.0315	0.0000	275.7857	275.7857	1.2400e-003	0.0414	288.1633
Worker	0.1189	0.0799	0.9294	2.4700e-003	0.2953	1.4500e-003	0.2968	0.0785	1.3300e-003	0.0798	0.0000	231.1811	231.1811	7.2200e-003	6.9700e-003	233.4397
Total	**0.1347**	**0.7289**	**1.1206**	**5.3400e-003**	**0.3906**	**5.6300e-003**	**0.3962**	**0.1061**	**5.3200e-003**	**0.1114**	**0.0000**	**506.9668**	**506.9668**	**8.4600e-003**	**0.0484**	**521.6029**

3.4 Building Construction - 2025

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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

3.4 Building Construction - 2025

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	0.0154	0.6439	0.1871	2.8100e-003	0.0949	4.1600e-003	0.0991	0.0274	3.9800e-003	0.0314	0.0000	269.8787	269.8787	1.2000e-003	0.0405	281.9729
Worker	0.1092	0.0704	0.8541	2.3800e-003	0.2942	1.3700e-003	0.2955	0.0782	1.2600e-003	0.0795	0.0000	224.6974	224.6974	6.4600e-003	6.4200e-003	226.7733
Total	**0.1246**	**0.7143**	**1.0412**	**5.1900e-003**	**0.3891**	**5.5300e-003**	**0.3946**	**0.1056**	**5.2400e-003**	**0.1109**	**0.0000**	**494.5761**	**494.5761**	**7.6600e-003**	**0.0469**	**508.7462**

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	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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

3.4 Building Construction - 2025

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	0.0154	0.6439	0.1871	2.8100e-003	0.0949	4.1600e-003	0.0991	0.0274	3.9800e-003	0.0314	0.0000	269.8787	269.8787	1.2000e-003	0.0405	281.9729
Worker	0.1092	0.0704	0.8541	2.3800e-003	0.2942	1.3700e-003	0.2955	0.0782	1.2600e-003	0.0795	0.0000	224.6974	224.6974	6.4600e-003	6.4200e-003	226.7733
Total	**0.1246**	**0.7143**	**1.0412**	**5.1900e-003**	**0.3891**	**5.5300e-003**	**0.3946**	**0.1056**	**5.2400e-003**	**0.1109**	**0.0000**	**494.5761**	**494.5761**	**7.6600e-003**	**0.0469**	**508.7462**

3.4 Building Construction - 2026

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	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5011	54.5011	0.0128	0.0000	54.8214
Total	**0.0321**	**0.2930**	**0.3780**	**6.3000e-004**		**0.0124**	**0.0124**		**0.0117**	**0.0117**	**0.0000**	**54.5011**	**54.5011**	**0.0128**	**0.0000**	**54.8214**

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

3.4 Building Construction - 2026

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	2.7100e-003	0.1152	0.0331	5.0000e-004	0.0171	7.4000e-004	0.0178	4.9400e-003	7.1000e-004	5.6500e-003	0.0000	47.7029	47.7029	2.1000e-004	7.1400e-003	49.8374
Worker	0.0182	0.0113	0.1435	4.1000e-004	0.0530	2.3000e-004	0.0532	0.0141	2.1000e-004	0.0143	0.0000	39.4348	39.4348	1.0500e-003	1.0800e-003	39.7819
Total	**0.0209**	**0.1265**	**0.1767**	**9.1000e-004**	**0.0701**	**9.7000e-004**	**0.0711**	**0.0190**	**9.2000e-004**	**0.0200**	**0.0000**	**87.1377**	**87.1377**	**1.2600e-003**	**8.2200e-003**	**89.6192**

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	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5010	54.5010	0.0128	0.0000	54.8213
Total	**0.0321**	**0.2930**	**0.3780**	**6.3000e-004**		**0.0124**	**0.0124**		**0.0117**	**0.0117**	**0.0000**	**54.5010**	**54.5010**	**0.0128**	**0.0000**	**54.8213**

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

3.4 Building Construction - 2026

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	2.7100e-003	0.1152	0.0331	5.0000e-004	0.0171	7.4000e-004	0.0178	4.9400e-003	7.1000e-004	5.6500e-003	0.0000	47.7029	47.7029	2.1000e-004	7.1400e-003	49.8374
Worker	0.0182	0.0113	0.1435	4.1000e-004	0.0530	2.3000e-004	0.0532	0.0141	2.1000e-004	0.0143	0.0000	39.4348	39.4348	1.0500e-003	1.0800e-003	39.7819
Total	**0.0209**	**0.1265**	**0.1767**	**9.1000e-004**	**0.0701**	**9.7000e-004**	**0.0711**	**0.0190**	**9.2000e-004**	**0.0200**	**0.0000**	**87.1377**	**87.1377**	**1.2600e-003**	**8.2200e-003**	**89.6192**

3.5 Paving - 2026

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	0.0252	0.2360	0.4009	6.3000e-004		0.0115	0.0115		0.0106	0.0106	0.0000	55.0530	55.0530	0.0178	0.0000	55.4981
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0252**	**0.2360**	**0.4009**	**6.3000e-004**		**0.0115**	**0.0115**		**0.0106**	**0.0106**	**0.0000**	**55.0530**	**55.0530**	**0.0178**	**0.0000**	**55.4981**

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

3.5 Paving - 2026

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	1.1300e-003	7.0000e-004	8.9000e-003	3.0000e-005	3.2900e-003	1.0000e-005	3.3000e-003	8.7000e-004	1.0000e-005	8.9000e-004	0.0000	2.4460	2.4460	7.0000e-005	7.0000e-005	2.4675
Total	**1.1300e-003**	**7.0000e-004**	**8.9000e-003**	**3.0000e-005**	**3.2900e-003**	**1.0000e-005**	**3.3000e-003**	**8.7000e-004**	**1.0000e-005**	**8.9000e-004**	**0.0000**	**2.4460**	**2.4460**	**7.0000e-005**	**7.0000e-005**	**2.4675**

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	0.0252	0.2360	0.4009	6.3000e-004		0.0115	0.0115		0.0106	0.0106	0.0000	55.0529	55.0529	0.0178	0.0000	55.4980
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0252**	**0.2360**	**0.4009**	**6.3000e-004**		**0.0115**	**0.0115**		**0.0106**	**0.0106**	**0.0000**	**55.0529**	**55.0529**	**0.0178**	**0.0000**	**55.4980**

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

3.5 Paving - 2026

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	1.1300e-003	7.0000e-004	8.9000e-003	3.0000e-005	3.2900e-003	1.0000e-005	3.3000e-003	8.7000e-004	1.0000e-005	8.9000e-004	0.0000	2.4460	2.4460	7.0000e-005	7.0000e-005	2.4675
Total	**1.1300e-003**	**7.0000e-004**	**8.9000e-003**	**3.0000e-005**	**3.2900e-003**	**1.0000e-005**	**3.3000e-003**	**8.7000e-004**	**1.0000e-005**	**8.9000e-004**	**0.0000**	**2.4460**	**2.4460**	**7.0000e-005**	**7.0000e-005**	**2.4675**

3.6 Architectural Coating - 2026

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	4.6848					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7000e-003	0.0315	0.0498	8.0000e-005		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	7.0215	7.0215	3.8000e-004	0.0000	7.0310
Total	**4.6895**	**0.0315**	**0.0498**	**8.0000e-005**		**1.4200e-003**	**1.4200e-003**		**1.4200e-003**	**1.4200e-003**	**0.0000**	**7.0215**	**7.0215**	**3.8000e-004**	**0.0000**	**7.0310**

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

3.6 Architectural Coating - 2026

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	4.3000e-003	2.6600e-003	0.0338	1.0000e-004	0.0125	5.0000e-005	0.0125	3.3200e-003	5.0000e-005	3.3700e-003	0.0000	9.2946	9.2946	2.5000e-004	2.5000e-004	9.3765
Total	**4.3000e-003**	**2.6600e-003**	**0.0338**	**1.0000e-004**	**0.0125**	**5.0000e-005**	**0.0125**	**3.3200e-003**	**5.0000e-005**	**3.3700e-003**	**0.0000**	**9.2946**	**9.2946**	**2.5000e-004**	**2.5000e-004**	**9.3765**

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	4.6848					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7000e-003	0.0315	0.0498	8.0000e-005		1.4200e-003	1.4200e-003		1.4200e-003	1.4200e-003	0.0000	7.0214	7.0214	3.8000e-004	0.0000	7.0310
Total	**4.6895**	**0.0315**	**0.0498**	**8.0000e-005**		**1.4200e-003**	**1.4200e-003**		**1.4200e-003**	**1.4200e-003**	**0.0000**	**7.0214**	**7.0214**	**3.8000e-004**	**0.0000**	**7.0310**

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

3.6 Architectural Coating - 2026

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	4.3000e-003	2.6600e-003	0.0338	1.0000e-004	0.0125	5.0000e-005	0.0125	3.3200e-003	5.0000e-005	3.3700e-003	0.0000	9.2946	9.2946	2.5000e-004	2.5000e-004	9.3765
Total	**4.3000e-003**	**2.6600e-003**	**0.0338**	**1.0000e-004**	**0.0125**	**5.0000e-005**	**0.0125**	**3.3200e-003**	**5.0000e-005**	**3.3700e-003**	**0.0000**	**9.2946**	**9.2946**	**2.5000e-004**	**2.5000e-004**	**9.3765**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.5300	0.8863	4.9857	0.0113	1.1154	9.8700e-003	1.1253	0.2985	9.2600e-003	0.3078	0.0000	1,062.1201	1,062.1201	0.0569	0.0563	1,080.3323
Unmitigated	0.5300	0.8863	4.9857	0.0113	1.1154	9.8700e-003	1.1253	0.2985	9.2600e-003	0.3078	0.0000	1,062.1201	1,062.1201	0.0569	0.0563	1,080.3323

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	963.58	1,172.46	1172.46	2,987,416	2,987,416
Total	963.58	1,172.46	1,172.46	2,987,416	2,987,416

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
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.509869	0.051139	0.167106	0.174849	0.031609	0.007996	0.012006	0.015707	0.000636	0.000471	0.023554	0.001465	0.003592

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0000		0.0000	0.0000	0.0000	385.9846	385.9846	0.0326	3.9500e-003	387.9758
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	385.9846	385.9846	0.0326	3.9500e-003	387.9758
NaturalGas Mitigated	5.4100e-003	0.0492	0.0413	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	53.5772	53.5772	1.0300e-003	9.8000e-004	53.8956
NaturalGas Unmitigated	5.4100e-003	0.0492	0.0413	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	53.5772	53.5772	1.0300e-003	9.8000e-004	53.8956

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

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					
Unrefrigerated Warehouse-No Rail	1.004e+006	5.4100e-003	0.0492	0.0413	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	53.5772	53.5772	1.0300e-003	9.8000e-004	53.8956
Total		**5.4100e-003**	**0.0492**	**0.0413**	**3.0000e-004**		**3.7400e-003**	**3.7400e-003**		**3.7400e-003**	**3.7400e-003**	**0.0000**	**53.5772**	**53.5772**	**1.0300e-003**	**9.8000e-004**	**53.8956**

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					
Unrefrigerated Warehouse-No Rail	1.004e+006	5.4100e-003	0.0492	0.0413	3.0000e-004		3.7400e-003	3.7400e-003		3.7400e-003	3.7400e-003	0.0000	53.5772	53.5772	1.0300e-003	9.8000e-004	53.8956
Total		**5.4100e-003**	**0.0492**	**0.0413**	**3.0000e-004**		**3.7400e-003**	**3.7400e-003**		**3.7400e-003**	**3.7400e-003**	**0.0000**	**53.5772**	**53.5772**	**1.0300e-003**	**9.8000e-004**	**53.8956**

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	2.17645e+006	385.9846	0.0326	3.9500e-003	387.9758
Total		**385.9846**	**0.0326**	**3.9500e-003**	**387.9758**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	2.17645e+006	385.9846	0.0326	3.9500e-003	387.9758
Total		**385.9846**	**0.0326**	**3.9500e-003**	**387.9758**

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 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	3.1007	6.0000e-005	6.1800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0120	0.0120	3.0000e-005	0.0000	0.0128
Unmitigated	3.1007	6.0000e-005	6.1800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0120	0.0120	3.0000e-005	0.0000	0.0128

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	0.4685					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6316					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7000e-004	6.0000e-005	6.1800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0120	0.0120	3.0000e-005	0.0000	0.0128
Total	**3.1007**	**6.0000e-005**	**6.1800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0120**	**0.0120**	**3.0000e-005**	**0.0000**	**0.0128**

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	0.4685					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6316					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7000e-004	6.0000e-005	6.1800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0120	0.0120	3.0000e-005	0.0000	0.0128
Total	**3.1007**	**6.0000e-005**	**6.1800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0120**	**0.0120**	**3.0000e-005**	**0.0000**	**0.0128**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

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	159.1728	4.0721	0.0971	289.9219
Unmitigated	198.9661	5.0901	0.1214	362.4024

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	155.823 / 0	198.9661	5.0901	0.1214	362.4024
Total		**198.9661**	**5.0901**	**0.1214**	**362.4024**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	124.659 / 0	159.1728	4.0721	0.0971	289.9219
Total		**159.1728**	**4.0721**	**0.0971**	**289.9219**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	128.5745	7.5985	0.0000	318.5378
Unmitigated	128.5745	7.5985	0.0000	318.5378

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	633.4	128.5745	7.5985	0.0000	318.5378
Total		**128.5745**	**7.5985**	**0.0000**	**318.5378**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	633.4	128.5745	7.5985	0.0000	318.5378
Total		**128.5745**	**7.5985**	**0.0000**	**318.5378**

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

Derrel's Mini Storage - Mooney

Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	326.22	1000sqft	15.16	326,222.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	51
Climate Zone	7			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - lot size per project description

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	7.49	15.16

2.0 Emissions Summary

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					
2019	0.4669	4.2898	3.2308	6.8500e-003	0.3696	0.2018	0.5714	0.1441	0.1887	0.3328						
2020	2.4334	1.4500	1.2926	2.8800e-003	0.0747	0.0661	0.1409	0.0203	0.0621	0.0824						
Maximum	**2.4334**	**4.2898**	**3.2308**	**6.8500e-003**	**0.3696**	**0.2018**	**0.5714**	**0.1441**	**0.1887**	**0.3328**						

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					
2019	0.4669	4.2898	3.2308	6.8500e-003	0.2484	0.2018	0.4502	0.0871	0.1887	0.2758						
2020	2.4334	1.4500	1.2926	2.8800e-003	0.0747	0.0661	0.1409	0.0203	0.0621	0.0824						
Maximum	**2.4334**	**4.2898**	**3.2308**	**6.8500e-003**	**0.2484**	**0.2018**	**0.4502**	**0.0871**	**0.1887**	**0.2758**						

Derrel's Mini Storage - Mooney - Tulare County, Annual

	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**	**27.29**	**0.00**	**17.02**	**34.67**	**0.00**	**13.72**	**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	**1-1-2019**	**3-31-2019**	1.6054	1.6054
2	**4-1-2019**	**6-30-2019**	1.0395	1.0395
3	**7-1-2019**	**9-30-2019**	1.0510	1.0510
4	**10-1-2019**	**12-31-2019**	1.0559	1.0559
5	**1-1-2020**	**3-31-2020**	0.9469	0.9469
6	**4-1-2020**	**6-30-2020**	1.8796	1.8796
7	**7-1-2020**	**9-30-2020**	1.0630	1.0630
		Highest	1.8796	1.8796

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	1.5012	3.0000e-005	3.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Mobile	0.2242	1.9010	2.5063	9.1600e-003	0.6053	0.0104	0.6157	0.1627	9.8500e-003	0.1726						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	**1.7253**	**1.9010**	**2.5094**	**9.1600e-003**	**0.6053**	**0.0104**	**0.6157**	**0.1627**	**9.8600e-003**	**0.1726**						

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	1.5011	3.0000e-005	2.9800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Mobile	0.2199	1.8508	2.4111	8.7600e-003	0.5750	9.9500e-003	0.5850	0.1546	9.4100e-003	0.1640						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	**1.7211**	**1.8508**	**2.4141**	**8.7600e-003**	**0.5750**	**9.9600e-003**	**0.5850**	**0.1546**	**9.4200e-003**	**0.1640**						

	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	**0.25**	**2.64**	**3.80**	**4.37**	**5.00**	**4.41**	**4.99**	**5.00**	**4.46**	**4.97**	**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	Demolition	Demolition	1/1/2019	1/28/2019	5	20	
2	Site Preparation	Site Preparation	1/29/2019	2/11/2019	5	10	
3	Grading	Grading	2/12/2019	3/25/2019	5	30	
4	Building Construction	Building Construction	3/26/2019	5/18/2020	5	300	
5	Paving	Paving	5/19/2020	6/15/2020	5	20	
6	Architectural Coating	Architectural Coating	6/16/2020	7/13/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 489,333; Non-Residential Outdoor: 163,111; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Derrel's Mini Storage - Mooney - Tulare County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
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
Demolition	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
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	137.00	53.00	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
Architectural Coating	1	27.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

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	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167						
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**		**0.0180**	**0.0180**		**0.0167**	**0.0167**						

3.2 Demolition - 2019

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.8000e-004	5.4000e-004	5.4700e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004						
Total	**7.8000e-004**	**5.4000e-004**	**5.4700e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**						

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	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167						
Total	**0.0351**	**0.3578**	**0.2206**	**3.9000e-004**		**0.0180**	**0.0180**		**0.0167**	**0.0167**						

3.2 Demolition - 2019

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.8000e-004	5.4000e-004	5.4700e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004						
Total	**7.8000e-004**	**5.4000e-004**	**5.4700e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**						

3.3 Site Preparation - 2019

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497						
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110						
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0903**	**0.0120**	**0.1023**	**0.0497**	**0.0110**	**0.0607**						

3.3 Site Preparation - 2019

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	4.7000e-004	3.2000e-004	3.2800e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004						
Total	**4.7000e-004**	**3.2000e-004**	**3.2800e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**						

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					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223						
Off-Road	0.0217	0.2279	0.1103	1.9000e-004		0.0120	0.0120		0.0110	0.0110						
Total	**0.0217**	**0.2279**	**0.1103**	**1.9000e-004**	**0.0407**	**0.0120**	**0.0526**	**0.0223**	**0.0110**	**0.0333**						

3.3 Site Preparation - 2019

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	4.7000e-004	3.2000e-004	3.2800e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004						
Total	**4.7000e-004**	**3.2000e-004**	**3.2800e-003**	**1.0000e-005**	**7.2000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**						

3.4 Grading - 2019

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					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540						
Off-Road	0.0711	0.8178	0.5007	9.3000e-004		0.0357	0.0357		0.0329	0.0329						
Total	**0.0711**	**0.8178**	**0.5007**	**9.3000e-004**	**0.1301**	**0.0357**	**0.1658**	**0.0540**	**0.0329**	**0.0868**						

3.4 Grading - 2019

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.5700e-003	1.0800e-003	0.0109	2.0000e-005	2.3900e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004						
Total	**1.5700e-003**	**1.0800e-003**	**0.0109**	**2.0000e-005**	**2.3900e-003**	**2.0000e-005**	**2.4100e-003**	**6.4000e-004**	**2.0000e-005**	**6.5000e-004**						

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					0.0586	0.0000	0.0586	0.0243	0.0000	0.0243						
Off-Road	0.0711	0.8178	0.5007	9.3000e-004		0.0357	0.0357		0.0329	0.0329						
Total	**0.0711**	**0.8178**	**0.5007**	**9.3000e-004**	**0.0586**	**0.0357**	**0.0943**	**0.0243**	**0.0329**	**0.0572**						

3.4 Grading - 2019

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.5700e-003	1.0800e-003	0.0109	2.0000e-005	2.3900e-003	2.0000e-005	2.4100e-003	6.4000e-004	2.0000e-005	6.5000e-004						
Total	**1.5700e-003**	**1.0800e-003**	**0.0109**	**2.0000e-005**	**2.3900e-003**	**2.0000e-005**	**2.4100e-003**	**6.4000e-004**	**2.0000e-005**	**6.5000e-004**						

3.5 Building Construction - 2019

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	0.2373	2.1184	1.7250	2.7000e-003		0.1296	0.1296		0.1219	0.1219						
Total	**0.2373**	**2.1184**	**1.7250**	**2.7000e-003**		**0.1296**	**0.1296**		**0.1219**	**0.1219**						

3.5 Building Construction - 2019

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						
Vendor	0.0269	0.7163	0.1523	1.5100e-003	0.0352	5.7300e-003	0.0409	0.0102	5.4800e-003	0.0157						
Worker	0.0720	0.0496	0.5023	1.0800e-003	0.1097	8.1000e-004	0.1105	0.0292	7.5000e-004	0.0299						
Total	**0.0988**	**0.7659**	**0.6546**	**2.5900e-003**	**0.1449**	**6.5400e-003**	**0.1514**	**0.0393**	**6.2300e-003**	**0.0456**						

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	0.2373	2.1184	1.7250	2.7000e-003		0.1296	0.1296		0.1219	0.1219						
Total	**0.2373**	**2.1184**	**1.7250**	**2.7000e-003**		**0.1296**	**0.1296**		**0.1219**	**0.1219**						

3.5 Building Construction - 2019

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						
Vendor	0.0269	0.7163	0.1523	1.5100e-003	0.0352	5.7300e-003	0.0409	0.0102	5.4800e-003	0.0157						
Worker	0.0720	0.0496	0.5023	1.0800e-003	0.1097	8.1000e-004	0.1105	0.0292	7.5000e-004	0.0299						
Total	**0.0988**	**0.7659**	**0.6546**	**2.5900e-003**	**0.1449**	**6.5400e-003**	**0.1514**	**0.0393**	**6.2300e-003**	**0.0456**						

3.5 Building Construction - 2020

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	0.1049	0.9497	0.8340	1.3300e-003		0.0553	0.0553		0.0520	0.0520						
Total	**0.1049**	**0.9497**	**0.8340**	**1.3300e-003**		**0.0553**	**0.0553**		**0.0520**	**0.0520**						

3.5 Building Construction - 2020

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						
Vendor	0.0104	0.3202	0.0636	7.4000e-004	0.0173	1.8100e-003	0.0192	5.0100e-003	1.7300e-003	6.7400e-003						
Worker	0.0320	0.0213	0.2167	5.1000e-004	0.0540	3.8000e-004	0.0544	0.0144	3.5000e-004	0.0147						
Total	**0.0424**	**0.3415**	**0.2803**	**1.2500e-003**	**0.0714**	**2.1900e-003**	**0.0736**	**0.0194**	**2.0800e-003**	**0.0215**						

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	0.1049	0.9497	0.8340	1.3300e-003		0.0553	0.0553		0.0520	0.0520						
Total	**0.1049**	**0.9497**	**0.8340**	**1.3300e-003**		**0.0553**	**0.0553**		**0.0520**	**0.0520**						

3.5 Building Construction - 2020

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						
Vendor	0.0104	0.3202	0.0636	7.4000e-004	0.0173	1.8100e-003	0.0192	5.0100e-003	1.7300e-003	6.7400e-003						
Worker	0.0320	0.0213	0.2167	5.1000e-004	0.0540	3.8000e-004	0.0544	0.0144	3.5000e-004	0.0147						
Total	**0.0424**	**0.3415**	**0.2803**	**1.2500e-003**	**0.0714**	**2.1900e-003**	**0.0736**	**0.0194**	**2.0800e-003**	**0.0215**						

3.6 Paving - 2020

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	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	**0.0136**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**						

3.6 Paving - 2020

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.1000e-004	4.7000e-004	4.7900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004						
Total	**7.1000e-004**	**4.7000e-004**	**4.7900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**						

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	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003						
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						
Total	**0.0136**	**0.1407**	**0.1465**	**2.3000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**						

3.6 Paving - 2020

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.1000e-004	4.7000e-004	4.7900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004						
Total	**7.1000e-004**	**4.7000e-004**	**4.7900e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**						

3.7 Architectural Coating - 2020

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	2.2681					0.0000	0.0000		0.0000	0.0000						
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003						
Total	**2.2705**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**						

3.7 Architectural Coating - 2020

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.2700e-003	8.5000e-004	8.6300e-003	2.0000e-005	2.1500e-003	2.0000e-005	2.1700e-003	5.7000e-004	1.0000e-005	5.9000e-004						
Total	**1.2700e-003**	**8.5000e-004**	**8.6300e-003**	**2.0000e-005**	**2.1500e-003**	**2.0000e-005**	**2.1700e-003**	**5.7000e-004**	**1.0000e-005**	**5.9000e-004**						

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	2.2681					0.0000	0.0000		0.0000	0.0000						
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003						
Total	**2.2705**	**0.0168**	**0.0183**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**						

3.7 Architectural Coating - 2020

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						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.2700e-003	8.5000e-004	8.6300e-003	2.0000e-005	2.1500e-003	2.0000e-005	2.1700e-003	5.7000e-004	1.0000e-005	5.9000e-004						
Total	**1.2700e-003**	**8.5000e-004**	**8.6300e-003**	**2.0000e-005**	**2.1500e-003**	**2.0000e-005**	**2.1700e-003**	**5.7000e-004**	**1.0000e-005**	**5.9000e-004**						

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Increase Transit Accessibility

	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	0.2199	1.8508	2.4111	8.7600e-003	0.5750	9.9500e-003	0.5850	0.1546	9.4100e-003	0.1640						
Unmitigated	0.2242	1.9010	2.5063	9.1600e-003	0.6053	0.0104	0.6157	0.1627	9.8500e-003	0.1726						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	548.05	548.05	548.05	1,600,047	1,520,044
Total	548.05	548.05	548.05	1,600,047	1,520,044

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
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.506900	0.034567	0.171206	0.149208	0.024362	0.005798	0.021031	0.077362	0.001819	0.001371	0.004402	0.001155	0.000818

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	0.0000		0.0000	0.0000						
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						

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					
Unrefrigerated Warehouse-No Rail	0	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**						

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					
Unrefrigerated Warehouse-No Rail	0	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**						

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	1.08632e+006				
Total					

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	1.08632e+006				
Total					

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

	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	1.5011	3.0000e-005	2.9800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						
Unmitigated	1.5012	3.0000e-005	3.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						

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	0.2268					0.0000	0.0000		0.0000	0.0000						
Consumer Products	1.2741					0.0000	0.0000		0.0000	0.0000						
Landscaping	2.8000e-004	3.0000e-005	3.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						
Total	**1.5012**	**3.0000e-005**	**3.0200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**						

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	0.2268					0.0000	0.0000		0.0000	0.0000						
Consumer Products	1.2741					0.0000	0.0000		0.0000	0.0000						
Landscaping	2.8000e-004	3.0000e-005	2.9800e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						
Total	**1.5012**	**3.0000e-005**	**2.9800e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**						

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Landscaping

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				
Unmitigated				

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	75.4384 / 0				
Total					

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	60.3507 / 0				
Total					

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				
Unmitigated				

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	306.65				
Total					

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	306.65				
Total					

9.0 Operational Offroad

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

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

Derrel's Mini Storage - Mooney

Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	326.22	1000sqft	15.16	326,222.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	51
Climate Zone	7			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	506.83	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2020 RPS reductions

Land Use - lot size per project description

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation -

Water Mitigation - project will be water efficient; as the site is predominantly paved surfaces the 50% turf reduction is only a portion of the reductions

Mobile Commute Mitigation - On-site employee housing

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	326,220.00	326,222.00
tblLandUse	LotAcreage	7.49	15.16
tblProjectCharacteristics	CO2IntensityFactor	702.44	506.83

2.0 Emissions Summary

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					
2019											0.0000	616.4883	616.4883	0.1099	0.0000	619.2369
2020											0.0000	256.8713	256.8713	0.0395	0.0000	257.8576
Maximum											**0.0000**	**616.4883**	**616.4883**	**0.1099**	**0.0000**	**619.2369**

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					
2019											0.0000	616.4879	616.4879	0.1099	0.0000	619.2364
2020											0.0000	256.8712	256.8712	0.0395	0.0000	257.8574
Maximum											**0.0000**	**616.4879**	**616.4879**	**0.1099**	**0.0000**	**619.2364**

	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)
		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											0.0000	5.8300e-003	5.8300e-003	2.0000e-005	0.0000	6.2200e-003
Energy											0.0000	249.7385	249.7385	0.0143	2.9600e-003	250.9768
Mobile											0.0000	846.8836	846.8836	0.0387	0.0000	847.8508
Waste											62.2472	0.0000	62.2472	3.6787	0.0000	154.2148
Water											23.9331	93.8421	117.7753	2.4635	0.0592	196.9912
Total											**86.1803**	**1,190.4701**	**1,276.6504**	**6.1952**	**0.0621**	**1,450.0397**

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											0.0000	5.7500e-003	5.7500e-003	2.0000e-005	0.0000	6.1300e-003
Energy											0.0000	249.7385	249.7385	0.0143	2.9600e-003	250.9768
Mobile											0.0000	758.6898	758.6898	0.0362	0.0000	759.5950
Waste											62.2472	0.0000	62.2472	3.6787	0.0000	154.2148
Water											19.1465	75.0737	94.2202	1.9708	0.0473	157.5930
Total											**81.3937**	**1,083.5078**	**1,164.9015**	**5.7000**	**0.0503**	**1,322.3857**

	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**	**5.55**	**8.98**	**8.75**	**7.99**	**19.05**	**8.80**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/28/2019	5	20	
2	Site Preparation	Site Preparation	1/29/2019	2/11/2019	5	10	
3	Grading	Grading	2/12/2019	3/25/2019	5	30	
4	Building Construction	Building Construction	3/26/2019	5/18/2020	5	300	
5	Paving	Paving	5/19/2020	6/15/2020	5	20	
6	Architectural Coating	Architectural Coating	6/16/2020	7/13/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 489,333; Non-Residential Outdoor: 163,111; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

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
Demolition	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
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	137.00	53.00	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
Architectural Coating	1	27.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

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	34.6263	34.6263	9.6300e-003	0.0000	34.8672
Total											**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8672**

3.2 Demolition - 2019

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.0590	1.0590	4.0000e-005	0.0000	1.0600
Total											**0.0000**	**1.0590**	**1.0590**	**4.0000e-005**	**0.0000**	**1.0600**

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	34.6263	34.6263	9.6300e-003	0.0000	34.8671
Total											**0.0000**	**34.6263**	**34.6263**	**9.6300e-003**	**0.0000**	**34.8671**

3.2 Demolition - 2019

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.0590	1.0590	4.0000e-005	0.0000	1.0600
Total											**0.0000**	**1.0590**	**1.0590**	**4.0000e-005**	**0.0000**	**1.0600**

3.3 Site Preparation - 2019

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total											**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.3 Site Preparation - 2019

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.6354	0.6354	2.0000e-005	0.0000	0.6360
Total											**0.0000**	**0.6354**	**0.6354**	**2.0000e-005**	**0.0000**	**0.6360**

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	17.0843	17.0843	5.4100e-003	0.0000	17.2195
Total											**0.0000**	**17.0843**	**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.3 Site Preparation - 2019

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.6354	0.6354	2.0000e-005	0.0000	0.6360
Total											**0.0000**	**0.6354**	**0.6354**	**2.0000e-005**	**0.0000**	**0.6360**

3.4 Grading - 2019

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	83.5520	83.5520	0.0264	0.0000	84.2129
Total											**0.0000**	**83.5520**	**83.5520**	**0.0264**	**0.0000**	**84.2129**

3.4 Grading - 2019

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	2.1181	2.1181	8.0000e-005	0.0000	2.1199
Total											**0.0000**	**2.1181**	**2.1181**	**8.0000e-005**	**0.0000**	**2.1199**

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	83.5519	83.5519	0.0264	0.0000	84.2128
Total											**0.0000**	**83.5519**	**83.5519**	**0.0264**	**0.0000**	**84.2128**

3.4 Grading - 2019

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	2.1181	2.1181	8.0000e-005	0.0000	2.1199
Total											**0.0000**	**2.1181**	**2.1181**	**8.0000e-005**	**0.0000**	**2.1199**

3.5 Building Construction - 2019

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	236.2797	236.2797	0.0576	0.0000	237.7187
Total											**0.0000**	**236.2797**	**236.2797**	**0.0576**	**0.0000**	**237.7187**

3.5 Building Construction - 2019

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
Vendor											0.0000	143.9254	143.9254	7.3000e-003	0.0000	144.1079
Worker											0.0000	97.2081	97.2081	3.4700e-003	0.0000	97.2949
Total											**0.0000**	**241.1335**	**241.1335**	**0.0108**	**0.0000**	**241.4028**

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	236.2794	236.2794	0.0576	0.0000	237.7184
Total											**0.0000**	**236.2794**	**236.2794**	**0.0576**	**0.0000**	**237.7184**

3.5 Building Construction - 2019

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
Vendor											0.0000	143.9254	143.9254	7.3000e-003	0.0000	144.1079
Worker											0.0000	97.2081	97.2081	3.4700e-003	0.0000	97.2949
Total											**0.0000**	**241.1335**	**241.1335**	**0.0108**	**0.0000**	**241.4028**

3.5 Building Construction - 2020

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	114.6469	114.6469	0.0280	0.0000	115.3462
Total											**0.0000**	**114.6469**	**114.6469**	**0.0280**	**0.0000**	**115.3462**

3.5 Building Construction - 2020

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
Vendor											0.0000	70.3643	70.3643	3.2600e-003	0.0000	70.4458
Worker											0.0000	46.4047	46.4047	1.4600e-003	0.0000	46.4410
Total											**0.0000**	**116.7689**	**116.7689**	**4.7200e-003**	**0.0000**	**116.8868**

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	114.6468	114.6468	0.0280	0.0000	115.3461
Total											**0.0000**	**114.6468**	**114.6468**	**0.0280**	**0.0000**	**115.3461**

3.5 Building Construction - 2020

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
Vendor											0.0000	70.3643	70.3643	3.2600e-003	0.0000	70.4458
Worker											0.0000	46.4047	46.4047	1.4600e-003	0.0000	46.4410
Total											**0.0000**	**116.7689**	**116.7689**	**4.7200e-003**	**0.0000**	**116.8868**

3.6 Paving - 2020

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	20.0282	20.0282	6.4800e-003	0.0000	20.1902
Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1902**

3.6 Paving - 2020

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.0264	1.0264	3.0000e-005	0.0000	1.0272
Total											**0.0000**	**1.0264**	**1.0264**	**3.0000e-005**	**0.0000**	**1.0272**

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	20.0282	20.0282	6.4800e-003	0.0000	20.1901
Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**20.0282**	**20.0282**	**6.4800e-003**	**0.0000**	**20.1901**

3.6 Paving - 2020

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.0264	1.0264	3.0000e-005	0.0000	1.0272
Total											**0.0000**	**1.0264**	**1.0264**	**3.0000e-005**	**0.0000**	**1.0272**

3.7 Architectural Coating - 2020

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
Off-Road											0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total											**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

3.7 Architectural Coating - 2020

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.8476	1.8476	6.0000e-005	0.0000	1.8490
Total											**0.0000**	**1.8476**	**1.8476**	**6.0000e-005**	**0.0000**	**1.8490**

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
Off-Road											0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
Total											**0.0000**	**2.5533**	**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

3.7 Architectural Coating - 2020

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.8476	1.8476	6.0000e-005	0.0000	1.8490
Total											**0.0000**	**1.8476**	**1.8476**	**6.0000e-005**	**0.0000**	**1.8490**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Increase Transit Accessibility

Improve Pedestrian Network

Implement Trip Reduction Program

	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	758.6898	758.6898	0.0362	0.0000	759.5950
Unmitigated											0.0000	846.8836	846.8836	0.0387	0.0000	847.8508

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	548.05	548.05	548.05	1,600,037	1,410,441
Total	548.05	548.05	548.05	1,600,037	1,410,441

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
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.506900	0.034567	0.171206	0.149208	0.024362	0.005798	0.021031	0.077362	0.001819	0.001371	0.004402	0.001155	0.000818

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	249.7385	249.7385	0.0143	2.9600e-003	250.9768
Electricity Unmitigated											0.0000	249.7385	249.7385	0.0143	2.9600e-003	250.9768
NaturalGas Mitigated											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
Unrefrigerated Warehouse-No Rail	0											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**

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					
Unrefrigerated Warehouse-No Rail	0											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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	1.08632e+006	249.7385	0.0143	2.9600e-003	250.9768
Total		**249.7385**	**0.0143**	**2.9600e-003**	**250.9768**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	1.08632e+006	249.7385	0.0143	2.9600e-003	250.9768
Total		**249.7385**	**0.0143**	**2.9600e-003**	**250.9768**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

	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	5.7500e-003	5.7500e-003	2.0000e-005	0.0000	6.1300e-003
Unmitigated											0.0000	5.8300e-003	5.8300e-003	2.0000e-005	0.0000	6.2200e-003

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
Landscaping											0.0000	5.8300e-003	5.8300e-003	2.0000e-005	0.0000	6.2200e-003
Total											**0.0000**	**5.8300e-003**	**5.8300e-003**	**2.0000e-005**	**0.0000**	**6.2200e-003**

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
Landscaping											0.0000	5.7500e-003	5.7500e-003	2.0000e-005	0.0000	6.1300e-003
Total											**0.0000**	**5.7500e-003**	**5.7500e-003**	**2.0000e-005**	**0.0000**	**6.1300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Turf Reduction

Use Water Efficient Landscaping

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	94.2202	1.9708	0.0473	157.5930
Unmitigated	117.7753	2.4635	0.0592	196.9912

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	75.4384 / 0	117.7753	2.4635	0.0592	196.9912
Total		**117.7753**	**2.4635**	**0.0592**	**196.9912**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	60.3507 / 0	94.2202	1.9708	0.0473	157.5930
Total		**94.2202**	**1.9708**	**0.0473**	**157.5930**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	62.2472	3.6787	0.0000	154.2148
Unmitigated	62.2472	3.6787	0.0000	154.2148

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	306.65	62.2472	3.6787	0.0000	154.2148
Total		**62.2472**	**3.6787**	**0.0000**	**154.2148**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	306.65	62.2472	3.6787	0.0000	154.2148
Total		**62.2472**	**3.6787**	**0.0000**	**154.2148**

9.0 Operational Offroad

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

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

RECONNAISSANCE-LEVEL BIOLOGICAL EVALUATION OF POTENTIAL IMPACTS SENSITIVE AND LISTED SPECIES ON AN APPROXIMATELY 47.17-ACRE, LAND PARCEL IN FARMERSVILLE, TULARE COUNTY, CALIFORNIA

Prepared for:
4 Creeks Engineering and Castlewood Partners

Prepared by:
Bobby Kamansky

Kamansky's Ecological Consulting
innovative solutions to complex problems

April 28, 2016

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EXECUTIVE SUMMARY

Four Creeks Engineering, Inc. contacted Kamansky's Ecological Consulting (KEC) on behalf of Don Fulbright with Castlewood Partners for a biological survey at a 47.17-acre property in Farmersville, Tulare County, California. The project is located along Noble Avenue, directly south of Highway 198. . The subject site is located south of Hwy 198 and south of Avenue 296 in Farmersville, east of Road 156 and north of Avenue 292.

The construction of The Sequoia Drive-In Business Park in Tulare County will comprise of four separate phases of construction. A total of 43 buildings and 358,370 square feet of building space will be constructed for the complete buildout for all phases of construction.

Because the project site is within the range of a variety of sensitive species, Four Creeks and Castlewood Partners requested that KEC conduct a biological evaluation to satisfy California Environmental Quality Act (CEQA) and survey requirements for this site in the County of Tulare. On properties such as this in the Farmersville area, the United States Department of Interior, Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (DFW) routinely recommends that a "trained biologist, familiar with the habitat requirements of listed and proposed species, should determine whether these species or habitats suitable for these species may be affected by the proposed action...prior to the environmental review process." (DFW, 1995, 2012)

The field component of the biological evaluation was conducted on a site visit on January 15, 22 and February 4, 2015. B. Kamansky conducted the site visits.

This investigation evaluates the species composition of the 47.17-acre project site, likelihood of various species and habitats known to occur in the vicinity and examines potential impacts based on the project. This will include species observed by KEC biologists as well as California Natural Diversity Database (CNDDB) records.

This report is submitted to Tulare County for its use in proceeding with the CEQA process.

At the time of the survey, all the land included or in close proximity to the site included farms, orchards, housing, and included possible habitat for various species of concern. Various large trees are found on and adjacent to the site

that may provide habitat for nesting raptors.

While no Special Status animal or plant species, except raptors were observed on the site, species could move into the site prior to construction. Appropriate avoidance measures are proposed in the event that pre-construction surveys detect species in the area and prescribe compensation in the event that impacts cannot be avoided.

A. DESCRIPTION, BACKGROUND AND AGENCY INVOLVEMENT

A.1 Applicant and Project Description

Craig Hartman of Four Creeks Engineering contacted Bobby Kamansky, Principal Biologist, Kamansky's Ecological Consulting (KEC) for a survey at the 198 Old Theater site in Farmersville, California on behalf of Castlewood Partners.

Kamansky's Ecological Consulting was contracted to provide a biological evaluation of the site. Sensitive species found on and within close proximity to the site were identified and evaluated in regards to future development.

The construction of The Sequoia Drive-In Business Park in Tulare County, CA will comprise of four separate phases of construction. A total of 43 buildings and 358,370 square feet of building space will be constructed for the complete buildout for all phases of construction.

Phase 1 will include a convenience market with gas pumps along with five separate commercial buildings for a total combined square footage of 68,340. Access into the development will occur on Road 156, and will eventually connect access from Noble Avenue during Phase 3.

Phase 2 will construct 14 commercial buildings for a total combined square footage of 88,000, leaving a remainder lot for the existing cellular tower. Two access points into the development will occur on Road 156, providing a circle drive connecting part of Phase1, and all of Phases 2 and Phase 4.

Phase 3 will include ten separate commercial buildings with one remaining lots for a retention pond. A stormwater retention pond will be installed for on-site water storage in the event of extreme weather. The total square footage buildout for phase 3 will be 104,000.

Phase 4, the final phase, will include 13 commercial buildings and a remaining lot for a second stormwater retention pond for on-site water storage. The total square footage buildout for phase 3 will be 98,030.

A.2 Federal Agency Interaction on Resource Issues

Because the project site is within the range of the Swainson's hawk (*Buteo swainsoni*) and other listed and special status species, Four Creeks requested that KEC conduct a survey of this property in the County of Tulare. On sites such as this in the Farmersville area, the USFWS and DFW routinely recommend that a "trained biologist, familiar with the habitat requirements of listed and proposed species, should determine whether these species or habitats suitable for these species may be affected by the proposed action…prior to the environmental review process" (DFW, 1995, 2012).

In situations where the project has no federal nexus, consultation between the Applicant and USFWS/CDFW pursuant to Section 10 of the Endangered Species Act is required if it is determined that the proposed project may affect a federally listed species.

A.3 State Agency Interaction on Resource Issues

California Department of Fish and Wildlife routinely recommends that applicants conduct a biological assessment for sensitive species and, in particular, a kit fox and raptor survey and avoidance prior to construction. In its role as a trustee agency, DFW works with project applicants to avoid or minimize adverse effects on fish, wildlife (including raptors), or native plants.

A.4 Project-related Mitigation Guidelines

USFWS and DFW work to avoid land use decisions that might restrict the range or reduce the numbers of rare or endangered species. Under the Endangered Species Act, if it is determined that listed species will be adversely affected (or if a project impact is likely to have an adverse effect on listed species), such impacts will need to be mitigated. Under these circumstances, Applicant should initiate informal consultation with USFWS to determine whether a Section 7 consultation is indicated.

Under CEQA, once a threshold for significance has been established (e.g.

significant impacts to a natural community, to special status species, or to common wildlife species), applicant can address a range of mitigation options. In view of CEQA guidelines, DFW encourages project proponents (such as the Applicant) to take the following hierarchical approach to mitigate for any human impacts on natural communities and wildlife:

1) Ideally, any proposed project should be designed to avoid impacts to high quality habitat and sensitive species (e.g. San Joaquin kit fox, raptors, or other special status and protected species).

2) If avoidance is not possible, DFW encourages project proponent to minimize loss of natural habitat and habitat quality. Habitat improvements, including revegetation with native species or enhancement of degraded habitat (including removal of non-native species), either on-site or off-site may be used as mitigation.

3) Another important component of effective mitigation includes efforts aimed at reducing human disturbance by controlling access to sensitive areas or devising plans for coexistence.

4) Short-term mitigation may be recommended during construction. Construction and maintenance personnel are instructed on "take" avoidance. Native vegetation may be replanted, and protection recommended on the project site for habitat features critical to endangered and threatened species. Individual plants or animals may be relocated off-site by a qualified biologist.

5) Long-term mitigation may include control of alien and wild predators and invasive plant species, or encouraging growth of forage plants for native animal species.

A.5 Project Background

Four Creeks Engineering (FCE) contacted Kamansky's Ecological Consulting (KEC) for a survey in Farmersville, CA (Figure 1).

Kamansky's Ecological Consulting submits this report to the FCE to provide information on the site conditions and lay the foundation for the CEQA analysis.

It is agreed that the report of findings produced upon the conclusion of this reconnaissance level and focused biological survey will be used in the following manner ONLY: for consideration during any necessary

NEPA/CEQA analysis and mitigation requirements or other permitting processes. It is understood that KEC does NOT make recommendations for approval or denial of the Project.

B. LOCATION OF SUBJECT PROPERTY

The subject property covered by this biological investigation is located in central Tulare County, California. The subject site is located south of Hwy 198 and south of Avenue 196 in Farmersville and north of Avenue 292. The property is along the north border of the Farmersville city limits. The property Assessment Parcel Numbers are 101-090-14 and 101-090-15. APN 101-090-07 - that portion of the east half of the northwest quarter of the northeast quarter of Section 35, Township 18 South, Range 25 lying North and west of the Tulare Irrigation Ditch. APN 101-100-09 - that portion of the North half of the Southeast Quarter of the northeast quarter of Section 35.

C. CURRENT LAND USE AND SITE CHARACTERISTICS

The site is currently an in a fallow state of agricultural use. The Tulare Irrigation District canal runs through the middle of site. The site was previously a drive-in movie theater (south portion). There is a mobile communication tower on the site now. Annual grassland and ruderal ground occupy the site.



Figure 1. Project location and relative to Highway 198 and Avenue 296.

D. SURVEY DATES AND SURVEY PERSONNEL

The field component of the biological evaluation was conducted during site visits on January 15, 22 and February 4, 2015 throughout daylight hours and including some evening observations. Weather conditions were clear and sunny, 50-60 degrees F. Bobby Kamansky conducted the site visits.

E. STUDIES REQUIRED TO SATISFY ENDANGERED SPECIES LAWS

Several species of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. State and federal laws have provided DFW and the USFWS with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. Many native plant and animal species have been formally designated as Threatened or Endangered under state and federal endangered species legislation. Others have been designated as "Species of Special Concern" by DFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened or endangered (CNPS 2001). Collectively, these plants and animals are referred to as Special Status Species.

F. STUDY METHODOLOGY

F.1 Literature Review

A review of literature was conducted to provide additional information about the relevant species and habitats.

F.2 Consultation with Experts on Species

Several biologists were consulted on this study to provide additional information. Kamansky's Ecological Consulting also provided additional species information and records from field notes by Bobby Kamansky to supplement CNDDB information about the area.

F.3 Survey Methods

Survey methods consisted of pedestrian surveys of the site and vehicular surveys on established roads around the site and some of the adjacent sites. Potential raptor nesting trees were identified and surveyed with high-powered optical equipment.

F.4 Consult California Natural Diversity Data Base (CNDDB)

The biological investigation conducted by KEC focused on the status of several Special Status Species within a nine-quad vicinity (Monson, Ivanhoe, Woodlake, Visalia, Exeter, Rocky Hill, Tulare, Cairns Corner, Lindsay). Species and the three habitats listed in the CNDDB are considered Special Status Species and are often treated as if they were listed under Federal or State Endangered Species Acts.

Additional species and records were added from field notes and documented during surveys. The likelihood of the species occurring on the site is categorized as present, absent, possible or unlikely, based on whether they were detected, are known to exist on the site or immediately adjacent (present), were not detected and not expected, owing to lack of habitat (absent), possibly occurring with suitable or suboptimal habitat present but not detected (possible), not likely to occur with no habitat or suboptimal habitat present and not detected (unlikely).

Thirty seven (39) Special Status Species and four habitats tracked by CNDDB are known to occur in the vicinity (see map in Appendix C-2). Twenty three (23) Special Status animal species are known to occur in the general vicinity (the nine quad area) of the Sequoia Drive-In Business Park (the Subject Property). All of these species were found in the CNDDB. Various other species are expected utilize the site; great-horned owls and barn owls are all known to forage and nest in the vicinity.

Twelve (12) Special Status plant species were included in the CNDDB printout for the nine relevant quadrangles. None of these species are known to occur in the immediate vicinity of the site. The site and the surrounding areas generally serve as poor habitat for many Special Status Species.

Four native plant communities, Valley Sacaton Grassland, Northern Hardpan Vernal Pool, Northern Claypan Vernal Pool, Valley Oak Riparian Forest were listed in the CNDDB.

Table 1 (Appendix) summarizes the species and habitats that were listed in the CNDDB and their occurrence summaries.

G. VEGETATION ON THE PROPOSED SEQUOIA DRIVE-IN BUSINESS PARK

G.1 Natural Communities

Associations of plant species that grow in assemblages under similar

ecological conditions are called plant communities (also known as natural communities or biotic communities). Generally, they are named for the dominant species found in the association. Definition of plant communities is important not only because it identifies types of plants that are present, but also because it indicates habitat types and animal species which may be found in the community. In this section, common names and scientific (Latin binomial) names of plants will both be given the first time they are mentioned; thereafter only common names will be used.

G.2 Native Plant Communities

The land on the subject property is disturbed and does not support historical flora. According to the natural community classification scheme used by Holland (1986), the Sequoia Drive-In Business Park is located in a part of the southern San Joaquin Valley that originally contained components of two natural communities prior to development: Valley Grassland and Valley Oak Riparian Woodland.

G.3 Plant Species Composition on the Sequoia Drive-In Business Park

Because subject property was farmed and disked, it currently supports relatively low species richness of wild, native plants. There are no substantial (>¼ -acre) patches of native vegetation on the subject property. Three large (>15" diameter at breast height) and several smaller Valley oaks (*Quercus lobata*) grow on the subject property (see Appendix C-2).

G.3.a Valley Grassland

Dominant species observed on the subject property during the field survey, aside from cultivated crops, include the following annuals in the grassland: hare barley (*Hordeum murinum*), whitestem filaree (*Erodium moschatum*), redstem filaree (*Erodium cicutarium*), ripgut brome (*Bromus diandrus*) (see Appendix A).

H. INVERTEBRATES ON THE SEQUOIA DRIVE IN BUSINESS PARK

The site is within close proximity (<1 mile) to row crop fields where there are rich invertebrate species. These animals provide food for many predators, including hawks, which were observed in the area.

I. VERTEBRATE ANIMALS ON THE SEQUOIA DRIVE-IN BUSINESS PARK

No special status species were recorded on the Sequoia Drive-In Business Park other than red-tailed hawks. Twelve vertebrate, common species were observed

at the Sequoia Drive-In Business Park (See Appendix B) during field surveys. California ground squirrels were observed on the site whose burrows provide habitat for other species, some of which are special status, e.g. burrowing owls.

I.1 Common Amphibians

One amphibian species was observed on the subject property during field work. Bullfrogs (*Lithobates catesbeianus*) were observed along the Tulare Irrigation District canal.

I.2 Common Reptiles

No reptiles were observed on the subject property during field work. The site does provide habitat for common species such as western fence lizards (*Sceloporus occidentalis*).

I.3 Common Birds

Nine bird species were observed on the site during survey times and dates. The grasslands on the site support common species such as doves and the treed areas support winter resident birds, neotropical migrants such as kingbirds (*Tyrannus verticalis*) and raptors such as red-tailed hawks (*Buteo jamacansis*), barn owls (*Tyto alba*, these were observed on the site) and potentially Swainson's hawks (no Swainson's hawks were observed adjacent to the site, but they are known to nest in the vicinity).

I.4 Common Mammals

Mammals such as Botta's pocket gopher (*Thommomys bottae*), California ground squirrel (*Spermophilus beechyi*), and racoon (*Procyon lotor*), occupy the site and were observed during surveys.

J. RESULTS OF BIOLOGICAL EVALUATION

J.1 SPECIAL STATUS PLANT SPECIES

J.1.a California jewel-flower (*Caulanthus califonrica*) Fed Endangered, State Endangered California Native Plant Society (CNPS) 1B.1

There is one quad with records for the California jewel flower: Tulare. This population is considered extirpated.

No California jewel flower was found on the site. Habitat for this species is listed by CNPS as chenopod scrub, valley and foothill grassland, and pinyon-juniper woodland. No habitat of these types and no undisturbed

grassland exist along the site.

J.1.b California satintail (*Imperrata brevifolia*) CNPS 1B.2
This species has records in the Visalia Quad.

No California satintail was found on the site. This species is likely to occur in alkali meadows and seeps which are not found on the site.

J.1.c Recurved larkspur (*Delphinium recurvatum*) CNPS 1B.2
Records for this species are from the Cairns Corner, Ivanhoe and Monson quads.

No recurved larkspur was found on the site. Habitat for this species is saline and alkaline soils. Owing to the highly disturbed nature of the site, this species is not expected to occur.

J.1.d Lesser saltscale (*Atriplex miniscula*) CNPS 1B.1
There are records of this species from the Cairns Corner, Goshen, Ivanhoe and Traver quads.

No lesser saltscale, or any annual saltbush (Atriplex) species, was found on the site. Lesser saltscale grows on Chenopod scrub, playas, sandy soils in alkaline areas, and Valley and foothill grassland often in association with slough systems and river floodplains. None of these plant communities occur undisturbed on the site.

J.1.e San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*) Fed Threatened, State Endangered, CNPS 1B.1
The Ivanhoe and Monson quads contain the record of this plant in the vicinity.

No San Joaquin Orcutt grass was found on the site. This species is a vernal pool obligate. No vernal pools were observed on the on or adjacent to the site.

J.1.f San Joaquin adobe sunburst (*Pseudobahia peirsonii*) Fed Threatened, State Endangered, CNPS 1B.1
The record for the San Joaquin adobe sunburst is in the Tulare Quad.

No San Joaquin adobe sunbursts were found on the site. Habitat for this species is grasslands and woodlands with heavy adobe clay soils, these

elements were not found on the site.

J.1.g Brittlescale (*Atriplex depressa*) CNPS 1B.2
This species was recorded in the Traver and Visalia quads.

No brittlescale was found on the site. Habitat for this species is saline and alkaline soils. Owing to the highly disturbed nature of the site, this species is not expected to occur.

J.1.h Spiny-sepaled button-celery (*Eryngium spinosepalum*) CNPS 1B.2
This species was recorded in the Ivanhoe and Exeter quads.

No spiny-sepaled button-celery was observed on the site. This species is associated with Valley and foothill grassland and vernal pools. These communities do not exist on or near the site.

J.1.i Heartscale (*Atriplex cordulata var. cordulata*) 1B.2
This species was recorded in the Goshen Quad.

No heartscale was found on the site. Habitat for this species is saline and alkaline soils. Owing to the highly disturbed nature of the site, this species is not expected to occur.

J.1.j Vernal pool smallscale (*Atriplex persistens*) 1B.2
This species was recorded in the Ivanhoe Quad.

No vernal pool smallscale was found on the site. Habitat for this species is vernal pools and playas. The site is highly disturbed and no wetlands exist on the site.

J.1.k Subtle orache (*Atriplex subtilis*) 1B.2
This species was recorded in the Cairns Corner and Goshen quads.

No subtle orache was found on the site. Habitat for this species is saline and alkaline soils. Owing to the highly disturbed nature of the site, this species is not expected to occur.

J.1.l Earlimart orache (*Atriplex cordulata var. erecticaulis*) 1B.2
This species was recorded in the Cairns Corner and Ivanhoe quads.

No Earlimart orache was found on the site. Habitat for this species is

saline and alkaline soils. Owing to the highly disturbed nature of the site, this species is not expected to occur.

J.1.m Hoover's spurge (*Euphorbia hooveri*) Fed Threatened CNPS1B.2
This species was recorded in the Ivanhoe and Monson quads.

No Hoover's spurge was found on the site. This is a vernal pool obligate species. No vernal pools were observed on the site and no vernal pools are adjacent.

J.2 SPECIAL STATUS PLANT COMMUNITIES

J2.a Northern Claypan Vernal Pool
This community was listed within the Traver Quad.

No Northern Claypan Vernal Pools were found on the site. No wetlands occur on the site.

J2.b Northern Hardpan Vernal Pool
This community was listed within the Monson and Ivanhoe quads.

No Northern Hardpan Vernal Pools were found on the site. No wetlands occur on the site.

J2.c Great Valley Valley Oak Riparian Forest
This community was recorded in the Exeter Quad.

No Great Valley Valley Oak Riparian Forest was found on the site. Only three large oak trees and several small trees exist on the site.

J2.d Valley Sacaton Grassland
This community was recorded in the Exeter and Goshen quads.

The site is heavily disturbed and no perennial, native grasses occur on the site. *No Valley Sacaton Grassland was found on the site.*

J.2 SPECIAL STATUS INVERTEBRATES

J.2.a Vernal pool fairy shrimp (*Branchinecta lynchii*) FT
Four quads with records of this species were found: Goshen, Traver, Ivanhoe and Monson.

No vernal pool fairy shrimp were found on the site. No vernal pools were observed during surveys.

Vernal pool fairy shrimp are entirely dependent on vernal pool habitat associated with particular soils. Vernal pool fairy shrimp are unlikely to occur anywhere on the site because there are no vernal pools located anywhere on or adjacent to the site.

J.2.b Vernal pool tadpole shrimp (*Lepidurus packardii*) Fed Threatened
This species was recorded in the Ivanhoe, Traver and Monson quads.

No vernal pool tadpole shrimp were found on the site. No vernal pools occur were observed during surveys. Vernal pool tadpole shrimp are entirely dependent on vernal pool habitat associated with particular soils. Vernal pool tadpole shrimp are unlikely to occur anywhere on the site because there are no vernal pools located anywhere on or adjacent to the site.

J.2.c Moody's gnaphosid spider (*Talanites moodyae*)
This species was recorded in the Exeter, Rocky Hill and Ivanhoe quads.

This species requires serpentine bedrock or soils. Neither of which occur on the site.

J.2.d An andrenid bee (*Andrena macswaini*) None
This species was recorded in the Tulare Quad.

It is possible this species occurs on or adjacent to the site but it was not observed during surveys. There are abundant sites for burrowing and foraging.

J.2.e Hopping's blister beetle (*Lytta hoppingi*)
This species has been found in the Visalia Quad.

No Hopping's blister beetles were observed on the site. This species is found on native flowers, but little is known of its specific requirements. It has been collected March-June.

J.2.f Molestan blister beetle (*Lytta molensta*)
This species has been found in the Lindsay Quad.

No Molestan blister beetles were observed on the site. This species is

found on native flowers, but little is known of its specific requirements. It has been collected March-June.

J.3 SPECIAL STATUS AMPHIBIANS AND REPTILES

J.3.a Western spadefoot (*Spea Hammondii*) California Department of Fish and Wildlife Species of Special Concern

Neither this species, nor its wetland habitat were observed on the site, outside of the Tulare Irrigation District canal. The site provides little to no habitat for this species. The nine quad CNDDB printout includes two quads containing occurrences of western spadefoot: the Goshen, Ivanhoe, Monson and Traver quads.

No Western spadefoot toads were found on the site. Western spadefoot toads are found primarily in annual grasslands with vernal pools. No vernal pools occur on the site. Western spadefoot toad is unlikely to occur anywhere on the site because there are no grasslands with vernal pools located anywhere on or adjacent to the site. The Tulare Irrigation Ditch running through the middle of the site does not appear to support this species.

J.3.b California tiger salamander (*Ambystoma californiense)* Fed Threatened, State Threatened, SSC

This species has been recorded in the Ivanhoe and Monson quads.

No California tiger salamanders were observed on the site. Suitable aquatic habitat was not found on or adjacent to the site.

J.3.c Western pond turtle (*Emys marmorata*) SSC

This species has been found in the Wahtoke and Reedley quads.

No western pond turtles were found on the site. Riparian habitats, pools or flowing water were not observed during field surveys. However, a slough channel with possibly suitable hydrological conditions does exist just east of the project area.

J.3.d Northern leopard frog (*Lithobates pipiens*) CDFW SSC

This species' record is from the Monson Quad.

No habitat for this species was found on the site and *no northern leopard frogs were found on the site.*

J.4 SPECIAL STATUS BIRDS

J.4.a Swainson's hawk (*Buteo swainsoni*) (nesting) State Threatened

Swainson's hawk records are found in the Traver, Selma, Conejo, and Malaga quads.

In the adjacent Tulare County and Kings County, more than 33 Swainson's hawk nests have been located in isolated trees or small groves of eucalyptus (18), valley oak (8), Fremont's cottonwood (4), Goodding's black willow (3), and deodar cedar (1). Nest trees stand in (or adjacent to) open agricultural land (16), along riparian corridors or irrigation channels (16), or at the edge of a tailwater pond (1). Foraging habitat surrounding the nest trees is chiefly alfalfa or other row crops (30) but also includes expanses of grassland and scrub habitat (3) (Hansen 2005d).

Swainson's hawks prefer open habitats, including mixed and short grass grasslands with scattered trees or shrubs for perching; dry grasslands; irrigated meadows; and edges between two habitat types.

No Swainson's hawks were observed on the site.

Appropriate avoidance measures should be employed such as pre-construction surveys and construction monitoring for this and other raptors. It may be necessary to consult with DFW to determine if additional avoidance is necessary to protect this species during construction.

J.4.b Western burrowing owl (*Athene cunicularia*) SSC

Records for this species are on the Traver, Burris Park, Conejo, Selma, and Reedley quads. This species prefers short grass prairie and other sparsely-vegetated areas where foraging is optimal. Ground squirrel burrows suitable for burrowing owls were observed directly adjacent to the site.

No western burrowing owls were found on or near the site. It is possible that they could be denning and foraging in the fallow fields and farm edges nearby or could move into the proposed Project area prior to construction.

J.4.c Loggerhead shrike (*Lanius ludovicianus*) SSC
The Traver Quad contains the only record for this species in the area.

No Loggerhead shrikes were observed on the site during the survey. They can typically be seen foraging in fallow fields and grassland habitats and nest in dense vegetation. Small suitable habitat patches exist on and nearby the proposed Project site.

J.4.d Tricolored blackbirds (*Agelaius tricolor*) SSC
The Woodlake Quad contains the only record for this species in the area.

No tricolored blackbirds were observed on the site during the survey. They can typically be seen foraging in fallow fields and grassland habitats and nest in dense wetland vegetation. Small suitable habitat patches exist on and nearby the proposed Project site but the type of wetland and food sources are not abundant.

J.4.e Great blue heron (*Ardea herodias*) SSC
The Woodlake Quad contains the only record for this species in the area.

No great blue heron rookeries were observed on the site during the survey. They can typically be seen foraging in fallow fields and riparian areas locally, but no local rookeries were found near or on the site.

J.5 SPECIAL STATUS MAMMALS

J.5.a Western mastiff bat (*Eumops perotis californicus*) SSC
The Traver and Visalia quads contain records of this species.

No western mastiff bats were observed during the field survey.
This species is known to forage in a variety of habitats including agricultural lands, which occur on and adjacent to the site. There are also a few suitable potential roosting sites in the area.

J.5.b San Joaquin kit fox, *Vulpes macrotis mutica* Fed Endangered, State Threatened
Records of San Joaquin kit fox in this part of Tulare County come from seven quads: Visalia, Goshen, Tulare, Ivanhoe, Exeter, Traver, and Monson. These widespread occurrences suggest widespread activity in the area.

The Endangered Species Recovery Program (ESRP) text on San Joaquin

kit fox below, passages most pertinent to the site are highlighted in *italic* type:

> *San Joaquin kit foxes inhabit grasslands* and scrublands, many of which have been *extensively modified.* Types of modified habitats include…grazed annual grasslands. Oak woodland, alkali sink scrubland, and vernal pool and alkali meadow communities also provide habitat for kit foxes. Dens are scarce in areas with shallow soils because of the proximity to bedrock, high water tables, or impenetrable hardpan [or claypan] layers. Kit foxes are active year-round and are primarily nocturnal. (To view a species profile for San Joaquin kit fox, see the ESRP URL: http://esrp.csustan.edu/speciesprofiles/profile.php?sp=vuma

No San Joaquin kit fox were observed during this field survey. San Joaquin kit fox is a species that is both Federally Endangered and State Threatened. Records of San Joaquin kit fox occurrences are widespread within the proposed Project area. The proposed Project site is sub-optimal kit fox habitat because it does not provide important intrinsic habitat values unique to the area and has an extensive history of disturbance. However, some possible movement corridors are in the area and San Joaquin kit fox may occasionally pass through the site while foraging and it is possible that foxes could den on the site. The site is within the range of this species and potential kit fox dens were observed on and directly adjacent to the site. It should be noted though that no evidence of kit fox tracks or scat was found anywhere on the site.

J.5.c Pallid bat (*Antrozous pallidus*) SSC
The Exeter Quad contains records of this species.

No pallid bats were observed during field study. Pallid bats' habitat includes arid, rocky sites. The site does not contain such habitat.

J.5.d American badger (*Taxidea taxus)* CDFW SSC
The Exeter Quad contains records of this species.

No badgers were observed during field study. The site does contain potential badger habitat. While they were not observed during the field study, they could be present or move into the site prior to construction.

J.5.e Tipton kangaroo rat (*Dipodomys nitratoides nitratoides)* CDFW SSC

The Exeter and Woodlake quads contain records of this species.

No kangaroo rats were observed during field study. The site does not contain habitat for this species because there has been past land disturbance and there are no known remnant populations within the adjacent areas.

K. IMPACT ANALYSIS AND MITIGATION

K.1 SIGNIFICANCE CRITERIA

General plans, area plans, and specific projects are subject to the provisions of the California Environmental Quality Act (CEQA) to assess the impacts of proposed projects on the environment before they are constructed. For example, site development may require the removal of some or all of a site's existing vegetation. Animals associated with this vegetation could be destroyed or displaced**.** Plants and animals adapted to humans, roads, buildings, pets, etc. may replace those species which formerly occurred on the site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed. These impacts may be considered significant or not. According to Guide to the California Environmental Quality Act (Remy *et al.* 1999), "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest. Specific project impacts to biological resources may be considered "significant" if they will:

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

- 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;
- 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 site;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- conflict with the provisions of an adopted Habitat Conservation Plan, or other approved local, regional, or state habitat conservation plan (Remy et al. 1999).

Furthermore, CEQA Guidelines Section 15065 states that a project may trigger the requirement to make a "mandatory findings of significance" if "the Project has 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, 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."

In a Draft EIS/EIR prepared for a Project in Kings County by the United States Army Corps of Engineers (USACE), the document states,

> For this section [Section 4.12 Effects on Endangered Species], any project action which would affect the continued existence of an endangered or threatened species or a species of special concern is considered to be a significant adverse affect [*sic*].

If the lead agency can demonstrate that potential impacts to biological resources will be avoided, then these impacts should be considered less-than-significant for the purpose of a CEQA review.

K.2 RELEVANT GOALS, POLICIES, AND LAWS

K.2.1 Threatened and Endangered Species

State and federal "endangered species" legislation has provided the DFW and the USFWS with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as "species of special status". Permits may be required from both the DFW and USFWS if activities associated with a proposed project will result in the "take" of a listed species. "Take" is defined by the state of California as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (California Fish and Wildlife Code, Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" (16 USC, Section 1532 (19), 50 CFR, Section 17.3). Furthermore, the DFW and the USFWS are responding agencies under the California Environmental Quality Act (CEQA). Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues to make project-specific recommendations for their conservation.

K.2.2 Migratory Birds

State and federal laws also protect most birds. The Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

Construction disturbances during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the DFW.

K.2.3 Birds of Prey

Birds of prey are also protected in California under provisions of the State Fish and Wildlife Code, Section 3503.5,(1992), which states that it is "unlawful to take, possess, or destroy any birds in the Order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Construction disturbances during the breeding season could result in the incidental

loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the DFW.

K.2.4 Wetlands and Other "Jurisdictional Waters"

Natural drainage channels and wetlands are considered "Waters of the United States" (hereafter referred to as "jurisdictional waters"). The U.S. Army Corps of Engineers (USACE) regulates the filling or grading of such waters under the authority of Section 404 of The Clean Water Act (Wetland Training Institute, Inc. 1990). The extent of jurisdiction within drainage channels is defined by "ordinary high water marks" on opposing channel banks. Wetlands are habitats with soils that are intermittently or permanently saturated, or inundated. The resulting anaerobic conditions select for plant species known as hydrophytes that show a high degree of fidelity to such soils. Wetlands are identified by the presence of hydrophytic vegetation, hydric soils (soils saturated intermittently or permanently saturated by water), and wetland hydrology according to methodologies outlined in the 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987).

All activities that involve the discharge of fill into jurisdictional waters are subject to the permit requirements of the USACE (Wetland Training Institute, Inc. 1991). Such permits are typically issued on the condition that the applicant agrees to provide mitigation that results in no net loss of wetland functions or values. No permit can be issued until the Regional Water Quality Control Board (RWQCB) issues a certification (or waiver of such certification) that the proposed activity will meet state water quality standards. The RWCQB is also responsible for enforcing National Pollution Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit. All projects requiring federal money must also comply with Executive Order 11990 (Protection of Wetlands).

The California Department of Fish and Wildlife has jurisdiction over the bed and bank of natural drainages according to provisions of Section 1601 and 1603 of the California Fish and Wildlife Code (California Department of Fish and Wildlife, 1995). Activities that would disturb these drainages are regulated by the DFW via a Streambed Alteration Agreement. Such an agreement typically stipulates that certain measures will be implemented which protect the habitat values of the drainage in

question.

K.3 ENVIRONMENTAL IMPACT/MITIGATION

Will the construction or land modification 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 U.S. Fish and Wildlife Service?

K.3.1 Impacts on Special Status Plant Species?

Impact
The current nature of the site and its long disturbance history does not provide suitable habitat for many of the Special Status plant species that are listed in the CNDDB. No Special Status plant species were present on the site during the survey.

Avoidance
Because no impacts to Special Status plant species are anticipated, no avoidance of plant species is required.

Minimization
Because no impacts to Special Status plant species are anticipated, no minimization is required.

Compensation
No compensation is required.

Monitoring
No monitoring is required.

K.3.2 Impacts on Special Status Animal Species?

Impact
Twenty three (23) Special Status animal species are known to occur in the general vicinity of the Sequoia Drive-In Business Park. KEC inspected the site and noted that all lands on the Project site have been disturbed to some degree by leveling, disking, farming, and the site was an outdoor movie theater.

Various large nesting trees border or are present on the site. No raptors or nests were observed on the site, but are present in the general vicinity (see Appendix maps). Although the site is sub-optimal kit fox habitat, it is within the range of this species and potential kit fox dens were observed directly adjacent to the site. Dens could also be used by burrowing owls and badgers could be present on the site. Neo-tropical migratory birds occupied the site at the time of the biological surveys. To avoid these protected species, preconstruction surveys will be required to identify and avoid any Special Status Species on the Project Site prior to construction.

Avoidance
Take of Special Status Species as a result of any project-related construction or earth-moving work would be considered a significant environmental impact. Thus, impacts to raptors in nest trees located on/near the site would need to be avoided, or compensated for to bring impacts below the level of significance. Impacts to badgers, migratory birds, burrowing owls and kit foxes that might occupy the site must also be avoided. Because habitat for Special Status animal species occurs on and adjacent the subject property, avoidance and minimization measures are warranted.

In order to avoid impacts, the Applicant could construct the project outside of the nesting season for raptors and migratory birds (March - August). Because of the potential kit fox and burrowing owl dens, the migratory birds and the nests and potential foraging habitat on adjacent agricultural land, standardized preconstruction surveys will be required to avoid impacts to this species. (BE mitigation measure #1) Preconstruction surveys should follow the San Joaquin kit fox and burrowing owl standardized recommendations for avoiding impacts during ground disturbance (USFWS 1999).

If preconstruction surveys detect Swainson's hawks or other raptors nesting on the site or adjacent to the site, the Applicant should initiate consultation with DWF and/or USFWS to clarify the avoidance requirements; (BE mitigation measure #2) ½ mile from nest trees is standard avoidance. Preconstruction avian surveys should also identify if any neo-tropical migrants nest on the site (BE mitigation measure #3). If nesting behavior or nests are observed, 500-foot buffer areas will need to be established to protect nests and ensure avoidance.

Because take of raptors or other Special Status Species as a result of any project-related construction or earth-moving work would be considered a significant environmental impact, impacts to raptors in nest trees located on/near the site would need to be avoided, or compensated to bring impacts below the level of significance.

Monitoring
If pre-construction surveys detect species on site or adjacent, (BE mitigation measure #4) a biologist may need to be onsite to educate workers, monitor compliance, best management practices and to identify and protect natural resources while construction occurs. The monitor will be responsible for ensuring that appropriate measures are taken to prevent disturbance of core avoidance areas. Any unauthorized take of Special Status species will be immediately reported to DFW by the monitor. The monitor will also notify the Project Coordinator who will stop work until corrective measures are implemented.

Mitigation
Although San Joaquin kit foxes and badgers have been reported in the CNDDB, the site is not considered optimal kit-fox or badger habitat and kitfoxes have not been confirmed in the vicinity in some time. Swainson's hawks, burrowing owls or other raptors could forage or nest on the site and in the adjacent agriculture fields and DFW should be consulted in order to determine measures for that species. Preconstruction surveys will be conducted before any ground-disturbing activities begin. If the surveys detect the presence of listed species or migratory birds, then the Project will be paused until appropriate measures or consultation with the USFWS/DFW can take place.

If preconstruction surveys find that no special-status species are present on or adjacent to the property, then the potential construction may proceed. The Applicant would implement the following environmental protection measures to reduce environmental consequences associated with construction. Based on this analysis, implementation of mitigation measures would reduce potential Project-specific impacts to less than significant.

Environmental Protection Measures

1. The United States Fish and Wildlife Service (USFWS) approved pre-construction surveys for San Joaquin kit fox shall be conducted no

fewer than 14 days and no more than 30 days prior to the onset of any ground-disturbing activity (USFWS 1999). The Applicant would follow standardized Recommendations for Protection of the San Joaquin kit fox prior to and during ground disturbance (USFWS 1999). These surveys will also detect raptor and migratory songbirds activity in the area and recommend appropriate avoidance and minimization measures.

2. If activities take place during avian nesting season (March 1 - August 1), a qualified biologist will conduct nest surveys within a 500-ft radius of the construction site, with an emphasis on Swainson's hawks (USFWS 1994), burrowing owls and other raptors (BE mitigation measure #4). Appropriate measures shall be determined in consultation with the California Department of Fish and Wildlife (DFW) in the event an active nest is located in an area subject to disturbance (within ½ mile). No restrictions are required for avian species for construction activities that occur during the non-breeding season (August 1 through February 28) or after the young have fledged.

(BE mitigation measures 1-4) Protection of Swainson's hawks and other raptors and migratory birds (including Loggerhead Shrike).

- Pre-construction surveys shall be conducted to determine the presence of nesting birds if ground clearing or construction activities will be initiated during the breeding season (February 15 through September 15). Potential nesting areas on the proposed Project site and potential nesting areas within 500 feet of the site should be surveyed 14 to 30 days prior to the initiation of construction. Surveys shall be performed by a qualified biologist to verify the presence or absence of nesting birds. Construction shall not occur within a 500 foot buffer surrounding active nests of raptors or a 250 foot buffer surrounding active nests of migratory birds. If construction within these buffer areas is required or if nests must be removed to allow continuation of construction, then approval and specific removal methodologies should be obtained in consultation with DFW
- All trees which are suitable for Swainson's hawk nesting that are within 2,640 feet of construction activities shall be inspected by a qualified biologist.

If raptor nests such as Swainson's hawk are found during the inspection, then surveys shall be conducted at the following intensities, depending upon dates of initiation of construction:

> If Swainson's hawks are detected to be actively nesting in trees within 2,640 feet of the construction area, construction shall not occur within this zone until after young Swainson's hawks have fledged (this usually occurs by early June). The nest shall be monitored by a qualified biologist to determine fledging date.
>
> If other nesting birds (particularly non-raptor species listed on the MBTA) are found actively nesting within 250 feet of the construction area, construction should be postponed until after young have fledged. The date of fledging should be determined by a qualified biologist. If construction cannot be delayed within this zone, the DFW and/or the USFWS shall be consulted and alternative protection measures required by the CDFW and/or the USFWS shall be followed.

Protection of San Joaquin kit fox

A standardized pre-construction/pre-activity survey shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities or any Project activity likely to impact the San Joaquin kit fox. Surveys shall identify kit fox habitat features on the Project site and evaluate use by kit fox and, if possible, assess the potential impacts to the kit fox by the proposed activity. The status of all dens shall be determined and mapped. Written results of pre-construction/pre-activity surveys must be received by the Service within five days after survey completion and prior to the start of ground disturbance and/or construction activities. Disturbance to all San Joaquin kit fox dens shall be avoided to the maximum extent possible.

If a natal/pupping den is discovered within the Project area or within 200-feet of the site boundary, USFWS shall be immediately notified and under no circumstances should the den be disturbed or destroyed without prior authorization. If the pre-construction/pre-activity survey reveals an active natal pupping or new information, the Project applicant shall contact USFWS immediately to obtain the necessary take authorization/permit.

Destruction of any den shall be accomplished by careful excavation until it is certain that no kit foxes are inside. The den shall be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter or use the den during the construction period.

If at any point during excavation, a kit fox is discovered inside the den, the excavation activity shall cease immediately and monitoring of the den as described above shall be resumed. Destruction of the den may be completed when, in the judgment of the qualified biologist, the animal has escaped without further disturbance from the partially destroyed den.

Project-related vehicles shall observe a daytime speed limit not to exceed 20-mph throughout the site in all proposed Project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Night-time construction shall be minimized to the extent possible. However if it does occur, then the speed limit shall be reduced to 10-mph. Off-road traffic outside of designated project areas shall be prohibited.

To prevent inadvertent entrapment of kit fox or other animals during the construction phase of the proposed Project, all excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the USFWS and the California Department of Fish and Wildlife shall be contacted as noted under Mitigation Measure 4-20 referenced below.

Kit fox are attracted to den-like structures such as pipes and may enter stored pipes and become 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 shall be thoroughly inspected for kit fox before the pipe is used or moved, buried, or capped in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the DFW has been consulted. If necessary, and under the direct supervision of a qualified biologist, the pipe may be moved only once to remove it from the path of construction

activity, until the fox has escaped.

All food-related trash outside of the enclosed facility such as wrappers, cans, bottles, and food scraps shall be disposed of daily in securely closed containers and removed at least once a week during both construction and operational phases.

No pets, such as dogs or cats, shall be allowed on the Project site in order to prevent harassment, mortality of kit fox, or destruction of dens. Use of rodenticides and herbicides in Project areas shall be restricted. If rodent control must be used it shall be limited to the use of zinc phosphide because of its demonstrated lower risk to kit fox.

A representative shall be appointed by the Project Applicant to serve as the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name, telephone number, or other pertinent contact information shall be provided to the Service.
An employee education program shall be conducted to alert employees of potential impacts to kit fox or other species of concern. The program shall consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program shall include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the Project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during Project construction and implementation. A fact sheet conveying this information shall be prepared for distribution to the previously referenced people and anyone else who may enter the Project site.
Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. The Sacramento Fish and Wildlife Office and CFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The Sacramento Fish and Wildlife Office contact

is:

Mr. Paul Hoffman
1701 Nimbus Road, Suite A,
Rancho Cordova, California 95670
(530) 934-9309

New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed shall also be provided to Fish and Wildlife at the address below.

Endangered Species Division
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846
(916) 414-6620 or (916) 414-6600

Protection of burrowing owl
In accordance with DFW's 2012 Staff Report on Burrowing Owl Mitigation, a qualified biologist shall conduct three surveys for burrowing owls where potential burrowing owl habitat occurs within 500 feet of Project activities. Surveys shall occur during the peak-breeding season for this species (15 April through 15 July), and spaced three weeks apart. If active burrowing owl burrows are identified within 500 feet of the Project site, then avoidance, take avoidance surveys, site surveillance, minimization, and buffer mitigation measures shall be implemented, in accordance with the 2012 DFG Staff Report and direct consultation with DFW.

K.3.3. Adverse Effects on Riparian Habitat or other Sensitive Natural Communities? Will the project 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 Wildlife or U.S. Fish and Wildlife Service?

Impact
No impact to this community is anticipated. There are no substantial patches of riparian habitat; only several oak trees. Three of the oak trees are large (>15" diameter at breast height), but are not contiguous with other habitat.

Mitigation
None required if oaks are not impacted.

K.3.4. Adverse Effects on Federally Protected Wetlands?
Will the project 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?

Impact
No marshes, vernal pools or other wetlands occur on the property (see US Fish and Wildlife Service wetland map in Appendix). However, a Tulare Irrigation Ditch (TID) runs through the property and is not a natural drainage. It is possible that this is a drainage from, or to, a Waters of the US which would mean that consultation with US Army Corps of Engineers and the Regional Water Quality Control Board for permits to construct on or near this potential wetland.

Mitigation
None required assuming no impact or disturbance will occur to the TID canal. If disturbance, encroachment or discharge occurs, consultation, further study such as wetland studies and possibly compensation shall be required.

K.3.5. Interference with Wildlife Movement and Wildlife Corridors?
Will the project 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 site?

Impact
The Kaweah River corridor does lie east of the project site several miles. However, the subject property is not situated on any known substantial wildlife corridor, and the proposed actions have limited scope and should not obstruct wildlife movement.

A considerable amount of open space lands in the vicinity of the subject property will continue to be used by native species for home range and dispersal movements. Therefore, potential construction will result in a

less than significant effect on regional wildlife movements.

Mitigation
Because this potential Project will result in a less than significant effect on regional wildlife movements, mitigation measures are not considered warranted.

K.3.6. Substantial Reductions in Fish & Wildlife Habitat?
Will the project reduce substantially the habitat of a fish or wildlife species, including causing a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate an animal community?

Impact
The site was previously disturbed. Therefore, potential project construction would not result in substantial reduction in fish or wildlife habitat.

Mitigation
Because construction on the site will have a less than significant effect on habitat for common native wildlife occurring in this portion of Tulare County, mitigation measures for common species are not considered warranted. No fish or wildlife populations are likely to drop below self-sustaining levels because of potential activities. The potential project basin does not threaten to eliminate any animal community, so mitigation measures for animal communities are not warranted.

K.3.7 Conflicts with Local Policies or Ordinances?
Will the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact
The project is consistent with local policies and ordinances. Therefore, as long as the Applicant implements avoidance and protection measures and consults with DFW and any other agencies regarding potential impacts to raptors.

Mitigation
Because the potential project is consistent with the General Plan Policies

of Tulare County relevant to natural resource protection, mitigation measures, other than the afore-mentioned avoidance, further protecting biological resources are not considered warranted.

K.3.8 Conflicts with Adopted Conservation Plans?
Will the project conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan?

Impact
Only three HCPs, and no NCCP, or conservation plan have been instituted (or proposed) for Tulare County. It is not clear if the HCPs are geographically broad enough to cover the area of the project or do not cover species relevant to this site. This project will not conflict with any such plan.

Mitigation
None required.

K.3.9 Degradation of Water Quality?
Will the project result in the degradation of water quality in seasonal creeks, reservoirs and downstream waters?

Impact
The excavation of loose soils often creates conditions conducive to erosion and the concomitant deposition of sediment in adjacent drainages. No known water quality risks area associated with the site or potential project if the construction of the project does not encroach or disturb the Tulare Irrigation Ditch canal. If impact occurs to the canal, degradation of water quality could occur.

Mitigation
Because the potential project construction will result in a less than significant impact on water quality in nearby creeks and rivers, mitigation measures are not considered warranted. If impacts to the canal occur, consultation, further study and potentially compensation shall be required.

K.3.10 Disturbance to Active Raptor Nests?
Will construction activities during the project disturb any active raptor nests?

Impact
The site and area immediately adjacent to the property currently does provide nesting and foraging habitat for raptor species such as Swainson's and red-tailed hawks. Surveys may be required to avoid any raptor impacts if construction occurs during breeding season.

Avoidance
The Migratory Bird Treaty Act (MBTA) protects raptors from disturbances. Swainson's hawks are found in the grasslands and agricultural lands of California's Central Valley during the spring and summer. They exhibit a high degree of nest site fidelity and nests are constructed in trees, and include Fremont cottonwood (*Populus fremontia*), willow (*Salix* spp.), Valley oak (*Quercus lobata*), and eucalyptus (*Eucalyptus* spp.) (Bloom 1980). The nesting season for Swainson's hawk occurs from March 1 through September 15. This species spends large amounts of time soaring over grasslands and agricultural fields in the Central Valley and can travel up to 29 kilometers to forage for prey (Estep 1989). Swainson's hawks will forage for prey in row crops (Estep 1989) on small mammals, insects, and birds. Several CNDDB-recorded occurrences, past observations and present survey observations indicate Swainson's hawk occur within a 10 mile radius of the subject property area (See map in Appendix, CNDDB 2014 and B. Kamansky field notes) and other raptors occur or forage on the site or nest adjacent to the site.

Preconstruction surveys will be required to identify and avoid raptors and raptor nest as well as other species (see above). During any construction activities, any raptors will need to be designated as an avoidance area that will need to be protected from disturbance or monitored avoided and/or excavated in coordination with DFW. This avoidance area will be clearly defined by erecting exclusionary fences or flagging with orange geo-webbing nor ribbon prior to construction. Any construction-related disturbance within the buffer zone will be minimized and promptly restored to its original condition following construction.

DFW will be provided with a map and written details identifying avoidance areas.

Mitigation
If avoidance measures are implemented appropriately, no mitigation for raptors would be anticipated as a result of a potential project. However, in the event that foraging habitat or nesting areas would be impacted, then mitigation, compensation and consultation will be needed.

K.3.11 Cumulative Impacts?

The geographic area of this cumulative analysis is the San Joaquin Valley. While the study area is limited to Tulare County, sensitive species with similar habitat requirements may exist in other portions of the San Joaquin Valley, and therefore cumulative impacts would extend beyond Tulare County political boundaries.

The proposed Project would only contribute to cumulative impacts related to this item if Project-specific impacts were to occur. As the proposed Project does not result in significant loss of habitat or direct impact to these special status species, cumulative impacts will be less than significant.

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APPENDIX A: Vascular Plants of the Subject Property

Vascular Plants of the Subject Property

Taxonomic nomenclature (except for several common names) and sequence of major taxonomic groups follows Hickman (1993). Within major taxa, Family and Genus names are listed alphabetically rather than in phylogenetic sequence.

Common names are principally those used by Abrams (1923-1947.17), Cooperative Extension (1978), Crampton (1974), Munz and Keck (1968), Niehaus (1976), and Texas A&M University Bioinformatics Working Group Biota of North America Program (1997).* I denotes introduced species.

Common Name	*Scientific Name*	Class	Plant Family
Barnyard grass (i*)	*Echinochloa sp.*	monocot	Poaceae
Bermuda Grass (i)	*Cynodon dactylon*	monocot	Poaceae
Cultivated oat (i)	*Avena sativa*	monocot	Poaceae
Dallis grass (i)	*Paspalpum sp.*	monocot	Poaceae
Italian ryegrass (i)	*Lolium multiflorum*	monocot	Poaceae
Hare barley (i)	*Hordeum murinum*	monocot	Poaceae
Mexican sprangletop	*Leptochloa fusca*	monocot	Poaceae
Ripgut brome (i)	*Bromus diandrus*	monocot	Poaceae
Washingtonia palm (i)	*Washingtonia robusta*	monocot	Arecaceae
Cheeseweed (i)	*Malva parviflora*	dicot	Malvaceae
Curly Doc (i)	*Rumex crispus*	dicot	Polygonaceae
Datura	*Datura sp.*	dicot	Solanaceae
Five-hook bassia (i)	*Bassia hyssopifolia*	dicot	Amaranthaceae
Filaree (i)	*Erodium mochatum, E. cicutarium*	dicot	Geraneaceae
Fleabane	*Erigeron sp.*	dicot	Asteraceae
Lamb's quarters (i)	*Chenopodium album*	dicot	Chenopodiaceae
Lotus	*Lotus sp.*	dicot	Fabaceae
Mares tail	*Conyza canadensis*	dicot	Asteraceae
Pale smartweed	*Persicaria lapathifolia*	dicot	Polygonaceae
Palmer's amaranth	*Amaranthus palmeri*	dicot	Amaranthaceae
Prostrate Pigweed (i)	*Amaranthus albus*	dicot	Amaranthaceae
Puncture vine (i)	*Tibulus terrestris*	dicot	Zygophyllaceae
Ragweed (i)	*Ambrosia sp.*	dicot	Asteraceae
Russian thistle (i)	*Xanthium strumarium L.*	dicot	Asteraceae
Sunflower, annual	*Helianthus annuus*	dicot	Asteraceae
Telegraph weed	*Heterotheca grandiflora*	dicot	Asteraceae

Tree of heaven (i)	*Ailanthus altissima*	dicot	Simaroubaceae
Valley oak	*Quercus lobata*	dicot	Fagaceae
Wire lettuce	*Stephanomeria sp.*	dicot	Asteraceae

PLANT SPECIES STATUS

TOTAL Number of NATIVE Species: 11

TOTAL Number of INTRODUCED Species: 19

GRAND TOTAL OF ALL PLANT SPECIES: 30

APPENDIX B: Vertebrate Animals of the Subject Property

Vertebrate Animals of the Subject Property

Species observed includes species which were identified by tracks, dens, vocalizations, and other sign.
CSC = California State Species of Special Concern
I = an Introduced (aka invasive, exotic or non-native) species

Bird families and species are listed in phylogenetic order based on the Check-list of North American Birds: Species of Birds of North America from the Arctic through Panama, Including the West Indies and Hawaiian Islands. 7th ed. (American Ornithologist's Union, 1998).

Class: **AVES. Birds**

Order: **CHARADRIIFORMES. Shorebirds, Gulls, and Alcids**

Family: **CHARADRIIDAE. Plovers**

Charadrius vociferous	killdeer

Order: **COLUMBIFORMES**

Family: **COLUMBIDAE. Pigeons and Doves**

Columba livia	rock dove
Zenaida macroura	Mourning dove

Order: **APODIFORMES**

Family: **TROCHILIDAE. Hummingbirds**

Calypte anna	Anna's hummingbird

Order: **PICOFORMES**

Family: **PICINAE. Woodpeckers**

Colaptes auratus	northern flicker

Order: **PASSERIFORMES. Perching birds**

Family: **CORVIDAE. Jays, Magpies, and Crows**

Aphelocoma californica	western scrub-jay

Family: **MIMIDAE. Mockingbirds and Thrashers**

Mimus polyglottos	northern mockingbird

Family: **ICTERIDAE. Blackbirds**

Molothrus ater	brown-headed cowbird

Class: **AMPHIBIA**

Order: **ANURA**

Family: **RANIDAE**

Lithobates catesbeianus	Bullfrog

Class: **MAMMALIA. Mammals**

Order: **RODENTIA. Squirrels, Rats, Mice, and Relatives**

Family: **SCIURIDAE. Squirrels**

Thommys bottae	Botta's pocket gopher
Otospermophilus beecheyi	California ground squirrel

Order: **CARNIVORA.**
Family: **PROCYONIDAE.**

Procyon lotor	raccoon

VERTEBRATE SPECIES OBSERVED ON THE SEQUOIA DRIVE-IN BUSINESS PARK:

AMPHIBIANS:	**1**
REPTILES:	**0**
BIRDS:	**8**
MAMMALS:	**3**

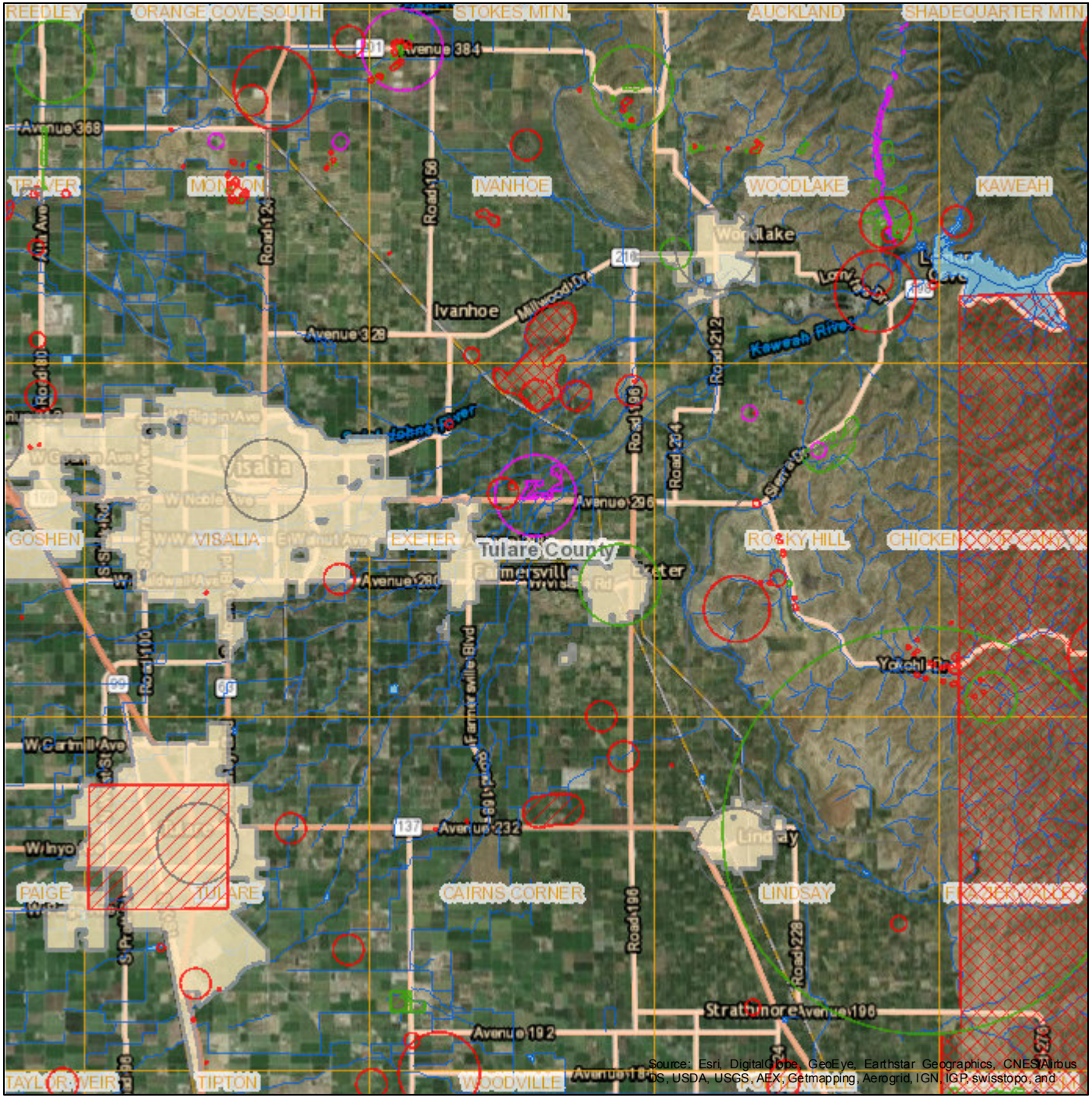
TOTAL NUMBER OF VERTEBRATE OBSERVED: 12

APPENDIX C: MAPS

1. **California Natural Diversity Database Element Occurrence Map**
2. **Site Map with Observations**
3. **National Wetlands Inventory Map**

Sequoia Drive-in Business Park

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)



1:288,895

0 2.5 5 10 mi

0 4 8 16 km

N

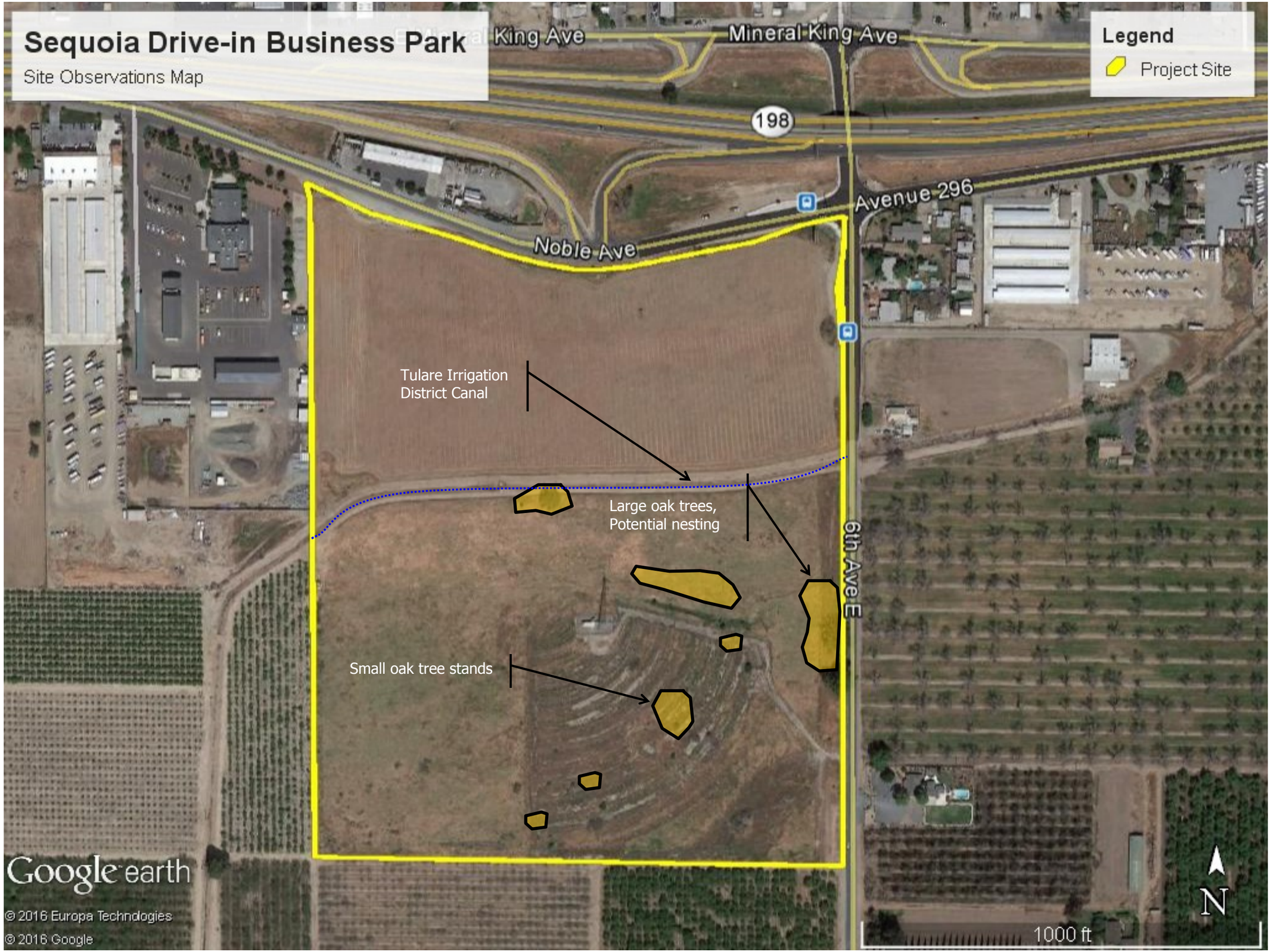
July 22, 2016

Author: cnddb_com

Printed from http://bios.dfg.ca.gov

Sequoia Drive-in Business Park

Site Observations Map



Appendix D: San Joaquin Kit fox Survey Protocol

U.S. FISH AND WILDLIFE SERVICE STANDARDIZED RECOMMENDATIONS FOR PROTECTION OF THE ENDANGERED SAN JOAQUIN KIT FOX PRIOR TO OR DURING GROUND DISTURBANCE

Prepared by the Sacramento Fish and Wildlife Office
January 2011

INTRODUCTION

The following document includes many of the San Joaquin kit fox (*Vulpes macrotis mutica*) protection measures typically recommended by the U. S. Fish and Wildlife Service (Service), prior to and during ground disturbance activities. **However, incorporating relevant sections of these guidelines into the proposed project is not the only action required under the Endangered Species Act of 1973, as amended (Act) and does not preclude the need for section 7 consultation or a section 10 incidental take permit for the proposed project.** Project applicants should contact the Service in Sacramento to determine the full range of requirements that apply to your project; the address and telephone number are given at the end of this document. Implementation of the measures presented in this document may be necessary to avoid violating the provisions of the Act, including the prohibition against "take" (defined as killing, harming, or harassing a listed species, including actions that damage or destroy its habitat). These protection measures may also be required under the terms of a biological opinion pursuant to section 7 of the Act resulting in incidental take authorization (authorization), or an incidental take permit (permit) pursuant to section 10 of the Act. The specific measures implemented to protect kit fox for any given project shall be determined by the Service based upon the applicant's consultation with the Service.

The purpose of this document is to make information on kit fox protection strategies readily available and to help standardize the methods and definitions currently employed to achieve kit fox protection. The measures outlined in this document are subject to modification or revision at the discretion of the Service.

IS A PERMIT NECESSARY?

Certain acts need a permit from the Service which includes destruction of any known (occupied or unoccupied) or natal/pupping kit fox dens. Determination of the presence or absence of kit foxes and /or their dens should be made during the environmental review process. All surveys and monitoring described in this document must be conducted by a qualified biologist and these activities do not require a permit. A qualified biologist (biologist) means any person who has completed at least four years of university training in wildlife biology or a related science and/or has demonstrated field experience in the identification and life history of the San Joaquin kit fox. In addition, the biologist(s) must be able to identify coyote, red fox,

gray fox, and kit fox tracks, and to have seen a kit fox in the wild, at a zoo, or as a museum mount. Resumes of biologists should be submitted to the Service for review and approval prior to an6y survey or monitoring work occurring.

SMALL PROJECTS

Small projects are considered to be those projects with small foot prints, of approximately one acre or less, such as an individual in-fill oil well, communication tower, or bridge repairs. These projects must stand alone and not be part of, or in any way connected to larger projects (i.e., bridge repair or improvement to serve a future urban development). The Service recommends that on these small projects, the biologist survey the proposed project boundary and a 200-foot area outside of the project footprint to identify habitat features and utilize this information as guidance to situate the project to minimize or avoid impacts. If habitat features cannot be completely avoided, then surveys should be conducted and the Service should be contacted for technical assistance to determine the extent of possible take.

Preconstruction/preactivity surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities or any project activity likely to impact the San Joaquin kit fox. Kit foxes change dens four or five times during the summer months, and change natal dens one or two times per month (Morrell 1972). Surveys should identify kit fox habitat features on the project site and evaluate use by kit fox and, if possible, assess the potential impacts to the kit fox by the proposed activity. The status of all dens should be determined and mapped (see Survey Protocol). Written results of preconstruction/preactivity surveys must be received by the Service within five days after survey completion and prior to the start of ground disturbance and/or construction activities.

If a natal/pupping den is discovered within the project area or within 200-feet of the project boundary, the Service shall be immediately notified and under no circumstances should the den be disturbed or destroyed without prior authorization. If the preconstruction/preactivity survey reveals an active natal pupping or new information, the project applicant should contact the Service immediately to obtain the necessary take authorization/permit.

If the take authorization/permit has already been issued, then the biologist may proceed with den destruction within the project boundary, except natal/pupping den which may not be destroyed while occupied. A take authorization/permit is required to destroy these dens even after they are vacated. Protective exclusion zones can be placed around all known and potential dens which occur outside the project footprint (conversely, the project boundary can be demarcated, see den destruction section).

OTHER PROJECTS

It is likely that all other projects occurring within kit fox habitat will require a take authorization/permit from the Service. This determination would be made by the Service during the early evaluation process (see Survey Protocol). These other projects would include, but are not limited to: Linear projects; projects with large footprints such as urban development; and projects which in themselves may be small but have far reaching impacts (i.e., water storage or conveyance facilities that promote urban growth or agriculture, etc.).

The take authorization/permit issued by the Service may incorporate some or all of the protection measures presented in this document. The take authorization/permit may include measures specific to the needs of the project and those requirements supersede any requirements found in this document.

EXCLUSION ZONES

In order to avoid impacts, construction activities must avoid their dens. The configuration of exclusion zones around the kit fox dens should have a radius measured outward from the entrance or cluster of entrances due to the length of dens underground. The following distances are **minimums**, and if they cannot be followed the Service must be contacted. Adult and pup kit foxes are known to sometimes rest and play near the den entrance in the afternoon, but most above-ground activities begin near sunset and continue sporadically throughout the night. Den definitions are attached as Exhibit A.

Potential den**	50 feet
Atypical den**	50 feet
Known den*	100 feet
Natal/pupping den (occupied and unoccupied)	Service must be contacted

*Known den: To ensure protection, the exclusion zone should be demarcated by fencing that encircles each den at the appropriate distance and does not prevent access to the den by kit foxes. Acceptable fencing includes untreated wood particle-board, silt fencing, orange construction fencing or other fencing as approved by the Service as long as it has openings for kit fox ingress/egress and keeps humans and equipment out. Exclusion zone fencing should be maintained until all construction related or operational disturbances have been terminated. At that time, all fencing shall be removed to avoid attracting subsequent attention to the dens.

**Potential and Atypical dens: Placement of 4-5 flagged stakes 50 feet from the den entrance(s) will suffice to identify the den location; fencing will not be required, but the exclusion zone must be observed.

Only essential vehicle operation on existing roads and foot traffic should be permitted. Otherwise, all construction, vehicle operation, material storage, or any other type of surface-disturbing activity should be prohibited or greatly restricted within the exclusion zones.

DESTRUCTION OF DENS

Limited destruction of kit fox dens may be allowed, if avoidance is not a reasonable alternative, provided the following procedures are observed. The value to kit foxes of potential, known, and natal/pupping dens differ and therefore, each den type needs a different level of protection. **Destruction of any known or natal/pupping kit fox den requires take authorization/permit from the Service**.

Destruction of the den should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter or use the den during the construction period. If at any point during excavation, a kit fox is discovered inside the den, the excavation activity shall cease immediately and monitoring of the den as described above should be resumed. Destruction of the den may be completed when in the judgment of the biologist, the animal has escaped, without further disturbance, from the partially destroyed den.

Natal/pupping dens: Natal or pupping dens which are occupied will not be destroyed until the pups and adults have vacated and then only after consultation with the Service. Therefore, project activities at some den sites may have to be postponed.

Known Dens: Known dens occurring within the footprint of the activity must be monitored for three days with tracking medium or an infra-red beam camera to determine the current use. If no kit fox activity is observed during this period, the den should be destroyed immediately to preclude subsequent use.

If kit fox activity is observed at the den during this period, the den should be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Use of the den can be discouraged during this period by partially plugging its entrances(s) with soil in such a manner that any resident animal can escape easily. Only when the den is determined to be unoccupied may the den be excavated under the direction of the biologist. If the animal is still present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant, for example during the animal's normal foraging activities.

The Service encourages hand excavation, but realizes that soil conditions may necessitate the use of excavating equipment. However, extreme caution must be exercised.

Potential Dens: If a take authorization/permit has been obtained from the Service, den destruction may proceed without monitoring, unless other restrictions were issued with the take authorization/permit. If no take authorization/permit has been issued, then potential dens should be monitored as if they were known dens. If any den was considered to be a potential den, but is later determined during monitoring or destruction to be currently, or previously used by kit fox (e.g., if kit fox sign is found inside), then all construction activities shall cease and the Service shall be notified immediately.

CONSTRUCTION AND ON-GOING OPERATIONAL REQUIREMENTS

Habitat subject to permanent and temporary construction disturbances and other types of ongoing project-related disturbance activities should be minimized by adhering to the following activities. Project designs should limit or cluster permanent project features to the smallest area possible while still permitting achievement of project goals. To minimize temporary disturbances, all project-related vehicle traffic should be restricted to established roads, construction areas, and other designated areas. These areas should also be included in preconstruction surveys and, to the extent possible, should be established in locations disturbed by previous activities to prevent further impacts.

1. Project-related vehicles should observe a daytime speed limit of 20-mph throughout the site in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Night-time construction should be minimized to the extent possible. However if it does occur, then the speed limit should be reduced to 10-mph. Off-road traffic outside of designated project areas should be prohibited.

2. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2-feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the Service and the California Department of Fish and Game (CDFG) shall be contacted as noted under measure 13 referenced below.

3. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become 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 kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is

discovered inside a pipe, that section of pipe should not be moved until the Service has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.

4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or project site.

5. No firearms shall be allowed on the project site.

6. No pets, such as dogs or cats, should be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.

7. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.

8. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the Service.

9. An employee education program should be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program should include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced people and anyone else who may enter the project site.

10. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. should be

re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the project, but after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the Service, California Department of Fish and Game (CDFG), and revegetation experts.

11. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the Service should be contacted for guidance.

12. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFG immediately in the case of a dead, injured or entrapped kit fox. The CDFG contact for immediate assistance is State Dispatch at (916)445-0045. They will contact the local warden or Mr. Paul Hoffman, the wildlife biologist, at (530)934-9309. The Service should be contacted at the numbers below.

13. The Sacramento Fish and Wildlife Office and CDFG shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The Service contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The CDFG contact is Mr. Paul Hoffman at 1701 Nimbus Road, Suite A, Rancho Cordova, California 95670, (530) 934-9309.

14. New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the Service at the address below.

Any project-related information required by the Service or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at:

Endangered Species Division
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846
(916) 414-6620 or (916) 414-6600

EXHIBIT "A" - DEFINITIONS

"Take" - Section 9 of the Endangered Species Act of 1973, as amended (Act) prohibits the "take" of any federally listed endangered species by any person (an individual, corporation, partnership, trust, association, etc.) subject to the jurisdiction of the United States. As defined in the Act, take means " . . . to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct". Thus, not only is a listed animal protected from activities such as hunting, but also from actions that damage or destroy its habitat.

"Dens" - San Joaquin kit fox dens may be located in areas of low, moderate, or steep topography. Den characteristics are listed below, however, the specific characteristics of individual dens may vary and occupied dens may lack some or all of these features. Therefore, caution must be exercised in determining the status of any den. Typical dens may include the following: (1) one or more entrances that are approximately 5 to 8 inches in diameter; (2) dirt berms adjacent to the entrances; (3) kit fox tracks, scat, or prey remains in the vicinity of the den; (4) matted vegetation adjacent to the den entrances; and (5) manmade features such as culverts, pipes, and canal banks.

"Known den" - Any existing natural den or manmade structure that is used or has been used at any time in the past by a San Joaquin kit fox. Evidence of use may include historical records, past or current radiotelemetry or spotlighting data, kit fox sign such as tracks, scat, and/or prey remains, or other reasonable proof that a given den is being or has been used by a kit fox. The Service discourages use of the terms "active" and "inactive" when referring to any kit fox den because a great percentage of occupied dens show no evidence of use, and because kit foxes change dens often, with the result that the status of a given den may change frequently and abruptly.

"Potential Den" - Any subterranean hole within the species' range that has entrances of appropriate dimensions for which available evidence is insufficient to conclude that it is being used or has been used by a kit fox. Potential dens shall include the following: (1) any suitable subterranean hole; or (2) any den or burrow of another species (e.g., coyote, badger, red fox, or ground squirrel) that otherwise has appropriate characteristics for kit fox use.

"Natal or Pupping Den" - Any den used by kit foxes to whelp and/or rear their pups. Natal/pupping dens may be larger with more numerous entrances than dens occupied exclusively by adults. These dens typically have more kit fox tracks, scat, and prey remains in the vicinity of the den, and may have a broader apron of matted dirt and/or vegetation at one or more entrances. A natal den, defined as a den in which kit fox pups are actually whelped but not necessarily reared, is a more restrictive version of the pupping den. In practice, however, it is difficult to distinguish between the two, therefore, for purposes of this definition either term applies.

"Atypical Den" - Any manmade structure which has been or is being occupied by a San Joaquin kit fox. Atypical dens may include pipes, culverts, and diggings beneath concrete slabs and buildings.

Appendix E: 2012 California Department of Fish and Wildlife Burrowing Owl Staff Report

Staff Report on Burrowing Owl Mitigation

State of California

Natural Resources Agency

Department of Fish and Game

March 7, 2012[1]

[1] This document replaces the Department of Fish and Game 1995 Staff Report On Burrowing Owl Mitigation.

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INTRODUCTION AND PURPOSE

Maintaining California's rich biological diversity is dependent on the conservation of species and their habitats. The California Department of Fish and Game (Department) has designated certain species as "species of special concern" when their population viability and survival is adversely affected by risk factors such as precipitous declines or other vulnerability factors (Shuford and Gardali 2008). Preliminary analyses of regional patterns for breeding populations of burrowing owls (*Athene cunicularia*) have detected declines both locally in their central and southern coastal breeding areas, and statewide where the species has experienced modest breeding range retraction (Gervais et al. 2008). In California, threat factors affecting burrowing owl populations include habitat loss, degradation and modification, and eradication of ground squirrels resulting in a loss of suitable burrows required by burrowing owls for nesting, protection from predators, and shelter (See Appendix A).

The Department recognized the need for a comprehensive conservation and mitigation strategy for burrowing owls, and in 1995 directed staff to prepare a report describing mitigation and survey recommendations. This report, "1995 Staff Report on Burrowing Owl Mitigation," (Staff Report) (CDFG 1995), contained Department-recommended burrowing owl and burrow survey techniques and mitigation measures intended to offset the loss of habitat and slow or reverse further decline of this species. Notwithstanding these measures, over the past 15+ years, burrowing owls have continued to decline in portions of their range (DeSante et al. 2007, Wilkerson and Siegel, 2010). The Department has determined that reversing declining population and range trends for burrowing owls will require implementation of more effective conservation actions, and evaluating the efficacy of the Department's existing recommended avoidance, minimization and mitigation approaches for burrowing owls.

The Department has identified three main actions that together will facilitate a more viable, coordinated, and concerted approach to conservation and mitigation for burrowing owls in California. These include:

1. Incorporating burrowing owl comprehensive conservation strategies into landscape-based planning efforts such as Natural Community Conservation Plans (NCCPs) and multi-species Habitat Conservation Plans (HCPs) that specifically address burrowing owls.
2. Developing and implementing a statewide conservation strategy (Burkett and Johnson, 2007) and local or regional conservation strategies for burrowing owls, including the development and implementation of a statewide burrowing owl survey and monitoring plan.
3. Developing more rigorous burrowing owl survey methods, working to improve the adequacy of impacts assessments; developing clear and effective avoidance and minimization measures; and developing mitigation measures to ensure impacts to the species are effectively addressed at the project, local, and/or regional level (the focus of this document).

This Report sets forth the Department's recommendations for implementing the third approach identified above by revising the 1995 Staff Report, drawing from the most relevant and current knowledge and expertise, and incorporating the best scientific information

available pertaining to the species. It is designed to provide a compilation of the best available science for Department staff, biologists, planners, land managers, California Environmental Quality Act (CEQA) lead agencies, and the public to consider when assessing impacts of projects or other activities on burrowing owls.

This revised Staff Report takes into account the California Burrowing Owl Consortium's Survey Protocol and Mitigation Guidelines (CBOC 1993, 1997) and supersedes the survey, avoidance, minimization and mitigation recommendations in the 1995 Staff Report. Based on experiences gained from implementing the 1995 Staff Report, the Department believes revising that report is warranted. This document also includes general conservation goals and principles for developing mitigation measures for burrowing owls.

DEPARTMENT ROLE AND LEGAL AUTHORITIES

The mission of the Department is to manage California's diverse fish, wildlife and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public. The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitats necessary to maintain biologically sustainable populations of those species (Fish and Game Code (FGC) §1802). The Department, as trustee agency pursuant to CEQA (See CEQA Guidelines, §15386), has jurisdiction by law over natural resources, including fish and wildlife, affected by a project, as that term is defined in Section 21065 of the Public Resources Code. The Department exercises this authority by reviewing and commenting on environmental documents and making recommendations to avoid, minimize, and mitigate potential negative impacts to those resources held in trust for the people of California.

Field surveys designed to detect the presence of a particular species, habitat element, or natural community are one of the tools that can assist biologists in determining whether a species or habitat may be significantly impacted by land use changes or disturbance. The Department reviews field survey data as well as site-specific and regional information to evaluate whether a project's impacts may be significant. This document compiles the best available science for conducting habitat assessments and surveys, and includes considerations for developing measures to avoid impacts or mitigate unavoidable impacts.

CEQA

CEQA requires public agencies in California to analyze and disclose potential environmental impacts associated with a project that the agency will carry out, fund, or approve. Any potentially significant impact must be mitigated to the extent feasible. Project-specific CEQA mitigation is important for burrowing owls because most populations exist on privately owned parcels that, when proposed for development or other types of modification, may be subject to the environmental review requirements of CEQA.

Take

Take of individual burrowing owls and their nests is defined by FGC section 86, and prohibited by sections 3503, 3503.5 and 3513. Take is defined in FGC Section 86 as "hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill."

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements various treaties and conventions between the United States and Canada, Japan, Mexico, and Russia for the protection of migratory birds, including the burrowing owl (50 C.F.R. § 10). The MBTA protects migratory bird nests from possession, sale, purchase, barter, transport, import and export, and collection. The other prohibitions of the MBTA - capture, pursue, hunt, and kill - are inapplicable to nests. The regulatory definition of take, as defined in Title 50 C.F.R. part 10.12, means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to hunt, shoot, wound, kill, trap, capture, or collect. Only the verb "collect" applies to nests. It is illegal to collect, possess, and by any means transfer possession of any migratory bird nest. The MBTA prohibits the destruction of a nest when it contains birds or eggs, and no possession shall occur during the destruction (see Fish and Wildlife Service, Migratory Bird Permit Memorandum, April 15, 2003). Certain exceptions to this prohibition are included in 50 C.F.R. section 21. Pursuant to Fish & Game Code section 3513, the Department enforces the Migratory Bird Treaty Act consistent with rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act.

Regional Conservation Plans

Regional multiple species conservation plans offer long-term assurances for conservation of covered species at a landscape scale, in exchange for biologically appropriate levels of incidental take and/or habitat loss as defined in the approved plan. California's NCCP Act (FGC §2800 et seq.) governs such plans at the state level, and was designed to conserve species, natural communities, ecosystems, and ecological processes across a jurisdiction or a collection of jurisdictions. Complementary federal HCPs are governed by the Endangered Species Act (7 U.S.C. § 136, 16 U.S.C.§ 1531 et seq.) (ESA). Regional conservation plans (and certain other landscape-level conservation and management plans), may provide conservation for unlisted as well as listed species. Because the geographic scope of NCCPs and HCPs may span many hundreds of thousands of acres, these planning tools have the potential to play a significant role in conservation of burrowing owls, and grasslands and other habitats.

Fish and Game Commission Policies

There are a number of Fish and Game Commission policies (see FGC §2008) that can be applied to burrowing owl conservation. These include policies on: Raptors, Cooperation, Endangered and Threatened Species, Land Use Planning, Management and Utilization of Fish and Wildlife on Federal Lands, Management and Utilization of Fish and Wildlife on Private Lands, and Research.

GUIDING PRINCIPLES FOR CONSERVATION

Unless otherwise provided in a statewide, local, or regional conservation strategy, surveying and evaluating impacts to burrowing owls, as well as developing and implementing avoidance, minimization, and mitigation and conservation measures incorporate the following principles. These principles are a summary of Department staff expert opinion and were used to guide the preparation of this document.

1. Use the Precautionary Principle (Noss et al.1997), by which the alternative of increased conservation is deliberately chosen in order to buffer against incomplete knowledge of burrowing owl ecology and uncertainty about the consequences to burrowing owls of potential impacts, including those that are cumulative.
2. Employ basic conservation biology tenets and population-level approaches when determining what constitutes appropriate avoidance, minimization, and mitigation for impacts. Include mitigation effectiveness monitoring and reporting, and use an adaptive management loop to modify measures based on results.
3. Protect and conserve owls in wild, semi-natural, and agricultural habitats (conserve is defined at FGC §1802).
4. Protect and conserve natural nest burrows (or burrow surrogates) previously used by burrowing owls and sufficient foraging habitat and protect auxiliary "satellite" burrows that contribute to burrowing owl survivorship and natural behavior of owls.

CONSERVATION GOALS FOR THE BURROWING OWL IN CALIFORNIA

It is Department staff expert opinion that the following goals guide and contribute to the short and long-term conservation of burrowing owls in California:

1. Maintain size and distribution of extant burrowing owl populations (allowing for natural population fluctuations).
2. Increase geographic distribution of burrowing owls into formerly occupied historical range where burrowing owl habitat still exists, or where it can be created or enhanced, and where the reason for its local disappearance is no longer of concern.
3. Increase size of existing populations where possible and appropriate (for example, considering basic ecological principles such as carrying capacity, predator-prey relationships, and inter-specific relationships with other species at risk).
4. Protect and restore self-sustaining ecosystems or natural communities which can support burrowing owls at a landscape scale, and which will require minimal long-term management.
5. Minimize or prevent unnatural causes of burrowing owl population declines (e.g., nest burrow destruction, chemical control of rodent hosts and prey).
6. Augment/restore natural dynamics of burrowing owl populations including movement and genetic exchange among populations, such that the species does not require future listing and protection under the California Endangered Species Act (CESA) and/or the federal Endangered Species Act (ESA).
7. Engage stakeholders, including ranchers; farmers; military; tribes; local, state, and federal agencies; non-governmental organizations; and scientific research and education communities involved in burrowing owl protection and habitat management.

ACTIVITIES WITH THE POTENTIAL TO TAKE OR IMPACT BURROWING OWLS

The following activities are examples of activities that have the potential to take burrowing owls, their nests or eggs, or destroy or degrade burrowing owl habitat: grading, disking, cultivation, earthmoving, burrow blockage, heavy equipment compacting and crushing burrow tunnels, levee maintenance, flooding, burning and mowing (if burrows are impacted), and operating wind turbine collisions (collectively hereafter referred to as "projects" or "activities"

whether carried out pursuant to CEQA or not). In addition, the following activities may have impacts to burrowing owl populations: eradication of host burrowers; changes in vegetation management (i.e. grazing); use of pesticides and rodenticides; destruction, conversion or degradation of nesting, foraging, over-wintering or other habitats; destruction of natural burrows and burrow surrogates; and disturbance which may result in harassment of owls at occupied burrows.

PROJECT IMPACT EVALUATIONS

The following three progressive steps are effective in evaluating whether projects will result in impacts to burrowing owls. The information gained from these steps will inform any subsequent avoidance, minimization and mitigation measures. The steps for project impact evaluations are: 1) habitat assessment, 2) surveys, and 3) impact assessment. Habitat assessments are conducted to evaluate the likelihood that a site supports burrowing owl. Burrowing owl surveys provide information needed to determine the potential effects of proposed projects and activities on burrowing owls, and to avoid take in accordance with FGC sections 86, 3503, and 3503.5. Impact assessments evaluate the extent to which burrowing owls and their habitat may be impacted, directly or indirectly, on and within a reasonable distance of a proposed CEQA project activity or non-CEQA project. These three site evaluation steps are discussed in detail below.

Biologist Qualifications

The current scientific literature indicates that only individuals meeting the following minimum qualifications should perform burrowing owl habitat assessments, surveys, and impact assessments:

1. Familiarity with the species and its local ecology;
2. Experience conducting habitat assessments and non-breeding and breeding season surveys, or experience with these surveys conducted under the direction of an experienced surveyor;
3. Familiarity with the appropriate state and federal statutes related to burrowing owls, scientific research, and conservation;
4. Experience with analyzing impacts of development on burrowing owls and their habitat.

Habitat Assessment Data Collection and Reporting

A habitat assessment is the first step in the evaluation process and will assist investigators in determining whether or not occupancy surveys are needed. Refer to Appendix B for a definition of burrowing owl habitat. Compile the detailed information described in Appendix C when conducting project scoping, conducting a habitat assessment site visit and preparing a habitat assessment report.

Surveys

Burrowing owl surveys are the second step of the evaluation process and the best available scientific literature recommends that they be conducted whenever burrowing owl habitat or sign (see Appendix B) is encountered on or adjacent to (within 150 meters) a project site

(Thomsen 1971, Martin 1973). Occupancy of burrowing owl habitat is confirmed at a site when at least one burrowing owl, or its sign at or near a burrow entrance, is observed within the last three years (Rich 1984). Burrowing owls are more detectable during the breeding season with detection probabilities being highest during the nestling stage (Conway et al. 2008). In California, the burrowing owl breeding season extends from 1 February to 31 August (Haug et al. 1993, Thompsen 1971) with some variances by geographic location and climatic conditions. Several researchers suggest three or more survey visits during daylight hours (Haug and Diduik 1993, CBOC 1997, Conway and Simon 2003) and recommend each visit occur at least three weeks apart during the peak of the breeding season, commonly accepted in California as between 15 April and 15 July (CBOC 1997). Conway and Simon (2003) and Conway et al. (2008) recommended conducting surveys during the day when most burrowing owls in a local area are in the laying and incubation period (so as not to miss early breeding attempts), during the nesting period, and in the late nestling period when most owls are spending time above ground.

Non-breeding season (1 September to 31 January) surveys may provide information on burrowing owl occupancy, but do not substitute for breeding season surveys because results are typically inconclusive. Burrowing owls are more difficult to detect during the non-breeding season and their seasonal residency status is difficult to ascertain. Burrowing owls detected during non-breeding season surveys may be year-round residents, young from the previous breeding season, pre-breeding territorial adults, winter residents, dispersing juveniles, migrants, transients or new colonizers. In addition, the numbers of owls and their pattern of distribution may differ during winter and breeding seasons. However, on rare occasions, non-breeding season surveys may be warranted (i.e., if the site is believed to be a wintering site only based on negative breeding season results). Refer to Appendix D for information on breeding season and non-breeding season survey methodologies.

Survey Reports

Adequate information about burrowing owls present in and adjacent to an area that will be disturbed by a project or activity will enable the Department, reviewing agencies and the public to effectively assess potential impacts and will guide the development of avoidance, minimization, and mitigation measures. The survey report includes but is not limited to a description of the proposed project or proposed activity, including the proposed project start and end dates, as well as a description of disturbances or other activities occurring on-site or nearby. Refer to Appendix D for details included in a survey report.

Impact Assessment

The third step in the evaluation process is the impact assessment. When surveys confirm occupied burrowing owl habitat in or adjoining the project area, there are a number of ways to assess a project's potential significant impacts to burrowing owls and their habitat. Richardson and Miller (1997) recommended monitoring raptor behavior prior to developing management recommendations and buffers to determine the extent to which individuals have been sensitized to human disturbance. Monitoring results will also provide detail necessary for developing site-specific measures. Postovit and Postovit (1987) recommended an analytical approach to mitigation planning: define the problem (impact), set goals (to guide mitigation development), evaluate and select mitigation methods, and monitor the results.

Define the problem. The impact assessment evaluates all factors that could affect burrowing owls. Postovit and Postovit (1987) recommend evaluating the following in assessing impacts to raptors and planning mitigation: type and extent of disturbance, duration and timing of disturbance, visibility of disturbance, sensitivity and ability to habituate, and influence of environmental factors. They suggest identifying and addressing all potential direct and indirect impacts to burrowing owls, regardless of whether or not the impacts will occur during the breeding season. Several examples are given for each impact category below; however, examples are not intended to be used exclusively.

Type and extent of the disturbance. The impact assessment describes the nature (source) and extent (scale) of potential project impacts on occupied, satellite and unoccupied burrows including acreage to be lost (temporary or permanent), fragmentation/edge being created, increased distance to other nesting and foraging habitat, and habitat degradation. Discuss any project activities that impact either breeding and/or non-breeding habitat which could affect owl home range size and spatial configuration, negatively affect onsite and offsite burrowing owl presence, increase energetic costs, lower reproductive success, increase vulnerability to predation, and/or decrease the chance of procuring a mate.

Duration and timing of the impact. The impact assessment describes the amount of time the burrowing owl habitat will be unavailable to burrowing owls (temporary or permanent) on the site and the effect of that loss on essential behaviors or life history requirements of burrowing owls, the overlap of project activities with breeding and/or non-breeding seasons (timing of nesting and/or non-breeding activities may vary with latitude and climatic conditions, which should be considered with the timeline of the project or activity), and any variance of the project activities in intensity, scale and proximity relative to burrowing owl occurrences.

Visibility and sensitivity. Some individual burrowing owls or pairs are more sensitive than others to specific stimuli and may habituate to ongoing visual or audible disturbance. Site-specific monitoring may provide clues to the burrowing owl's sensitivities. This type of assessment addresses the sensitivity of burrowing owls within their nesting area to humans on foot, and vehicular traffic. Other variables are whether the site is primarily in a rural versus urban setting, and whether any prior disturbance (e.g., human development or recreation) is known at the site.

Environmental factors. The impact assessment discusses any environmental factors that could be influenced or changed by the proposed activities including nest site availability, predators, prey availability, burrowing mammal presence and abundance, and threats from other extrinsic factors such as human disturbance, urban interface, feral animals, invasive species, disease or pesticides.

Significance of impacts. The impact assessment evaluates the potential loss of nesting burrows, satellite burrows, foraging habitat, dispersal and migration habitat, wintering habitat, and habitat linkages, including habitat supporting prey and host burrowers and other essential habitat attributes. This assessment determines if impacts to the species will result in significant impacts to the species locally, regionally and range-wide per CEQA Guidelines §15382 and Appendix G. The significance of the impact to habitat depends on the extent of habitat disturbed and length of time the habitat is unavailable (for example: minor – several days, medium – several weeks to months, high - breeding season affecting juvenile survival,

or over winter affecting adult survival).

Cumulative effects. The cumulative effects assessment evaluates two consequences: 1) the project's proportional share of reasonably foreseeable impacts on burrowing owls and habitat caused by the project or in combination with other projects and local influences having impacts on burrowing owls and habitat, and 2) the effects on the regional owl population resulting from the project's impacts to burrowing owls and habitat.

Mitigation goals. Establishing goals will assist in planning mitigation and selecting measures that function at a desired level. Goals also provide a standard by which to measure mitigation success. Unless specifically provided for through other FGC Sections or through specific regulations, take, possession or destruction of individual burrowing owls, their nests and eggs is prohibited under FGC sections 3503, 3503.5 and 3513. Therefore, a required goal for all project activities is to avoid take of burrowing owls. Under CEQA, goals would consist of measures that would avoid, minimize and mitigate impacts to a less than significant level. For individual projects, mitigation must be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). In order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions that will improve environmental conditions. As set forth in more detail in Appendix A, the current scientific literature supports the conclusion that mitigation for permanent habitat loss necessitates replacement with an equivalent or greater habitat area for breeding, foraging, wintering, dispersal, presence of burrows, burrow surrogates, presence of fossorial mammal dens, well drained soils, and abundant and available prey within close proximity to the burrow.

MITIGATION METHODS

The current scientific literature indicates that any site-specific avoidance or mitigation measures developed should incorporate the best practices presented below or other practices confirmed by experts and the Department. The Department is available to assist in the development of site-specific avoidance and mitigation measures.

Avoiding. A primary goal is to design and implement projects to seasonally and spatially avoid negative impacts and disturbances that could result in take of burrowing owls, nests, or eggs. Other avoidance measures may include but not be limited to:

- Avoid disturbing occupied burrows during the nesting period, from 1 February through 31 August.
- Avoid impacting burrows occupied during the non-breeding season by migratory or non-migratory resident burrowing owls.
- Avoid direct destruction of burrows through chaining (dragging a heavy chain over an area to remove shrubs), disking, cultivation, and urban, industrial, or agricultural development.
- Develop and implement a worker awareness program to increase the on-site worker's recognition of and commitment to burrowing owl protection.
- Place visible markers near burrows to ensure that farm equipment and other machinery does not collapse burrows.
- Do not fumigate, use treated bait or other means of poisoning nuisance animals in areas where burrowing owls are known or suspected to occur (e.g., sites observed with nesting

owls, designated use areas).
- Restrict the use of treated grain to poison mammals to the months of January and February.

Take avoidance (pre-construction) surveys. Take avoidance surveys are intended to detect the presence of burrowing owls on a project site at a fixed period in time and inform necessary take avoidance actions. Take avoidance surveys may detect changes in owl presence such as colonizing owls that have recently moved onto the site, migrating owls, resident burrowing owls changing burrow use, or young of the year that are still present and have not dispersed. Refer to Appendix D for take avoidance survey methodology.

Site surveillance. Burrowing owls may attempt to colonize or re-colonize an area that will be impacted; thus, the current scientific literature indicates a need for ongoing surveillance at the project site during project activities is recommended. The surveillance frequency/effort should be sufficient to detect burrowing owls if they return. Subsequent to their new occupancy or return to the site, take avoidance measures should assure with a high degree of certainty that take of owls will not occur.

Minimizing. If burrowing owls and their habitat can be protected in place on or adjacent to a project site, the use of buffer zones, visual screens or other measures while project activities are occurring can minimize disturbance impacts. Conduct site-specific monitoring to inform development of buffers (see Visibility and sensitivity above). The following general guidelines for implementing buffers should be adjusted to address site-specific conditions using the impact assessment approach described above. The CEQA lead agency and/or project proponent is encouraged to consult with the Department and other burrowing owl experts for assistance in developing site-specific buffer zones and visual screens.

Buffers. Holroyd et al. (2001) identified a need to standardize management and disturbance mitigation guidelines. For instance, guidelines for mitigating impacts by petroleum industries on burrowing owls and other prairie species (Scobie and Faminow, 2000) may be used as a template for future mitigation guidelines (Holroyd et al. 2001). Scobie and Faminow (2000) developed guidelines for activities around occupied burrowing owl nests recommending buffers around low, medium, and high disturbance activities, respectively (see below).

Recommended restricted activity dates and setback distances by level of disturbance for burrowing owls (Scobie and Faminow 2000).

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

* meters (m)

Based on existing vegetation, human development, and land uses in an area, resource managers may decide to allow human development or resource extraction closer to these area/sites than recommended above. However, if it is decided to allow activities closer than

the setback distances recommended, a broad-scale, long-term, scientifically-rigorous monitoring program ensures that burrowing owls are not detrimentally affected by alternative approaches.

Other minimization measures include eliminating actions that reduce burrowing owl forage and burrowing surrogates (e.g. ground squirrel), or introduce/facilitate burrowing owl predators. Actions that could influence these factors include reducing livestock grazing rates and/or changing the timing or duration of grazing or vegetation management that could result in less suitable habitat.

Burrow exclusion and closure. Burrow exclusion is a technique of installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls, or permanently exclude burrowing owls and close burrows after verifying burrows are empty by site monitoring and scoping. Exclusion in and of itself is not a take avoidance, minimization or mitigation method. Eviction of burrowing owls is a potentially significant impact under CEQA.

The long-term demographic consequences of these techniques have not been thoroughly evaluated, and the fate of evicted or excluded burrowing owls has not been systematically studied. Because burrowing owls are dependent on burrows at all times of the year for survival and/or reproduction, evicting them from nesting, roosting, and satellite burrows may lead to indirect impacts or take. Temporary or permanent closure of burrows may result in significant loss of burrows and habitat for reproduction and other life history requirements. Depending on the proximity and availability of alternate habitat, loss of access to burrows will likely result in varying levels of increased stress on burrowing owls and could depress reproduction, increase predation, increase energetic costs, and introduce risks posed by having to find and compete for available burrows. Therefore, exclusion and burrow closure are not recommended where they can be avoided. The current scientific literature indicates consideration of all possible avoidance and minimization measures before temporary or permanent exclusion and closure of burrows is implemented, in order to avoid take.

The results of a study by Trulio (1995) in California showed that burrowing owls passively displaced from their burrows were quickly attracted to adjacent artificial burrows at five of six passive relocation sites. The successful sites were all within 75 meters (m) of the destroyed burrow, a distance generally within a pair's territory. This researcher discouraged using passive relocation to artificial burrows as a mitigation measure for lost burrows without protection of adjacent foraging habitat. The study results indicated artificial burrows were used by evicted burrowing owls when they were approximately 50-100 m from the natural burrow (Thomsen 1971, Haug and Oliphant 1990). Locating artificial or natural burrows more than 100 m from the eviction burrow may greatly reduce the chances that new burrows will be used. Ideally, exclusion and burrow closure is employed only where there are adjacent natural burrows and non-impacted, sufficient habitat for burrowing owls to occupy with permanent protection mechanisms in place. Any new burrowing owl colonizing the project site after the CEQA document has been adopted may constitute changed circumstances that should be addressed in a re-circulated CEQA document.

The current scientific literature indicates that burrow exclusion should only be conducted by qualified biologists (meeting the Biologist's Qualifications above) during the non-breeding

season, before breeding behavior is exhibited and after the burrow is confirmed empty by site surveillance and/or scoping. The literature also indicates that when temporary or permanent burrow exclusion and/or burrow closure is implemented, burrowing owls should not be excluded from burrows unless or until:

- A Burrowing Owl Exclusion Plan (see Appendix E) is developed and approved by the applicable local DFG office;
- Permanent loss of occupied burrow(s) and habitat is mitigated in accordance with the Mitigating Impacts sections below. Temporary exclusion is mitigated in accordance with the item #1 under Mitigating Impacts below.
- Site monitoring is conducted prior to, during, and after exclusion of burrowing owls from their burrows sufficient to ensure take is avoided. Conduct daily monitoring for one week to confirm young of the year have fledged if the exclusion will occur immediately after the end of the breeding season.
- Excluded burrowing owls are documented using artificial or natural burrows on an adjoining mitigation site (if able to confirm by band re-sight).

Translocation (Active relocation offsite >100 meters). At this time, there is little published information regarding the efficacy of translocating burrowing owls, and additional research is needed to determine subsequent survival and breeding success (Klute et al. 2003, Holroyd et al. 2001). Study results for translocation in Florida implied that hatching success may be decreased for populations of burrowing owls that undergo translocation (Nixon 2006). At this time, the Department is unable to authorize the capture and relocation of burrowing owls except within the context of scientific research (FGC §1002) or a NCCP conservation strategy.

Mitigating impacts. Habitat loss and degradation from rapid urbanization of farmland in the core areas of the Central and Imperial valleys is the greatest of many threats to burrowing owls in California (Shuford and Gardali, 2008). At a minimum, if burrowing owls have been documented to occupy burrows (see Definitions, Appendix B) at the project site in recent years, the current scientific literature supports the conclusion that the site should be considered occupied and mitigation should be required by the CEQA lead agency to address project-specific significant and cumulative impacts. Other site-specific and regionally significant and cumulative impacts may warrant mitigation. The current scientific literature indicates the following to be best practices. If these best practices cannot be implemented, the lead agency or lead investigator may consult with the Department to develop effective mitigation alternatives. The Department is also available to assist in the identification of suitable mitigation lands.

1. Where habitat will be temporarily disturbed, restore the disturbed area to pre-project condition including decompacting soil and revegetating. Permanent habitat protection may be warranted if there is the potential that the temporary impacts may render a nesting site (nesting burrow and satellite burrows) unsustainable or unavailable depending on the time frame, resulting in reduced survival or abandonment. For the latter potential impact, see the permanent impact measures below.
2. Mitigate for permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced based on the information provided in Appendix A. Note: A

minimum habitat replacement recommendation is not provided here as it has been shown to serve as a default, replacing any site-specific analysis and discounting the wide variation in natal area, home range, foraging area, and other factors influencing burrowing owls and burrowing owl population persistence in a particular area.

3. Mitigate for permanent impacts to nesting, occupied and satellite burrows and burrowing owl habitat with (a) permanent conservation of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and (b) sufficiently large acreage, and presence of fossorial mammals. The mitigation lands may require habitat enhancements including enhancement or expansion of burrows for breeding, shelter and dispersal opportunity, and removal or control of population stressors. If the mitigation lands are located adjacent to the impacted burrow site, ensure the nearest neighbor artificial or natural burrow clusters are at least within 210 meters (Fisher et al. 2007).
4. Permanently protect mitigation land through a conservation easement deeded to a non-profit conservation organization or public agency with a conservation mission, for the purpose of conserving burrowing owl habitat and prohibiting activities incompatible with burrowing owl use. If the project is located within the service area of a Department-approved burrowing owl conservation bank, the project proponent may purchase available burrowing owl conservation bank credits.
5. Develop and implement a mitigation land management plan to address long-term ecological sustainability and maintenance of the site for burrowing owls (see Management Plan and Artificial Burrow sections below, if applicable).
6. Fund the maintenance and management of mitigation land through the establishment of a long-term funding mechanism such as an endowment.
7. Habitat should not be altered or destroyed, and burrowing owls should not be excluded from burrows, until mitigation lands have been legally secured, are managed for the benefit of burrowing owls according to Department-approved management, monitoring and reporting plans, and the endowment or other long-term funding mechanism is in place or security is provided until these measures are completed.
8. Mitigation lands should be on, adjacent or proximate to the impact site where possible and where habitat is sufficient to support burrowing owls present.
9. Where there is insufficient habitat on, adjacent to, or near project sites where burrowing owls will be excluded, acquire mitigation lands with burrowing owl habitat away from the project site. The selection of mitigation lands should then focus on consolidating and enlarging conservation areas located outside of urban and planned growth areas, within foraging distance of other conserved lands. If mitigation lands are not available adjacent to other conserved lands, increase the mitigation land acreage requirement to ensure a selected site is of sufficient size. Offsite mitigation may not adequately offset the biological and habitat values impacted on a one to one basis. Consult with the Department when determining offsite mitigation acreages.
10. Evaluate and select suitable mitigation lands based on a comparison of the habitat attributes of the impacted and conserved lands, including but not limited to: type and structure of habitat being impacted or conserved; density of burrowing owls in impacted and conserved habitat; and significance of impacted or conserved habitat to the species range-wide. Mitigate for the highest quality burrowing owl habitat impacted first and foremost when identifying mitigation lands, even if a mitigation site is located outside of

a lead agency's jurisdictional boundary, particularly if the lead agency is a city or special district.

11. Select mitigation lands taking into account the potential human and wildlife conflicts or incompatibility, including but not limited to, human foot and vehicle traffic, and predation by cats, loose dogs and urban-adapted wildlife, and incompatible species management (i.e., snowy plover).
12. Where a burrowing owl population appears to be highly adapted to heavily altered habitats such as golf courses, airports, athletic fields, and business complexes, permanently protecting the land, augmenting the site with artificial burrows, and enhancing and maintaining those areas may enhance sustainability of the burrowing owl population onsite. Maintenance includes keeping lands grazed or mowed with weed-eaters or push mowers, free from trees and shrubs, and preventing excessive human and human-related disturbance (e.g., walking, jogging, off-road activity, dog-walking) and loose and feral pets (chasing and, presumably, preying upon owls) that make the environment uninhabitable for burrowing owls (Wesemann and Rowe 1985, Millsap and Bear 2000, Lincer and Bloom 2007). Items 4, 5 and 6 also still apply to this mitigation approach.
13. If there are no other feasible mitigation options available and a lead agency is willing to establish and oversee a Burrowing Owl Mitigation and Conservation Fund that funds on a competitive basis acquisition and permanent habitat conservation, the project proponent may participate in the lead agency's program.

Artificial burrows. Artificial burrows have been used to replace natural burrows either temporarily or long-term and their long-term success is unclear. Artificial burrows may be an effective addition to in-perpetuity habitat mitigation if they are augmenting natural burrows, the burrows are regularly maintained (i.e., no less than annual, with biennial maintenance recommended), and surrounding habitat patches are carefully maintained. There may be some circumstances, for example at airports, where squirrels will not be allowed to persist and create a dynamic burrow system, where artificial burrows may provide some support to an owl population.

Many variables may contribute to the successful use of artificial burrows by burrowing owls, including pre-existence of burrowing owls in the area, availability of food, predators, surrounding vegetation and proximity, number of natural burrows in proximity, type of materials used to build the burrow, size of the burrow and entrance, direction in which the burrow entrance is facing, slope of the entrance, number of burrow entrances per burrow, depth of the burrow, type and height of perches, and annual maintenance needs (Belthoff and King 2002, Smith et al. 2005, Barclay et al. 2011). Refer to Barclay (2008) and (2011) and to Johnson et al. 2010 (unpublished report) for guidance on installing artificial burrows including recommendations for placement, installation and maintenance.

Any long-term reliance on artificial burrows as natural burrow replacements must include semi-annual to annual cleaning and maintenance and/or replacement (Barclay et al. 2011, Smith and Conway 2005, Alexander et al. 2005) as an ongoing management practice. Alexander et al. (2005), in a study of the use of artificial burrows found that all of 20 artificial burrows needed some annual cleaning and maintenance. Burrows were either excavated by predators, blocked by soil or vegetation, or experienced substrate erosion forming a space beneath the tubing that prevented nestlings from re-entering the burrow.

Mitigation lands management plan. Develop a Mitigation Lands Management Plan for projects that require off-site or on-site mitigation habitat protection to ensure compliance with and effectiveness of identified management actions for the mitigation lands. A suggested outline and related vegetation management goals and monitoring success criteria can be found in Appendix E.

Mitigation Monitoring and Reporting

Verify the compliance with required mitigation measures, the accuracy of predictions, and ensure the effectiveness of all mitigation measures for burrowing owls by conducting follow-up monitoring, and implementing midcourse corrections, if necessary, to protect burrowing owls. Refer to CEQA Guidelines Section 15097 and the CEQA Guidelines for additional guidance on mitigation, monitoring and reporting. Monitoring is qualitatively different from site surveillance; monitoring normally has a specific purpose and its outputs and outcomes will usually allow a comparison with some baseline condition of the site before the mitigation (including avoidance and minimization) was undertaken. Ideally, monitoring should be based on the Before-After Control-Impact (BACI) principle (McDonald et al. 2000) that requires knowledge of the pre-mitigation state to provide a reference point for the state and change in state after the project and mitigation have been implemented.

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Appendix A. Burrowing Owl Natural History and Threats

Diet

Burrowing owl diet includes arthropods, small rodents, birds, amphibians, reptiles, and carrion (Haug et al. 1993).

Breeding

In California, the breeding season for the burrowing owl typically occurs between 1 February and 31 August although breeding in December has been documented (Thompson 1971, Gervais et al. 2008); breeding behavior includes nest site selection by the male, pair formation, copulation, egg laying, hatching, fledging, and post-fledging care of young by the parents. The peak of the breeding season occurs between 15 April and 15 July and is the period when most burrowing owls have active nests (eggs or young). The incubation period lasts 29 days (Coulombe 1971) and young fledge after 44 days (Haug et al. 1993). Note that the timing of nesting activities may vary with latitude and climatic conditions. Burrowing owls may change burrows several times during the breeding season, starting when nestlings are about three weeks old (Haug et al. 1993).

Dispersal

The following discussion is an excerpt from Gervais et al (2008):

> "The burrowing owl is often considered a sedentary species (e.g., Thomsen 1971). A large proportion of adults show strong fidelity to their nest site from year to year, especially where resident, as in Florida (74% for females, 83% for males; Millsap and Bear 1997). In California, nest-site fidelity rates were 32%–50% in a large grassland and 57% in an agricultural environment (Ronan 2002, Catlin 2004, Catlin et al. 2005). Differences in these rates among sites may reflect differences in nest predation rates (Catlin 2004, Catlin et al. 2005). Despite the high nest fidelity rates, dispersal distances may be considerable for both juveniles (natal dispersal) and adults (postbreeding dispersal), but this also varied with location (Catlin 2004, Rosier et al. 2006). Distances of 53 km to roughly 150 km have been observed in California for adult and natal dispersal, respectively (D. K. Rosenberg and J. A. Gervais, unpublished data), despite the difficulty in detecting movements beyond the immediate study area (Koenig et al. 1996)."

Habitat

The burrowing owl is a small, long-legged, ground-dwelling bird species, well-adapted to open, relatively flat expanses. In California, preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography and well-drained soils (Haug et al. 1993). Grassland, shrub steppe, and desert are naturally occurring habitat types used by the species. In addition, burrowing owls may occur in some agricultural areas, ruderal grassy fields, vacant lots and pastures if the vegetation structure is suitable and there are useable burrows and foraging habitat in proximity (Gervais et al 2008). Unique amongst North

American raptors, the burrowing owl requires underground burrows or other cavities for nesting during the breeding season and for roosting and cover, year round. Burrows used by the owls are usually dug by other species termed host burrowers. In California, California ground squirrel (*Spermophilus beecheyi*) and round-tailed ground squirrel (*Citellus tereticaudus*) burrows are frequently used by burrowing owls but they may use dens or holes dug by other fossorial species including badger (*Taxidea taxus*), coyote (*Canis latrans*), and fox (e.g., San Joaquin kit fox, *Vulpes macrotis mutica*; Ronan 2002). In some instances, owls have been known to excavate their own burrows (Thompson 1971, Barclay 2007). Natural rock cavities, debris piles, culverts, and pipes also are used for nesting and roosting (Rosenberg et al. 1998). Burrowing owls have been documented using artificial burrows for nesting and cover (Smith and Belthoff, 2003).

Foraging habitat. Foraging habitat is essential to burrowing owls. The following discussion is an excerpt from Gervais et al. (2008):

> "Useful as a rough guide to evaluating project impacts and appropriate mitigation for burrowing owls, adult male burrowing owls home ranges have been documented (calculated by minimum convex polygon) to comprise anywhere from 280 acres in intensively irrigated agroecosystems in Imperial Valley (Rosenberg and Haley 2004) to 450 acres in mixed agricultural lands at Lemoore Naval Air Station, CA (Gervais et al. 2003), to 600 acres in pasture in Saskatchewan, Canada (Haug and Oliphant 1990). But owl home ranges may be much larger, perhaps by an order of magnitude, in non-irrigated grasslands such as at Carrizo Plain, California (Gervais et al. 2008), based on telemetry studies and distribution of nests. Foraging occurs primarily within 600 m of their nests (within approximately 300 acres, based on a circle with a 600 m radius) during the breeding season."

Importance of burrows and adjacent habitat. Burrows and the associated surrounding habitat are essential ecological requisites for burrowing owls throughout the year and especially during the breeding season. During the non-breeding season, burrowing owls remain closely associated with burrows, as they continue to use them as refuge from predators, shelter from weather and roost sites. Resident populations will remain near the previous season's nest burrow at least some of the time (Coulombe 1971, Thomsen 1971, Botelho 1996, LaFever et al. 2008).

In a study by Lutz and Plumpton (1999) adult males and females nested in formerly used sites at similar rates (75% and 63%, respectively) (Lutz and Plumpton 1999). Burrow fidelity has been reported in some areas; however, more frequently, burrowing owls reuse traditional nesting areas without necessarily using the same burrow (Haug et al. 1993, Dechant et al. 1999). Burrow and nest sites are re-used at a higher rate if the burrowing owl has reproduced successfully during the previous year (Haug et al. 1993) and if the number of burrows isn't limiting nesting opportunity.

Burrowing owls may use "satellite" or non-nesting burrows, moving young at 10-14 days, presumably to reduce risk of predation (Desmond and Savidge 1998) and possibly to avoid nest parasites (Dechant et al. 1999). Successful nests in Nebraska had more active satellite burrows within 75 m of the nest burrow than unsuccessful nests (Desmond and Savidge

1999). Several studies have documented the number of satellite burrows used by young and adult burrowing owls during the breeding season as between one and 11 burrows with an average use of approximately five burrows (Thompsen 1984, Haug 1985, Haug and Oliphant 1990). Supporting the notion of selecting for nest sites near potential satellite burrows, Ronan (2002) found burrowing owl families would move away from a nest site if their satellite burrows were experimentally removed through blocking their entrance.

Habitat adjacent to burrows has been documented to be important to burrowing owls. Gervais et al. (2003) found that home range sizes of male burrowing owls during the nesting season were highly variable within but not between years. Their results also suggested that owls concentrate foraging efforts within 600 meters of the nest burrow, as was observed in Canada (Haug and Oliphant 1990) and southern California (Rosenberg and Haley 2004). James et al. (1997), reported habitat modification factors causing local burrowing owl declines included habitat fragmentation and loss of connectivity.

In conclusion, the best available science indicates that essential habitat for the burrowing owl in California must include suitable year-round habitat, primarily for breeding, foraging, wintering and dispersal habitat consisting of short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey within close proximity to the burrow.

Threats to Burrowing Owls in California

Habitat loss. Habitat loss, degradation, and fragmentation are the greatest threats to burrowing owls in California. According to DeSante et al. (2007), "the vast majority of burrowing owls [now] occur in the wide, flat lowland valleys and basins of the Imperial Valley and Great Central Valley [where] for the most part,...the highest rates of residential and commercial development in California are occurring." Habitat loss from the State's long history of urbanization in coastal counties has already resulted in either extirpation or drastic reduction of burrowing owl populations there (Gervais et al. 2008). Further, loss of agricultural and other open lands (such as grazed landscapes) also negatively affect owl populations. Because of their need for open habitat with low vegetation, burrowing owls are unlikely to persist in agricultural lands dominated by vineyards and orchards (Gervais et al. 2008).

Control of burrowing rodents. According to Klute et al. (2003), the elimination of burrowing rodents through control programs is a primary factor in the recent and historical decline of burrowing owl populations nationwide. In California, ground squirrel burrows are most often used by burrowing owls for nesting and cover; thus, ground squirrel control programs may affect owl numbers in local areas by eliminating a necessary resource.

Direct mortality. Burrowing owls suffer direct losses from a number of sources. Vehicle collisions are a significant source of mortality especially in the urban interface and where owls nest alongside roads (Haug et al. 1993, Gervais et al. 2008). Road and ditch maintenance, modification of water conveyance structures (Imperial Valley) and discing to control weeds in fallow fields may destroy burrows (Rosenberg and Haley 2004, Catlin and Rosenberg 2006) which may trap or crush owls. Wind turbines at Altamont Pass Wind Resource Area are known to cause direct burrowing owl mortality (Thelander et al. 2003). Exposure to

pesticides may pose a threat to the species but is poorly understood (Klute et al. 2003, Gervais et al. 2008).

Appendix B. Definitions

Some key terms that appear in this document are defined below.

Adjacent habitat means burrowing owl habitat that abuts the area where habitat and burrows will be impacted and rendered non-suitable for occupancy.

Breeding (nesting) season begins as early as 1 February and continues through 31 August (Thomsen 1971, Zarn 1974). The timing of breeding activities may vary with latitude and climatic conditions. The breeding season includes pairing, egg-laying and incubation, and nestling and fledging stages.

Burrow exclusion is a technique of installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls or permanently exclude burrowing owls and excavate and close burrows after confirming burrows are empty.

Burrowing owl habitat generally includes, but is not limited to, short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey.

Burrow surrogates include culverts, piles of concrete rubble, piles of soil, burrows created along soft banks of ditches and canals, pipes, and similar structures.

Civil twilight - Morning civil twilight begins when the geometric center of the sun is 6 degrees below the horizon (civil dawn) and ends at sunrise. Evening civil twilight begins at sunset and ends when the geometric center of the sun reaches 6 degrees below the horizon (civil dusk). During this period there is enough light from the sun that artificial sources of light may not be needed to carry on outdoor activities. This concept is sometimes enshrined in laws, for example, when drivers of automobiles must turn on their headlights (called lighting-up time in the UK); when pilots may exercise the rights to fly aircraft. Civil twilight can also be described as the limit at which twilight illumination is sufficient, under clear weather conditions, for terrestrial objects to be clearly distinguished; at the beginning of morning civil twilight, or end of evening civil twilight, the horizon is clearly defined and the brightest stars are visible under clear atmospheric conditions.

Conservation for burrowing owls may include but may not be limited to protecting remaining breeding pairs or providing for population expansion, protecting and enhancing breeding and essential habitat, and amending or augmenting land use plans to stabilize populations and other specific actions to avoid the need to list the species pursuant to California or federal Endangered Species Acts.

Contiguous means connected together so as to form an uninterrupted expanse in space.

Essential habitat includes nesting, foraging, wintering, and dispersal habitat.

Foraging habitat is habitat within the estimated home range of an occupied burrow, supports suitable prey base, and allows for effective hunting.

Host burrowers include ground squirrels, badgers, foxes, coyotes, gophers etc.

Locally significant species is a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G). Examples include a species at the outer limits of its known range or occurring in a unique habitat type.

Non-breeding season is the period of time when nesting activity is not occurring, generally September 1 through January 31, but may vary with latitude and climatic conditions.

Occupied site or occupancy means a site that is assumed occupied if at least one burrowing owl has been observed occupying a burrow within the last three years (Rich 1984). Occupancy of suitable burrowing owl habitat may also be indicated by owl sign including its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance or perch site.

Other impacting activities may include but may not be limited to agricultural practices, vegetation management and fire control, pest management, conversion of habitat from rangeland or natural lands to more intensive agricultural uses that could result in “take”. These impacting activities may not meet the definition of a project under CEQA.

Passive relocation is a technique of installing one-way doors in burrow openings to temporarily or permanently evict burrowing owls and prevent burrow re-occupation.

Peak of the breeding season is between 15 April and 15 July.

Sign includes its tracks, molted feathers, cast pellets (defined as 1-2” long brown to black regurgitated pellets consisting of non-digestible portions of the owls’ diet, such as fur, bones, claws, beetle elytra, or feathers), prey remains, egg shell fragments, owl white wash, nest burrow decoration materials (e.g., paper, foil, plastic items, livestock or other animal manure, etc.), possible owl perches, or other items.

Appendix C. Habitat Assessment and Reporting Details

Habitat Assessment Data Collection and Reporting

Current scientific literature indicates that it would be most effective to gather the data in the manner described below when conducting project scoping, conducting a habitat assessment site visit and preparing a habitat assessment report:

1. Conduct at least one visit covering the entire potential project/activity area including areas that will be directly or indirectly impacted by the project. Survey adjoining areas within 150 m (Thomsen 1971, Martin 1973), or more where direct or indirect effects could potentially extend offsite. If lawful access cannot be achieved to adjacent areas, surveys can be performed with a spotting scope or other methods.
2. Prior to the site visit, compile relevant biological information for the site and surrounding area to provide a local and regional context.
3. Check all available sources for burrowing owl occurrence information regionally prior to a field inspection. The CNDDB and BIOS (see References cited) may be consulted for known occurrences of burrowing owls. Other sources of information include, but are not limited to, the Proceedings of the California Burrowing Owl Symposium (Barclay et al. 2007), county bird atlas projects, Breeding Bird Survey records, eBIRD (http://ebird.org), Gervais et al. (2008), local reports or experts, museum records, and other site-specific relevant information.
4. Identify vegetation and habitat types potentially supporting burrowing owls in the project area and vicinity.
5. Record and report on the following information:
    a. A full description of the proposed project, including but not limited to, expected work periods, daily work schedules, equipment used, activities performed (such as drilling, construction, excavation, etc.) and whether the expected activities will vary in location or intensity over the project's timeline;
    b. A regional setting map, showing the general project location relative to major roads and other recognizable features;
    c. A detailed map (preferably a USGS topo 7.5' quad base map) of the site and proposed project, including the footprint of proposed land and/or vegetation-altering activities, base map source, identifying topography, landscape features, a north arrow, bar scale, and legend;
    d. A written description of the biological setting, including location (Section, Township, Range, baseline and meridian), acreage, topography, soils, geographic and hydrologic characteristics, land use and management history on and adjoining the site (i.e., whether it is urban, semi-urban or rural; whether there is any evidence of past or current livestock grazing, mowing, disking, or other vegetation management activities);
    e. An analysis of any relevant, historical information concerning burrowing owl use or occupancy (breeding, foraging, over-wintering) on site or in the assessment area;
    f. Vegetation type and structure (using Sawyer et al. 2009), vegetation height, habitat types and features in the surrounding area plus a reasonably sized (as supported with logical justification) assessment area; (Note: use caution in discounting habitat based on grass height as it can be a temporary condition variable by season and conditions (such as current grazing regime) or may be distributed as a mosaic).

g. The presence of burrowing owl individuals or pairs or sign (see Appendix B);
h. The presence of suitable burrows and/or burrow surrogates (>11 cm in diameter (height and width) and >150 cm in depth) (Johnson et al. 2010), regardless of a lack of any burrowing owl sign and/or burrow surrogates; and burrowing owls and/or their sign that have recently or historically (within the last 3 years) been identified on or adjacent to the site.

Appendix D. Breeding and Non-breeding Season Surveys and Reports

Current scientific literature indicates that it is most effective to conduct breeding and non-breeding season surveys and report in the manner that follows:

Breeding Season Surveys

Number of visits and timing. Conduct 4 survey visits: 1) at least one site visit between 15 February and 15 April, and 2) a minimum of three survey visits, at least three weeks apart, between 15 April and 15 July, with at least one visit after 15 June. Note: many burrowing owl migrants are still present in southwestern California during mid-March, therefore, exercise caution in assuming breeding occupancy early in the breeding season.

Survey method. Rosenberg et al. (2007) confirmed walking line transects were most effective in smaller habitat patches. Conduct surveys in all portions of the project site that were identified in the Habitat Assessment and fit the description of habitat in Appendix A. Conduct surveys by walking straight-line transects spaced 7 m to 20 m apart, adjusting for vegetation height and density (Rosenberg et al. 2007). At the start of each transect and, at least, every 100 m, scan the entire visible project area for burrowing owls using binoculars. During walking surveys, record all potential burrows used by burrowing owls as determined by the presence of one or more burrowing owls, pellets, prey remains, whitewash, or decoration. Some burrowing owls may be detected by their calls, so observers should also listen for burrowing owls while conducting the survey.

Care should be taken to minimize disturbance near occupied burrows during all seasons and not to "flush" burrowing owls especially if predators are present to reduce any potential for needless energy expenditure or burrowing owl mortality. Burrowing owls may flush if approached by pedestrians within 50 m (Conway et al. 2003). If raptors or other predators are present that may suppress burrowing owl activity, return at another time or later date for a follow-up survey.

Check all burrowing owls detected for bands and/or color bands and report band combinations to the Bird Banding Laboratory (BBL). Some site-specific variations to survey methods discussed below may be developed in coordination with species experts and Department staff.

Weather conditions. Poor weather may affect the surveyor's ability to detect burrowing owls, therefore, avoid conducting surveys when wind speed is >20 km/hr, and there is precipitation or dense fog. Surveys have greater detection probability if conducted when ambient temperatures are >20º C, <12 km/hr winds, and cloud cover is <75% (Conway et al. 2008).

Time of day. Daily timing of surveys varies according to the literature, latitude, and survey method. However, surveys between morning civil twilight and 10:00 AM and two hours before sunset until evening civil twilight provide the highest detection probabilities (Barclay pers. comm. 2012, Conway et al. 2008).

Alternate methods. If the project site is large enough to warrant an alternate method, consult current literature for generally accepted survey methods and consult with the Department on the proposed survey approach.

Additional breeding season site visits. Additional breeding season site visits may be necessary, especially if non-breeding season exclusion methods are contemplated. Detailed information, such as approximate home ranges of each individual or of family units, as well as foraging areas as related to the proposed project, will be important to document for evaluating impacts, planning avoidance measure implementation and for mitigation measure performance monitoring.

Adverse conditions may prevent investigators from determining presence or occupancy. Disease, predation, drought, high rainfall or site disturbance may preclude presence of burrowing owls in any given year. Any such conditions should be identified and discussed in the survey report. Visits to the site in more than one year may increase the likelihood of detection. Also, visits to adjacent known occupied habitat may help determine appropriate survey timing.

Given the high site fidelity shown by burrowing owls (see Appendix A, Importance of burrows), conducting surveys over several years may be necessary when project activities are ongoing, occur annually, or start and stop seasonally. (See Negative surveys).

Non-breeding Season Surveys

If conducting non-breeding season surveys, follow the methods described above for breeding season surveys, but conduct at least four (4) visits, spread evenly, throughout the non-breeding season. Burrowing owl experts and local Department staff are available to assist with interpreting results.

Negative Surveys

Adverse conditions may prevent investigators from documenting presence or occupancy. Disease, predation, drought, high rainfall or site disturbance may preclude presence of burrowing owl in any given year. Discuss such conditions in the Survey Report. Visits to the site in more than one year increase the likelihood of detection and failure to locate burrowing owls during one field season does not constitute evidence that the site is no longer occupied, particularly if adverse conditions influenced the survey results. Visits to other nearby known occupied sites can affirm whether the survey timing is appropriate.

Take Avoidance Surveys

Field experience from 1995 to present supports the conclusion that it would be effective to complete an initial take avoidance survey no less than 14 days prior to initiating ground disturbance activities using the recommended methods described in the Detection Surveys section above. Implementation of avoidance and minimization measures would be triggered by positive owl presence on the site where project activities will occur. The development of avoidance and minimization approaches would be informed by monitoring the burrowing owls.

Burrowing owls may re-colonize a site after only a few days. Time lapses between project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted within 24 hours prior to ground disturbance.

Survey Reports

Report on the survey methods used and results including the information described in the Summary Report and include the reports within the CEQA documentation:

1. Date, start and end time of surveys including weather conditions (ambient temperature, wind speed, percent cloud cover, precipitation and visibility);
2. Name(s) of surveyor(s) and qualifications;
3. A discussion of how the timing of the survey affected the comprehensiveness and detection probability;
4. A description of survey methods used including transect spacing, point count dispersal and duration, and any calls used;
5. A description and justification of the area surveyed relative to the project area;
6. A description that includes: number of owls or nesting pairs at each location (by nestlings, juveniles, adults, and those of an unknown age), number of burrows being used by owls, and burrowing owl sign at burrows. Include a description of individual markers, such as bands (numbers and colors), transmitters, or unique natural identifying features. If any owls are banded, request documentation from the BBL and bander to report on the details regarding the known history of the banded burrowing owl(s) (age, sex, origins, whether it was previously relocated) and provide with the report if available;
7. A description of the behavior of burrowing owls during the surveys, including feeding, resting, courtship, alarm, territorial defense, and those indicative of parents or juveniles;
8. A list of possible burrowing owl predators present and documentation of any evidence of predation of owls;
9. A detailed map (1:24,000 or closer to show details) showing locations of all burrowing owls, potential burrows, occupied burrows, areas of concentrated burrows, and burrowing owl sign. Locations documented by use of global positioning system (GPS) coordinates must include the datum in which they were collected. The map should include a title, north arrow, bar scale and legend;
10. Signed field forms, photos, etc., as appendices to the field survey report;
11. Recent color photographs of the proposed project or activity site; and
12. Original CNDDB Field Survey Forms should be sent directly to the Department's CNDDB office, and copies should be included in the environmental document as an appendix. (http://www.dfg.ca.gov/bdb/html/cnddb.html).

Appendix E. Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans

Whereas the Department does not recommend exclusion and burrow closure, current scientific literature and experience from 1995 to present, indicate that the following example components for burrowing owl artificial burrow and exclusion plans, combined with consultation with the Department to further develop these plans, would be effective.

Artificial Burrow Location

If a burrow is confirmed occupied on-site, artificial burrow locations should be appropriately located and their use should be documented taking into consideration:

1. A brief description of the project and project site pre-construction;
2. The mitigation measures that will be implemented;
3. Potential conflicting site uses or encumbrances;
4. A comparison of the occupied burrow site(s) and the artificial burrow site(s) (e.g., vegetation, habitat types, fossorial species use in the area, and other features);
5. Artificial burrow(s) proximity to the project activities, roads and drainages;
6. Artificial burrow(s) proximity to other burrows and entrance exposure;
7. Photographs of the site of the occupied burrow(s) and the artificial burrows;
8. Map of the project area that identifies the burrow(s) to be excluded as well as the proposed sites for the artificial burrows;
9. A brief description of the artificial burrow design;
10. Description of the monitoring that will take place during and after project implementation including information that will be provided in a monitoring report.
11. A description of the frequency and type of burrow maintenance.

Exclusion Plan

An Exclusion Plan addresses the following including but not limited to:

1. Confirm by site surveillance that the burrow(s) is empty of burrowing owls and other species preceding burrow scoping;
2. Type of scope and appropriate timing of scoping to avoid impacts;
3. Occupancy factors to look for and what will guide determination of vacancy and excavation timing (one-way doors should be left in place 48 hours to ensure burrowing owls have left the burrow before excavation, visited twice daily and monitored for evidence that owls are inside and can't escape i.e., look for sign immediately inside the door).
4. How the burrow(s) will be excavated. Excavation using hand tools with refilling to prevent reoccupation is preferable whenever possible (may include using piping to stabilize the burrow to prevent collapsing until the entire burrow has been excavated and it can be determined that no owls reside inside the burrow);
5. Removal of other potential owl burrow surrogates or refugia on site;
6. Photographing the excavation and closure of the burrow to demonstrate success and sufficiency;

7. Monitoring of the site to evaluate success and, if needed, to implement remedial measures to prevent subsequent owl use to avoid take;
8. How the impacted site will continually be made inhospitable to burrowing owls and fossorial mammals (e.g., by allowing vegetation to grow tall, heavy disking, or immediate and continuous grading) until development is complete.

Appendix F. Mitigation Management Plan and Vegetation Management Goals

Mitigation Management Plan

A mitigation site management plan will help ensure the appropriate implementation and maintenance for the mitigation site and persistence of the burrowing owls on the site. For an example to review, refer to Rosenberg et al. (2009). The current scientific literature and field experience from 1995 to present indicate that an effective management plan includes the following:

1. Mitigation objectives;
2. Site selection factors (including a comparison of the attributes of the impacted and conserved lands) and baseline assessment;
3. Enhancement of the conserved lands (enhancement of reproductive capacity, enhancement of breeding areas and dispersal opportunities, and removal or control of population stressors);
4. Site protection method and prohibited uses;
5. Site manager roles and responsibilities;
6. Habitat management goals and objectives:
    a. Vegetation management goals,
        i. Vegetation management tools:
            1. Grazing
            2. Mowing
            3. Burning
            4. Other
    b. Management of ground squirrels and other fossorial mammals,
    c. Semi-annual and annual artificial burrow cleaning and maintenance,
    d. Non-natives control – weeds and wildlife,
    e. Trash removal;
7. Financial assurances:
    a. Property analysis record or other financial analysis to determine long-term management funding,
    b. Funding schedule;
8. Performance standards and success criteria;
9. Monitoring, surveys and adaptive management;
10. Maps;
11. Annual reports.

Vegetation Management Goals

- Manage vegetation height and density (especially in immediate proximity to burrows). Suitable vegetation structure varies across sites and vegetation types, but should generally be at the average effective vegetation height of 4.7 cm (Green and Anthony 1989) and <13 cm average effective vegetation height (MacCracken et al. 1985*a)*.
- Employ experimental prescribed fires (controlled, at a small scale) to manage vegetation structure;

- Vegetation reduction or ground disturbance timing, extent, and configuration should avoid take. While local ordinances may require fire prevention through vegetation management, activities like disking, mowing, and grading during the breeding season can result in take of burrowing owls and collapse of burrows, causing nest destruction. Consult the take avoidance surveys section above for pre-management avoidance survey recommendations;
- Promote natural prey distribution and abundance, especially in proximity to occupied burrows; and
- Promote self-sustaining populations of host burrowers by limiting or prohibiting lethal rodent control measures and by ensuring food availability for host burrowers through vegetation management.

Refer to Rosenberg et al. (2009) for a good discussion of managing grasslands for burrowing owls.

Mitigation Site Success Criteria

In order to evaluate the success of mitigation and management strategies for burrowing owls, monitoring is required that is specific to the burrowing owl management plan. Given limited resources, Barclay et al. (2011) suggests managers focus on accurately estimating annual adult owl populations rather than devoting time to estimating reproduction, which shows high annual variation and is difficult to accurately estimate. Therefore, the key objective will be to determine accurately the number of adult burrowing owls and pairs, and if the numbers are maintained. A frequency of 5-10 years for surveys to estimate population size may suffice if there are no changes in the management of the nesting and foraging habitat of the owls.

Effective monitoring and evaluation of off-site and on-site mitigation management success for burrowing owls includes (Barclay, pers. comm.):

- Site tenacity;
- Number of adult owls present and reproducing;
- Colonization by burrowing owls from elsewhere (by band re-sight);
- Evidence and causes of mortality;
- Changes in distribution; and
- Trends in stressors.

Appendix F: CNDDB Table

Scientific Name	Common Name	Quad	Presence Summary	Federal Status	State Status	Rare Plant Rank	CDFW Status	Other Status
Agelaius tricolor	tricolored blackbird	Rocky Hill	Unlikely	None	None		SSC	BLM_S; IUCN_EN; NABCI_RWL; USFWS_BCC
Agelaius tricolor	tricolored blackbird	Woodlake		None	None		SSC	BLM_S; IUCN_EN; NABCI_RWL; USFWS_BCC
Ambystoma californiense	California tiger salamander	Ivanhoe		Threatened	Threatened		WL	IUCN_VU
Ambystoma californiense	California tiger salamander	Ivanhoe	Unlikely	Threatened	Threatened		WL	IUCN_VU
Ambystoma californiense	California tiger salamander	Monson		Threatened	Threatened		WL	IUCN_VU
Ambystoma californiense	California tiger salamander	Monson		Threatened	Threatened		WL	IUCN_VU
Ambystoma californiense	California tiger salamander	Monson		Threatened	Threatened		WL	IUCN_VU
Ambystoma californiense	California tiger salamander	Monson		Threatened	Threatened		WL	IUCN_VU
Andrena macswaini	An andrenid bee	Tulare	Possible	None	None			
Antrozous pallidus	pallid bat	Exeter	Unlikely	None	None		SSC	BLM_S; IUCN_LC; USFS_S; WBWG_H
Ardea herodias	great blue heron	Woodlake	Unlikely	None	None			CDF_S; IUCN_LC
Athene cunicularia	burrowing owl	Ivanhoe		None	None		SSC	BLM_S; IUCN_LC; USFWS_BCC
Athene cunicularia	burrowing owl	Monson		None	None		SSC	BLM_S; IUCN_LC; USFWS_BCC
Athene cunicularia	burrowing owl	Monson		None	None		SSC	BLM_S; IUCN_LC; USFWS_BCC
Athene cunicularia	burrowing owl	Monson		None	None		SSC	BLM_S; IUCN_LC; USFWS_BCC

Athene cunicularia	burrowing owl	Monson		None	None		SSC	BLM_S; IUCN_LC; USFWS_BCC
Athene cunicularia	burrowing owl	Monson	Possible	None	None		SSC	BLM_S; IUCN_LC; USFWS_BCC
Atriplex cordulata var. erecticaulis	Earlimart orache	Cairns Corner		None	None	1B.2		BLM_S
Atriplex cordulata var. erecticaulis	Earlimart orache	Ivanhoe	Unlikely	None	None	1B.2		BLM_S
Atriplex depressa	brittlescale	Traver	Unlikely	None	None	1B.2		
Atriplex depressa	brittlescale	Visalia		None	None	1B.2		
Atriplex minuscula	lesser saltscale	Cairns Corner		None	None	1B.1		
Atriplex minuscula	lesser saltscale	Ivanhoe	Unlikely	None	None	1B.1		
Atriplex persistens	vernal pool smallscale	Ivanhoe		None	None	1B.2		
Atriplex persistens	vernal pool smallscale	Ivanhoe	Absent	None	None	1B.2		
Atriplex subtilis	subtle orache	Cairns Corn	Unlikely	None	None	1B.2		BLM_S
Bombus crotchii	Crotch bumble bee	Rocky Hill	Possible	None	None			
Bombus crotchii	Crotch bumble bee	Visalia		None	None			
Bombus crotchii	Crotch bumble bee	Woodlake		None	None			
Bombus crotchii	Crotch bumble bee	Woodlake		None	None			
Branchinecta lynchi	vernal pool fairy shrimp	Chickencoop Canyon		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Ivanhoe		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Ivanhoe		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Ivanhoe		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Ivanhoe		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Monson		Threatened	None			IUCN_VU

Branchinecta lynchi	vernal pool fairy shrimp	Monson		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Monson		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Monson		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Rocky Hill		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Rocky Hill		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Rocky Hill		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Rocky Hill		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Rocky Hill		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Rocky Hill		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Rocky Hill	Absent	Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Woodlake		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Woodlake		Threatened	None			IUCN_VU
Branchinecta lynchi	vernal pool fairy shrimp	Woodlake		Threatened	None			IUCN_VU
Brodiaea insignis	Kaweah brodiaea	Woodlake	Absent	None	Endangered	1B.2		BLM_S; USFS_S
Buteo swainsoni	Swainson's hawk	Cairns Corner		None	Threatened			BLM_S; IUCN_LC; USFWS_BCC
Buteo swainsoni	Swainson's hawk	Cairns Corn	Possible	None	Threatened			BLM_S; IUCN_LC; USFWS_BCC
Buteo swainsoni	Swainson's hawk	Tulare		None	Threatened			BLM_S; IUCN_LC; USFWS_BCC

Buteo swainsoni	Swainson's hawk	Tulare		None	Threatened			BLM_S; IUCN_LC; USFWS_BCC
Buteo swainsoni	Swainson's hawk	Tulare		None	Threatened			BLM_S; IUCN_LC; USFWS_BCC
Buteo swainsoni	Swainson's hawk	Tulare		None	Threatened			BLM_S; IUCN_LC; USFWS_BCC
Caulanthus californicus	California jewelflower	Tulare	Absent	Endangered	Endangered	1B.1		
Chrysis tularensis	Tulare cuckoo wasp	Woodlake	Unlikely	None	None			
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Visalia	Absent	Threatened	Endangered			BLM_S; NABCI_RWL; USFS_S; USFWS_BCC
Delphinium recurvatum	recurved larkspur	Cairns Corn	Unlikely	None	None	1B.2		BLM_S
Delphinium recurvatum	recurved larkspur	Ivanhoe		None	None	1B.2		BLM_S
Delphinium recurvatum	recurved larkspur	Ivanhoe		None	None	1B.2		BLM_S
Delphinium recurvatum	recurved larkspur	Monson		None	None	1B.2		BLM_S
Delphinium recurvatum	recurved larkspur	Woodlake		None	None	1B.2		BLM_S
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Exeter	Absent	Threatened	None			
Dipodomys nitratoides nitratoides	Tipton kangaroo rat	Woodville	Absent	Endangered	Endangered			IUCN_VU
Emys marmorata	western pond turtle	Visalia	Absent	None	None		SSC	BLM_S; IUCN_VU; USFS_S
Eryngium spinosepalum	spiny-sepaled button-celery	Exeter		None	None	1B.2		
Eryngium spinosepalum	spiny-sepaled button-celery	Ivanhoe		None	None	1B.2		
Eryngium spinosepalum	spiny-sepaled button-celery	Ivanhoe		None	None	1B.2		
Eryngium spinosepalum	spiny-sepaled button-celery	Ivanhoe		None	None	1B.2		

Eryngium spinosepalum	spiny-sepaled button-celery	Ivanhoe	Absent	None	None	1B.2		
Eryngium spinosepalum	spiny-sepaled button-celery	Monson		None	None	1B.2		
Eryngium spinosepalum	spiny-sepaled button-celery	Rocky Hill	Absent	None	None	1B.2		
Eryngium spinosepalum	spiny-sepaled button-celery	Rocky Hill		None	None	1B.2		
Eryngium spinosepalum	spiny-sepaled button-celery	Woodlake		None	None	1B.2		
Eryngium spinosepalum	spiny-sepaled button-celery	Woodlake		None	None	1B.2		
Eryngium spinosepalum	spiny-sepaled button-celery	Woodlake		None	None	1B.2		
Eryngium spinosepalum	spiny-sepaled button-celery	Woodlake		None	None	1B.2		
Eryngium spinosepalum	spiny-sepaled button-celery	Woodlake		None	None	1B.2		
Eryngium spinosepalum	spiny-sepaled button-celery	Woodlake		None	None	1B.2		
Eumops perotis californicus	western mastiff bat	Rocky Hill	Unlikely	None	None		SSC	BLM_S; WBWG_H
Eumops perotis californicus	western mastiff bat	Visalia		None	None		SSC	BLM_S; WBWG_H
Eumops perotis californicus	western mastiff bat	Woodlake		None	None		SSC	BLM_S; WBWG_H
Eumops perotis californicus	western mastiff bat	Woodlake		None	None		SSC	BLM_S; WBWG_H
Euphorbia hooveri	Hoover's spurge	Ivanhoe		Threatened	None	1B.2		
Euphorbia hooveri	Hoover's spurge	Ivanhoe	Absent	Threatened	None	1B.2		
Euphorbia hooveri	Hoover's spurge	Monson		Threatened	None	1B.2		
Euphorbia hooveri	Hoover's spurge	Monson		Threatened	None	1B.2		

Euphorbia hooveri	Hoover's spurge	Monson		Threatened	None	1B.2		
Fritillaria striata	striped adobe-lily	Lindsay	Absent	None	Threatened	1B.1		BLM_S; SB_RSABG; SB_USDA; USFS_S
Great Valley Valley Oak Riparian Forest	Great Valley Valley Oak Riparian Forest	Exeter	Present	None	None			
Imperata brevifolia	California satintail	Visalia	Absent	None	None	2B.1		SB_SBBG; USFS_S
Lepidurus packardi	vernal pool tadpole shrimp	Ivanhoe		Endangered	None			IUCN_EN
Lepidurus packardi	vernal pool tadpole shrimp	Ivanhoe		Endangered	None			IUCN_EN
Lepidurus packardi	vernal pool tadpole shrimp	Monson	Absent	Endangered	None			IUCN_EN
Lithobates pipiens	northern leopard frog	Monson		None	None		SSC	IUCN_LC
Lithobates pipiens	northern leopard frog	Monson	Absent	None	None		SSC	IUCN_LC
Lytta hoppingi	Hopping's blister beetle	Visalia	Unlikely	None	None			
Lytta molesta	molestan blister beetle	Lindsay	Unlikely	None	None			
Mimulus pictus	calico monkeyflower	Lindsay		None	None	1B.2		BLM_S
Mimulus pictus	calico monkeyflower	Rocky Hill	Unlikely	None	None	1B.2		BLM_S
Northern Claypan Vernal Pool	Northern Claypan Vernal Pool	Rocky Hill		None	None			
Northern Claypan Vernal Pool	Northern Claypan Vernal Pool	Rocky Hill	Absent	None	None			
Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	Ivanhoe		None	None			
Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	Monson		None	None			

Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	Monson	Absent	None	None			
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	Ivanhoe		Threatened	Endangered	1B.1		
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	Monson	Absent	Threatened	Endangered	1B.1		
Pseudobahia peirsonii	San Joaquin adobe sunburst	Lindsay		Threatened	Endangered	1B.1		SB_RSABG
Pseudobahia peirsonii	San Joaquin adobe sunburst	Rocky Hill		Threatened	Endangered	1B.1		SB_RSABG
Pseudobahia peirsonii	San Joaquin adobe sunburst	Tulare		Threatened	Endangered	1B.1		SB_RSABG
Pseudobahia peirsonii	San Joaquin adobe sunburst	Woodlake	Absent	Threatened	Endangered	1B.1		SB_RSABG
Puccinellia simplex	California alkali grass	Cairns Corner		None	None	1B.2		
Puccinellia simplex	California alkali grass	Monson	Absent	None	None	1B.2		
Spea hammondii	western spadefoot	Ivanhoe		None	None		SSC	BLM_S; IUCN_NT
Spea hammondii	western spadefoot	Ivanhoe		None	None		SSC	BLM_S; IUCN_NT
Spea hammondii	western spadefoot	Monson		None	None		SSC	BLM_S; IUCN_NT
Spea hammondii	western spadefoot	Monson		None	None		SSC	BLM_S; IUCN_NT
Spea hammondii	western spadefoot	Monson		None	None		SSC	BLM_S; IUCN_NT
Spea hammondii	western spadefoot	Woodlake	Unlikely	None	None		SSC	BLM_S; IUCN_NT
Sycamore Alluvial Woodland	Sycamore Alluvial Woodland	Woodlake	Absent	None	None			
Talanites moodyae	Moody's gnaphosid spider	Exeter		None	None			
Talanites moodyae	Moody's gnaphosid spider	Ivanhoe		None	None			
Talanites moodyae	Moody's gnaphosid spider	Ivanhoe		None	None			
Talanites moodyae	Moody's gnaphosid spider	Rocky Hill	Absent	None	None			

Taxidea taxus	American badger	Exeter	Unlikely	None	None		SSC	IUCN_LC
Tuctoria greenei	Greene's tuctoria	Woodlake	Absent	Endangered	Rare	1B.1		
Valley Sacaton Grassland	Valley Sacaton Grassland	Exeter	Absent	None	None			
Vulpes macrotis mutica	San Joaquin kit fox	Cairns Corner		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Cairns Corner		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Cairns Corner		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Exeter		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Exeter		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Exeter		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Exeter		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Ivanhoe		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Ivanhoe		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Lindsay		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Lindsay		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Monson		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Porterville		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Tulare		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Tulare		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Tulare		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Visalia		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Woodlake		Endangered	Threatened			
Vulpes macrotis mutica	San Joaquin kit fox	Woodville	Unlikely	Endangered	Threatened			

**Present – Species observed on the site during the study.

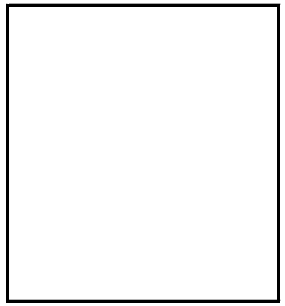
Possible – Species reasonably likely to occur because good habitat exists and/or species observed adjacent to the site.

Absent – No habitat is present on the site and there are no historical records on or near the site.

Unlikely - Species reasonably unlikely to occur because no adequate habitat exists and/or species was not observed adjacent to

Federal status:	**State status:**
FE Listed as endangered under the Federal Endangered Species Act	SE Listed as endangered under the California Endangered Species Act
FT Listed as threatened under the Federal Endangered Species Act	ST Listed as threatened under the California Endangered Species Act
FPT Proposed for listing as threatened under the Federal Endangered Species Act	CFP Listed as fully protected by the California Department of Fish and Game
FSC Species of concern as identified by the U.S. Fish and Wildlife Service	CSC Species of concern as identified by the California Department of Fish and Game

1B Plant species that are rare, threatened, or endangered in California and elsewhere.



Local Government Tribal Consultation List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

☑ **CEQA Tribal Consultation List (AB 52)** – ***Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2***

☑ **General Plan (SB 18)** - ***Per Government Code § 65352.3.***

Local Action Type:

☐ **General Plan** ☐ **General Plan Element** ☐ **General Plan Amendment**

☐ **Specific Plan** ☑ **Specific Plan Amendment** ☐ **Pre-planning Outreach Activity**

Required Information

Project Title: Sequoia Drive-In Business Park

Local Government/Lead Agency: Tulare County Resource Management Agency

Contact Person: Hector Guerra / Jessica Willis

Street Address: 5961 S. Mooney Blvd.

City: Visalia **Zip:** 93277-9394

Phone: (559) 624-7121 **Fax:** (559) 730-2653

Email: hguerra@co.tulare.ca.us; jwillis@co.tulare.ca.us

Specific Area Subject to Proposed Action

County: Tulare **City/Community:** Visalia / Farmersville

Project Description:

Applicant proposes to develop a 358,370 square foot business park on 46.17 acres located at 29421 Road 156, Visalia, CA 93292 (APNs 101-090-014, 101-090-015, and 101-100-009). The project is adjacent to State Route 198, east of the City of Visalia and west of the City of Farmersville. A drive-in once occupied the southern portion of the site and an irrigation canal bisects the property. The project includes 48 lots, including 43 commercial lots, retention basin lots, roadway lots, and an on-site domestic water system.

Additional Request

☑ **Sacred Lands File Search** - ***Required Information:***

USGS Quadrangle Name(s): Exeter Quad

Township: 18 S **Range:** 25 E MDB&M **Section(s):** 35

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

EXETER QUADRANGLE
CALIFORNIA-TULARE CO.
7.5-MINUTE SERIES

KA LA

119°15' | 2990000mE | 3000 | 3001 | 12'30" | 3003 | 3004 | 3005 | 10' | 3006 | 3007 | 6520000 FEET | 3008 | 3009 | 119°07'30"

36°22'30" | 4027000mN | 4026 | 4025 | 4024 | 20' | 4023 | 4022 | 4021 | 4020 | 4019 | 17'30" | 4018 | 4017 | 1980000 FEET | 4016 | 4015 | 36°15' | 4014000mN

2010000 FEET

Venice Cove
Venice Hills
San Joaquin Valley
Fane
West Venida
Lort
Venida
Matchin
Antes
List
Mitchell Corner
Deep Creek Cem
Rector
East Farmersville
VISALIA
FARMERSVILLE
EXETER

Wutchumna Ditch
Saint Johns River
Mathews Ditch
Packwood Canal
Kaweah River
Lane Slough
Ketchum Ditch
Fleming Ditch
Deep Creek
Consolidated Peoples Ditch
Mill Cr
Oakes Ditch
Packwood Cr
Cameron Cr
Pennebaker Ditch
Johnson Slough
Catron Ditch
Crocker Cut
Deep Cr
Extension Ditch
Davis Ditch
Outside Cr
Locust Grove Ditch
Farmers Ditch
Rice Ditch
Tulare Colony Ditch

AVENUE 320 | AVENUE 318 | AVENUE 315 | AVENUE 314 | AVENUE 312 | AVENUE 309 | AVENUE 308 | AVENUE 304 | AVENUE 296 | AVENUE 295D | AVENUE 295E | AVENUE 295 | AVENUE 292 | AVENUE 288 | AVENUE 280 | AVENUE 278 | AVENUE 272 | AVENUE 268 | AVENUE 264 | AVENUE 260 | AVENUE 258 | AVENUE 256

ROAD 148 | ROAD 152 | ROAD 156 | ROAD 158 | ROAD 160 | ROAD 162 | ROAD 164 | ROAD 166 | ROAD 168 | ROAD 170 | ROAD 176 | ROAD 180 | ROAD 182 | ROAD 184 | ROAD 188 | ROAD 192 | ROAD 196 | ROAD 200

LIPSON AVE | OAK RANCH DR | BAKER RD | EL RIO DR | MILLS DR | ST JOHNS PKY | IVANHOE DR | SOL RD | COMSTOCK ST | E RACE AVE | E MURRAY AVE | N MCAULIFF ST | E NOBLE AVE | TULARE AVE | E CAMBRIDGE AVE | TERRY AVE | W TEDDY ST | W WALNUT ST | W PETUNIA ST | CHARTER OAK DR | OUTER DR | FISHER DR | DRIVE 168B | DRIVE 184B | DRIVE 197 | N VENTURA AVE | S VENTURA AVE | N MARIPOSA AVE | S MARIPOSA AVE | MARIPOSA AVE | N FARMERSVILLE BLVD | S FARMERSVILLE BLVD | N ROSE AVE | N BRUNDAGE AVE | N OAKVIEW AVE | S KERN AVE | S SHASTA AVE | E FRONT ST | E ASH ST | W COSTNER ST | E COSTNER ST | W VISALIA RD | E VISALIA RD | CR-J20 | OSCAR AVE | WATER AVE | SANTA ROSA ST | N ANDERSON RD | N ELBERTA RD | N BELMONT RD | S BELMONT RD | S CORNUCOPIA RD | CHESTNUT ST | W FIREBAUGH AVE | VINE ST | OLD LINE AVE | E MARINETTE AVE | N D ST | N E ST | N F ST | S E ST | S H ST | E WALNUT ST | E PALM ST | E PALM DR | E MAPLE ST | W PINE ST | ROCKY HILL DR | 2ND ST | 3RD ST | 1ST ST | LENOX AVE | N ORANGE AVE | S ORANGE AVE | N QUINCE AVE | S QUINCE AVE | INDUSTRIAL DR | N GILL RD | N FILBERT RD | S FILBERT RD | E BALAAM AVE | TUOHY AVE | W MYER AVE | W GLAZE AVE | E LIST AVE

216 | 198 | 65

Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid: Universal Transverse Mercator, Zone 11S
10 000-foot ticks: California Coordinate System of 1983 (zone 4)

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, June 2012
Roads.....HERE, ©2013 - 2014
Names.....GNIS, 2015
Hydrography.....National Hydrography Dataset, 2012
Contours.....National Elevation Dataset, 2008
Boundaries.....Multiple sources; see metadata file 1972 - 2015
Public Land Survey System.....BLM, 2011

MN
GN
12° 54'
229 MILS
1° 18'
23 MILS
UTM GRID AND 2015 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
300 KA LA
Grid Zone Designation 11S

SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 MILES 1
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.18

CALIFORNIA
QUADRANGLE LOCATION

ROAD CLASSIFICATION
Expressway | Local Connector
Secondary Hwy | Local Road
Ramp | 4WD
Interstate Route | US Route | State Route

1	2	3
4		5
6	7	8

ADJOINING QUADRANGLES
1 Monson
2 Ivanhoe
3 Woodlake
4 Visalia
5 Rocky Hill
6 Tulare
7 Cairns Corner
8 Lindsay

EXETER, CA
2015

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX

September 8, 2016

Hector Guerra
Tulare County Resource Management Agency

Sent by E-mail: hguerra@co.tulare.ca.us

RE: Proposed Sequoia Drive-In Business Park Project, City of Visalia; Exeter USGS Quadrangle, Tulare County, California

Dear Mr. Guerra:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties. Please note that the intent of the reference codes below is to avoid or mitigate impacts to tribal cultural resources, as defined, for California Environmental Quality Act (CEQA) projects under AB-52.

As of July 1, 2015, Public Resources Code Sections 21080.3.1 and 21080.3.2 **require public agencies** to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

> **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. (Public Resources Code Section 21080.3.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.3.1(d), formal notification must include 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. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the 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 have already been recorded on or adjacent to the APE;
   - 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;
   - If the probability is low, moderate, or high that cultural resources are located in the APE.
   - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential 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 measurers.

     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 pubic disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission. A search of the SFL was completed for the USGS quadrangle information provided with negative results.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and

5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. 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 case that they do, having the information beforehand well help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

Native American Heritage Commission
Tribal Consultation List
Tulare County
9/8/2016

Dumna Wo-Wah Tribal Government
Robert Ledger, Chairperson
2216 East Hammond Street
Fresno, CA, 93703
Phone: (559)519-1742
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

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
115 Radio Street
Bakersfield, CA, 93305
Phone: (626)339-6785
deedominguez@juno.com
Kitanemuk
Southern Valley
Yokut

Picayune Rancheria of Chukchansi
Claudia Gonzales, Chairperson
8080 Palm Ave, Suite 207
Fresno, CA, 93711
Phone: (559) 370-4141
Foothill Yokut

Santa Rosa Rancheria Tachi Yokut Tribe
Rueben Barrios, Chairperson
P.O. Box 8
Lemoore, CA, 93245
Phone: (559)924-1278
Fax: (559) 924-3583
Southern Valley
Yokut

Table Mountain Rancheria
Leanne Walker-Grant,
Chairperson
P.O. Box 410
Friant, CA, 93626
Phone: (559)822-2587
Fax: (559) 822-2693
Yokut

Traditional Choinumni Tribe
David Alvarez, Chairperson
2415 E. Houston Avenue
Fresno, CA, 93720
Phone: (559)323-6231
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
chairman@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 6097.98 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 Sequoia Drive-In Business Park, Tulare County.

TABLE MOUNTAIN RANCHERIA
TRIBAL GOVERNMENT OFFICE

September 20, 2016

Tulare County
Resource Management
Agency
SEP 26 2016

Hector Guerra, Chief Environmental Planner
Environmental Planning Division
County of Tulare
5961 South Mooney Blvd.
Visalia, Ca. 93277

Leanne Walker-Grant
Tribal Chairperson

Beverly J. Hunter
Tribal Vice-Chairperson

Craig Martinez
Tribal Secretary/Treasurer

Matthew W. Jones
Tribal Council Member

Richard L. Jones
Tribal Council Member

RE: Sequoia Drive-In Business Park Project

To: Hector Guerra

This is in response to your letter dated September 14, 2016, regarding the Sequoia Drive-In Business Park Project.

We appreciate receiving notice; however, this project site is beyond our area of interest.

Sincerely,

Bob Pennell
Cultural Resources Director

23736
Sky Harbour Road
Post Office
Box 410
Friant
California
93626
(559) 822-2587
Fax
(559) 822-2693

From: Hector Guerra
To: jwillis
CC: Bock, Aaron; Susan Simon
Date: 10/11/2016 12:05 PM
Subject: Fwd: Sequoia Drive-In Business Park

FYI,

Tule River Tribal Council has no comment on the project noted above.

Hector

>>> Kerri Vera <tuleriverenv@yahoo.com> 10/11/2016 11:12 AM >>>
Good morning Mr. Guerra, Thank you for your letter dated Sept. 14, 2016 regarding the planned Sequoia Drive-In Business Park. At this time, we do not have any information regarding items or areas of cultural importance within the proposed project area. If, however, at any time during project execution items should be inadvertently discovered, please contact us again.We appreciate your communication efforts.Respectfully, KERRI VERA
DIRECTOR
DEPARTMENT OF ENVIRONMENTAL PROTECTION
TULE RIVER TRIBAL COUNCIL
PO BOX 589
PORTERVILLE CA 93258
PH: 559.783.9984
FX: 559.783.8932

GEOLOGICAL, HYDROLOGICAL & SUSTAINABILITY REPORT

FOR

Sequoia Drive-in Business Park

PREPARED FOR:

Castlewood Partners, Inc
PO Box 2622
Visalia, CA 93279

COMPLETED BY:



4CREEKS

324 S. SANTA FE ST., STE A
VISALIA, CA 93292
(559) 802-3052

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1 INTRODUCTION

1.1 PURPOSE AND SCOPE

The purpose of this Preliminary Geological, Hydrological, and Sustainability Report is to identify the geological, hydrological, and water sustainability conditions at the proposed Sequoia Drive-In Business Park (Site) as required by Tulare County Code, Chapter 1, Subdivision of Land, Sections 7-01-1610. This report will provide a general analysis of the existing conditions related to soil, seismicity, geologic structures, groundwater, and surface water. Information in this report is based on a Site Geotechnical Investigation and review of readily available geologic and hydrologic information for the Site.

1.2 PROJECT SUMMARY

Sequoia Drive-In Business Park is a proposed development located in Central California in the northwestern portion of the County of Tulare (See Figure 1.1 and 1.2). The Site is located adjacent to Highway 198 less than one mile east of the City of Visalia city limits at the southwest corner of Noble Ave and Road 156. The development area consists of three separate parcels of land where only two parcels will include mixed use service commercial development (Business Park) with 42 developable lots and 43 buildings for a total of 358,370 square feet of building space (See Figure 1.3). The majority of these lots will be composed of office and warehouse space with the exception of one fueling station located in the northeast corner of the proposed development. The northern and southern portion of the development area is separated by the east-west trending Little Tulare Irrigation Ditch (LTID). Currently, the development area is vacant land.

Figure 1.1: Regional Location Map

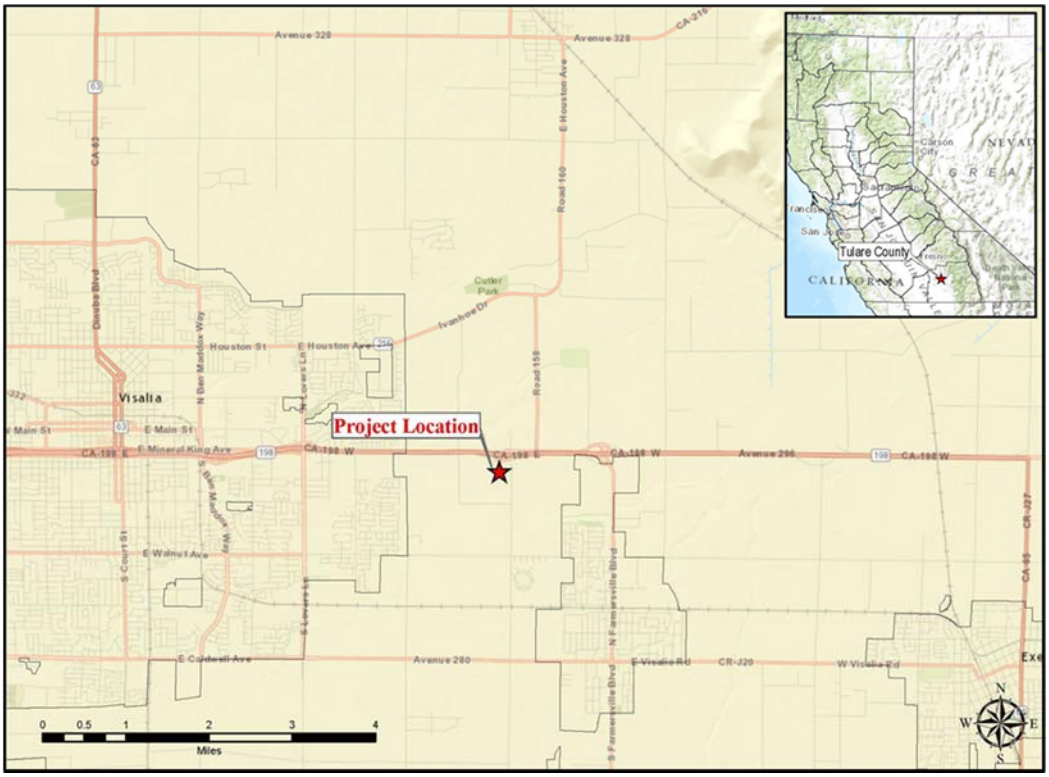
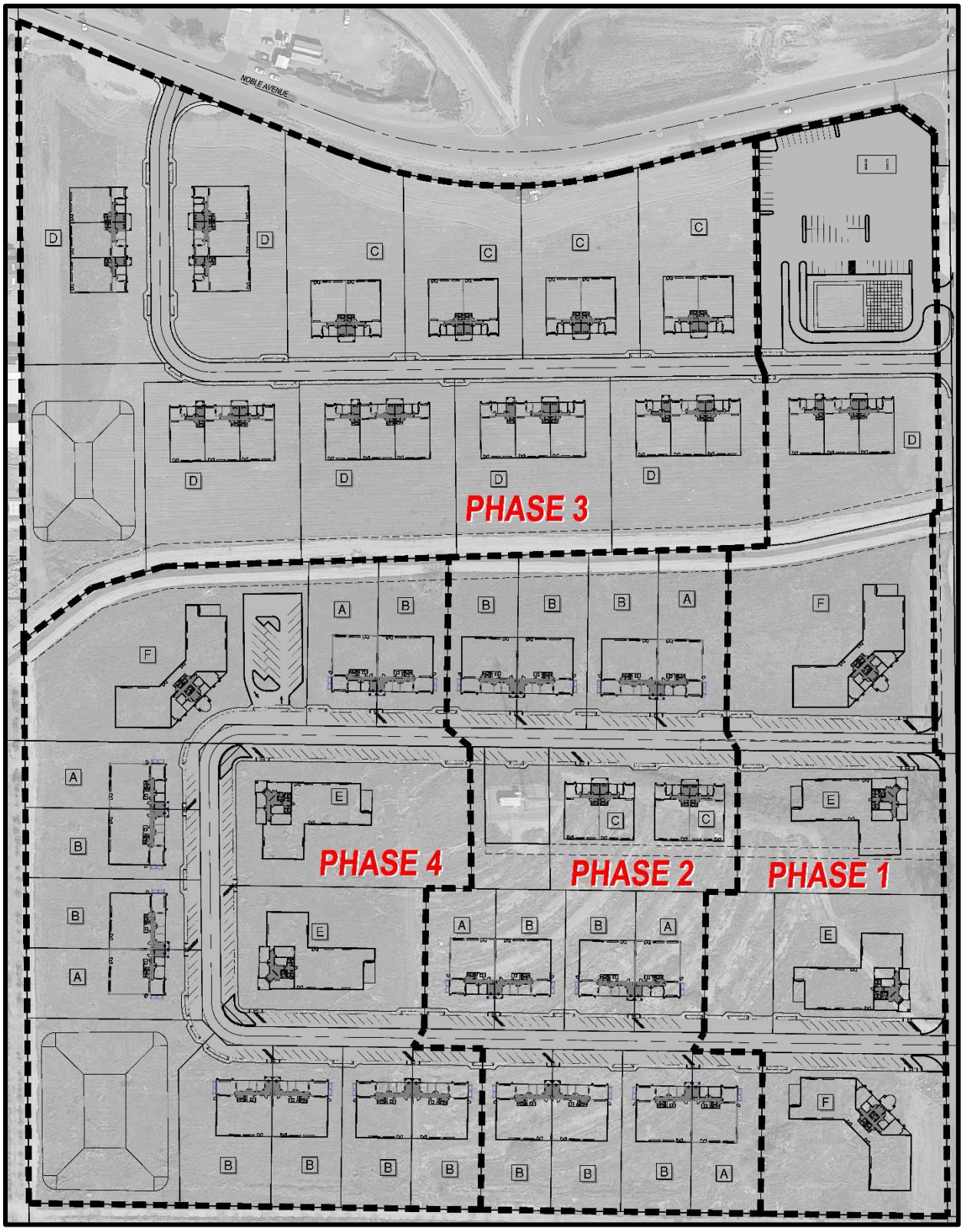


Figure 1.2: Vicinity Map



Figure 1.3: Site Plan



2 GEOLOGY AND SOILS IMPACT ANALYSIS

The site is located within the Central Valley of California, that is a structural trough about 400 miles long, 20 to 70 miles wide, and extends over 20,000 square miles. Older igneous, metamorphic, and sedimentary rocks form the surrounding mountain ranges that bound the Central Valley. The valley is filled with marine and continental sediments, which are the result of inundation by the ocean and erosion from the surrounding mountains. Approximately 5-miles east of the Site, the Sierra Nevada Mountain Range is exposed at its western base above the dissected uplands and alluvial fans that gradationally contact the unconsolidated and consolidated alluvial sediments of the Central Valley.

The Site is located on unconsolidated alluvial and flood plain deposits of major rivers that flow into the valley from the surrounding mountains. These sediments are relatively flat to gently rolling and generally below an elevation of 500-feet (USGS, 1995).

General geologic structures include folds, faults, joints, metamorphic core complexes, basin, domes, and unconformities. Folds, joints, metamorphic core complexes, basins, domes, and unconformities are primarily related to deformation of consolidated sedimentary rocks or igneous and metamorphic rocks. With respect to geology of the site (unconsolidated alluvium), further discussion or analysis of these structures is not warranted and beyond the scope of this report. Since the Site is located on valley fill deposits, fault rupture, liquefaction, subsidence, or ground shaking have the potential to affect the site.

2.1 ENVIRONMENTAL FACTORS

Based on the available information for the site, the following discussion has been presented regarding environmental factors that can potentially affect the site.

2.1.1 SEISMICITY

Would the project expose people or structures to 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.

Project Impact Analysis: *Less than significant impact*

There have been no past or present indications of faults occurring at the Site. The closest fault is the Pond Fault located approximately 40-miles south-southwest of the Site near the Hamlet of Pond, California. Based on California Division of Mines and Geology (CDMG), the Pond fault is a 2/3-mile wide zone of northwesterly trending normal faults, downthrown to the southwest and dipping approximately 50 to 70 degrees (Smith, 1983). The CDMG

postulates that groundwater withdrawal and subsequent subsidence in the 1970's and 1980's initiated creep along the dip-slip fault surface. Six small earthquake epicenters were located within 6 miles of the Pond fault. The CDMG report concluded the Pond fault might be seismically active but could not conclude with certainty.

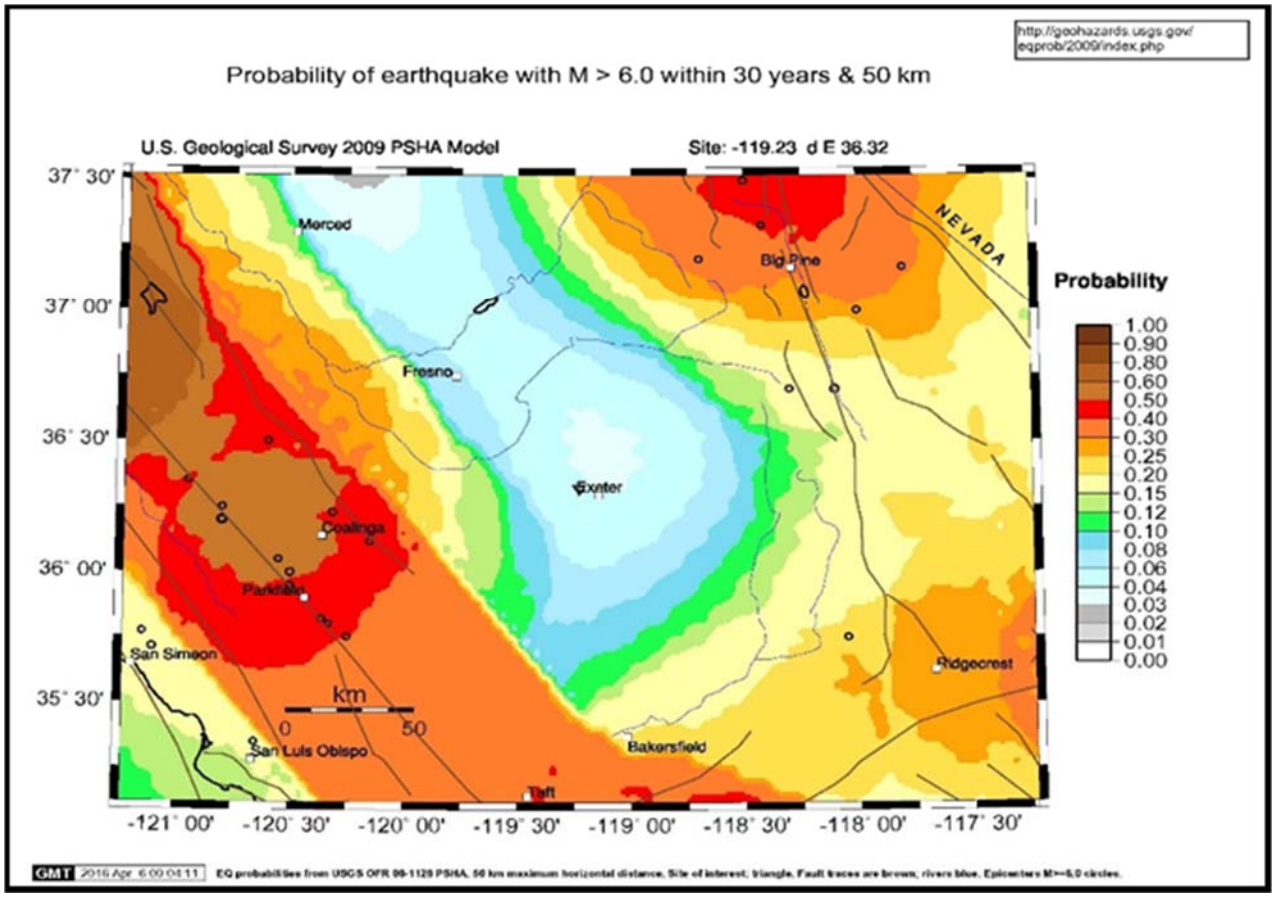
From the project location there are currently no active faults within 40 to 50 miles based on the Department of Conservation's Alquist-Priolo (AP) maps. As of January 2010, Tulare County is not affected by Alquist-Priolo Earthquake Fault Zones, (CDC, 2016). According to the 2012 Tulare County General Plan 2030 Update, there is no presence of active faults within the county where the effects of large earthquakes are felt. Faults with potential seismic activity include the San Andreas, Owens Valley, and Clovis Faults (Tulare County General Plan Background Report, 2010 and Recirculated Draft, 2010). The Owens Valley Fault group located west of the project is said to be the source of seismic activity in the past.

II) Strong seismic ground shaking?

Project Impact Analysis: *Less than significant impact*

The geological hazard features surrounding the proposed property of concern, pertain to the active faults found near the site. From 1950 through 2012, there have been zero (0) state and federal declared earthquake disasters in Tulare County (SHMP, 2013). As indicated in Figure 2.1 below, the probability of an earthquake with magnitude > 6.0 within 30 years & 50 kilometers (31 miles) from the site is between 4% and 6%. Based on the distance and probability of magnitude 6.0 or greater at the site, there is less than significant potential for impact from strong seismic shaking.

Figure 2.1: Earthquake Probability



III) Seismic related ground failure, including liquefaction?

Project Impact Analysis: *Less than significant impact*

Liquefaction is a failure mechanism in water-saturated, well sorted fine sands. Liquefaction occurs as a result of rearrangement of sand grains. Shaking or vibration can cause the grains to rearrange to a denser soil thus decreasing porosity leaving excess water in the interstices. The grains no longer support the overburden and the soil behaves as a liquid. If the soil mass is saturated and the water cannot escape, the material turns into a viscous fluid that can damage foundations or generate slope failures. This is normally caused by earthquakes. Liquefaction generally occurs in areas with shallow water tables or near waterbodies. Based on soil types and depth to groundwater beneath the site, liquefaction potential will be very low with no need for special liquefaction mitigation.

IV) Landslides

Project Impact Analysis: *Less than significant impact to None*

Topography of the site is relatively flat and slopes down to the west less than approximately 0.2%. There are no significant slopes onsite that will require stability analysis or mitigation to potential seismic shaking.

2.1.2 SOIL EROSION

Would the project result in substantial soil erosion or the loss of topsoil?

Project Impact Analysis: *Less than significant impact*

Erosion is the wearing away of soil or rock by natural occurrence and transportation of these materials from one location to another. Common causes of erosion include wind and water. The Natural Resource Conservation Web Soil Survey report in Appendix A lists the Nord fine sandy loam as surface soil covering the entire Site. Less dense, finer grained soil particles are more susceptible to erosion that denser, coarser particles. The web soil survey report in Appendix A lists soils at the site as having "slight" susceptibility with little or no potential for erosion.

2.1.3 LANDSLIDES

Would the project 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.

Project Impact Analysis: *Less than significant impact*

As stated above, topography of the site is relatively flat sloping down to the west less than approximately 0.2%. The nearest naturally formed slopes are foothills located approximately four miles northeast of the site. Potential for slope failure from these nearby hills to affect the site are unlikely. The NRCS Web Soil Survey Report in Appendix A indicates the site has a representative slope rating of 1.0. Based on this slope rating, the site is listed as "Nearly Level". Potential for on or off-site landslides or lateral spreading is very low based on topography of the site.

According to NRCS, the site is located on the Nord fine sandy loam. On June 3, 2015, CTL-See's drilled soils borings with a hollow stem auger drilling rig. Soils were visually classified. Soil types at the site were logged

according to the Unified Soil Classification System (USCS) and generally include silty sands, sandy silts, and sands. Borings were conducted to a maximum depth of 51.5' from the existing ground surface where groundwater was not encountered during the field investigation. Soil boring logs are provided in Appendix B.

On May 12, 2015, 4Creeks measured depth to water in the existing northern on site well at 84.6 feet below top of casing as indicated in Table 1, §4. Based on soil types and depth to groundwater beneath the site, liquefaction potential will be very low with no need for special liquefaction mitigation.

Subsidence is characterized as the settling of the ground surface with minimal horizontal change. Often this is caused through the extraction of natural resources found below the surface including water, natural gas, and oil. As of now the Kaweah River Basin is considered to be in an overdraft. This was based on the findings in the Water Resources Investigation of the Kaweah Delta Water Conservation District report (Fugro, 2003). Based on the site investigations and findings from the Department of Water Resources (DWR), the groundwater surface elevations are decreasing. Regional subsidence throughout the San Joaquin Valley, including the area underneath the site is experiencing subsidence resultant from regional groundwater pumping. This may potentially have an impact on the properties susceptibility to subsidence.

A continuous Global Positioning System (GPS) station (P566) is located on the west border of the site. Subsidence data from station P566 indicate total subsidence of approximately 120 millimeters (4.7 inches) from November, 2005 through April, 2016. Subsidence affecting the site is regional in scale and is attributed to groundwater overdraft throughout the Central Valley. Although the site may be affected by regional scale subsidence, it is not anticipated that the effects of the subsidence will significantly affect the site in particular.

Compaction of site soil during construction is expected to take place within three to five feet of the surface. It is not anticipated that compactive efforts during construction will contribute to collapse of naturally deposited soils beneath the site.

2.1.4 EXPANSIVE SOILS

Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risk to life or property.

Project Impact Analysis: *Less than significant impact*

Based on Table 18-1-B of the 1994 Uniform Building Code, soils with an expansion index less than 20 have very low expansion potential. There are no known instances of expansive soils in direct proximity to the site. Soil types encountered during the May 2015 field investigation by CTL-SEE's included sands and silty sands with the exception of a sandy clay in the northwest corner of the site. Given the soil types at the site and no known instances of expansive soils in the area, significant shrink-swell behavior is not anticipated at the site.

2.1.5 WASTE DISPOSAL

Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

Project Impact Analysis: *Less than significant impact*

Soils at the site such as sands and silty sands have characteristics favorable to septic tank or alternative waste water disposal systems. The site is located in an area with a mix of suburban and rural properties, many of these utilizing septic tanks systems or alternative waste water disposal systems.

3 HYDROLOGY AND WATER QUALITY IMPACT ANALYSIS

The parcel south of the LTID was previously used as a drive-in theater. The parcels north of the LTID were used as farm land and have since become vacant. There is no current water demand for the three parcels, as they are vacant, but the southernmost parcel has two existing irrigation wells.

3.1 GROUNDWATER OCCURRENCE

Groundwater from the Kaweah River Basin has been the primary source of water for the subject area in the past. Groundwater will remain the primary source of water for the subject area after development. The Kaweah River Basin is part of the Tulare Lake Basin within the Central Valley. The Kaweah River Basin encompasses an area of about 446,000 acres on the valley floor with an average annual precipitation of 11 inches (DWR, 2004). Located above the valley floor, the Kaweah River Watershed encompasses an area of 630 square miles with an average annual precipitation of 21.71 inches in the foothill area. All rainfall data used in this report were obtained from the Department of Water Resources.

The main freshwater-bearing sediments beneath the Site include flood basin deposits, younger alluvium, older alluvium, the Tulare Formation, and continental deposits undifferentiated. Within the alluvial deposits, groundwater occurs under confined and unconfined conditions (Davis et.al., 1959). These deposits supply nearly all the water pumped from wells in the valley and are the primary source of freshwater. Groundwater moves in response to the hydraulic gradient from areas of recharge to areas of discharge. Under natural conditions, the unconfined and semiconfined groundwater in the San Joaquin Valley moves toward topographically low central areas, where it is discharged at the land surface or consumed by plants.

3.2 ENVIRONMENTAL FACTORS

3.2.1 WATER SUPPLY

Based on the available information for the site, the following discussion has been presented regarding environmental factors that can potentially affect the site.

Would the project substantially deplete the groundwater supplies or interfere 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).

Project Impact Analysis: *Less than significant impact*

Groundwater flowing through shallow parts of the aquifer system beneath the site emanates as runoff at higher elevations, specifically from the Sierra Nevada Mountains. The eastern valley margin soils are generally more

coarse and permeable, especially along the east side of the Tule Sub basin adjacent to the Sierra Nevada foothills (USGS, 1995). Deep percolation on the valley floor up-gradient from swampy areas and lakes is a significant source of recharge in wetter areas and during wetter years (Williamson, et.al., 1989).

Based on the Central Valley Hydrologic Model (CVHM), the average groundwater recharge from surface water processes throughout the Central Valley is 7.7-million acre-feet per year. The average annual hydrologic budget from the years 1962-2003 net recharge from landscape (surface water processes) from the CVHM within the combined Kaweah/Tule basin "water balance sub regions" was 710,000 acre-feet (Faunt, 2009).

Recharge rates from precipitation have not changed significantly from predevelopment times. Generally, recharge of the Central Valley Aquifer system occurs during the winter months (December through March) and discharge occurs during the summer months which include the growing season (May through September). Large amounts of water are drawn from storage during the pumping period. The shallow portion of the aquifer system receives some recharge during irrigation. In typical years, water levels generally recover during the wet season (December through March) (Faunt, 2009).

In much of the valley, the annual rainfall is so low that little precipitation penetrates deeply, and soil-moisture deficiency is perennial. Infiltration from stream channels, canals, and irrigated fields are the principal sources of groundwater recharge (Davis, et.al., 1964). Precipitation falling on the valley floor during the rainy season provides only a small part of the total recharge (Faunt, 2009).

Based on the Department of Water Resources Groundwater Information Center, depth to groundwater in surrounding monitoring wells averages approximately 70 to 80 feet below ground surface for 2014. On May 12, 2015, 4Creeks personnel sampled and measured depth to groundwater in the northern of the two wells located onsite. Table 1: North Agriculture Well Data summarizes the monitoring and sampling event.

Table 1: North Agriculture Well Data

Well ID	Latitude	Longitude	Total Well Depth Below top of casing (Feet)	Depth to Groundwater Below top of Casing (Feet)	Groundwater Temperature (C°)	Specific Conductance µs/cm	pH
GW1	36.323174	-119.224834	249.5	84.6	18.3	208.3	7.09

The southern well, located approximately 450-feet south still had the pump installed on the wellhead and power was not supplied or connected to the motor. 4Creeks personnel could not access the well to measure depth to groundwater or collect a representative groundwater sample from the southern well. This well is planned to be used for the project. Upon further project development, the details for this well will be collected and the groundwater will be sampled and analyzed.

The proposed development currently has two agricultural wells located on the southernmost parcel near Road 156. These two wells will be utilized to supply the community domestic water system with potable water. An estimated 168.38 gallons per day is expected to be used per building and there are 43 proposed buildings. The daily water

demand is expected to be approximately 7,240.38 gallons per day. The northern existing well was tested by Willits Pump & Electrical Service to ensure that the well was capable of yielding the required volume to meet the water demand for the project. The test results showed that the northern well is capable of yielding 1.224 million gallons per day which is more than sufficient yield to meet the water demand created by the proposed development.

3.2.2 OVERDRAFT MITIGATION METHODS

Surface-water supplies in the past have been generally inadequate to meet irrigation demands, and overdraft on groundwater supplies has been widespread. As a result, water level fluctuations have occurred in response to the groundwater withdrawals. The water table declines rapidly in late spring and summer and recovers as pumping ceases late in the autumn. In overdrafted areas, a year by-year decline has occurred. Imports of Central Valley Project surface water through the Friant Kern Canal have supplied additional recharge to the groundwater basins locally and helped to reduce pumping overdraft (Davis, et. al., 1959).

Mitigating groundwater overdraft has become an important objective for the state, counties, and the developer of this project. Since groundwater overdraft mitigation has become a common practice, water usage has become more conservative and alternative methods of reuse and recycling have become realities. Water reuse is a proposed mitigation item for this project, to reduce the water demand on wells by reducing and eliminating the water volumes required for landscape irrigation. Tertiary treatment will allow sewer effluent to meet the State of California standards set in place for water reuse. Water reuse will reduce water demand for Sequoia Drive-In Business Park, taking a step forward in groundwater overdraft mitigation.

3.2.3 FLOODING

Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Project Impact Analysis: *Less than significant impact*

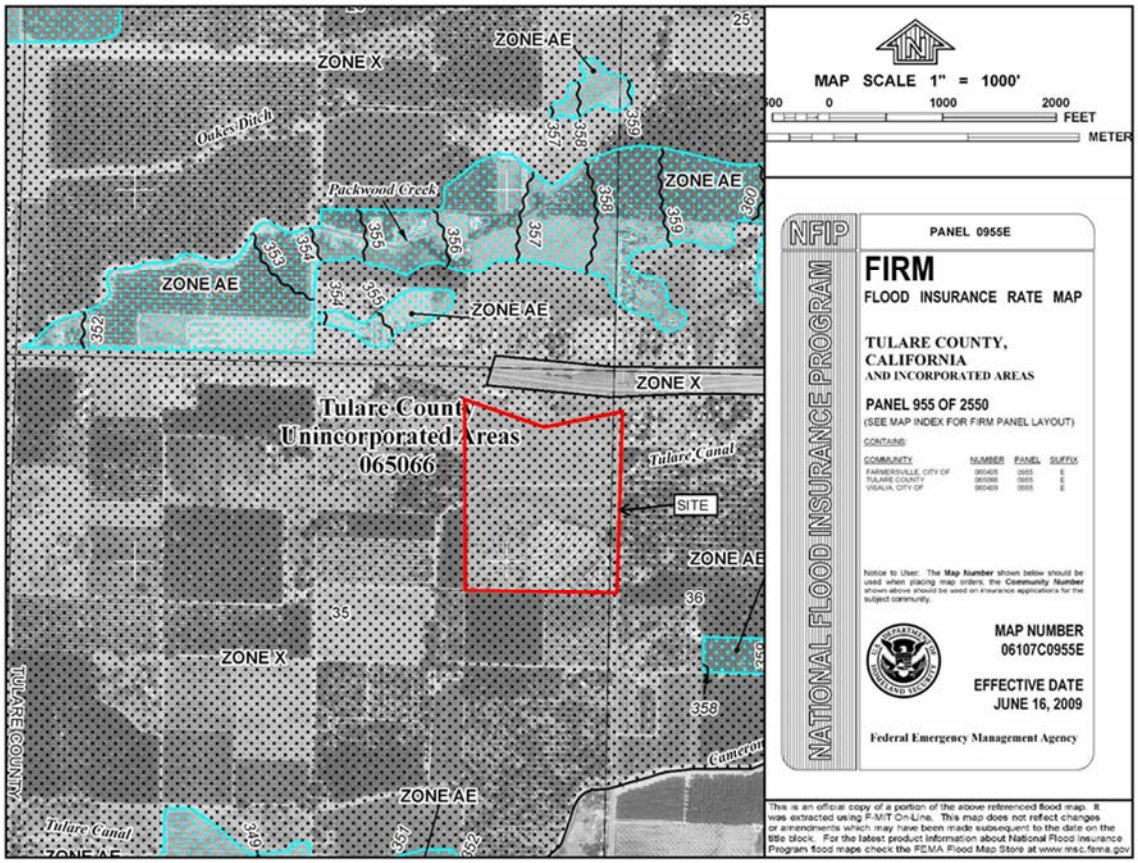
As indicated in the Tulare County General Plan Background Report, two major dams could cause substantial flooding in Tulare County in the event of a failure: Terminus Dam on Lake Kaweah and Success Dam on Lake Success. In addition, there are many smaller dams throughout the county that would cause localized flooding in the event of their failing. However, a comprehensive analysis of the potential for dam failure and possible downstream effects for these upstream dams has not been undertaken. The project lies within flood Zone X (Shaded), which is a moderate flood hazard area with a 0.2 percent annual chance or a 500 year flood according to the Federal Emergency Management Agency (FEMA) flood zone designation. This area is not within the flood area and in turn will not be subject to risk in the event of a levee or dam failure.

Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Project Impact Analysis: *No Impact*

The proposed project does not contain housing. Additionally, the flood area that the project lies within is considered Zone X (Shaded), which is a moderate flood hazard area with a 0.2 percent annual chance or a 500 year flood according to the Federal Emergency Management Agency (FEMA) flood zone designation. Since the project area is not located within the 100 year flood hazard area, there is no impact. The FEMA flood map is provided below as Figure 3.1.

Figure 3.1: Flooding Zone Designation



Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Project Impact Analysis: *No Impact*

The site is not located within the 100-year flood hazard area so there is no impact.

Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Project Impact Analysis: *Less than significant impact*

The surface topography of the site is relatively flat. The final grading of the site will not affect the drainage pattern of the site or area. The only surface water conveyance on site is the LTID ditch that bisects the property from east to west. The LTID will remain in place and not be relocated. Grading for the site will include an engineered grading design approved and permitted by Tulare County. Site drainage will be controlled by grading and stormwater retention ponds. No site runoff will flow from the site into LTID; therefore, no substantial erosion or siltation will occur.

Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface in a manner which would result in substantial flooding on- or off-site?

Project Impact Analysis: *Less than significant impact*

As discussed above, engineered grading of the site will not substantially alter the drainage patterns of the site. Drainage across the site will be controlled as part of the site engineered grading plan.

Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Project Impact Analysis: *No Impact*

As discussed above, the project site is not located within the 100-year flood hazard area therefore no impact will occur

Would the project expose people or structures to a significant risk of inundation by sieche, tsunami, or mudflow?

Project Impact Analysis: *No Impact*

Project site is not located by the ocean, near a lake shore, or in areas of steep slopes so a No Impact determination for the project can be reached.

3.2.4 WATER QUALITY

Would the project violate water quality standards or waste discharge requirements?

Project Impact Analysis: *Less than significant impact*

On May 12, 2015, 4Creeks collected one groundwater sample from groundwater the north agriculture well designated as "GW1". Field measurements of pH, specific conductance, and temperature were recorded with a YSI ProPlus water sensor. The groundwater sample was delivered to BSK laboratories and analyzed for general minerals, metals, E. Coli and Fecal Coliform, and volatile organic compounds (VOCS). Detected analytes are listed below in Table 2: Ground Quality – Well GW1. The results were compared to California Department of Public Health (CDPH) maximum contaminant levels (MCLs) for drinking water in the state of California. The laboratory analytical report is presented in Appendix C.

This well has not been in use for many years. The well was sampled without being purged or while in operation. However, there are surrounding domestic wells in the near vicinity that serve the public from the same aquifer. This water sample serves as an initial investigation of possible contamination and feasibility for the proposed project. The presence of Coliform may be due to the well not being purged prior to the sample being taken. However, Coliform

can be treated. The water produced by this well will need to meet the quality and monitoring requirements of the State Water Board and California Department of Public Health for a Community Water System.

Once the well is retrofitted for the project, a second round of sampling and analysis should be conducted. The southern well that was not sampled should also be sampled with analysis once it is retrofitted for the project. Sampling and analysis should occur during the initial phases of retrofitting; specifically, during pump testing. If water quality does not meet the State of California standards as discussed above, steps should be taken during the design of the site such as disinfection, to ensure the water is potable for project use.

Table 2: Groundwater Quality - Well GW1

Well ID	Groundwater Temperature (C°)	Specific Conductance (µs/cm)	pH	Analyte	Results (mg/L	MCL (mg/L)
GW1	18.3	208.3	7.09	Alkalinity as CaCO3	110	NA
				Bicarbonate as CaCO3	110	NA
				Chloride	20	NA
				Sulfate as SO4	31	NA
				Barium	0.053	1
				Calcium	39	NA
				Magnesium	7.4	NA
				Sodium	16	NA
				E. Coli	Absent	NA
				Total Coliform	Present	NA
				Xylenes	0.00055	1.75

NA – Not Available

Will the project otherwise substantially degrade water quality?

Project Impact Analysis: *Less than significant impact*

All infrastructure designed for the site will be constructed to local, state, and/or federal standards. All potential sources of pollution such as gas stations, liquid waste, or solid waste structures built on-site will be designed to retain all sources of pollution and meet regulatory requirements.

3.3 WATER USE SUMMARY AND SUSTAINABILITY

It is estimated in the State of California that 20% of urban water is used for commercial developments, which is about 1.76 million acre feet or an estimated 48 gallons per capita per day. This was based on an eight-year average found in the 2013 California Water Plan. The California Water Plan also addresses the fact that the commercial sector covers a broad range of commercial facilities which doesn't allow for more accurate estimates based on the type of commercial development. According to the 2013 California Water Plan, the highest water usage comes from restrooms partly due to a possibility for inefficient toilets and faucets. Landscaping is another cause of high water consumption which normally occurs due to poor irrigation design and maintenance. High landscape water consumption can also be attributed to the use of plants that require large volumes of water to thrive. Managing these issues provide a potential for a significant amount of water savings. Additionally, recycling water and planting drought tolerant plants can eliminate the landscape water demand all together.

3.4 INDOOR WATER USE

The California Green Building Standards Code for nonresidential mandatory measure has established a method to determine the baseline water use for nonresidential facilities. Figure 3.2 below, found in Table 5.303.2.2 "Water Efficiency and Conservation" of the California Building Standards Code, provides the necessary information needed to determine the baseline water usage. In order to determine the occupants within the facility it was necessary to refer to Chapter 4 of the California Pluming Code. Using Figure 3.3, the occupant load factor is determined based on the expected occupancy type and the expected square footage of the building.

Figure 3.2: Table 5.303.2.2 Water Use Baseline 2013 California Building Standard Code

WATER USE BASELINE[3]

FIXTURE TYPE	BASELINE FLOW RATE	DURATION	DAILY USES	OCCUPANTS[2]
Showerheads	2.0 gpm @ 80 psi	5 min.	1	X[2a]
Lavatory faucets, nonresidential	0.5 gpm @ 60 psi	.25 min.	3	X
Kitchen faucets	2.2 gpm @ 60 psi	4 min.	1	X[2b]
Replacement aerators	2.2 gpm @ 60 psi			X
Wash fountains	2.2 [rim space (in.)/20 gpm @ 60 psi]			X
Metering faucets	0.25 gallons/cycle	.25 min.	3	X
Metering faucets for wash fountains	.25 [rim space (in.)/20 gpm @ 60 psi]	.25 min.		X
Gravity tank-type water closets	1.28 gallons/flush	1 flush	1 male[1] 3 female	X
Flushometer tank water closets	1.28 gallons/flush	1 flush	1 male[1] 3 female	X
Flushometer valve water closets	1.28 gallons/flush	1 flush	1 male[1] 3 female	X
Electromechanical hydraulic water closets	1.28 gallons/flush	1 flush	1 male[1] 3 female	X
Urinals	0.5 gallons/flush	1 flush	2 male	X

Fixture "Water Use" = Flow rate × Duration × Occupants × Daily uses
1. The daily use number shall be increased to three if urinals are not installed in the room.
2. Refer to Table A, Chapter 4, *California Plumbing Code*, for occupant load factors.
   a. Shower use by occupants depends on the type of use of a building or portion of a building, e.g., total occupant load for a health club, but only a fraction of the occupants in an office building as determined by the anticipated number of users.
   b. Nonresidential kitchen faucet use is determined by the occupant load of the area served by the fixture.
3. Use Worksheet WS-1 to calculate baseline water use.

Figure 3.3: Table A. Occupant Load Factor 2013 Chapter 4 California Plumbing Code

OCCUPANT LOAD FACTOR:
[BSC, DSA-SS & DSA-SS/CC]

OCCUPANCY*, **	OCCUPANT LOAD FACTOR (square feet) (CBC 2001, Table A-29A)
Group A	
1. Auditoriums, convention halls, dance floors, lodge rooms, stadiums, and casinos (where no fixed seating is provided) (use ½ "one-half" the number of fixed seating)	15
2. Conference rooms, dining rooms, drinking establishments, exhibit rooms, gymnasiums, lounges, stages, and similar uses, including restaurants classified as Group B occupancies	30
3. Worship places; principal assembly area, educational and activity unit (where no fixed seating is provided) (use ½ "one-half" the number of fixed seating)	30
Group B Office or public buildings (area accessible to the public)	200
Group E Schools for day care, elementary, secondary	50
Educational Facilities Other than Group E Colleges, universities, adult centers, etc.	50
Group F Workshops, foundries and similar establishments	2,000
Group H Hazardous materials fabrication and storage	2,000
Group I Hospital general use area, health care facilities	200
Group M Retail or wholesale stores	200
Group R Congregate residence, Group R-1	200
Group S Warehouse	5,000

* Any uses not specifically listed shall be based on similar uses listed in this table.
** For building or space with mixed occupancies, use appropriate occupancy group for each area (for example, a school may have an "A" occupancy for the gymnasium, a "B" occupancy for the office, an "E" occupancy for the classrooms, etc.)
Accessory areas may be excluded (for example: hallway, restroom, stair enclosure)

The baseline water use is based on occupancy factors which reflect the expected zoning area and the project occupants. The occupancy of the proposed buildings will be based on a conservative outlook towards water use. For this reason, our occupants will consist of groups B, M, and S. The proposed development is expected to use 7 different building layouts which are labeled as A, B, C, D, E, F and G on the site plan. The following Table 3 shows the expected indoor water use per building occupancy type and Table 4 shows the approximate total annual indoor water use. See Appendix E for detailed calculations.

Table 3: Indoor Water Use Per Building Layout

Building Layout	Retail (SF)	Office (SF)	Warehouse (SF)	Total Building Area (SF)	Total Service Commercial Occupants Group B	Total Retail Occupants Group M	Total Warehouse Occupants Group S	Gallons/Year
A		1300	3900	5200	7		1	38,137
B		1600	4800	6400	8		1	46,937
C		2000	6000	8000	10		1	58,672
D		3000	9000	12000	15		2	88,007
E		2800	9320	12120	14		2	82,576
F		2500	10890	13390	13		2	74,947
G	5320			5320		27		148,499

Table 4: Approximate Annual Total Indoor Water Use Per Building Layout

Building Layout	Number of Buildings	Total Building Area (SF)	Gallons per Year
A	7	36,400	266,956
B	15	96,000	704,059
C	6	48,000	352,029
D	7	84,000	616,051
E	4	48,480	330,306
F	3	40,170	224,840
G	1	5,320	148,499
Total	43	358,370	2,642,740

3.5 OUTDOOR WATER USE

The landscape water usage for the proposed development will be based on the utilization of recycled water and drought tolerant plants. According to the Model Water Efficient Landscape Ordinance this irrigated area is considered special landscape area. The method used to estimate the outdoor water use can be found in the California Department of Water Resources' published Model Water Efficient Landscape Ordinance. This ordinance provides the formulas necessary to determine the Maximum Applied Water Allowance (MAWA) and the Estimated Total Water Use (ETWU) which are listed below.

$$MAWA = (ETo)\ (0.62)\ [(0.7 \times LA) + (0.3 \times SLA)]$$

MAWA = Maximum Applied Water Allowance (Gallons per Year)

ETo = Reference Evapotranspiration (Inches Per Year)

0.62 = Conversion Factor to gallons

0.7 = ET Adjustment Factor (ETAF)

LA = Landscape Area Including SLA (Square Feet)

0.3 = Additional Water Allowance for SLA

SLA = Special Landscape Area (Square Feet)

$$ETWU = (ETo)(0.62)\left(\frac{PF \times HA}{IE} + SLA\right)$$

ETWU = Estimated Total Water Use per Year (Gallons)

ETo = Reference Evapotranspiration (Inches)

PF = Plant factor from WUCOLS

HA = Hydrozone Area (Square Feet)

SLA = Special Landscape Area (Square Feet)

0.62 = Conversion Factor

IE = Irrigation Efficiency (Minimum 0.71)

With the use of recycled water the equations will simplify to the following:

MAWA= (ETo)(0.62) [(.7 x LA) + (.3 x SLA)

ETWU = (ETo)(0.62)(SLA)

The Referenced Evapotranspiration utilized for this project was determined to be 50.7, located in the table in Appendix A. The following equation demonstrates the expected water use based on the expected special landscape area.

Given:

Estimated Special Landscape Area = 5000 Square Feet

ETo = 50.7 (Appendix A, Visalia)

So:

MAWA = (50.7)(0.62) [(.7 x 5000) + (.3 x 5000) = 157,170 Gallons/ Year

ETWU = (50.7 x 0.62 x 5000) = 157,170 Gallons/ Year

Based on the calculation the MAWA is Equal to the ETWU which, complies with the MAWA.

The use of freshwater will not be used for landscaping except for after planting in order to assist with plant development and for any reason the recycling system is down for a period of time.

3.5.1 RUNOFF

Would the project 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?

Project Impact Analysis: *Less than significant impact*

All stormwater runoff will be directed toward onsite stormwater ponds engineered to retain the 100-year storm event for the site. The project will not contribute turnoff water exceedances or provide substantial additional sources of polluted runoff.

3.6 HYDROLOGY AND WATER QUALITY SUMMARY/CONCLUSION

Water resource has become an essential and important aspect for the State of California. With the use of recycled wastewater in landscaping and other potential possibilities, the fresh water consumption can be freed up for utilization elsewhere in the commercial and household areas. Sequoia Drive-In Business Park's proposed plan incorporates an alternative in the support of well water overdraft. This alternative will essentially provide an additional source of water which will satisfy the landscape water demand. The estimated water demand of the proposed landscape will require approximately 157,000 gallons according to Model Water Efficient Landscape Ordinance. By meeting California's standards for water reuse, we will be able to save 157,000 gallons of freshwater with the alternative recycled water system. By essentially eliminating the use of irrigated landscape we will be able to take a step forward in mitigating the groundwater overdraft.

With the current drought conditions there has been an increase in ground water use in agriculture land within the Central Valley. This has also caused farmers to essentially stop growing crops for a season due to the high water demand. With increasing ground water consumption there is also a potential for subsidence which can affect the

infrastructure of the surrounding areas. According to the California Green Building Standards Code for nonresidential mandatory, the proposed project is estimated to use a projected 2,642,740 gallons of fresh water per year. Although the fresh water demands for a Business Park are greater than the current vacant usage of the project area, sustainable design practices will be used to minimize the fresh water demand. Water treatment will be utilized to recycle and treat the water that will be needed to irrigate landscaping which will help reduce the overall water footprint for the site.

The development of The Sequoia Drive-In Business Park will provide an opportunity for a new sustainable development practices of water and savings potential. Recycled water has taken place in California for many years and has provided an alternative source for many uses. By implementing this alternative we are looking to help mitigate California's existing groundwater overdraft.

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APPENDIX A

NATURAL RESOURCE CONSERVATION WEB SOIL SURVEY

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Tulare County, Western Part, California

Sequoia Gateway Plaza



June 10, 2015

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

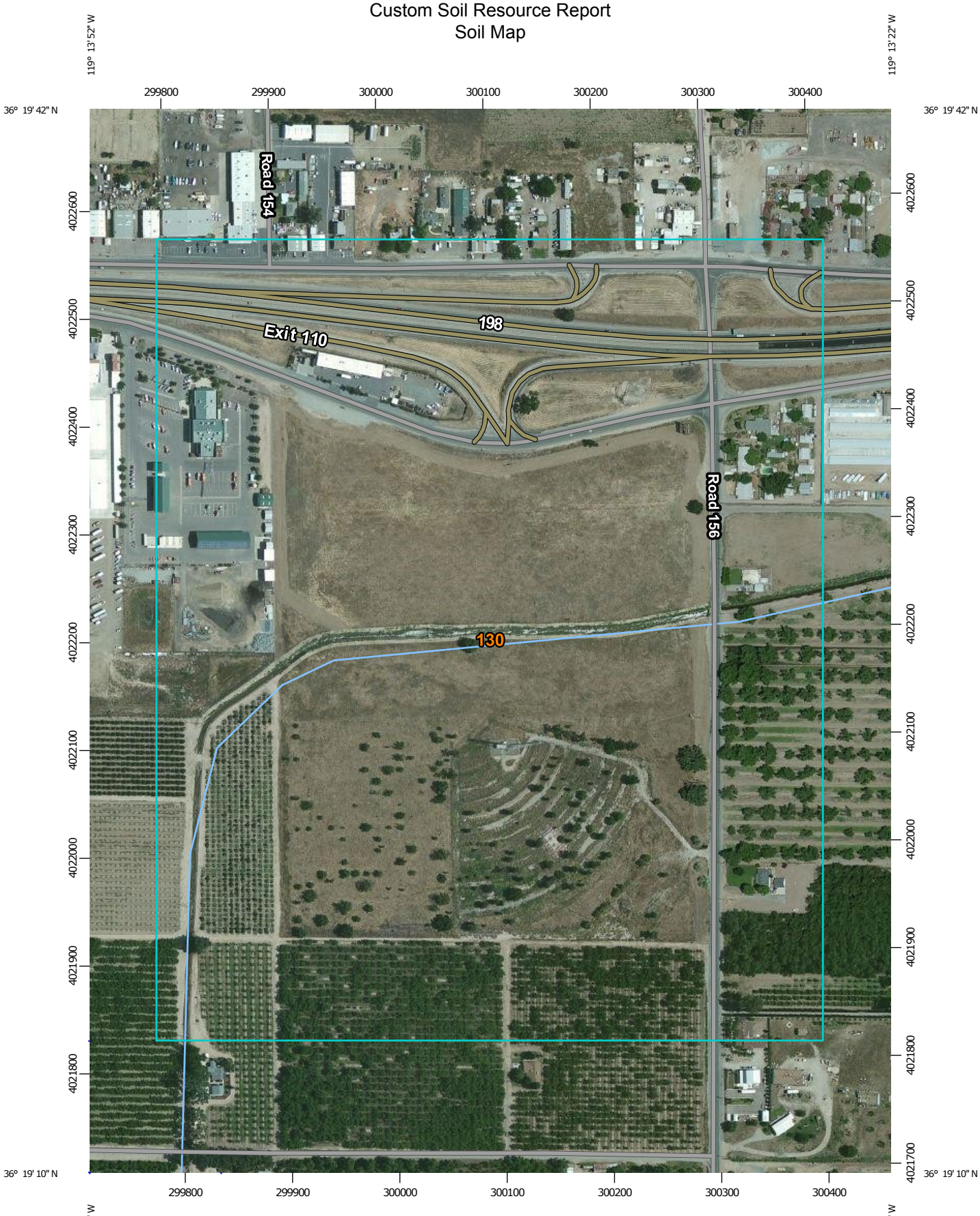
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Tulare County, Western Part, California
Survey Area Data: Version 8, Sep 30, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Tulare County, Western Part, California (CA659)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
130	Nord fine sandy loam, 0 to 2 percent slopes	114.5	100.0%
Totals for Area of Interest		**114.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Tulare County, Western Part, California

130—Nord fine sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: hp51
Elevation: 190 to 520 feet
Mean annual precipitation: 8 to 12 inches
Mean annual air temperature: 61 to 64 degrees F
Frost-free period: 250 to 275 days
Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Nord and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nord

Setting

Landform: Alluvial fans, flood plains
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Convex, linear
Parent material: Alluvium derived from mixed

Typical profile

Ap - 0 to 11 inches: fine sandy loam
C1 - 11 to 38 inches: stratified sandy loam to loam
C2 - 38 to 50 inches: stratified loamy coarse sand to coarse sandy loam
2Btb - 50 to 72 inches: stratified sandy loam to silt loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: About 6 inches to
Natural drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Very rare
Frequency of ponding: None
Calcium carbonate, maximum in profile: 4 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 10.0
Available water storage in profile: Very low (about 0.7 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: B

Minor Components

Grangeville, saline-sodic
Percent of map unit: 3 percent
Landform: Alluvial fans, flood plains

Hanford
Percent of map unit: 3 percent
Landform: Flood plains, alluvial fans

Tujunga
Percent of map unit: 3 percent
Landform: Flood plains

Tagus
Percent of map unit: 2 percent
Landform: Fan remnants

Akers
Percent of map unit: 2 percent
Landform: Fan remnants

Colpien
Percent of map unit: 2 percent
Landform: Fan remnants

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Management

Land management interpretations are tools designed to guide the user in evaluating existing conditions in planning and predicting the soil response to various land management practices, for a variety of land uses, including cropland, forestland, hayland, pastureland, horticulture, and rangeland. Example interpretations include suitability for a variety of irrigation practices, log landings, haul roads and major skid trails, equipment operability, site preparation, suitability for hand and mechanical planting, potential erosion hazard associated with various practices, and ratings for fencing and waterline installation.

Erosion Hazard (Off-Road, Off-Trail) (Erosion Hazard)

The ratings in this interpretation indicate the hazard of soil loss from off-road and off-trail areas after disturbance activities that expose the soil surface. The ratings are based on slope and soil erosion factor K. The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance.

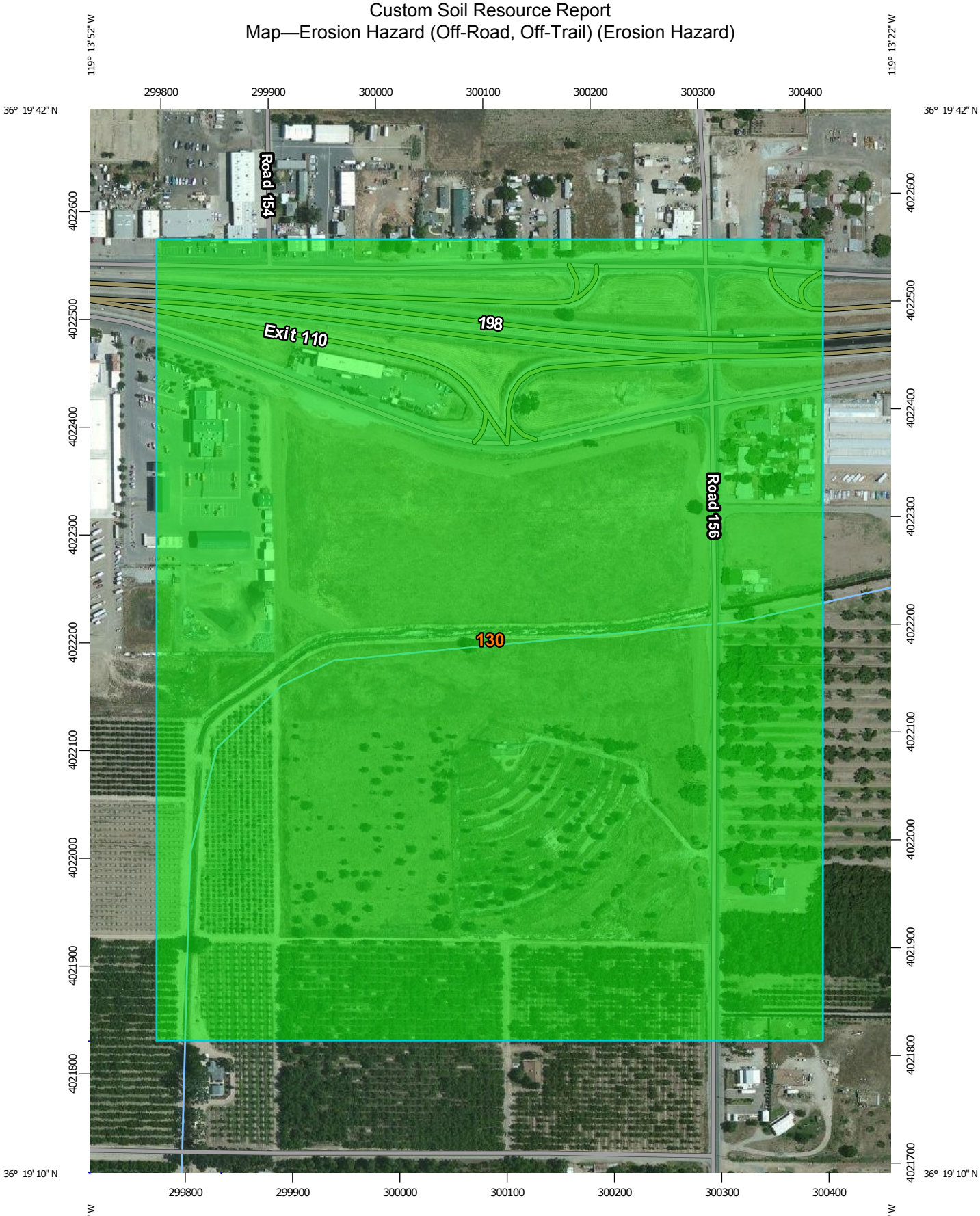
The ratings are both verbal and numerical. The hazard is described as "slight," "moderate," "severe," or "very severe." A rating of "slight" indicates that erosion is unlikely under ordinary climatic conditions; "moderate" indicates that some erosion is likely and that erosion-control measures may be needed; "severe" indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and "very severe" indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Custom Soil Resource Report
Map—Erosion Hazard (Off-Road, Off-Trail) (Erosion Hazard)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Lines
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Points
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

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Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

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Soil Survey Area: Tulare County, Western Part, California
Survey Area Data: Version 8, Sep 30, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

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Tables—Erosion Hazard (Off-Road, Off-Trail) (Erosion Hazard)

Erosion Hazard (Off-Road, Off-Trail)— Summary by Map Unit — Tulare County, Western Part, California (CA659)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
130	Nord fine sandy loam, 0 to 2 percent slopes	Slight	Nord (85%)		114.5	100.0%
Totals for Area of Interest					**114.5**	**100.0%**

Erosion Hazard (Off-Road, Off-Trail)— Summary by Rating Value		
Rating	**Acres in AOI**	**Percent of AOI**
Slight	114.5	100.0%
Totals for Area of Interest	**114.5**	**100.0%**

Rating Options—Erosion Hazard (Off-Road, Off-Trail) (Erosion Hazard)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Erosion Hazard (Off-Road, Off-Trail)

The ratings in this interpretation indicate the hazard of soil loss from off-road and off-trail areas after disturbance activities that expose the soil surface. The ratings are based on slope and soil erosion factor K. The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance.

The ratings are both verbal and numerical. The hazard is described as "slight," "moderate," "severe," or "very severe." A rating of "slight" indicates that erosion is unlikely under ordinary climatic conditions; "moderate" indicates that some erosion is likely and that erosion-control measures may be needed; "severe" indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and "very severe" indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

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Custom Soil Resource Report
Map—Erosion Hazard (Off-Road, Off-Trail)



Map Scale: 1:4,810 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Lines
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Points
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

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- Aerial Photography

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Soil Survey Area: Tulare County, Western Part, California
Survey Area Data: Version 8, Sep 30, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

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Tables—Erosion Hazard (Off-Road, Off-Trail)

Erosion Hazard (Off-Road, Off-Trail)— Summary by Map Unit — Tulare County, Western Part, California (CA659)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
130	Nord fine sandy loam, 0 to 2 percent slopes	Slight	Nord (85%)		114.5	100.0%
Totals for Area of Interest					**114.5**	**100.0%**

Erosion Hazard (Off-Road, Off-Trail)— Summary by Rating Value		
Rating	**Acres in AOI**	**Percent of AOI**
Slight	114.5	100.0%
Totals for Area of Interest	**114.5**	**100.0%**

Rating Options—Erosion Hazard (Off-Road, Off-Trail)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Erosion Hazard (Road, Trail)

The ratings in this interpretation indicate the hazard of soil loss from unsurfaced roads and trails. The ratings are based on soil erosion factor K, slope, and content of rock fragments.

The ratings are both verbal and numerical. The hazard is described as "slight," "moderate," or "severe." A rating of "slight" indicates that little or no erosion is likely; "moderate" indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and "severe" indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each

component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Custom Soil Resource Report
Map—Erosion Hazard (Road, Trail)



Map Scale: 1:4,810 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Lines
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Soil Rating Points
- Very severe
- Severe
- Moderate
- Slight
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Tulare County, Western Part, California
Survey Area Data: Version 8, Sep 30, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Tables—Erosion Hazard (Road, Trail)

Erosion Hazard (Road, Trail)— Summary by Map Unit — Tulare County, Western Part, California (CA659)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
130	Nord fine sandy loam, 0 to 2 percent slopes	Slight	Nord (85%)		114.5	100.0%
Totals for Area of Interest					**114.5**	**100.0%**

Erosion Hazard (Road, Trail)— Summary by Rating Value		
Rating	**Acres in AOI**	**Percent of AOI**
Slight	114.5	100.0%
Totals for Area of Interest	**114.5**	**100.0%**

Rating Options—Erosion Hazard (Road, Trail)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Map Unit Name

A soil map unit is a collection of soil areas or nonsoil areas (miscellaneous areas) delineated in a soil survey. Each map unit is given a name that uniquely identifies the unit in a particular soil survey area.


119° 13' 52" W
119° 13' 22" W
36° 19' 42" N
36° 19' 10" N
299800
299900
300000
300100
300200
300300
300400
4022600
4022500
4022400
4022300
4022200
4022100
4022000
4021900
4021800
4021700
Road 154
Exit 110
198
Road 156
130
Map Scale: 1:4,810 if printed on A portrait (8.5" x 11") sheet.
N
Meters
0 50 100 200 300
Feet
0 200 400 800 1200
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

Nord fine sandy loam, 0 to 2 percent slopes

Not rated or not available

Soil Rating Lines

Nord fine sandy loam, 0 to 2 percent slopes

Not rated or not available

Soil Rating Points

Nord fine sandy loam, 0 to 2 percent slopes

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Tulare County, Western Part, California
Survey Area Data: Version 8, Sep 30, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Map Unit Name

Map Unit Name— Summary by Map Unit — Tulare County, Western Part, California (CA659)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
130	Nord fine sandy loam, 0 to 2 percent slopes	Nord fine sandy loam, 0 to 2 percent slopes	114.5	100.0%
Totals for Area of Interest			**114.5**	**100.0%**

Rating Options—Map Unit Name

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Representative Slope

Slope gradient is the difference in elevation between two points, expressed as a percentage of the distance between those points.

The slope gradient is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.


119° 13' 52" W
119° 13' 22" W
36° 19' 42" N
36° 19' 10" N
299800
299900
300000
300100
300200
300300
300400
4022600
4022500
4022400
4022300
4022200
4022100
4022000
4021900
4021800
4021700
Road 154
Exit 110
198
Road 156
130
Map Scale: 1:4,810 if printed on A portrait (8.5" x 11") sheet.
N
Meters
0 50 100 200 300
Feet
0 200 400 800 1200
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

0 - 5

5 - 15

15 - 30

30 - 45

45 - 60

60 - 100

Not rated or not available

Soil Rating Lines

0 - 5

5 - 15

15 - 30

30 - 45

45 - 60

60 - 100

Not rated or not available

Soil Rating Points

0 - 5

5 - 15

15 - 30

30 - 45

45 - 60

60 - 100

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Tulare County, Western Part, California
Survey Area Data: Version 8, Sep 30, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Representative Slope

Representative Slope— Summary by Map Unit — Tulare County, Western Part, California (CA659)				
Map unit symbol	**Map unit name**	**Rating (percent)**	**Acres in AOI**	**Percent of AOI**
130	Nord fine sandy loam, 0 to 2 percent slopes	1.0	114.5	100.0%
Totals for Area of Interest			**114.5**	**100.0%**

Rating Options—Representative Slope

Units of Measure: percent

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Interpret Nulls as Zero: No

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APPENDIX B

SOIL INVESTIGATION

PROJECT: Soil investigation for 50 acres site located at Noble Ave. & Sixth Ave., Farmersville, Ca.

CTL - SEE'S, INC.
Consolidated Testing & See's Consulting
710 S. Kaweah Avenue, Exeter, Ca
559-592-3555 Fax 559-592-3553

JOB NO.: E1197-15
DATE: 06/03/15
BY: S. Bennett

BORING LOG NUMBER B1

DEPTH	%REC	BLOW COUNTS	SAMPLE NO.	SOIL GROUP	SOIL DESCRIPTION	PERCENT MOISTURE	DRY DENSITY
0'	X	3			0-2"		
		6	2.5"		Straw/Hay		
		10					
	X	5			2"-5'		
		5	2.5"	SW	Sand; dark yellowish brown, dry, very fine to medium grained sand.		
		40					
5'		4					
		5	1.5"				
		5					
					5'-9'		
				SW	Sand; light yellowish brown, moist, very fine to very coarse grained sand with 1/8" to ½" granules and pebbles.		
10'		3					
		4	1.5"				
		7			9'-10.5'		
				SM	Silty sand; dark yellowish brown, moist, very fine to very coarse grained sand.		
					10.5'-13'		
15'	X	7		CL	Sandy clay; dark brown, moist, very fine to medium grained, cohesive.		
		10	1.5"				
		12			13'-15.5'		
				SW	Sand; dark brown, moist, very fine to coarse grained sand.		
					15.5'-18'		
20'		7		ML	Sandy silt; dark brown, moist, very fine to medium grained with white mottling throughout sample.		
		8	1.5"				
		8			18'-21.5'		
				SM	Silty sand; light yellowish brown, moist, very fine to medium grained sand.		
25'							
					Terminated drilling at 21.5'.		
					No free standing ground water encountered.		
30'							

LOCATION: B1 (See location map)
EQUIPMENT: B-80 mobile drill rig 6 ¼" hollow stem augers with 2.5" O.D. split spoon sampler.

PROJECT: Soil investigation for 50 acres site located at Noble Ave. & Sixth Ave., Farmersville, Ca.

CTL - SEE'S, INC.
Consolidated Testing & See's Consulting
710 S. Kaweah Avenue, Exeter, Ca
559-592-3555 Fax 559-592-3553

JOB NO.: E1197-15
DATE: 06/03/15
BY: S. Bennett

BORING LOG NUMBER B2

DEPTH	%REC.	BLOW COUNTS	SAMPLE NO.	SOIL GROUP	SOIL DESCRIPTION	PERCENT MOISTURE	DRY DENSITY
0'					0-2" Straw/Hay		
	X	6					
		6	2.5"				
		14			2"-3'		
		14		SP	Sand; light yellowish brown, dry, fine to medium grained.		
		15	2.5"				
		23					
					3'-6'		
5'		6		SM	Silty sand; dark yellowish brown, dry, very fine to medium grained.		
		11	1.5"				
		11					
					6'-10'		
				SW	Sand; light yellowish brown, moist, very fine to medium grained sand.		
10'		5					
		9	1.5"				
		8					
					10'-21'		
				SM	Silty sand; dark yellowish brown, moist, very fine to medium grained sand.		
15'		5					
		9	1.5"				
		8					
20'		16					
		16	1.5"				
		24					
					21'-25'		
				SP	Sand; light yellowish brown, moist, very fine to fine grained sand.		
25'		4					
		8	1.5"				
		8					
					25'-35'		
				SM	Silty sand; dark yellowish brown, moist, very fine to medium grained sand.		
30'		8	1.5"				
		10					
		16					

LOCATION: B2 (See location map)
EQUIPMENT: B-80 mobile drill rig 6 ¼" hollow stem augers with 2.5" O.D. split spoon sampler.

PROJECT: Soil investigation for 50 acres site located at Noble Ave. & Sixth Ave., Farmersville, Ca.

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Consolidated Testing & See's Consulting
710 S. Kaweah Avenue, Exeter, Ca
559-592-3555 Fax 559-592-3553

JOB NO.: E1197-15
DATE: 06/03/15
BY: S. Bennett

BORING LOG NUMBER B2

DEPTH	%REC	BLOW COUNTS	SAMPLE NO.	SOIL GROUP	SOIL DESCRIPTION	PERCENT MOISTURE	DRY DENSITY
35'		4 6 8		ML	35'-45' Sandy silt; dark yellowish brown, moist, very fine to medium grained sand.		
40'		6 7 14		SW	45'-51.5' Sand; yellowish brown, moist, very fine to medium grained sand.		
45'		8 18 24					
50'		6 6 8					
55'							
60'							
65'					Terminated drilling at 51.5'. No free standing ground water encountered.		

LOCATION: B2 (See location map)
EQUIPMENT: B-80 mobile drill rig 6 ¼" hollow stem augers with 2.5" O.D. split spoon sampler.

PROJECT: Soil investigation for 50 acres site located at Noble Ave. & Sixth Ave., Farmersville, Ca.

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Consolidated Testing & See's Consulting
710 S. Kaweah Avenue, Exeter, Ca
559-592-3555 Fax 559-592-3553

JOB NO.: E1197-15
DATE: 06/03/15
BY: S. Bennett

BORING LOG NUMBER B3

DEPTH	%REC	BLOW COUNTS	SAMPLE NO.	SOIL GROUP	SOIL DESCRIPTION	PERCENT MOISTURE	DRY DENSITY
0'					0-2" Straw/Hay		
		3 4 4	2.5"				
				SP	2"-2.5' Sand; light yellowish brown, dry, fine to medium grained.		
5'		4 5 9	1.5"				
10'		X 3 X 3 X 5	1.5"	SW	2.5'-21.5' Sand; yellowish brown, moist, fine to very coarse grained.		
15'		X 4 5 7	1.5"				
20'		X 6 11 14	1.5"				
25'					Terminated drilling at 21.5'. No free standing ground water encountered.		
30'							

LOCATION: B3 (See location map)
EQUIPMENT: B-80 mobile drill rig 6 ¼" hollow stem augers with 2.5" O.D. split spoon sampler.

PROJECT: Soil investigation for 50 acres site located at Noble Ave. & Sixth Ave., Farmersville, Ca.

CTL - SEE'S, INC.
Consolidated Testing & See's Consulting
710 S. Kaweah Avenue, Exeter, Ca
559-592-3555 Fax 559-592-3553

JOB NO.: E1197-15
DATE: 06/04/15
BY: S. Bennett

BORING LOG NUMBER B4

DEPTH	%REC	BLOW COUNTS	SAMPLE NO.	SOIL GROUP	SOIL DESCRIPTION	PERCENT MOISTURE	DRY DENSITY
0'	X	8	2.5"		0-2" Annual weeds		
		18					
		26					
	X	10			2"-5.5'		
		10	2.5"	SP	Silty sand; dark yellowish brown, very fine to medium grained sand.		
		20					
5'		5					
		2	1.5"				
		3					
10'		3			5.5'-11'		
		3	1.5"	SW	Sandy silt; dark brown, moist, very fine to medium grained.		
		5					
					11'-13'		
15'				CL	Sandy clay; dark brown, moist, very fine to medium grained, cohesive.		
		6					
		10	1.5"				
		12					
20'		8					
		15	1.5"		13'-21.5'		
		17		ML	Sandy silt; dark brown, moist, very fine to medium grained sand.		
25'					Terminated drilling at 21.5'. No free standing ground water encountered.		
30'							

LOCATION: B4 (See location map)
EQUIPMENT: B-80 mobile drill rig 6 ¼" hollow stem augers with 2.5" O.D. split spoon sampler.

PROJECT: Soil investigation for 50 acres site located at Noble Ave. & Sixth Ave., Farmersville, Ca.

CTL - SEE'S, INC.
Consolidated Testing & See's Consulting
710 S. Kaweah Avenue, Exeter, Ca
559-592-3555 Fax 559-592-3553

JOB NO.: E1197-15
DATE: 06/04/15
BY: S. Bennett

BORING LOG NUMBER B5

DEPTH	%REC	BLOW COUNTS	SAMPLE NO.	SOIL GROUP	SOIL DESCRIPTION	PERCENT MOISTURE	DRY DENSITY
0'					0-3" Asphalt concrete pavement with oiled rock.		
	X	5			3"-5'		
		5	2.5"	SM	Silty sand; dark brown, moist, very fine to medium grained sand.		
		8					
5'		5					
		8	1.5"				
		8					
					5'-11'		
				SW	Sand; dark yellowish brown, moist, very fine to medium grained sand.		
10'		4					
		8	1.5"				
		11					
					11'-21.5'		
15'		6		SM	Silty sand; dark yellowish brown, moist, very fine to medium grained sand.		
		17	1.5"				
		24					
20'		10					
		17	1.5"				
		21					
25'					Terminated drilling at 21.5'. No free standing ground water encountered.		
30'							

LOCATION: B5 (See location map)
EQUIPMENT: B-80 mobile drill rig 6 ¼" hollow stem augers with 2.5" O.D. split spoon sampler.

PROJECT: Soil investigation for 50 acres site located at Noble Ave. & Sixth Ave., Farmersville, Ca.

CTL - SEE'S, INC.
Consolidated Testing & See's Consulting
710 S. Kaweah Avenue, Exeter, Ca
559-592-3555 Fax 559-592-3553

JOB NO.: E1197-15
DATE: 06/04/15
BY: S. Bennett

BORING LOG NUMBER B6

DEPTH	%REC	BLOW COUNTS	SAMPLE NO.	SOIL GROUP	SOIL DESCRIPTION	PERCENT MOISTURE	DRY DENSITY
0'					0-2" Asphalt concrete pavement		
					2"-10'		
				SM	Silty sand; dark yellowish brown, moist, very fine to medium grained.		
5'							
10'							
15'							
20'							
25'					Terminated drilling at 21.5'. No free standing ground water encountered.		
30'							

LOCATION: B6 (See location map)
EQUIPMENT: B-80 mobile drill rig 6 ¼" hollow stem augers with 2.5" O.D. split spoon sampler.

Job Description: Percolation test
at 50 ac. Site located at Noble and Sixth Ave.
Farmerville, Ca

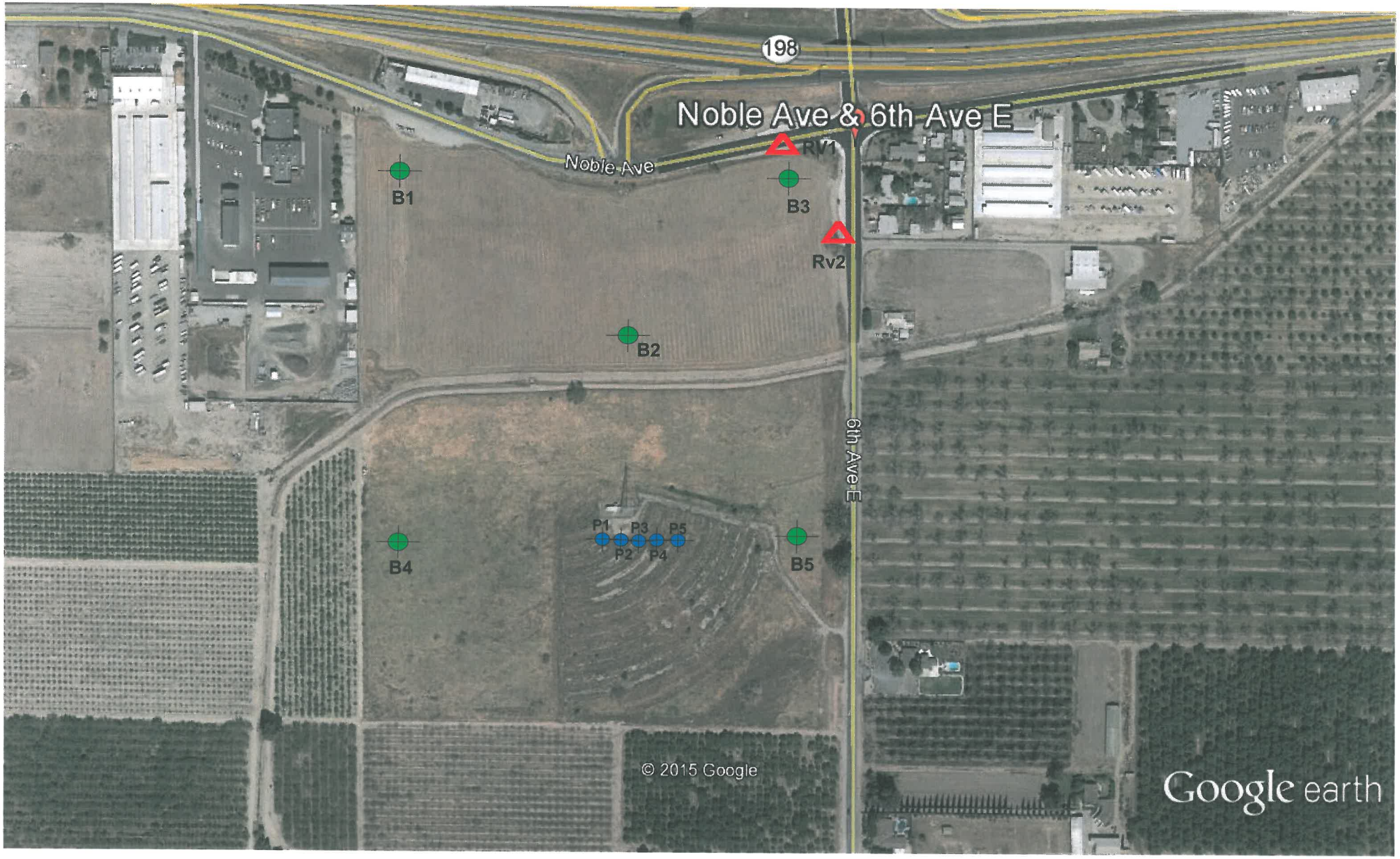
Job No.: E1197-15
Date Performed: 06/3/15
Date of Reading: 06/4/15
Performed By: B. Flanagan

APN# : 101-100-009

TESTHOLE LOCATION (PRIMARY FIELD)	DEPTH OF TEST BELOW EXIST. GRADE	PRE-SOAK TIME USING AUTOMATIC SYPHON	TIMED INTERVAL OF READ OUT	START READING TIME/FEET	FINISH READING TIME/FEET	CHANGE IN H20 ELEV. FEET	PERCOLATION RATE
P1	5'	24 hrs.	30 min.	11:30/4.06	12:00/4.40	.34	7.3
P2	5'	24 hrs.	30 min.	11:31/4.18	12:01/4.58	.40	6.2
P3	5'	24 hrs.	30 min.	11:32/5.60	12:02/5.96	.36	6.9
P4	5'	24 hrs.	30 min.	11:33/4.16	12:03/4.63	.47	5.3
P5	5'	24 hrs.	30 min.	11:34/5.62	12:04/6.38	.76	3.3
P1	5'	24 hrs.	30 min.	12:00/4.40	12:30/4.60	.20	12.5
P2	5'	24 hrs.	30 min.	12:01/4.58	12:31/4.81	.23	10.9
P3	5'	24 hrs.	30 min.	12:02/5.96	12:32/6.21	.25	10.0
P4	5'	24 hrs.	30 min.	12:03/4.62	12:33/4.97	.34	7.3
P5	5'	24 hrs.	30 min.	12:04/6.38	12:34/6.65	.27	9.2
P1	5'	24 hrs.	30 min.	12:30/4.60	1:00/4.83	.23	**10.9**
P2	5'	24 hrs.	30 min.	12:31/4.81	1:01/5.05	.24	**10.4**
P3	5'	24 hrs.	30 min.	12:32/6.21	1:02/6.48	.17	**14.7**
P4	5'	24 hrs.	30 min.	12:33/4.97	1:03/4.63	.55	**4.5**
P5	5'	24 hrs.	30 min.	12:34/6.65	1:04/6.89	.24	**10.4**

AVERAGE OF FINAL FIVE READINGS = 10.2 min/inch

A. **TESTHOLE DIAMETER** **7"**
B. **STANDING WATER HOLE** **18"**
C. **HOLE DEPTH** **5'**
D. **PIPE DIAMETER** **4"**



LOCATION MAP
50 acres site
Noble Avenue & Sith Avenue
Farmersville, Ca.

LEGEND

- Approximate location of testhole borings
- Approximate location of percolation tests
- Approximate location of r-values

CTL - SEE'S, INC.

APPENDIX C

WATER QUALITY ANALYSIS

BSK Associates Fresno
1414 Stanislaus St
Fresno, CA93706
559-497-2888 (Main)
559-485-6935 (FAX)

A5E0983
5/26/2015
Invoice: A510628

Fred Mason, PG
4 Creeks, Inc
324 S. Santa Fe, Suite A
Visalia, CA 93292

RE: Report for A5E0983 Groundwater

Dear Fred Mason, PG,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 5/12/2015. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an “as received” basis.

If additional clarification of any information is required, please contact your Project Manager, Adam Trevarrow , at (800) 877-8310 or (559) 497-2888 x116.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Adam Trevarrow, Project Manager

Accredited in Accordance with NELAP
ORELAP #4021

Case Narrative

Project and Report Details		Invoice Details	
Client:	4 Creeks, Inc	**Invoice To:**	4 Creeks, Inc
Report To:	Fred Mason, PG	**Invoice Attn:**	Fred Mason, PG
Project #:	Old Theater	**Project PO#:**	-
Received:	5/12/2015 - 15:23		
Report Due:	5/27/2015		

Sample Receipt Conditions

Cooler: Default Cooler
Temperature on Receipt ºC: 0.0

Containers Intact
COC/Labels Agree
Received On Wet Ice
Sample(s) arrived at lab on same day sampled.
Packing Material - Other
Sample(s) were received in temperature range.
Initial receipt at BSK-Visalia

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

MC Notify	Positive Notification: Fred Mason 5/13/15 1517
MS1.0	Matrix spike recoveries exceed control limits.

Report Distribution

Recipient(s)	Report Format	CC:
Fred Mason, PG	FINAL.RPT	

Certificate of Analysis

Sample ID: A5E0983-01
Sampled By: Client
Sample Description: GW1

Sample Date - Time: 05/12/15 - 08:50
Matrix: Ground Water
Sample Type: Grab

BSK Associates Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Alkalinity as CaCO3	SM 2320B	**110**	3.0	mg/L	1	A505260	05/13/15	05/13/15	
Bicarbonate as CaCO3	SM 2320B	**110**	3.0	mg/L	1	A505260	05/13/15	05/13/15	
Carbonate as CaCO3	SM 2320B	ND	3.0	mg/L	1	A505260	05/13/15	05/13/15	
Hydroxide as CaCO3	SM 2320B	ND	3.0	mg/L	1	A505260	05/13/15	05/13/15	
Chloride	EPA 300.0	**20**	1.0	mg/L	1	A505239	05/13/15	05/13/15	
Nitrate as NO3	EPA 300.0	ND	1.0	mg/L	1	A505239	05/13/15 03:03	05/13/15	
Sulfate as SO4	EPA 300.0	**31**	1.0	mg/L	1	A505239	05/13/15	05/13/15	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.7	ND	0.050	mg/L	1	A505286	05/13/15	05/18/15	
Arsenic	EPA 200.8	ND	2.0	ug/L	1	A505286	05/13/15	05/22/15	
Barium	EPA 200.8	**53**	5.0	ug/L	1	A505286	05/13/15	05/22/15	
Calcium	EPA 200.7	**39**	0.10	mg/L	1	A505286	05/13/15	05/18/15	
Magnesium	EPA 200.7	**7.4**	0.10	mg/L	1	A505286	05/13/15	05/18/15	
Potassium	EPA 200.7	ND	2.0	mg/L	1	A505286	05/13/15	05/18/15	
Sodium	EPA 200.7	**16**	1.0	mg/L	1	A505286	05/13/15	05/18/15	
Zinc	EPA 200.8	ND	50	ug/L	1	A505286	05/13/15	05/22/15	

Microbiology

Analyte	Method	Result	Batch	Prepared	Analyzed	Qual
Coliform, Presence/Absence by Colilert						
E. Coli	SM 9223B	**Absent**	A505229	05/12/15 17:06	05/13/15 13:56	
Total Coliform	SM 9223B	**Present**	A505229	05/12/15 17:06	05/13/15 13:56	MC Notify

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
DBCP by GC-ECD									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A505473	05/18/15	05/19/15	
Surrogate: 1-Br-2-Nitrobenzene	EPA 504.1	114 %	*Acceptable range: 70-130 %*						
Organohalide Pesticides and PCBs by GC-ECD									
Alachlor	EPA 505	ND	1.0	ug/L	1	A505339	05/14/15	05/15/15	
Atrazine	EPA 505	ND	0.50	ug/L	1	A505339	05/14/15	05/15/15	
Simazine	EPA 505	ND	1.0	ug/L	1	A505339	05/14/15	05/15/15	
Surrogate: 1-Br-2-Nitrobenzene	EPA 505	104 %	*Acceptable range: 70-130 %*						
Volatile Organics by GC-MS									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	

Certificate of Analysis

Sample ID: A5E0983-01
Sampled By: Client
Sample Description: GW1

Sample Date - Time: 05/12/15 - 08:50
Matrix: Ground Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics by GC-MS									
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A505313	05/14/15	05/14/15	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A505313	05/14/15	05/14/15	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A505313	05/14/15	05/14/15	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A505313	05/14/15	05/14/15	
Acetone	EPA 524.2	ND	10	ug/L	1	A505313	05/14/15	05/14/15	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A505313	05/14/15	05/14/15	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	

Certificate of Analysis

Sample ID: A5E0983-01
Sampled By: Client
Sample Description: GW1

Sample Date - Time: 05/12/15 - 08:50
Matrix: Ground Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics by GC-MS									
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
m,p-Xylenes	EPA 524.2	**0.55**	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A505313	05/14/15	05/14/15	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A505313	05/14/15	05/14/15	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Toluene	EPA 524.2	**1.1**	0.50	ug/L	1	A505313	05/14/15	05/14/15	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A505313	05/14/15	05/14/15	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A505313	05/14/15	05/14/15	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	95 %	*Acceptable range:*		*70-130 %*				
Surrogate: Bromofluorobenzene	EPA 524.2	100 %	*Acceptable range:*		*70-130 %*				
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		**0.55**	0.50	ug/L					

BSK Associates Fresno
General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 300.0 - Quality Control											
Batch: A505239										Prepared: 05/13/2015	
Prep Method: Method Specific Preparation										Analyst: EMH	
Blank (A505239-BLK1)											
Chloride	ND	1.0	mg/L							05/13/15	
Nitrate as NO3	ND	1.0	mg/L							05/13/15	
Sulfate as SO4	ND	1.0	mg/L							05/13/15	
Blank Spike (A505239-BS1)											
Chloride	100	1.0	mg/L	100		102	90-110			05/13/15	
Nitrate as NO3	100	1.0	mg/L	100		101	90-110			05/13/15	
Sulfate as SO4	100	1.0	mg/L	100		103	90-110			05/13/15	
Blank Spike Dup (A505239-BSD1)											
Chloride	100	1.0	mg/L	100		102	90-110	0	20	05/13/15	
Nitrate as NO3	100	1.0	mg/L	100		101	90-110	0	20	05/13/15	
Sulfate as SO4	100	1.0	mg/L	100		103	90-110	0	20	05/13/15	
Matrix Spike (A505239-MS1), Source: A5E0988-01											
Chloride	59	1.0	mg/L	50	7.5	102	80-120			05/13/15	
Nitrate as NO3	66	1.0	mg/L	50	15	101	80-120			05/13/15	
Sulfate as SO4	65	1.0	mg/L	50	14	103	80-120			05/13/15	
Matrix Spike (A505239-MS2), Source: A5E0988-03											
Chloride	58	1.0	mg/L	50	7.5	101	80-120			05/13/15	
Nitrate as NO3	65	1.0	mg/L	50	15	100	80-120			05/13/15	
Sulfate as SO4	65	1.0	mg/L	50	14	102	80-120			05/13/15	
Matrix Spike Dup (A505239-MSD1), Source: A5E0988-01											
Chloride	58	1.0	mg/L	50	7.5	101	80-120	1	20	05/13/15	
Nitrate as NO3	65	1.0	mg/L	50	15	99	80-120	1	20	05/13/15	
Sulfate as SO4	65	1.0	mg/L	50	14	101	80-120	1	20	05/13/15	
Matrix Spike Dup (A505239-MSD2), Source: A5E0988-03											
Chloride	59	1.0	mg/L	50	7.5	102	80-120	1	20	05/13/15	
Nitrate as NO3	66	1.0	mg/L	50	15	101	80-120	1	20	05/13/15	
Sulfate as SO4	65	1.0	mg/L	50	14	103	80-120	1	20	05/13/15	
SM 2320B - Quality Control											
Batch: A505260										Prepared: 05/13/2015	
Prep Method: Method Specific Preparation										Analyst: CEG	
Blank (A505260-BLK1)											
Alkalinity as CaCO3	ND	3.0	mg/L							05/13/15	
Bicarbonate as CaCO3	ND	3.0	mg/L							05/13/15	
Carbonate as CaCO3	ND	3.0	mg/L							05/13/15	
Hydroxide as CaCO3	ND	3.0	mg/L							05/13/15	
Blank Spike (A505260-BS1)											

BSK Associates Fresno

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
SM 2320B - Quality Control											
Batch: A505260										Prepared: 05/13/2015	
Prep Method: Method Specific Preparation										Analyst: CEG	
Blank Spike (A505260-BS1)											
Alkalinity as CaCO3	96	3.0	mg/L	100		96	80-120			05/13/15	
Blank Spike Dup (A505260-BSD1)											
Alkalinity as CaCO3	94	3.0	mg/L	100		94	80-120	2	20	05/13/15	
Duplicate (A505260-DUP1), Source: A5E0941-01											
Alkalinity as CaCO3	88	3.0	mg/L		88			0	10	05/13/15	
Bicarbonate as CaCO3	85	3.0	mg/L		85			1	10	05/13/15	
Carbonate as CaCO3	3.0	3.0	mg/L		ND			7	10	05/13/15	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	05/13/15	
Duplicate (A505260-DUP2), Source: A5E0985-01											
Alkalinity as CaCO3	230	3.0	mg/L		230			0	10	05/13/15	
Bicarbonate as CaCO3	210	3.0	mg/L		210			1	10	05/13/15	
Carbonate as CaCO3	20	3.0	mg/L		18			7	10	05/13/15	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	05/13/15	

BSK Associates Fresno
Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 200.7 - Quality Control											
Batch: A505286										Prepared: 05/13/2015	
Prep Method: EPA 200.2										Analyst: NYY	
Blank (A505286-BLK2)											
Aluminum	ND	0.050	mg/L							05/18/15	
Calcium	ND	0.10	mg/L							05/18/15	
Magnesium	ND	0.10	mg/L							05/18/15	
Potassium	ND	2.0	mg/L							05/18/15	
Sodium	ND	1.0	mg/L							05/18/15	
Blank Spike (A505286-BS2)											
Aluminum	0.19	0.050	mg/L	0.20		94	85-115			05/18/15	
Calcium	9.8	0.10	mg/L	10		98	85-115			05/18/15	
Magnesium	9.6	0.10	mg/L	10		96	85-115			05/18/15	
Potassium	10	2.0	mg/L	10		100	85-115			05/18/15	
Sodium	10	1.0	mg/L	10		101	85-115			05/18/15	
Blank Spike Dup (A505286-BSD2)											
Aluminum	0.19	0.050	mg/L	0.20		95	85-115	1	20	05/18/15	
Calcium	10	0.10	mg/L	10		100	85-115	2	20	05/18/15	
Magnesium	9.9	0.10	mg/L	10		99	85-115	3	20	05/18/15	
Potassium	10	2.0	mg/L	10		100	85-115	0	20	05/18/15	
Sodium	10	1.0	mg/L	10		102	85-115	1	20	05/18/15	
Matrix Spike (A505286-MS3), Source: A5E0941-01											
Aluminum	0.21	0.050	mg/L	0.20	ND	106	70-130			05/18/15	
Calcium	37	0.10	mg/L	10	27	97	70-130			05/18/15	
Magnesium	26	0.10	mg/L	10	17	98	70-130			05/18/15	
Potassium	14	2.0	mg/L	10	3.7	99	70-130			05/18/15	
Sodium	80	1.0	mg/L	10	71	90	70-130			05/18/15	
Matrix Spike (A505286-MS4), Source: A5E0942-01											
Aluminum	0.21	0.050	mg/L	0.20	ND	106	70-130			05/18/15	
Calcium	36	0.10	mg/L	10	27	87	70-130			05/18/15	
Magnesium	26	0.10	mg/L	10	17	93	70-130			05/18/15	
Potassium	13	2.0	mg/L	10	3.8	97	70-130			05/18/15	
Sodium	78	1.0	mg/L	10	72	64	70-130			05/18/15	MS1.0 ***Low***
Matrix Spike Dup (A505286-MSD3), Source: A5E0941-01											
Aluminum	0.24	0.050	mg/L	0.20	ND	121	70-130	14	20	05/18/15	
Calcium	37	0.10	mg/L	10	27	94	70-130	1	20	05/18/15	
Magnesium	27	0.10	mg/L	10	17	99	70-130	0	20	05/18/15	
Potassium	14	2.0	mg/L	10	3.7	100	70-130	0	20	05/18/15	
Sodium	79	1.0	mg/L	10	71	86	70-130	1	20	05/18/15	
Matrix Spike Dup (A505286-MSD4), Source: A5E0942-01											
Aluminum	0.23	0.050	mg/L	0.20	ND	114	70-130	7	20	05/18/15	
Calcium	37	0.10	mg/L	10	27	93	70-130	2	20	05/18/15	
Magnesium	27	0.10	mg/L	10	17	97	70-130	2	20	05/18/15	

BSK Associates Fresno
Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 200.7 - Quality Control											
Batch: A505286										Prepared: 05/13/2015	
Prep Method: EPA 200.2										Analyst: NYY	
Matrix Spike Dup (A505286-MSD4), Source: A5E0942-01											
Potassium	14	2.0	mg/L	10	3.8	98	70-130	1	20	05/18/15	
Sodium	79	1.0	mg/L	10	72	70	70-130	1	20	05/18/15	
EPA 200.8 - Quality Control											
Batch: A505286										Prepared: 05/13/2015	
Prep Method: EPA 200.2										Analyst: MAS	
Blank (A505286-BLK1)											
Arsenic	ND	2.0	ug/L							05/22/15	
Barium	ND	5.0	ug/L							05/22/15	
Zinc	ND	50	ug/L							05/22/15	
Blank Spike (A505286-BS1)											
Arsenic	190	2.0	ug/L	200		93	85-115			05/22/15	
Barium	180	5.0	ug/L	200		92	85-115			05/22/15	
Zinc	180	50	ug/L	200		90	85-115			05/22/15	
Blank Spike Dup (A505286-BSD1)											
Arsenic	190	2.0	ug/L	200		93	85-115	1	20	05/22/15	
Barium	190	5.0	ug/L	200		96	85-115	4	20	05/22/15	
Zinc	180	50	ug/L	200		90	85-115	0	20	05/22/15	
Matrix Spike (A505286-MS1), Source: A5E0941-01											
Arsenic	180	2.0	ug/L	200	2.7	91	70-130			05/22/15	
Barium	220	5.0	ug/L	200	37	94	70-130			05/22/15	
Zinc	170	50	ug/L	200	ND	87	70-130			05/22/15	
Matrix Spike (A505286-MS2), Source: A5E0942-01											
Arsenic	190	2.0	ug/L	200	ND	93	70-130			05/22/15	
Barium	230	5.0	ug/L	200	39	94	70-130			05/22/15	
Zinc	180	50	ug/L	200	ND	90	70-130			05/22/15	
Matrix Spike Dup (A505286-MSD1), Source: A5E0941-01											
Arsenic	180	2.0	ug/L	200	2.7	90	70-130	1	20	05/22/15	
Barium	220	5.0	ug/L	200	37	91	70-130	2	20	05/22/15	
Zinc	180	50	ug/L	200	ND	89	70-130	2	20	05/22/15	
Matrix Spike Dup (A505286-MSD2), Source: A5E0942-01											
Arsenic	190	2.0	ug/L	200	ND	93	70-130	1	20	05/22/15	
Barium	220	5.0	ug/L	200	39	92	70-130	2	20	05/22/15	
Zinc	180	50	ug/L	200	ND	88	70-130	2	20	05/22/15	

BSK Associates Fresno
Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 504.1 - Quality Control											
Batch: A505473										Prepared: 05/18/2015	
Prep Method: EPA 505										Analyst: AAR	
Blank (A505473-BLK1)											
Dibromochloropropane (DBCP)	ND	0.010	ug/L							05/19/15	
Surrogate: 1-Br-2-Nitrobenzene	*0.49*			*0.46*		*107*	*70-130*			05/19/15	
Blank Spike (A505473-BS1)											
Dibromochloropropane (DBCP)	0.20	0.010	ug/L	0.20		102	70-130			05/19/15	
Surrogate: 1-Br-2-Nitrobenzene	*0.51*			*0.46*		*112*	*70-130*			05/19/15	
Blank Spike Dup (A505473-BSD1)											
Dibromochloropropane (DBCP)	0.21	0.010	ug/L	0.20		104	70-130	2	20	05/19/15	
Surrogate: 1-Br-2-Nitrobenzene	*0.52*			*0.46*		*113*	*70-130*			05/19/15	
Matrix Spike (A505473-MS1), Source: A5E0982-02											
Dibromochloropropane (DBCP)	0.45	0.010	ug/L	0.20	0.26	96	65-135			05/19/15	
Surrogate: 1-Br-2-Nitrobenzene	*0.52*			*0.46*		*113*	*70-130*			05/19/15	
Matrix Spike Dup (A505473-MSD1), Source: A5E0982-02											
Dibromochloropropane (DBCP)	0.48	0.010	ug/L	0.20	0.26	107	65-135	5	20	05/19/15	
Surrogate: 1-Br-2-Nitrobenzene	*0.53*			*0.47*		*113*	*70-130*			05/19/15	
EPA 505 - Quality Control											
Batch: A505339										Prepared: 05/14/2015	
Prep Method: EPA 505										Analyst: AAR	
Blank (A505339-BLK1)											
Alachlor	ND	1.0	ug/L							05/15/15	
Atrazine	ND	0.50	ug/L							05/15/15	
Simazine	ND	1.0	ug/L							05/15/15	
Surrogate: 1-Br-2-Nitrobenzene	*0.46*			*0.46*		*101*	*70-130*			05/15/15	
Blank Spike (A505339-BS1)											
Alachlor	8.0	1.0	ug/L	8.0		100	70-130			05/15/15	
Atrazine	10	0.50	ug/L	10		103	70-130			05/15/15	
Simazine	20	1.0	ug/L	20		101	70-130			05/15/15	
Surrogate: 1-Br-2-Nitrobenzene	*0.48*			*0.46*		*104*	*70-130*			05/15/15	
Blank Spike Dup (A505339-BSD1)											
Alachlor	8.2	1.0	ug/L	8.0		103	70-130	3	20	05/15/15	
Atrazine	9.7	0.50	ug/L	10		97	70-130	6	20	05/15/15	
Simazine	20	1.0	ug/L	20		101	70-130	0	20	05/15/15	
Surrogate: 1-Br-2-Nitrobenzene	*0.48*			*0.46*		*104*	*70-130*			05/15/15	
Matrix Spike (A505339-MS2), Source: A5E0337-01											
Alachlor	8.3	1.0	ug/L	8.0	ND	104	65-135			05/15/15	
Atrazine	ND	0.50	ug/L	10	ND	0	65-135			05/15/15	MS1.0 ***Low***
Simazine	ND	1.0	ug/L	20	ND	0	65-135			05/15/15	MS1.0 ***Low***

BSK Associates Fresno
Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 505 - Quality Control											
Batch: A505339										Prepared: 05/14/2015	
Prep Method: EPA 505										Analyst: AAR	
Matrix Spike (A505339-MS2), Source: A5E0337-01											
Surrogate: 1-Br-2-Nitrobenzene	*0.46*			*0.46*		*100*	*70-130*			05/15/15	
EPA 524.2 - Quality Control											
Batch: A505313										Prepared: 05/14/2015	
Prep Method: EPA 524.2										Analyst: JGB	
Blank (A505313-BLK1)											
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							05/14/15	
1,1,1-Trichloroethane	ND	0.50	ug/L							05/14/15	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							05/14/15	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							05/14/15	
1,1,2-Trichloroethane	ND	0.50	ug/L							05/14/15	
1,1-Dichloroethane	ND	0.50	ug/L							05/14/15	
1,1-Dichloroethene	ND	0.50	ug/L							05/14/15	
1,1-Dichloropropene	ND	0.50	ug/L							05/14/15	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							05/14/15	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							05/14/15	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							05/14/15	
1,2-Dichlorobenzene	ND	0.50	ug/L							05/14/15	
1,2-Dichloroethane	ND	0.50	ug/L							05/14/15	
1,2-Dichloropropane	ND	0.50	ug/L							05/14/15	
1,3,5-Trimethylbenzene	ND	0.50	ug/L							05/14/15	
1,3-Dichlorobenzene	ND	0.50	ug/L							05/14/15	
1,3-Dichloropropane	ND	0.50	ug/L							05/14/15	
1,4-Dichlorobenzene	ND	0.50	ug/L							05/14/15	
2,2-Dichloropropane	ND	0.50	ug/L							05/14/15	
2-Butanone	ND	5.0	ug/L							05/14/15	
2-Chlorotoluene	ND	0.50	ug/L							05/14/15	
2-Hexanone	ND	10	ug/L							05/14/15	
4-Chlorotoluene	ND	0.50	ug/L							05/14/15	
4-Methyl-2-pentanone	ND	5.0	ug/L							05/14/15	
Acetone	ND	10	ug/L							05/14/15	
Benzene	ND	0.50	ug/L							05/14/15	
Bromobenzene	ND	0.50	ug/L							05/14/15	
Bromochloromethane	ND	0.50	ug/L							05/14/15	
Bromodichloromethane	ND	0.50	ug/L							05/14/15	
Bromoform	ND	0.50	ug/L							05/14/15	
Bromomethane	ND	0.50	ug/L							05/14/15	
Carbon Tetrachloride	ND	0.50	ug/L							05/14/15	
Chlorobenzene	ND	0.50	ug/L							05/14/15	
Chloroethane	ND	0.50	ug/L							05/14/15	
Chloroform	ND	0.50	ug/L							05/14/15	
Chloromethane	ND	0.50	ug/L							05/14/15	
cis-1,2-Dichloroethene	ND	0.50	ug/L							05/14/15	
cis-1,3-Dichloropropene	ND	0.50	ug/L							05/14/15	

BSK Associates Fresno
Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 524.2 - Quality Control											
Batch: A505313										Prepared: 05/14/2015	
Prep Method: EPA 524.2										Analyst: JGB	
Blank (A505313-BLK1)											
Dibromochloromethane	ND	0.50	ug/L							05/14/15	
Dibromomethane	ND	0.50	ug/L							05/14/15	
Dichlorodifluoromethane	ND	0.50	ug/L							05/14/15	
Dichloromethane	ND	0.50	ug/L							05/14/15	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							05/14/15	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							05/14/15	
Ethylbenzene	ND	0.50	ug/L							05/14/15	
Hexachlorobutadiene	ND	0.50	ug/L							05/14/15	
Isopropylbenzene	ND	0.50	ug/L							05/14/15	
m,p-Xylenes	ND	0.50	ug/L							05/14/15	
Methyl-t-butyl ether	ND	0.50	ug/L							05/14/15	
Naphthalene	ND	0.50	ug/L							05/14/15	
n-Butylbenzene	ND	0.50	ug/L							05/14/15	
n-Propylbenzene	ND	0.50	ug/L							05/14/15	
o-Xylene	ND	0.50	ug/L							05/14/15	
p-Isopropyltoluene	ND	0.50	ug/L							05/14/15	
sec-Butylbenzene	ND	0.50	ug/L							05/14/15	
Styrene	ND	0.50	ug/L							05/14/15	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							05/14/15	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							05/14/15	
tert-Butylbenzene	ND	0.50	ug/L							05/14/15	
Tetrachloroethene (PCE)	ND	0.50	ug/L							05/14/15	
Toluene	ND	0.50	ug/L							05/14/15	
trans-1,2-Dichloroethene	ND	0.50	ug/L							05/14/15	
trans-1,3-Dichloropropene	ND	0.50	ug/L							05/14/15	
Trichloroethene (TCE)	ND	0.50	ug/L							05/14/15	
Trichlorofluoromethane	ND	5.0	ug/L							05/14/15	
Vinyl Chloride	ND	0.50	ug/L							05/14/15	
Surrogate: 1,2-Dichlorobenzene-d4	*4.8*			*5.0*		*95*	*70-130*			05/14/15	
Surrogate: Bromofluorobenzene	*50*			*50*		*101*	*70-130*			05/14/15	
Blank Spike (A505313-BS1)											
1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		104	70-130			05/14/15	
1,1,1-Trichloroethane	11	0.50	ug/L	10		106	70-130			05/14/15	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		105	70-130			05/14/15	
1,1,2-Trichloro-1,2,2-trifluoroethane	10	10	ug/L	10		102	70-130			05/14/15	
1,1,2-Trichloroethane	11	0.50	ug/L	10		106	70-130			05/14/15	
1,1-Dichloroethane	11	0.50	ug/L	10		108	70-130			05/14/15	
1,1-Dichloroethene	11	0.50	ug/L	10		109	70-130			05/14/15	
1,1-Dichloropropene	11	0.50	ug/L	10		106	70-130			05/14/15	
1,2,3-Trichlorobenzene	11	0.50	ug/L	10		107	70-130			05/14/15	
1,2,4-Trichlorobenzene	10	0.50	ug/L	10		105	70-130			05/14/15	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		104	70-130			05/14/15	
1,2-Dichlorobenzene	10	0.50	ug/L	10		105	70-130			05/14/15	
1,2-Dichloroethane	11	0.50	ug/L	10		108	70-130			05/14/15	

BSK Associates Fresno
Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 524.2 - Quality Control											
Batch: A505313										Prepared: 05/14/2015	
Prep Method: EPA 524.2										Analyst: JGB	
Blank Spike (A505313-BS1)											
1,2-Dichloropropane	11	0.50	ug/L	10		107	70-130			05/14/15	
1,3,5-Trimethylbenzene	10	0.50	ug/L	10		104	70-130			05/14/15	
1,3-Dichlorobenzene	11	0.50	ug/L	10		106	70-130			05/14/15	
1,3-Dichloropropane	11	0.50	ug/L	10		107	70-130			05/14/15	
1,4-Dichlorobenzene	11	0.50	ug/L	10		106	70-130			05/14/15	
2,2-Dichloropropane	10	0.50	ug/L	10		103	70-130			05/14/15	
2-Butanone	11	5.0	ug/L	10		105	70-130			05/14/15	
2-Chlorotoluene	11	0.50	ug/L	10		107	70-130			05/14/15	
2-Hexanone	10	10	ug/L	10		103	70-130			05/14/15	
4-Chlorotoluene	11	0.50	ug/L	10		106	70-130			05/14/15	
4-Methyl-2-pentanone	10	5.0	ug/L	10		102	70-130			05/14/15	
Acetone	11	10	ug/L	10		107	70-130			05/14/15	
Benzene	11	0.50	ug/L	10		107	70-130			05/14/15	
Bromobenzene	11	0.50	ug/L	10		106	70-130			05/14/15	
Bromochloromethane	10	0.50	ug/L	10		103	70-130			05/14/15	
Bromodichloromethane	10	0.50	ug/L	10		104	70-130			05/14/15	
Bromoform	9.5	0.50	ug/L	10		95	70-130			05/14/15	
Bromomethane	10	0.50	ug/L	10		100	70-130			05/14/15	
Carbon disulfide	9.7	10	ug/L	10		97	70-130			05/14/15	
Carbon Tetrachloride	10	0.50	ug/L	10		104	70-130			05/14/15	
Chlorobenzene	11	0.50	ug/L	10		106	70-130			05/14/15	
Chloroethane	10	0.50	ug/L	10		101	70-130			05/14/15	
Chloroform	11	0.50	ug/L	10		107	70-130			05/14/15	
Chloromethane	9.2	0.50	ug/L	10		92	70-130			05/14/15	
cis-1,2-Dichloroethene	11	0.50	ug/L	10		107	70-130			05/14/15	
cis-1,3-Dichloropropene	10	0.50	ug/L	10		104	70-130			05/14/15	
Dibromochloromethane	10	0.50	ug/L	10		100	70-130			05/14/15	
Dibromomethane	11	0.50	ug/L	10		108	70-130			05/14/15	
Dichlorodifluoromethane	7.9	0.50	ug/L	10		79	70-130			05/14/15	
Dichloromethane	11	0.50	ug/L	10		106	70-130			05/14/15	
Di-isopropyl ether (DIPE)	11	3.0	ug/L	10		107	70-130			05/14/15	
Ethyl tert-Butyl Ether (ETBE)	11	0.50	ug/L	10		105	70-130			05/14/15	
Ethylbenzene	11	0.50	ug/L	10		106	70-130			05/14/15	
Hexachlorobutadiene	11	0.50	ug/L	10		107	70-130			05/14/15	
Isopropylbenzene	11	0.50	ug/L	10		106	70-130			05/14/15	
m,p-Xylenes	21	0.50	ug/L	20		106	70-130			05/14/15	
Methyl-t-butyl ether	21	0.50	ug/L	20		105	70-130			05/14/15	
Naphthalene	11	0.50	ug/L	10		106	70-130			05/14/15	
n-Butylbenzene	11	0.50	ug/L	10		107	70-130			05/14/15	
n-Propylbenzene	11	0.50	ug/L	10		107	70-130			05/14/15	
o-Xylene	11	0.50	ug/L	10		105	70-130			05/14/15	
p-Isopropyltoluene	11	0.50	ug/L	10		105	70-130			05/14/15	
sec-Butylbenzene	11	0.50	ug/L	10		106	70-130			05/14/15	
Styrene	9.6	0.50	ug/L	10		96	70-130			05/14/15	
tert-Amyl Methyl Ether (TAME)	11	3.0	ug/L	10		110	70-130			05/14/15	

BSK Associates Fresno
Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 524.2 - Quality Control											
Batch: A505313										Prepared: 05/14/2015	
Prep Method: EPA 524.2										Analyst: JGB	
Blank Spike (A505313-BS1)											
tert-Butyl alcohol (TBA)	11	2.0	ug/L	10		106	70-130			05/14/15	
tert-Butylbenzene	10	0.50	ug/L	10		104	70-130			05/14/15	
Tetrachloroethene (PCE)	11	0.50	ug/L	10		107	70-130			05/14/15	
Toluene	11	0.50	ug/L	10		107	70-130			05/14/15	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		108	70-130			05/14/15	
trans-1,3-Dichloropropene	10	0.50	ug/L	10		102	70-130			05/14/15	
Trichloroethene (TCE)	11	0.50	ug/L	10		107	70-130			05/14/15	
Trichlorofluoromethane	11	5.0	ug/L	10		106	70-130			05/14/15	
Vinyl Chloride	9.2	0.50	ug/L	10		92	70-130			05/14/15	
Surrogate: 1,2-Dichlorobenzene-d4	*5.1*			*5.0*		*102*	*70-130*			05/14/15	
Surrogate: Bromofluorobenzene	*51*			*50*		*102*	*70-130*			05/14/15	
Blank Spike Dup (A505313-BSD1)											
1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		109	70-130	5	30	05/14/15	
1,1,1-Trichloroethane	11	0.50	ug/L	10		113	70-130	6	30	05/14/15	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		110	70-130	4	30	05/14/15	
1,1,2-Trichloro-1,2,2-trifluoroethane	11	10	ug/L	10		111	70-130	9	30	05/14/15	
1,1,2-Trichloroethane	11	0.50	ug/L	10		111	70-130	5	30	05/14/15	
1,1-Dichloroethane	11	0.50	ug/L	10		114	70-130	6	30	05/14/15	
1,1-Dichloroethene	11	0.50	ug/L	10		115	70-130	5	30	05/14/15	
1,1-Dichloropropene	11	0.50	ug/L	10		114	70-130	7	30	05/14/15	
1,2,3-Trichlorobenzene	11	0.50	ug/L	10		110	70-130	2	30	05/14/15	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		108	70-130	3	30	05/14/15	
1,2,4-Trimethylbenzene	11	0.50	ug/L	10		110	70-130	6	30	05/14/15	
1,2-Dichlorobenzene	11	0.50	ug/L	10		109	70-130	4	30	05/14/15	
1,2-Dichloroethane	11	0.50	ug/L	10		113	70-130	5	30	05/14/15	
1,2-Dichloropropane	11	0.50	ug/L	10		112	70-130	5	30	05/14/15	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		111	70-130	7	30	05/14/15	
1,3-Dichlorobenzene	11	0.50	ug/L	10		111	70-130	5	30	05/14/15	
1,3-Dichloropropane	11	0.50	ug/L	10		112	70-130	5	30	05/14/15	
1,4-Dichlorobenzene	11	0.50	ug/L	10		110	70-130	4	30	05/14/15	
2,2-Dichloropropane	11	0.50	ug/L	10		110	70-130	6	30	05/14/15	
2-Butanone	11	5.0	ug/L	10		111	70-130	5	30	05/14/15	
2-Chlorotoluene	11	0.50	ug/L	10		112	70-130	5	30	05/14/15	
2-Hexanone	11	10	ug/L	10		109	70-130	6	30	05/14/15	
4-Chlorotoluene	11	0.50	ug/L	10		112	70-130	5	30	05/14/15	
4-Methyl-2-pentanone	11	5.0	ug/L	10		108	70-130	5	30	05/14/15	
Acetone	11	10	ug/L	10		114	70-130	6	30	05/14/15	
Benzene	11	0.50	ug/L	10		114	70-130	6	30	05/14/15	
Bromobenzene	11	0.50	ug/L	10		111	70-130	5	30	05/14/15	
Bromochloromethane	11	0.50	ug/L	10		112	70-130	8	30	05/14/15	
Bromodichloromethane	11	0.50	ug/L	10		110	70-130	6	30	05/14/15	
Bromoform	10	0.50	ug/L	10		102	70-130	7	30	05/14/15	
Bromomethane	11	0.50	ug/L	10		110	70-130	9	30	05/14/15	
Carbon disulfide	11	10	ug/L	10		109	70-130	11	30	05/14/15	

BSK Associates Fresno
Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 524.2 - Quality Control											
Batch: A505313										Prepared: 05/14/2015	
Prep Method: EPA 524.2										Analyst: JGB	
Blank Spike Dup (A505313-BSD1)											
Carbon Tetrachloride	11	0.50	ug/L	10		111	70-130	7	30	05/14/15	
Chlorobenzene	11	0.50	ug/L	10		112	70-130	6	30	05/14/15	
Chloroethane	11	0.50	ug/L	10		111	70-130	9	30	05/14/15	
Chloroform	11	0.50	ug/L	10		113	70-130	5	30	05/14/15	
Chloromethane	11	0.50	ug/L	10		107	70-130	15	30	05/14/15	
cis-1,2-Dichloroethene	11	0.50	ug/L	10		114	70-130	6	30	05/14/15	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		110	70-130	6	30	05/14/15	
Dibromochloromethane	11	0.50	ug/L	10		106	70-130	6	30	05/14/15	
Dibromomethane	11	0.50	ug/L	10		114	70-130	5	30	05/14/15	
Dichlorodifluoromethane	10	0.50	ug/L	10		101	70-130	24	30	05/14/15	
Dichloromethane	11	0.50	ug/L	10		113	70-130	6	30	05/14/15	
Di-isopropyl ether (DIPE)	11	3.0	ug/L	10		113	70-130	5	30	05/14/15	
Ethyl tert-Butyl Ether (ETBE)	11	0.50	ug/L	10		111	70-130	5	30	05/14/15	
Ethylbenzene	11	0.50	ug/L	10		112	70-130	6	30	05/14/15	
Hexachlorobutadiene	11	0.50	ug/L	10		112	70-130	4	30	05/14/15	
Isopropylbenzene	11	0.50	ug/L	10		111	70-130	5	30	05/14/15	
m,p-Xylenes	22	0.50	ug/L	20		112	70-130	6	30	05/14/15	
Methyl-t-butyl ether	22	0.50	ug/L	20		110	70-130	5	30	05/14/15	
Naphthalene	11	0.50	ug/L	10		108	70-130	2	30	05/14/15	
n-Butylbenzene	11	0.50	ug/L	10		112	70-130	4	30	05/14/15	
n-Propylbenzene	11	0.50	ug/L	10		112	70-130	5	30	05/14/15	
o-Xylene	11	0.50	ug/L	10		111	70-130	6	30	05/14/15	
p-Isopropyltoluene	11	0.50	ug/L	10		111	70-130	5	30	05/14/15	
sec-Butylbenzene	11	0.50	ug/L	10		111	70-130	4	30	05/14/15	
Styrene	11	0.50	ug/L	10		115	70-130	18	30	05/14/15	
tert-Amyl Methyl Ether (TAME)	11	3.0	ug/L	10		115	70-130	4	30	05/14/15	
tert-Butyl alcohol (TBA)	13	2.0	ug/L	10		129	70-130	19	30	05/14/15	
tert-Butylbenzene	11	0.50	ug/L	10		110	70-130	5	30	05/14/15	
Tetrachloroethene (PCE)	11	0.50	ug/L	10		113	70-130	6	30	05/14/15	
Toluene	11	0.50	ug/L	10		113	70-130	6	30	05/14/15	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		115	70-130	7	30	05/14/15	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		108	70-130	5	30	05/14/15	
Trichloroethene (TCE)	11	0.50	ug/L	10		114	70-130	6	30	05/14/15	
Trichlorofluoromethane	11	5.0	ug/L	10		114	70-130	7	30	05/14/15	
Vinyl Chloride	11	0.50	ug/L	10		107	70-130	16	30	05/14/15	
Surrogate: 1,2-Dichlorobenzene-d4	*5.4*			*5.0*		*109*	*70-130*			05/14/15	
Surrogate: Bromofluorobenzene	*55*			*50*		*110*	*70-130*			05/14/15	

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

Please see the individual Subcontract Lab's report for applicable certifications.

BSK is not accredited under the NELAC program for the following parameters: **NA**

Certifications: **Please refer to our website for a copy of our Accredited Fields of Testing under each certification.**

Fresno

State of California - ELAP	1180	State of Hawaii	4021
State of Nevada	CA000792015-1	State of Oregon - NELAC	4021
EPA - UCMR3	CA00079	State of Washington	C997-15

Sacramento

State of California - ELAP	2435

Vancouver

State of Oregon - NELAC	WA100008	State of Washington	C824-14a

A5E0983

05122015

4cree3052

Turnaround: Standard
Due Date: 5/27/2015

4 Creeks, Inc

BSK Associates Engineers & Laboratories
1414 Stanislaus St., Fresno, CA 93706
(559) 497-2888 Fax (559) 497-2893
www.bskassociates.com

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*Required Fields

Temp:

Company/Client Name*:	Report Attention*:	Invoice To*:	Phone*:	Fax*:
	Additional cc's:	PO#:	E-mail*:	

Address*:	City*:	State*:	Zip*:

Project:

Project #:

Reporting Options: ☐ Trace (J-Flag) ☐ Swamp ☐ EDD Type: _____

How would you like your completed results sent?* ☐ E-Mail ☐ Fax ☐ Mail

Sampler Name (Printed/Signature)*:

TAT* **Surcharge
☒ Standard - 10 Business Days
☐ **Rush: Date Needed _____

Regulatory Carbon Copies
CDPH ☐ ☐ Fresno Co
Merced Co ☐ ☐ Tulare Co
Madera Co ☐ ☐ Other: _____

Regulatory Compliance
☐ EDT to California DPH
System Number*: _____
☐ Geotracker #: _____

Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description*	Sampled* Date	Sampled* Time	Matrix*	Comments / Station Code / WTRAX
1					

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Received for Lab by: (Signature and Printed Name)		Date	Time	Payment Received at Delivery:	Check / Cash
		5/12/15	15:23	Date: Amount: PIA#:	Init.

Shipping Method: ONTRAC UPS GSO WALK-IN FED EX Courier:

Cooling Method: Wet Blue None

Custody Seal: Y / N

Chilling Process Begun: Y / N

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf

BSK Associates

Bottle Order Form

A5E0983
4cree3052

05/12/2015
10



Date Needed: 05/11/2015

Client:	4 Creeks Inc.	S	
Attention:	Fred Mason		
Address:	324 S. Santa Fe		
City:	Visalia	State, Zip:	CA, 93292
Email:			
Phone:		Requested By:	AJT
Fax:		Date Requested:	05/07/2015
		Prepared By:	CPR
		Date Shipped:	5/8/15

Ship Via
ONTRAC

Shipping Details
Box with Ice Chest
Blue Ice

Tests	Description	Preservative	Sets	Lot Number
P/A,1X10,HPC,3X5	120mL Sterile Plastic	Na2S2O3	1	
Metals (except Silica): Inorganic / Gen Min.	500mL Plastic red lid / label	HNO3	1	
Gen Mineral/Inorganic; BOD, TDS, TSS	1L Plastic white lid / label	None	1	
EPA 524.2 & 1,2,3-TCP - Raw Water	3 X 40mL VOAs	HCl	1	
EPA 504 / 505	3 X 40mL VOAs	Na2S2O3	2	

BSK Associates SR-FL-0002-13

A5E0983 05/12/2015
4cree3052 10

Sample Integrity

BSK Bottles: (Yes) No Page 1 of 1

COC Info

Was temperature within range? Chemistry ≤ 6°C Micro < 10°C	(Yes) No NA	Were correct containers and preservatives received for the tests requested?	(Yes) No NA
If samples were taken today, is there evidence that chilling has begun?	(Yes) No NA	Were there bubbles in the VOA vials? (Volatiles Only)	Yes No (NA)
Did all bottles arrive unbroken and intact?	(Yes) No	Was a sufficient amount of sample received?	(Yes) No
Did all bottle labels agree with COC?	(Yes) No	Do samples have a hold time <72 hours?	(Yes) No
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes No (NA)	Was PM notified of discrepancies? PM: By/Time:	Yes No (NA)

Bottles Received

"-" means preservation/chlorine checks are either N/A or are performed in the lab

250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?							
Bacti $Na_2S_2O_3$	—	—	1						
None (P) White Cap	—	—	1C						
Cr6 (P) Br. Green Label NH4OH(NH4)2SO4 **DW**	Cl, pH > 8	Y N							
Cr6 (P) Pink Label Hex Chrome Buffer **DW**	pH 9-9.5	Y N							
Cr6 (P) Pink Label Hex Chrome Buffer **WW**	pH 9.3-9.7	Y N							
HNO_3 (P) Red Cap	—	—	1B						
H_2SO_4 (P) or (AG) Yellow Cap/Label	pH < 2	Y N							
NaOH (P) Green Cap	Cl, pH >10	Y N							
NaOH + ZnAc (P)	pH > 9	Y N							
Dissolved Oxygen 300ml (g)	—	—							
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—							
HCl (AG) Lt. Blue Label O&G, Diesel	—	—							
Na_2O_3S+HCl (AG) Lt. Pink Label 525	—	—							
$Na_2S_2O_3$ 1 Liter (Brown P) 549	—	—							
$Na_2S_2O_3$ (AG) Blue Label 547,515,548,THM,524	—	—							
$Na_2S_2O_3$ (CG) Blue Label 504, 505	—	—	6V						
$Na_2S_2O_3$ + MCAA (CG) Orange Label 531	pH < 3	Y N							
NH_4Cl (AG) Purple Label 552	—	—							
EDA (AG) Brown Label DBPs	—	—							
HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	—	—	3V						
Buffer pH 4 (CG)	—	—							
None (CG)	—	—							
H_3PO_4 (CG) Salmon Label	—	—							
Other:									
Asbestos 1Liter Plastic w/ Foil	—	—							
Low Level Hg / Metals Double Baggie	—	—							
Bottled Water	—	—							
Clear Glass Jar: 250 / 500 / 1 Liter	—	—							
Soil Tube Brass / Steel / Plastic	—	—							
Tedlar Bag / Plastic Bag	—	—							

CEW 5/12/15

Split

	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials
S P				S P			
S P				S P			

Comments

Labeled by: JHD @ 16:15 Labels checked by: CEW @ 16:53 RUSH Paged by:

APPENDIX D

REFERENCED EVAPOTRANSPIRATION SHEET

Appendix A - Reference Evapotranspiration (ETo) Table*													
County and City	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Annual ETo**
TRINITY													
Hay Fork	0.5	1.1	2.3	3.5	4.9	5.9	7.0	6.0	4.5	2.8	0.9	0.7	40.1
Weaverville	0.6	1.1	2.2	3.3	4.9	5.9	7.3	6.0	4.4	2.7	0.9	0.7	40.0
TULARE													
Alpaugh	0.9	1.7	3.4	4.8	6.6	7.7	8.2	7.3	5.4	3.4	1.4	0.7	51.6
Badger	1.0	1.3	2.7	4.1	6.0	7.3	7.7	7.0	4.8	3.3	1.4	0.7	47.3
Delano	1.1	1.9	4.0	4.9	7.2	7.9	8.1	7.3	5.4	3.2	1.5	1.2	53.6
Dinuba	1.1	1.5	3.2	4.7	6.2	7.7	8.5	7.3	5.3	3.4	1.4	0.7	51.2
Lindcove	0.9	1.6	3.0	4.8	6.5	7.6	8.1	7.2	5.2	3.4	1.6	0.9	50.6
Porterville	1.2	1.8	3.4	4.7	6.6	7.7	8.5	7.3	5.3	3.4	1.4	0.7	52.1
Visalia	0.9	1.7	3.3	5.1	6.8	7.7	7.9	6.9	4.9	3.2	1.5	0.8	50.7
TUOLUMNE													
Groveland	1.1	1.5	2.8	4.1	5.7	7.2	7.9	6.6	5.1	3.3	1.4	0.7	47.5
Sonora	1.1	1.5	2.8	4.1	5.8	7.2	7.9	6.7	5.1	3.2	1.4	0.7	47.6
VENTURA													
Camarillo	2.2	2.5	3.7	4.3	5.0	5.2	5.9	5.4	4.2	3.0	2.5	2.1	46.1
Oxnard	2.2	2.5	3.2	3.7	4.4	4.6	5.4	4.8	4.0	3.3	2.4	2.0	42.3
Piru	2.8	2.8	4.1	5.6	6.0	6.8	7.6	7.8	5.8	5.2	3.7	3.2	61.5
Port Hueneme	2.0	2.3	3.3	4.6	4.9	4.9	4.9	5.0	3.7	3.2	2.5	2.2	43.5
Thousand Oaks	2.2	2.6	3.4	4.5	5.4	5.9	6.7	6.4	5.4	3.9	2.6	2.0	51.0
Ventura	2.2	2.6	3.2	3.8	4.6	4.7	5.5	4.9	4.1	3.4	2.5	2.0	43.5
YOLO													
Bryte	0.9	1.7	3.3	5.0	6.4	7.5	7.9	7.0	5.2	3.5	1.6	1.0	51.0
Davis	1.0	1.9	3.3	5.0	6.4	7.6	8.2	7.1	5.4	4.0	1.8	1.0	52.5
Esparto	1.0	1.7	3.4	5.5	6.9	8.1	8.5	7.5	5.8	4.2	2.0	1.2	55.8
Winters	1.7	1.7	2.9	4.4	5.8	7.1	7.9	6.7	5.3	3.3	1.6	1.0	49.4
Woodland	1.0	1.8	3.2	4.7	6.1	7.7	8.2	7.2	5.4	3.7	1.7	1.0	51.6
Zamora	1.1	1.9	3.5	5.2	6.4	7.4	7.8	7.0	5.5	4.0	1.9	1.2	52.8
YUBA													
Browns Valley	1.0	1.7	3.1	4.7	6.1	7.5	8.5	7.6	5.7	4.1	2.0	1.1	52.9
Brownsville	1.1	1.4	2.6	4.0	5.7	6.8	7.9	6.8	5.3	3.4	1.5	0.9	47.4
* The values in this table were derived from:													
1) California Irrigation Management Information System (CIMIS);													
2) Reference EvapoTranspiration Zones Map, UC Dept. of Land, Air & Water Resources and													
California Dept of Water Resources 1999; and													
3) Reference Evapotranspiration for California, University of California, Department of Agriculture													
and Natural Resources (1987) Bulletin 1922 4) Determining Daily Reference Evapotranspiration,													
Cooperative Extension UC Division of Agriculture and Natural Resources (1987),													
Publication Leaflet 21426													

APPENDIX E

ESTIMATED WATER USAGE CALCULATION PER BUILDING LAYOUT

Date:	7/19/2016
Completed By:	I. Williams, EIT
Checked By:	C. Hartman, PE

Indoor Water Usage Per Building Layout

California Green Building Code Table 5.303.22 (Water Use Baseline) Occupancy Type (Group B) PER Occupant

Fixture Type	Baseline Flow	Duration	Daily Uses	Occupants	Total gallons
Lavatory Faucets, Nonresidential	0.5	0.25	3	1	0.375
Kitchen faucets (GPM)	2.2	4	1	1	8.80
Gravity tank type water closets (Gallons/Flush)	1.28	1	4	1	5.12
Urinals (Gallons/Flush)	0.5	1	2	1	1.0
				Total Per Day	15.30
				[A] Total Per Year	5,582.68

**Assumming Office Spaces for all buildings under lots A, B,C,D, E, and F. Knowing their load factors are the same under Table A of the Chapter 4 plumbing Code

California Green Building Code Table 5.303.22 (Water Use Baseline) Occupancy Type (Group S) PER Occupant

Fixture Type	Baseline Flow	Duration	Daily Uses	Occupants	Total gallons
Lavatory Faucets, Nonresidential	0.5	0.25	3	1	0.375
Gravity tank type water closets (Gallons/Flush)	1.28	1	4	1	5.12
Urinals (Gallons/Flush)	0.5	1	2	1	1.00
				Total Per Day	6.50
				[B] Total Per Year	2,370.68

**Warehouse Square footage for all lots

California Plumbing Code Chapter 4

	Table A Load Factors (SF)	
[C]	Group B	200
[D]	Group M	200
[E]	Group S	5000

Approximate Water Use Per Building Layout

Building Type	[F] Retail (SF)	[G] Office (SF)	[H] Warehouse (SF)	[I] Total Office Occupants Group B [F]\[C]	[J] Total Retail Occupants Group M [F]/[D]	[K] Total Warehouse Occupants Group S [G]/[E]	[L] Gallons/ Year [A]*[I]+ [B]*[K]	
A		1300	3900	7		1	38,137	
B		1600	4800	8		1	46,937	
C		2000	6000	10		1	58,672	
D		3000	9000	15		2	88,007	
E		2800	9320	14		2	82,576	
F		2500	10890	13		2	74,947	
G	5320				27		148,499	[A]*[J]

Appoximate Annual Total Water Use Per Building Layout

Building Type	[M] Number of buildings	Gallons per Year [L]*[M]
A	7	266,956
B	15	704,059
C	6	352,029
D	7	616,051
E	4	330,306
F	3	224,840
G	1	148,499
Total	43	2,642,740

TULARE COUNTY RESOURCE MANAGEMENT AGENCY
NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
DERREL'S MINI STORAGE (GPA 22-001 & PZC 22-002)

NOTICE IS HEREBY GIVEN that Tulare County intends to adopt a Mitigated Negative Declaration (MND) for the Derrel's Mini Storage (GPA 22-001 & PZC 22-002) Project. The MND has been approved for public review by the Tulare County Environmental Assessment Officer. Copies are available for review and comment at the Resource Management Agency, Permit Center, 5961 South Mooney Blvd, Visalia, California 93277-9394. Comments and recommendations on the adequacy of the environmental document may be filed at the aforementioned address during the public review period established for the project.

1. **PROJECT:** Derrel's Mini Storage (GPA 22-001 & PZC 22-002)

2. **APPLICANT/AGENT:** Greg Dowds
   3500 S. Tamarack St.
   Visalia, CA 93277

3. **LOCATION:** 15570 Avenue 292, Visalia, CA. The Project site is located in the Exeter Quadrangle USGS 7.5 Minute Series in Tulare County, directly east of the City of Visalia city limits, generally south of Noble Avenue and west of Road 156. It lies within Section 35, Township 19 South, Range 25 East, Mount Diablo Meridian within APNs 101-090-014, 101-090-015, 101-100-005, and-101-100-009.

4. **PROJECT DESCRIPTION:** The applicant is requesting is to modify the previously approved Sequoia Drive-In Business Park Master Development Guidelines PPD 20-001, Development Agreement No. DEV 20-002, and Vesting Tentative Subdivision Map No. TSM 834 (Castlewood LLC/Visalia) to accommodate the establishment of the first phase of Derrel's Mini-Storage within the footprint of the previously approved project (APNs: 101-090-014 & -015 and 101-100-009). This modification would also add twenty (20) acres of additional territory (APN: 101-100-005) to the Project site to accommodate the second phase of Derrel's Mini-Storage. The area that is proposed to be added currently has a land use designation of "Valley Agricultural" and is located in the AE-20 Zone. In addition, the applicant is requesting a Lot Line Adjustment to adjust the boundaries between three existing parcels (APNs: 101-090-014 & -015 and 101-100-009) to coincide with the three (3) phases of the proposed Project. In addition to mini-storage structures, the Project would include recreation vehicle (RV) storage and resident manager housing. The proposed use (mini-storage/RV storage) where the expansion would occur is not allowed in the AE-20 Zone; therefore, the Project will require a change of zone to PD-C-3-SC from its existing AE-20 zone. A Williamson Act Cancellation must also occur to cancel Contract No. 10335 for APN 101-100-005 as part of this Project. The Project will include a water feature fronting Avenue 292, access from Avenue 292, an on-site storm water retention basin, and an emergency fire access point from Road 156 to comply with Fire Department conditions.

5. **ENVIRONMENTAL DOCUMENT:** The MND can be viewed at the Resource Management Agency office located at the address above, at the Visalia Main Branch Library at 200 W. Oak Ave, Visalia, CA 93291, (559) 713-2700, or on the County web site at: https://tularecounty.ca.gov/rma/planning-building/environmental-planning/mitigated-negative-declarations/derrels-mini-storage-gpa-22-001-pzc-22-002/.

6. **REVIEW PERIOD:** July 13, 2022 – August 12, 2022, at 5:00 p.m.

7. **CONTACT FOR MORE INFORMATION:** Hector Guerra, Chief Environmental Planner at (559) 624-7121 or HGuerra@tularecounty.ca.gov **(para Español llame Jose Saenz (559) 624-7102)**.

The MND has a review period of **30 days**, starting on **Wednesday, July 13, 2022**, and ending on **Friday, August 12, 2022**, which has been approved by the State of California, Office of Planning and Research. Any written comments on the MND should be sent to the Tulare County Resource Management Agency at the address noted above, to the attention of: Hector Guerra, Chief Environmental Planner.

After the close of the public comment review period on the MND established by this notice, this matter will be set for public hearing before the Tulare County Planning Commission. Notice of the date, time and place for such public hearing will be published and/or mailed as provided by law.

Please take notice that - pursuant to Public Resource Code Section 21177, Government Code Section 65009, and other applicable law - if you challenge the proposed action described above in court, then you may be limited to raising only those issues or objections you or someone else raised during the public comment period or the public hearing, or in written correspondence delivered to the Tulare County Resource Management Agency within the review period, or to the Planning Commission during the public hearing.

REED SCHENKE, P.E., ENVIRONMENTAL ASSESSMENT OFFICER

TULARE COUNTY RESOURCE MANAGEMENT AGENCY
NOTICE OF INTENT TO ADOPT
A MITIGATED NEGATIVE DECLARATION
DERREL'S MINI STORAGE

NOTICE IS HEREBY GIVEN that Tulare County intends to adopt a Mitigated Negative Declaration (MND) for the Rivers Industrial Park (GPA 22-001 & PZC 22-002). The MND has been approved for public review by the Tulare County Environmental Assessment Officer. Copies are available for review and comment at the Resource Management Agency, Permit Center, 5961 South Mooney Blvd, Visalia, California 93277-9394. Comments and recommendations on the adequacy of the environmental document may be filed at the aforementioned address during the public review period established for the project.

1. **PROJECT:** Derrel's Mini Storage (GPA 22-001 & PZC 22-002)

2. **APPLICANT/AGENT:** Greg Dowds
   3500 S. Tamarack St.
   Visalia, CA 93277

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REED SCHENKE, P.E., ENVIRONMENTAL ASSESSMENT OFFICER

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TO BE PUBLISHED ONCE ONLY ON: July 13, 2022

SEND BILL AND TEAR SHEET TO:
TUL CO RESOURCE MGMT.
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277-9394

SEND TO: Exeter Sun-Gazette

TULARE COUNTY RESOURCE MANAGEMENT AGENCY
NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
DERREL'S MINI STORAGE

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ENVIRONMENTAL DOCUMENT: The MND can be viewed at the Resource Management Agency office located at the address above; or on the County web site at: https://tularecounty.ca.gov/rma/planning-building/environmental-planning/mitigated-negative-declarations/derrels-mini-storage-gpa-22-001-pzc-22-002/.

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TULARE COUNTY RESOURCE MANAGEMENT AGENCY
NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
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SEND BILL AND TEAR SHEET TO:
TUL CO RESOURCE MGMT.
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277-9394

SEND TO: Sun-Gazette

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title:

Lead Agency: Tulare County Resource Management Agency — Contact: Hector Guerra, Chief Environmental Planner

Mailing Address: 5961 S. Mooney Blvd. — Phone: 559-624-7121

City: Visalia — Zip: 93277-9394 — County: Tulare County

Project Location: County: Tulare — City/Nearest Community: Visalia

Cross Streets: 15570 Avenue 292 — Zip Code:

Assessor's Parcel No: 101-090-014, 101-090-015, 101-100-005, 101-100-009 — Total Acres:

Section: 35 Township: 19 South Range: 25 East Base: MDBM

Latitude/Longitude: __° __' ____" N / __° __' __" W

Within 2 Miles: State Hwy: State Highway 198 — Waterways:

Airports: — Railways: — Schools:

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☒ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other:

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other

Local Action Type:

☒ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Dev. ☐ Site Plan
☒ Rezone ☐ Pre-zone ☐ Use Permit ☐ Land Division (Sub.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other

Development Type:

☐ Residential: Units Acres
☐ Office: Sq. ft. Acres Employees
☐ Commercial: Sq. ft. Acres Employees
☐ Industrial: Sq. ft. Acres Employees
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type MGD

☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type MW
☐ Waste Treatment: Type MGD
☐ Hazardous Waste: Type
☐ Other:

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☒ Agricultural Land ☒ Air Quality ☒ Archaeological/Historical ☒ Biological Resources ☐ Coastal Zone ☒ Drainage/Absorption ☒ Economic/Jobs ☒ Other: Tribal Cultural Res.
☐ Fiscal ☒ Flood Plain/Flooding ☒ Forest Land/Fire Hazard ☒ Geologic/Seismic ☒ Minerals ☒ Noise ☒ Population/Housing Balance ☒ Public Services/Facilities ☒ Other: Greenhouse Gases
☒ Recreation/Parks ☒ Schools/Universities ☒ Septic Systems ☒ Sewer Capacity ☒ Soil Erosion/Compaction/Grading ☒ Solid/Waste ☒ Toxic/Hazardous ☒ Transportation/Traffic/Circulation ☒ Other: Utilities/ Service System
☒ Vegetation ☒ Water Quality ☒ Water Supply/Groundwater ☒ Wetland/Riparian ☒ Growth Inducing ☒ Land Use ☒ Cumulative Effects ☒ Other: Energy ☒ Other: Wildfire

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Present Land Use/Zoning/General Plan Designation:

From AE-20 (Exclusive Agriculture – 20 Acre Minimum) to PD-C-3-SC (Planned Development, Service Commercial, Scenic Corridor)

Project Description: The applicant is requesting is to modify the previously approved Sequoia Drive-In Business Park Master Development Guidelines PPD 20-001, Development Agreement No. DEV 20-002, and Vesting Tentative Subdivision Map No. TSM 834 (Castlewood LLC/Visalia) to accommodate the establishment of the first phase of Derrel's Mini-Storage within the footprint of the previously approved project (APNs: 101-090-014 & -015 and 101-100-009). This modification would also add twenty (20) acres of additional territory (APN: 101-100-005) to the Project site to accommodate the second phase of Derrel's Mini-Storage. The area that is proposed to be added currently has a land use designation of "Valley Agricultural" and is located in the AE-20 Zone. In addition, the applicant is requesting a Lot Line Adjustment to adjust the boundaries between three existing parcels (APNs: 101-090-014 & -015 and 101-100-009) to coincide with the three (3) phases of the proposed Project. In addition to mini-

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Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X." If the document has already been sent to the agency, denote that with an "s."

X	Air Resources Board		Office of Emergency Services
	Boating & Waterways, Department of	X	Office of Historic Preservation
X	California Highway Patrol		Office of Public School Construction
X	Caltrans District # 6		Parks & Recreation, Department of
	Caltrans Division of Aeronautics		Pesticide Regulation, Department of
	Caltrans Planning		Public Health, Department of
	Central Valley Flood Protection Board	X	Public Utilities Commission
	Cochella Valley Mtns. Conservancy	X	Regional WQCB # 5F
	Coastal Commission	X	Resources Agency
	Colorado River Board		S.F. Bay Conservation & Development Commission
X	Conservation, Department of		San Gabriel & Lower L.A. Rivers and Mtns Conservancy
	Corrections, Department of		San Joaquin River Conservancy
	Delta Protection Commission		Santa Monica Mountains Conservancy
	Education, Department of		State Lands Commission
X	Energy Commission		SWRCB: Clean Water Grants
X	Fish & Wildlife Region # 4	X	SWRCB: Water Quality
X	Food & Agriculture, Department of		SWRCB: Water Rights
X	Forestry & Fire Protection, Department of		Tahoe Regional Planning Agency
X	General Services, Department of	X	Toxic Substances Control, Department of
	Health Care Services, Department of		Water Resources, Department of
	Housing & Community Development	S	Other: U.S. Forest Service
	Integrated Waste Management Board	S	Other: U.S. Natural Resources Conservation Service
X	Native American Heritage Commission	S	Other: U.S. Army Corps of Engineers
S	Other: San Joaquin Valley Air Pollution Control District	S	Other: U.S. Fish and Wildlife Service
S	Other: Tulare County Agricultural Commissioner	S	Other: U.S. Naval Facilities Engineering Command
S	Other: Tulare County Association of Governments	S	Other: Tulare County Resources Conservation District
S	Other: Tulare County Farm Bureau	S	Other: Tulare County Office of Emergency Services
S	Other: Tulare County Fire Warden	S	Other: Tulare County Sheriff's Office
S	Other: Tulare County HHSA – Environmental Health	S	Other: Tulare County U.C. Cooperative Extension
S	Other: Tulare County Local Agency Formation Commission	S	Other: Tulare County Resource Management (Fire, Flood, PW)

Local Public Review Period (to be filled in by lead agency)

Starting Date: July 20, 2022 Ending Date: August 18, 2022

Lead Agency (Complete if applicable):

Consulting Firm:
Address:
City/State/Zip:
Contact:
Phone:

Applicant: Greg Dowds
Address: 3500 S. Tamarack St.
City/State/Zip: Visalia, CA 93277
Phone:

Signature of Lead Agency Representative: _____ **Date:** 7/19/22
Hector Guerra, Chief Environmental Planner

Signature of Lead Agency Representative: _____ **Date:** 7/19/22
Reed Schenke, Director/Environmental Assessment Officer

Authority cited: Section 21083, public Resources Code. Reference: Section 21161, Public Resources Code.

Mitigation Monitoring and Reporting Program

The Mitigation Monitoring and Reporting Program (MMRP) has been prepared in compliance with State law for Project Derrel's Mini Storage (GPA 22-001, PZC 22-002) by the County of Tulare.

The CEQA Public Resources Code Section 21081.6 requires the Lead Agency decision making body is going to approve a project and certify the EIR that it also adopt a reporting or monitoring program for those measures recommended to mitigate or avoid significant/adverse effects of the environment identified in the EIR. The law states that the reporting or monitoring program shall be designed to ensure compliance during project implementation. The MMRP is to contain the following elements:

- **Action and Procedure.** The mitigation measures are recorded with the action and procedure necessary to ensure compliance. In some instances, one action may be used to verify implementation of several mitigation measures.

- **Compliance and Verification.** A procedure for compliance and verification has been outlined for each action necessary. This procedure designates who will take action, what action will be taken and when and by whom and compliance will be monitored and reported and to whom it will be report. As necessary the reporting should indicate any follow-up actions that might be necessary if the reporting notes the impact has not been mitigated.

- **Flexibility.** The program has been designed to be flexible. As monitoring progresses, changes to compliance procedures may be necessary based upon the recommendations by those responsible for the MMRP. As changes are made, new monitoring compliance procedures and records will be developed and incorporated into the program

Following Table presents the Mitigation Measures identified for the proposed Project in this EIR. Each Mitigation Measure is identified by the impact number. For example, 4-1 would be the first Mitigation Measure identified in the Biological analysis of the draft EIR.

The first column of the Table identifies the Mitigation Measure. The second column, entitled "Monitoring Timing/Occurrence," identifies the time the Mitigation Measure should be initiated. The third column, "Frequency of Monitoring," identifies the frequency of the monitoring that should take place to assure the mitigation is being or has been implemented to achieve the desired outcome or performance standard... The fourth column, "Agency Responsible for Monitoring," names the party ultimately responsible for ensuring that the Mitigation Measure is implemented. The fifth column, "Method to Verify Compliance," identifies the requirements for verification that the Mitigation Measure has been implemented. The last three columns will be used by the Lead

Agency (County of Tulare) to ensure that individual Mitigation Measures have been complied with and are monitored.

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
BIOLOGICAL RESOURCES							
Protection of Swainson's hawks and other raptors and migratory birds (including Loggerhead Shrike)							
4-1. Pre-construction surveys shall be conducted to determine the presence of nesting birds if ground clearing or construction activities will be initiated during the breeding season (February 15 through September 15). Potential nesting areas on the proposed Project site and potential nesting areas within 500 feet of the site should be surveyed prior to June 5th. Surveys shall be performed by a qualified biologist to verify the presence or absence of nesting birds. Construction shall not occur within a 500 foot buffer surrounding active nests of raptors or a 250 foot buffer surrounding active nests of migratory birds. If construction within these buffer areas is required or if nests must be removed to allow continuation of construction, then approval and specific removal methodologies should be obtained from California Department of Fish and Wildlife.	Prior to start of construction.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Field survey by a qualified Biologist.			
4-2. All trees which are suitable for Swainson's hawk nesting that are within 2,640 feet [0.5 mile] of construction activities shall be inspected by a qualified biologist.	Prior to construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
4-3. If potential Swainson's hawk nests are found during the inspection, then surveys shall be conducted at the following intensities, depending upon dates of initiation of construction: • If Swainson's hawks are detected to be actively nesting in trees within 2,640 feet of the construction area, construction shall not occur within this zone until after young Swainson's hawks have fledged (this usually occurs by early June). The nest shall be monitored by a qualified biologist to determine fledging date. • If other nesting birds (particularly non-raptor species listed on the MTBA) are found actively nesting within 250 feet of the construction area, construction should be postponed until after young have fledged. The date of fledging should be determined by a qualified biologist. If construction cannot be delayed within this zone, the DFW and/or the USFWS shall be consulted and alternative protection measures required by the CDFW and/or the USFWS shall be followed.	Prior to construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
Protection of San Joaquin kit fox							
4-4. A standardized pre-construction/pre-activity survey shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities or any Project activity likely to impact the San Joaquin kit fox. Surveys shall identify kit fox habitat features on the Project site and evaluate use by kit fox and, if possible, assess the potential impacts to the kit fox by the proposed activity. The status of all dens shall be determined and mapped. Written results of pre-construction/pre-activity surveys must be received by the USFWS within five days after survey completion and prior to the start of ground disturbance and/or construction activities.	Prior to construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			
4-5. Disturbance to all San Joaquin kit fox dens shall be avoided to the maximum extent possible.	Prior to construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			
4-6. If a natal/pupping den is discovered within the Project area or within 200-feet of the site boundary, USFWS shall be immediately notified and under no circumstances should the den be disturbed or destroyed without prior authorization. If the pre-construction/pre-activity survey reveals an active natal pupping or new	Prior to construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department	Qualified biologist.			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
information, the Project applicant shall contact USFWS immediately to obtain the necessary take authorization/permit.							
4-7. Destruction of any den shall be accomplished by careful excavation until it is certain that no kit foxes are inside. The den shall be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter or use the den during the construction period.	Prior to construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			
4-8. If at any point during excavation, a kit fox is discovered inside the den, the excavation activity shall cease immediately and monitoring of the den as described above shall be resumed. Destruction of the den may be completed when, in the judgment of the qualified biologist, the animal has escaped without further disturbance from the partially destroyed den.	Prior to construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			
4-9. Project-related vehicles shall observe a daytime speed limit not to exceed 20-mph throughout the site in all proposed Project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Night-time construction shall be minimized to the extent possible. However if it does occur, then the speed limit shall be reduced to 10-mph. Off-road traffic	Prior to and during construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
outside of designated project areas shall be prohibited.							
4-10. To prevent inadvertent entrapment of kit fox or other animals during the construction phase of the proposed Project, all excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the USFWS and the California Department of Fish and Wildlife shall be contacted as noted under Mitigation Measure 4-17.	Prior to and during construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			
4-11. Kit fox are attracted to den-like structures such as pipes and may enter stored pipes and become 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 shall be thoroughly inspected for kit fox before the pipe is used or moved, buried, or capped in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the CFW has been consulted.	Prior to and during construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
If necessary, and under the direct supervision of a qualified biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.							
4-12. All food-related trash outside of the enclosed facility such as wrappers, cans, bottles, and food scraps shall be disposed of daily in securely closed containers and removed at least once a week during both construction and operational phases.	Prior to and during construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			
4-13. No pets, such as dogs or cats, shall be allowed on the Project site in order to prevent harassment, mortality of kit fox, or destruction of dens.	Prior to and during construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			
4-14. Use of rodenticides and herbicides in Project areas shall be restricted. If rodent control must be used it shall be limited to the use of zinc phosphide because of its demonstrated lower risk to kit fox.	Prior to and during construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
4-15. A representative shall be appointed by the Project Applicant to serve as the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name, telephone number, or other pertinent contact information shall be provided to the USFWS.	Prior to and during construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			
4-16. An employee education program shall be conducted to alert employees of potential impacts to kit fox or other species of concern. The program shall consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program shall include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the Project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during Project construction and implementation. A fact sheet conveying this information shall be prepared for distribution to the previously referenced people and anyone else who may enter the Project site.	Prior to and during construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Departme and/or CDFW nt	Qualified biologist.			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
4-17. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. The Sacramento Fish and Wildlife Office and CFW shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The Sacramento Fish and Wildlife Office contact is: Mr. Paul Hoffman 1701 Nimbus Road, Suite A, Rancho Cordova, California 95670 (530) 934-9309	Prior to and during construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			
4-18. New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed shall also be provided to Fish and Wildlife at the address below. Endangered Species Division 2800 Cottage Way, Suite W2605 Sacramento, California 95825-1846 (916) 414-6620 or (916) 414-6600	Prior to and during construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning and/or CDFW Department and/or CDFW	Qualified biologist.			
Protection of Burrowing Owl							

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
4-19. In accordance with CDFG's 2012 *Staff Report on Burrowing Owl Mitigation*, a qualified biologist shall conduct three surveys for burrowing owls where potential burrowing owl habitat occurs within 500 feet of Project activities. Surveys shall occur during the peak breeding season for this species (15 April through 15 July), and spaced three weeks apart. If active burrowing owl burrows are identified within 500 feet of the Project site, then avoidance, take avoidance surveys, site surveillance, minimization, and buffer mitigation measures shall be implemented, in accordance with the 2012 CDFG *Staff Report* and direct consultation with CFW.	Prior to construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department and/or CDFW	Qualified biologist.			
CULTURAL RESOURCES							
5-1. In the event that historical, archaeological or paleontological resources are discovered during site excavation, the County shall require that grading and construction work on the project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. In this event, the specialists shall provide recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource, or to undertake data	During Construction	Daily or as needed throughout the construction period if suspicious resources are discovered	County of Tulare Planning Department via field evaluation of the resource finds by a qualified archaeologist	A qualified archaeologist shall document the results of field evaluation and shall recommend further actions that shall be taken to mitigate for unique resource or human			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
recovery, excavation analysis, and curation of archaeological or paleontological materials. County staff shall consider such recommendations and implement them where they are feasible in light of Project design as previously approved by the County.				remains found, consistent with all applicable laws including CEQA.			
5-2. The project proponent shall avoid and minimize impacts to paleontological resources. If a potentially significant paleontological resource is encountered during ground disturbing activities, all construction within a 100-foot radius of the find shall immediately cease until a qualified paleontologist determines whether the resources requires further study. The project proponent shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The paleontologist shall notify the Tulare County Resource Management Agency and the project proponent of the procedures that must be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the Tulare County Resource Management Agency determines avoidance is not feasible, the paleontologist shall design and implement a data recovery plan consistent with applicable standards. The plan shall be submitted to the Tulare County Resource Management Agency	During Construction	Daily or as needed throughout the construction period if suspicious resources are discovered	County of Tulare Planning Department via field evaluation of the resource finds by a qualified archaeologist	A qualified archaeologist shall document the results of field evaluation and shall recommend further actions that shall be taken to mitigate for unique resource or human remains found, consistent with all applicable laws including CEQA.			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
for review and approval. Upon approval, the plan shall be incorporated into the project.							
5-3. Consistent with Section 7050.5 of the California Health and Safety Code and (CEQA Guidelines) Section 15064.5, if human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). In the event of the accidental [that is, unanticipated] discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken: 1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: a. The Tulare County Coroner/Sheriff must be contacted to determine that no investigation of the cause of death is required; and b. If the coroner determines the remains to be Native American: i. The coroner shall contact the Native American Heritage Commission within 24 hours.	During Construction	Daily or as needed throughout the construction period if suspicious resources are discovered	County of Tulare Planning Department via field evaluation of the resource finds by a qualified archaeologist	A qualified archaeologist shall document the results of field evaluation and shall recommend further actions that shall be taken to mitigate for unique resource or human remains found, consistent with all applicable laws including CEQA.			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American. iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or 2. Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. a. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.							

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
b. The descendant fails to make a recommendation; or c. The landowner or his authorized representative rejects the recommendation of the descendent.							
HYDROLOGY AND WATER QUALITY							
9-1. Once the well is retrofitted for the proposed project, a second round of sampling and analysis shall be conducted. The southern well that was not sampled shall also be sampled with analysis once it is retrofitted for the proposed project. Sampling and analysis shall occur during the initial phases of retrofitting; specifically, during pump testing. If water quality does not meet the State of California standards as discussed above, steps shall be taken during the design of the site such as disinfection, to ensure the water is potable for proposed project use. Once the redesign is completed, the well shall undergo another round of sampling and analysis. This procedure shall continue until the quality of water produced by the well meets the State of California standards.	Prior to and during Construction	Tested water is to State of California standards.	TCEHSD	TCEHSD			
9-2. The project applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP) according to the latest regulations to be retained	Prior to Construction	SWPPP acceptance.	County of Tulare Planning Department	Construction Contractor			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
onsite. The SWPPP must include best management practices that, when implemented, prevent storm water quality degradation to the extent practical by preventing sediments and other pollutants from leaving the Project site.							
9-3. New sewage disposal systems shall be designed by an Engineer, Registered Environmental Health Specialist, Geologist, or other competent persons, all of whom must be registered and/or licensed professionals knowledgeable and experienced in the field of sewage disposal system and design. The specifications and engineering data for the system shall be submitted to the TCEHSD for review and approval prior to the issuance of a building permit.	Prior to Issuance of Building Permit.	Submittal of disposal system design.	TCEHSD	TCEHSD			
TRIBAL CULTURAL RESOURCES							
17-1. In the event that historical, archaeological or paleontological resources are discovered during site excavation, the County shall require that grading and construction work on the Project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. In this event, the property owner shall retain a qualified archaeologist/ paleontologist to provide recommendations for measures necessary to protect any site determined	During Construction	Daily or as needed throughout the construction period if suspicious resources are discovered	Tulare County Planning Department	A qualified archaeologist shall document the results of field evaluation and shall recommend further actions that shall be taken to mitigate for			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recover, excavation analysis, and curation of archaeological or paleontological materials. County staff shall consider such recommendations and implement them where they are feasible in light of Project design as previously approved by the County.				unique resource or human remains found, consistent with all applicable laws including CEQA.			
17.-2. Consistent with Section 7050.5 of the California Health and Safety Code and (CEQA Guidelines) Section 15064.5, if human remains of Native American origin are discovered during Project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken: 1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: a. The Tulare County Coroner/Sheriff must be contacted to determine that	During Construction	Daily or as needed throughout the construction period if suspicious resources are discovered	Tulare County Planning Department	A qualified archaeologist shall document the results of field evaluation and shall recommend further actions that shall be taken to mitigate for unique resource or human remains found, consistent with all applicable laws including CEQA.			

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
no investigation of the cause of death is required; and b. If the coroner determines the remains to be Native American: i. The coroner shall contact the Native American Heritage Commission within 24 hours. ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American. iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or 2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. a. The Native American Heritage Commission is unable to identify a most							

Mitigation Monitoring and Reporting Program							
Mitigation Measure	**Monitoring Timing / Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Person conducting Monitoring / Reporting**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission. b. The descendant fails to make a recommendation; or c. The landowner or his authorized representative rejects the recommendation of the descendent.							

Owner

Sequoia Drive-In Business Park

Traffic Impact Study Preparation Date:

7/7/2015

Prepared By:

4CREEKS, INC.
324 S. SANTA FE ST., Suite A
VISALIA, CA 93292
(559) 802-3052

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ACRONYMS AND ABBREVIATIONS

Caltrans	California Department of Transportation
EB	eastbound
HCM2010	Highway Capacity Manual 2010
LOS	level of service
NB	northbound
MUTCD	California Manual on Uniform Traffic Control Devices for Streets and Highways
RTP	Regional Transportation Plan
SB	southbound
sf	square feet
SR	State Route
T	tons
TCAG	Tulare County Association of Governments
TIF	Transportation Impact Fee
TIS	Traffic Impact Study
WB	westbound
vph	vehicles per hour

SECTION 1: EXECUTIVE SUMMARY

1.1 ANALYSIS METHODOLOGY

This Traffic Impact Study (TIS) provides an analysis of the surrounding roadway system and the effects of the proposed Sequoia Drive-In Business Park (Project) on the existing and planned infrastructure. The Project site is currently vacant. The Project is located on a 46.17-acre site, on the southwest corner of Noble Avenue at Road 156, in the County of Tulare, CA. Figure 1 shows the Project area. This TIS has been prepared in consultation with County of Tulare and Caltrans planning staff. All of the analysis methodologies and assumptions are discussed further in Appendix A.

1.1.1 ANALYSIS LOCATIONS

The following study intersections have been identified for analysis in this TIS:

1. Mineral King Avenue at State Route (SR) 198 Westbound (WB) On-Ramp
2. Mineral King Avenue at Road 156
3. Mineral King Avenue at SR 198 WB Off-Ramp
4. Mineral King Avenue at Road 158
5. Noble Avenue at SR 198 Eastbound (EB) Ramps
6. Noble Avenue at Road 156
7. All Project Driveways/Roadways at Noble Avenue and Road 156

The study locations are chosen based on the locations where the majority of Project-related impacts may occur. Due to the proximity to the SR 198 interchange, the majority of the Project trips are anticipated to travel through the interchange area. Those trips that do not utilize SR 198 disperse along the local County roadways to the nearby small towns (Ivanhoe and Farmersville).

Significant roadway improvement projects are planned for the study area, as follows:

- SR 198 at Road 148 alignment – construct freeway interchange with SR 198
    - Timeline for the construction of the interchange is unknown, but is assumed to be constructed by the 2040 analysis year for the purposes of this TIS.

No other improvements to the study area roadways are currently planned.

1.1.2 ANALYSIS TIME PERIODS AND SCENARIOS

The following study time periods are included in this analysis:

- AM Peak Hour (between 7-9 AM)
- PM Peak Hour (between 4-6 PM)

FIGURE 1: VICINITY MAP

The following analysis scenarios are analyzed based on County of Tulare guidelines and in consultation with Caltrans staff:

- Existing
- Opening Day Plus Approved Projects
- Opening Day Plus Approved Projects Plus Project
- 2040 No Project
- 2040 Plus Project

The County of Tulare and Caltrans have agreed upon the above study scenarios consisting of the Existing/Opening Day and the cumulative 2040 time frames.

1.1.3 Thresholds of Significance

Tulare County General Plan Policy TC-1.16: "The County shall strive to develop and manage its roadway system (both segments and intersections) to meet a LOS of "D" or better in accordance with the LOS definitions established by the Highway Capacity Manual."[1]

"Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" (see Appendix "C-3") on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained."[2]

All intersections involving SR 198 (ramp end intersections) will be evaluated against the Caltrans thresholds of significance due to their inclusion on a state roadway. All other intersections will be evaluated against the County of Tulare threshold.

1.2 Analysis Summary

Table 1 shows the levels of service (LOS) for the study intersections for the various scenarios. Intersections with movements currently or projected to operate below the County of Tulare or Caltrans adopted level of service standards are shown shaded in Table 1. The LOS and delay are shaded if either the AM or PM peak hour, or both, fall below the appropriate adopted LOS standard. The two-way stop controlled (TWSC) intersection levels of service are representative of the intersection's approach with the worst LOS and delay. The signalized and all-way stop controlled (AWSC) intersection levels of service are representative of the whole intersection. Individual intersection movements or approaches at signalized and AWSC intersections may operate above or below the intersection level of service or delay shown in this report.

[1] *Tulare County General Plan 2030 Update*, Tulare County RMA, August 2012, Page 13-4.
[2] *Guide for the Preparation of Traffic Impact Studies*, Caltrans, December 2002, page 1.

TABLE 1: LEVEL OF SERVICE SUMMARY

Intersection	LOS Threshold	Existing LOS (AM/PM)	Existing Delay[1] (AM/PM)	Existing Plus Approved Projects LOS (AM/PM)	Existing Plus Approved Projects Delay[1] (AM/PM)	Existing Plus Approved Projects Plus Project LOS (AM/PM)	Existing Plus Approved Projects Plus Project Delay[1] (AM/PM)
Mineral King Avenue at SR 198 WB On-Ramp	C	A/A	8.2/8.2	A/A	8.3/8.2	A/A	8.4/8.5
Mineral King Avenue at Road 156	D	C/C	25.8/26.7	C/C	24.9/27.0	D/C	45.9/28.5
Mineral King Avenue at SR 198 WB Off-Ramp	C	B/B	12.2/13.8	B/B	12.5/14.2	C/C	18.6/18.1
Mineral King Avenue at Road 158	D	B/B	11.9/13.5	B/B	12.1/13.8	B/C	13.2/15.5
Noble Avenue at West Project Roadway	D	n/a	n/a	n/a	n/a	A/A	9.6/9.8
Noble Avenue at SR 198 EB Ramps	C	B/B	10.1/12.6	B/B	10.2/12.8	B/C	13.7/20.5
Noble Avenue at Road 156	D	C/C	28.6/34.8	C/C	33.9/34.9	D/D	42.6/38.1
Northeast Project Driveway at Road 156	D	n/a	n/a	n/a	n/a	D/D	29.5/28.5
North Project Roadway at Road 156	D	n/a	n/a	n/a	n/a	C/C	15.1/16.5
Middle Project Roadway at Road 156	D	n/a	n/a	n/a	n/a	C/C	15.6/17.2
South Project Roadway at Road 156	D	n/a	n/a	n/a	n/a	C/C	15.2/15.8

Intersection	LOS Threshold	2040 No Project LOS (AM/PM)	2040 No Project Delay[1] (AM/PM)	2040 Plus Project LOS (AM/PM)	2040 Plus Project Delay[1] (AM/PM)
Mineral King Avenue at SR 198 WB On-Ramp	C	A/A	8.5/8.2	A/A	8.7/8.5
Mineral King Avenue at Road 156	D	C/C	26.8/27.4	D/C	41.9/28.1
Mineral King Avenue at SR 198 WB Off-Ramp	C	B/B	11.7/13.0	C/C	16.1/15.9
Mineral King Avenue at Road 158	D	B/C	12.4/16.1	B/C	13.7/19.4
Noble Avenue at West Project Roadway	D	n/a	n/a	A/B	9.8/10.3
Noble Avenue at SR 198 EB Ramps	C	B/C	10.5/16.6	B/E	14.8/37.5
Noble Avenue at Road 156	D	C/D	34.7/38.6	D/D	40.6/40.7
Northeast Project Driveway at Road 156	D	n/a	n/a	D/C	27.0/24.4
North Project Roadway at Road 156	D	n/a	n/a	C/C	15.6/17.9
Middle Project Roadway at Road 156	D	n/a	n/a	C/C	16.3/19.1
South Project Roadway at Road 156	D	n/a	n/a	C/C	15.8/17.5

[1] *average seconds of delay per vehicle*
n/a = not applicable, does not exist

Table 2 shows the results of the Peak Hour Traffic Signal Warrant analysis. The Signal warrant is not prepared for the Project Driveway since it is located too close to adjacent intersections/driveways and is projected to have volumes too low to meet warrants. Table 2 lists the time period (analysis scenario) in which the traffic signal warrant is first met at the study intersection. Once an intersection meets the warrant, it is projected to continue to meet warrants for all subsequent scenarios due to overall traffic volume growth.

TABLE 2: SIGNAL WARRANT SUMMARY

Intersection	Analysis Scenario Warranted
Mineral King Avenue at SR 198 WB On-Ramp	n/a
Mineral King Avenue at Road 156	Existing Signal
Mineral King Avenue at SR 198 WB Off-Ramp	2040 Plus Project
Mineral King Avenue at Road 158	Existing Plus Approved
Noble Avenue at West Project Roadway	Does Not Meet
Noble Avenue at SR 198 EB Ramps	Existing Plus Approved Plus Project
Noble Avenue at Road 156	Existing Signal
Northeast Project Driveway at Road 156	n/a
North Project Roadway at Road 156	n/a
Middle Project Roadway at Road 156	Does Not Meet
South Project Roadway at Road 156	Does Not Meet

n/a = not applicable

The Northeast Project Driveway and North Project Roadway are both too close in proximity to the Noble Avenue at Road 156 traffic signal to be considered for a traffic signal.

Peak-hour signal warrants (Warrant 3, Part B) are prepared for all unsignalized intersections based on the methodology presented in the *California MUTCD 2012 Edition*, pages 833-834. A copy of this warrant analysis is included in Appendix C. According to the MUTCD, "the satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal." Therefore prior to making a final determination on installation of a proposed signal, a thorough engineering investigation, including collision history, should be conducted. Although an intersection may meet the traffic signal warrant, a signal is not recommended unless the intersection also operates (or is projected to operate) below the appropriate adopted LOS standard.

Table 3 shows the queuing analysis for the Mineral King Avenue at SR 99 WB Off-Ramp and the Noble Avenue at SR 99 EB Off-Ramp. This additional analysis was requested by Caltrans. The 95th percentile queue lengths are calculated based on HCM 2010 methodologies. Queue lengths shown in Table 3 are the larger of the AM or PM peak hours and are rounded up to the nearest whole number of vehicles (25 feet per vehicle).

TABLE 3: QUEUE LENGTH SUMMARY

Conditions/Scenario	95th Percentile Queue Length	
	WB Off-Ramp (AM/PM)	EB Off-Ramp (AM/PM)
Existing Off-Ramp Length	1,400 feet	1,275 feet
Existing Conditions	25/25	25/50
Existing Plus Approved Projects	25/25	25/50
Existing Plus Approved Projects Plus Project	75/50	50/100
2040 No Project	25/25	25/75
2040 Plus Project	50/25	75/200

As shown in Table 3, the calculated 95th percentile queue lengths are not projected to exceed the available off-ramp storage.

1.3 RECOMMENDED IMPROVEMENTS

In order to mitigate the intersections currently operating or are projected to operate below the adopted LOS standard(s) and/or meet the Peak Hour Traffic Signal Warrant, the following improvements are recommended:

2040 Plus Project

- Noble Avenue at SR 198 EB Ramps
    - Alternative 1: Install a three-way stop control:
    - Alternative 2: Install a traffic signal

Neither of the above improvements are currently planned by the County of Tulare or Caltrans. Additionally, neither alternative will require significant revisions to the geometry of the existing intersection. Table 4 shows the projected LOS for the intersection and time periods projected to operate below the adopted LOS standard. Based on the above improvement alternatives, the following improved LOS is anticipated.

TABLE 4: MITIGATED LEVEL OF SERVICE SUMMARY

Conditions/Scenario	2040 Plus Project	
	LOS (PM)	Delay[1] (PM)
Noble Avenue at SR 198 EB Ramps		
• Three-Way Stop	C	15.6
• Traffic Signal	B	14.5

[1] *average seconds of delay per vehicle*

2040 Plus Project – without Rd 148 Interchange

In the event that the Road 148 interchange is not constructed, additional improvements to the Rd 156 interchange will be required if the City of Visalia continues to develop on the east side of the city. The nearest SR 198 interchange, at Lover's Lane, is currently operating at deficient levels of service and a major interchange improvement project will be required to increase capacity at that interchange. The City of Visalia is currently collecting funds for this interchange project through the City's TIF program and developing improvement designs.

The Rd 148 interchange is needed in the near-term to compensate for the Lover's Lane interchange and to allow capacity for the continued development of East Visalia. This project is not currently funded through a City/County/State funding mechanism, but has been identified by the various agencies as a recommended future improvement.

Without the construction of the Rd 148 interchange, and continued development in East Visalia, the Rd 156 interchange would increase in traffic demand by XX%. The current TCAG 2040 traffic model estimates XX,XXX vehicle trips per day using the Rd 148 interchange. Without this interchange, the current geometry and traffic control at the Rd 156 interchange will not accommodate the projected traffic demand increase. The current Rd 156 interchange does not have sufficient space to convert to a traditional interchange design due to development at 3 of the 4 quadrants and the proximity of the frontage roads (Mineral King and Noble). The spacing and ramp design also does not meet current design standards. These geometric

challenges are the same as those faces at the current Lover Lane interchange. Therefore, a significant improvement project for the Rd 156 interchange would require right-of-way acquisition from the properties in all of the quadrants. A complete renovation of the current interchange would cost up to $X,xxx,xxx. Based on the potential added traffic without the Rd 148 interchange the Project's proportionate fair share will be approximately XX%.

1.4 PROJECT REQUIREMENTS

The proposed Sequoia Drive-In Business Park Project does contribute to the identified LOS deficiencies at the Noble Avenue at SR 198 EB Ramps study intersection. The Project's proportionate share for the above improvement is calculated based on Caltrans methodologies, as follows:

$$P = \frac{T}{T^{40} - T^{E}} = \frac{251}{912 - 512} = 62.8\%$$

- P = Project's Proportionate Share
- T = Project PM peak hour trips entering the intersection
- T^{40} = 2040 Plus Project PM peak hour trips entering the intersection
- T^{E} = Existing PM peak hour trips entering the intersection

Since the impact to the study intersection is only identified in the long-term scenario, the County of Tulare and Caltrans will need to continue to evaluate the intersection for needed improvements. If the Road 148 interchange is not built, then improvements to the Road 156 interchange may be needed much sooner. However, actual traffic volumes in the future will help to determine the necessary and/or appropriate improvements.

SECTION 2: PROJECT INFORMATION

2.1 PROJECT SUMMARY

The proposed Project is commercial site, with existing and proposed C-3 (Service Commercial) zoning. The Project consists of the following uses and phases:

- Phase 1: 10.04 acres – a Gas Station/Fast-Food/Convenience Store and 68,340 sf Business Park
- Phase 2: 8.25 acres – 88,000 sf Business Park
- Phase 3: 14.89 acres – 104,000 sf Business Park
- Phase 4: 12.72 acres – 98,030 sf Business Park

2.1.1 PROJECT LOCATION

The Project Site is located on the southwest corner of Noble Avenue at Road 156. Vehicular access to the Project is available from Noble Avenue and Road 156 only. The Project Site Plan is shown in Figure 2.

2.1.2 PROJECT ACCESS

The Project is proposing 5 access points:

- Noble Avenue at West Project Driveway
  - Located approximately 1,200 feet west of Road 156
  - Full-access movements
  - Will access Phase 3 and portions of Phase 1, connecting to the North Project Roadway
- Northeast Project Driveway at Road 156
  - Located approximately 350 feet south of Noble Avenue
  - Full-access movements
  - Will access only the Gas Station/Fast-Food site of Phase 1
- North Project Roadway at Road 156
  - Located approximately 425 feet south of Noble Avenue
  - Full-access movements
  - Will access Phase 3 and portions of Phase 1, connecting to the West Project Roadway
- Middle Project Roadway at Road 156
  - Located approximately 950 feet south of Noble Avenue
  - Full-access movements
  - Will access Phases 1, 2, and 4, connecting to the South Project Roadway
- South Project Roadway at Road 156
  - Located approximately 1,375 feet south of Noble Avenue
  - Full-access movements
  - Will access Phases 1, 2, and 4, connecting to the Middle Project Roadway

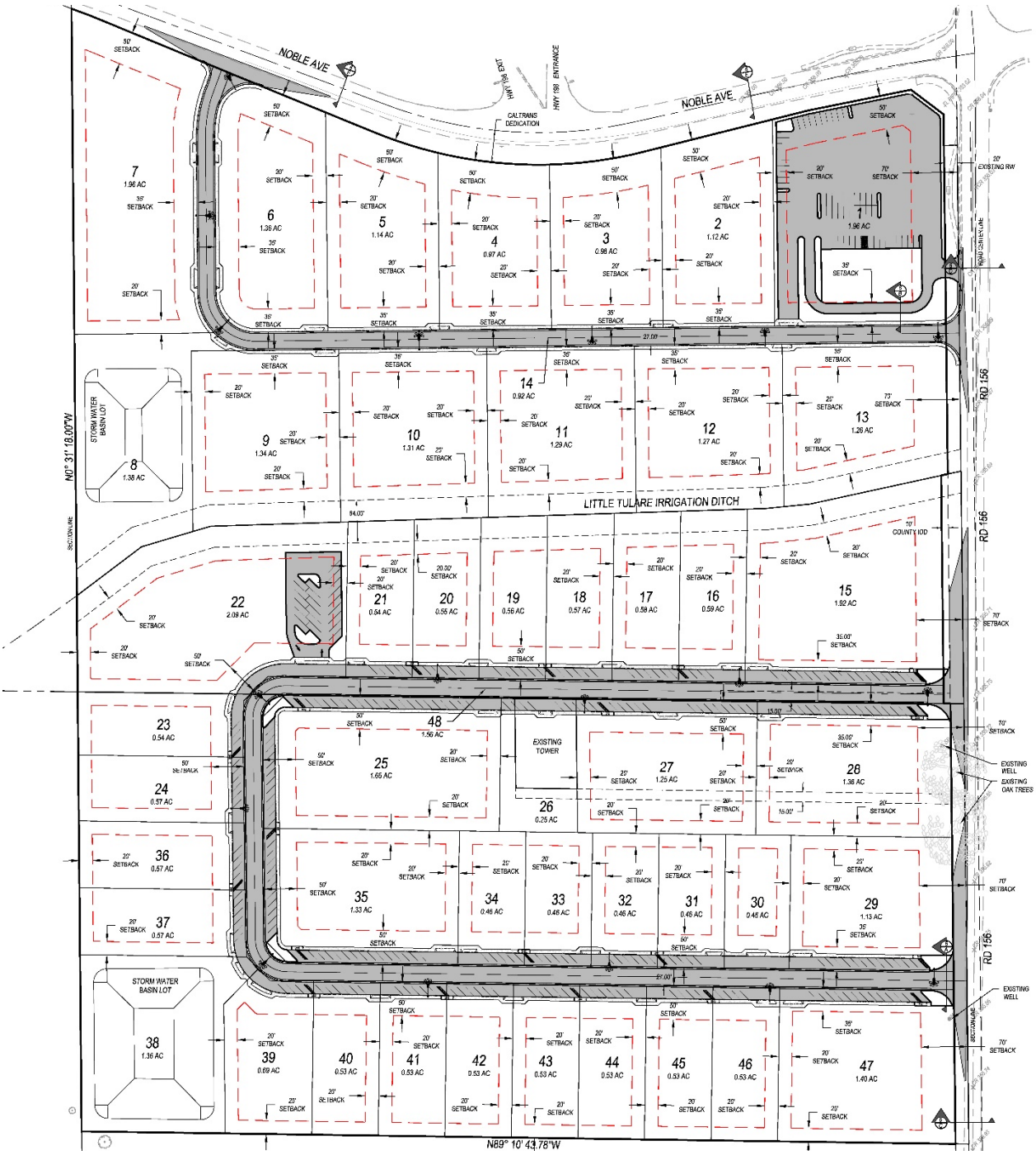

FIGURE 2: PROJECT SITE PLAN

2.1.3 PROJECT TRIP GENERATION

Vehicle trips generated by the Project are calculated using the industry-standard Trip Generation Manual published by the Institute of Transportation Engineers (ITE). Vehicle trips are calculated using ITE average rates and Project-related independent variables (square footage, fueling stations, etc.). Table 5 shows the ITE land uses and variables used to calculate the Project's trip generation.

Based on the current site plan for the Project site, only one building has a clearly defined use. The building on the northwest corner of the site will be a gas station with an attached convenience store and fast-food restaurant with a drive-thru. In order to calculate the trip generation for this parcel, a combination of ITE land uses were used: Convenience Market with Gas Pumps (853) and Fast-Food Restaurant with Drive-Thru (934).

The remainder of the Project site is defined only as Service Commercial. The ITE Trip Generation Manual does not have a land use which meets this diverse mix of uses. The uses cited in the County's zoning for C-3 may include general retail, office retail, and various light industrial uses. The ITE Shopping Center land use (general retail) is typically higher intensity retail. The ITE Light Industrial includes manufacturing, which C-3 prohibits manufacturing. As such, a more moderately intense ITE land use (Business Park) was chosen to represent the remainder of the Project site. The sizes of the land uses shown in Table 5 include the sum of all similar land use types as described and noted above in section 2.1.

TABLE 5: PROJECT LAND USES AND UNITS

Phase	Project Land Use	ITE Land Use	Size
1	Convenience Store with Gas Pumps	853	8 fueling positions
1	Fast-Food Restaurant with Drive-Thru	934	3.00 ksf
1	Business Park	770	63.02 ksf
2	Business Park	770	88.00 ksf
3	Business Park	770	104.00 ksf
4	Business Park	770	98.03 ksf

Table 6 shows the unadjusted raw daily, AM, and PM peak hour trip generation estimates for the Project uses.

TABLE 6: RAW PROJECT TRIP GENERATION

		AM Peak Hour			PM Peak Hour		
Project Land Use	Daily[1]	Enter	Exit	Total	Enter	Exit	Total
Convenience Store with Gas Pumps	4,341	67	66	133	77	76	153
Fast-Food Restaurant with Drive-Thru	1,488	69	67	136	51	47	98
Business Park	4,392	420	74	494	116	329	445
Total Project Trips	10,221	559	206	765	243	452	695

[1] *Total Number of one-directional trips*

2.1.4 PROJECT TRIP CAPTURE

Captured trips involve vehicles that enter the Project site and utilize more than one of the proposed uses. These trips are effectively captured within the Project site and do not create multiple trips on the adjacent roadways. The *ITE Trip Generation Handbook* describes the methodology to calculate on-site trip capture.

However, since the majority of the site trip generation is calculated using one land use type, then on-site capture is already accounted for. While there may be additional capture between the gas station/fast-food and the rest of the site, there is only minimal connection between these uses. As such, no on-site trip capture is calculated.

2.1.5 PROJECT PASS-BY AND DIVERTED TRIPS

Pass-By trips include vehicles that already travel on the adjacent roadways on their primary trip purpose (such as home to work), but choose to access the Project since they are "passing by." Diverted trips include vehicles that divert from their primary route between the primary origin and destination to access another non-primary use. The *ITE Trip Generation Handbook* shows PM peak hour pass-by rates for the Gas Station and Fast-Food land uses. The remaining uses are assumed to have 0% pass-by for the purposes of this study. The PM Peak Hour pass-by rate is used for the AM Peak Hour as well. Table 7 shows the ITE Trip Generation Pass-By rates used in this study.

TABLE 7: PASS-BY RATES

Project Land Use	ITE Pass-By Rate
Convenience Store with Gas Pumps	66%
Fast-Food Restaurant with Drive-Thru	50%

Pass-by rates, where applicable, are applied to the volumes shown in Table 6 to calculate the total trip reductions for Pass-By/Diverted trips. Pass-By trips are calculated based on the Total AM or PM Peak Hour trips, then distributed 50% entering and 50% exiting. Table 8 shows the calculated Pass-By/Diverted trips.

TABLE 8: PASS-BY/DIVERTED PROJECT TRIPS

	AM Peak Hour			PM Peak Hour		
Project Land Use	Enter	Exit	Total	Enter	Exit	Total
Convenience Store with Gas Pumps	42	42	84	51	50	101
Fast-Food Restaurant with Drive-Thru	34	33	67	25	24	49
Business Park	0	0	0	0	0	0
Total Pass-By/Diverted Project Trips	76	75	151	76	74	150

2.1.6 "NEW" PROJECT TRIP GENERATION

The total number of New Project Trips is then calculated by subtracting the number of Pass-By/Diverted Trips (Table 8) from the Unadjusted ITE Trip Generation Calculation (Table 6). Table 9 shows the New Project trips that are added to the surrounding roadways during the Plus Project scenarios in this TIS.

TABLE 9: NEW PROJECT TRIPS

Project Land Use	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Convenience Store with Gas Pumps	25	24	49	26	26	52
Fast-Food Restaurant with Drive-Thru	35	34	69	26	23	49
Business Park	420	74	494	116	329	445
Total New Project Trips	480	132	612	168	378	546

2.1.7 PROJECT TRIP DISTRIBUTION

The Project trips shown in Table 9 are distributed based on the potential locations for customers and employee residences. Since the Project site is located outside of any nearby city, SR 198 will carry a significant portion of the Project generated trips. The remaining trips will use county roads. The Pass-By/Diverted trips shown in Table 8 are distributed based on existing traffic patterns and ease of access from SR 198. Figures 3 and 4 show the Project trip distribution percentages and trip assignment (New and Pass-By/Diverted trips) used in this TIS.

FIGURE 3: PROJECT TRIP DISTRIBUTION

FIGURE 4: PROJECT TRIP ASSIGNMENT

SECTION 3: EXISTING CONDITIONS

3.1 TRAFFIC VOLUMES

The Existing conditions traffic volumes were counted at the study intersections on weekdays during the week of February 24, 2015. Counts were not taken on Wednesdays, when the Visalia Sales Yard is open.

3.2 OPERATIONAL ANALYSIS

The study intersection lane configurations and intersection controls are shown on Figure 5. Using the Existing traffic volumes and the roadway geometry from Figure 5, the Existing conditions LOS are calculated. Table 10 shows the results of the LOS calculations. The LOS calculation worksheets are included in Appendix B.

TABLE 10: EXISTING CONDITIONS LEVEL OF SERVICE SUMMARY

Intersection	LOS Threshold	LOS (AM/PM)	Delay[1] (AM/PM)
Mineral King Avenue at SR 198 WB On-Ramp	C	A/A	8.2/8.2
Mineral King Avenue at Road 156	D	C/C	25.8/26.7
Mineral King Avenue at SR 198 WB Off-Ramp	C	B/B	12.2/13.8
Mineral King Avenue at Road 158	D	B/B	11.9/13.5
Noble Avenue at West Project Roadway	D	n/a	n/a
Noble Avenue at SR 198 EB Ramps	C	B/B	10.1/12.6
Noble Avenue at Road 156	D	C/C	28.6/34.8
Northeast Project Driveway at Road 156	D	n/a	n/a
North Project Roadway at Road 156	D	n/a	n/a
Middle Project Roadway at Road 156	D	n/a	n/a
South Project Roadway at Road 156	D	n/a	n/a

[1] *average seconds of delay per vehicle*
n/a = not applicable, does not exist

As shown in Table 10, none of the study intersections currently operate below the appropriate (County of Tulare or Caltrans) adopted LOS standard.

3.3 TRAFFIC SIGNAL WARRANTS

Peak-hour traffic signal warrants are prepared for the unsignalized study intersections. Based on the warrant analysis, a traffic signal is not warranted at any of the unsignalized study intersections. The signal warrant analysis is included in Appendix C.

3.4 PEDESTRIAN AND BICYCLE NETWORK

Pedestrian and bicycle amenities are largely unavailable within the vicinity of the Project site. Sidewalk has been constructed at the intersections of Noble and Mineral King Avenues at Road 156 with the recent signalization project. However, these sidewalks do not connect to a larger pedestrian network or nearby

residential areas. The Project will not significantly impact pedestrian and bicycle operations except as they relate to an incremental increase in roadway traffic volumes.

3.5 TRANSIT NETWORK

Transit service is provided by Visalia Transit with bus stops on Noble Avenue and Road 156. Route 9 travels along the project frontage, connecting Exeter, Farmersville and downtown Visalia. Immediate proximity to transit will draw ridership from the Project, although no trip reductions were assumed on the TIS for transit usage.

FIGURE 5: EXISTING CONDITIONS

SECTION 4: EXISTING PLUS APPROVED PROJECTS CONDITIONS

4.1 TRAFFIC VOLUMES

The Existing Plus Approved Projects traffic volumes are developed by calculating vehicle trips for Approved Projects identified by the County of Tulare and City of Visalia. The Projects identified by the County of Tulare include changes to the Visalia Sales Yard, located across SR 198 from the Project site. The list of projects supplied by the City of Visalia includes all development projects approved in the past 2 years. Trip generation was then calculated for those Approved Projects using ITE methodology and distributed to the study intersections based on their traffic evaluations or knowledge of the surrounding area. The Approved Projects included in this study include:

- Visalia Sales Yard – Relocation of parking at existing sales yard (TIS completed)
- Visalia Regional Park – 248 acre regional park located north of Mineral King Avenue between Road 152 and Road 148 (no TIS prepared)
- Chandi Group Retail Development – 12 acre retail development located southeast of Noble Avenue at Lovers Lane (TIS completed)

The Existing Plus Approved Projects traffic volumes are developed by adding the Approved Project trips to the Existing traffic (Figure 5). The Existing Plus Approved Projects traffic volumes are shown in Figure 6.

4.2 OPERATIONAL ANALYSIS

Using the Existing Plus Approved Projects traffic volumes and the roadway geometry from Figure 6, the Existing Plus Approved Projects conditions LOS are calculated. Table 11 shows the results of the LOS calculations. The LOS calculation worksheets are included in Appendix D.

TABLE 11: EXISTING PLUS APPROVED PROJECTS CONDITIONS LEVEL OF SERVICE SUMMARY

Intersection	LOS Threshold	LOS (AM/PM)	Delay[1] (AM/PM)
Mineral King Avenue at SR 198 WB On-Ramp	C	A/A	8.3/8.2
Mineral King Avenue at Road 156	D	C/C	24.9/27.0
Mineral King Avenue at SR 198 WB Off-Ramp	C	B/B	12.5/14.2
Mineral King Avenue at Road 158	D	B/B	12.1/13.8
Noble Avenue at West Project Roadway	D	n/a	n/a
Noble Avenue at SR 198 EB Ramps	C	B/B	10.2/12.8
Noble Avenue at Road 156	D	C/C	33.9/34.9
Northeast Project Driveway at Road 156	D	n/a	n/a
North Project Roadway at Road 156	D	n/a	n/a
Middle Project Roadway at Road 156	D	n/a	n/a
South Project Roadway at Road 156	D	n/a	n/a

[1] average seconds of delay per vehicle
n/a = not applicable, does not exist

As shown in Table 11, none of the study intersections are projected to operate below the appropriate (County of Tulare or Caltrans) adopted LOS standard.

4.3 Traffic Signal Warrants

Peak-hour traffic signal warrants are again prepared for the unsignalized study intersections. Based on the warrant analysis, a traffic signal is warranted at the unsignalized study intersection of Mineral King Avenue at Road 158. The signal warrant analysis is included in Appendix C.

FIGURE 6: EXISTING PLUS APPROVED PROJECTS CONDITIONS

SECTION 5: EXISTING PLUS APPROVED PROJECTS PLUS PROJECT CONDITIONS

5.1 TRAFFIC VOLUMES

The Existing Plus Approved Projects Plus Project traffic volumes are developed by adding the incremental increase in Project trips (Figure 5 minus Figure 4) to the Existing Plus Approved Project volumes (Figure 8). The Existing Plus Approved Projects traffic volumes are shown in Figure 9.

5.2 OPERATIONAL ANALYSIS

Using the Existing Plus Approved Projects traffic volumes and the roadway geometry from Figure 7, the Existing Plus Approved Projects conditions LOS are calculated. Table 12 shows the results of the LOS calculations. The LOS calculation worksheets are included in Appendix E.

TABLE 12: EXISTING PLUS APPROVED PROJECTS PLUS PROJECT CONDITIONS LEVEL OF SERVICE SUMMARY

Intersection	LOS Threshold	LOS (AM/PM)	Delay[1] (AM/PM)
Mineral King Avenue at SR 198 WB On-Ramp	C	A/A	8.4/8.5
Mineral King Avenue at Road 156	D	D/C	45.9/28.5
Mineral King Avenue at SR 198 WB Off-Ramp	C	C/C	18.6/18.1
Mineral King Avenue at Road 158	D	B/C	13.2/15.5
Noble Avenue at West Project Roadway	D	A/A	9.6/9.8
Noble Avenue at SR 198 EB Ramps	C	B/C	13.7/20.5
Noble Avenue at Road 156	D	D/D	42.6/38.1
Northeast Project Driveway at Road 156	D	D/D	29.5/28.5
North Project Roadway at Road 156	D	C/C	15.1/16.5
Middle Project Roadway at Road 156	D	C/C	15.6/17.2
South Project Roadway at Road 156	D	C/C	15.2/15.8

[1] *average seconds of delay per vehicle*

As shown in Table 12, none of the study intersections are projected to operate below the appropriate (County of Tulare or Caltrans) adopted LOS standard.

5.3 TRAFFIC SIGNAL WARRANTS

Peak-hour traffic signal warrants are again prepared for the unsignalized study intersections. Based on the warrant analysis, a traffic signal is warranted at the unsignalized study intersection of Noble Avenue at SR 198 EB Ramps. The warrant previously met at the intersection of Mineral King Avenue at Road 158 continues to be met. The signal warrant analysis is included in Appendix C.

FIGURE 7: EXISTING PLUS APPROVED PROJECTS PLUS PROJECT CONDITIONS

SECTION 6: 2040 CONDITIONS

6.1 TRAFFIC VOLUMES

The 2040 No Project traffic volumes are developed by calculating the 2040 background traffic volumes using the TCAG 2014 and 2040 traffic demand models. Of significant note, the model predicts reductions in vehicle trips (from Existing) for some movements on the study roadways. This negative growth is due to the addition of the proposed Road 148 interchange with SR 198. These negative growth assumptions appear valid and were included in this analysis for the following reasons:

- Existing traffic patterns at the Road 156 at SR 198 interchange indicate that a significant amount of traffic from the residential developments east of Lovers Lane, north and south of SR 198, use the interchange. The addition of the SR 148 interchange will provide a more convenient alternative to cross or access SR 198.
- Movements not associated with the travel patterns described above show additional growth based on the TCAG model projections.
- The only other developed area that is primarily served by the Road 156 at SR 198 interchange is Linnell Camp, which is not likely to experience significant growth.

The 2040 Plus Project traffic volumes are developed by adding the Project trips (Figure 4) to the 2040 No Project traffic volumes. The 2040 No Project and 2040 Plus Project traffic volumes are shown in Figures 8 and 9, respectively.

6.2 OPERATIONAL ANALYSIS

Using the 2040 No Project and 2040 Plus Project traffic volumes and the roadway geometry from Figures 8 and 9, the 2040 No Project and 2040 Plus Project conditions LOS are calculated. Table 13 shows the results of the LOS calculations. The LOS calculation worksheets are included in Appendices F & G.

TABLE 13: 2040 CONDITIONS LEVEL OF SERVICE SUMMARY

Intersection	LOS Threshold	2040 No Project		2040 Plus Project	
		LOS (AM/PM)	Delay[1] (AM/PM)	LOS (AM/PM)	Delay[1] (AM/PM)
Mineral King Avenue at SR 198 WB On-Ramp	C	A/A	8.5/8.2	A/A	8.7/8.5
Mineral King Avenue at Road 156	D	C/C	26.8/27.4	D/C	41.9/28.1
Mineral King Avenue at SR 198 WB Off-Ramp	C	B/B	11.7/13.0	C/C	16.1/15.9
Mineral King Avenue at Road 158	D	B/C	12.4/16.1	B/C	13.7/19.4
Noble Avenue at West Project Roadway	D	n/a	n/a	A/B	9.8/10.3
Noble Avenue at SR 198 EB Ramps	C	B/C	10.5/16.6	B/E	14.8/37.5
Noble Avenue at Road 156	D	C/D	34.7/38.6	D/D	40.6/40.7
Northeast Project Driveway at Road 156	D	n/a	n/a	D/C	27.0/24.4
North Project Roadway at Road 156	D	n/a	n/a	C/C	15.6/17.9
Middle Project Roadway at Road 156	D	n/a	n/a	C/C	16.3/19.1
South Project Roadway at Road 156	D	n/a	n/a	C/C	15.8/17.5

[1] *average seconds of delay per vehicle*

n/a = not applicable.

As shown in Table 13, one of the study intersections is projected to operate below the Caltrans adopted LOS standard. The intersection of Noble Avenue at SR 198 EB Ramps is projected to operate at LOS "E" during the PM peak hour. The remaining study intersections are projected to continue to operate at or above the appropriate adopted LOS standard.

6.3 Traffic Signal Warrants

Peak-hour traffic signal warrants are again prepared for the unsignalized study intersections. Based on the warrant analysis, a traffic signal is warranted at the unsignalized study intersection of Mineral King Avenue at SR 198 WB Ramps. The warrants previously met at the intersections of Noble Avenue at SR 198 EB Ramps and Mineral King Avenue at Road 158 continue to be met. The signal warrant analysis is included in Appendix C.

6.4 Recommended Improvements

In order to mitigate the intersections currently operating or are projected to operate below the adopted LOS standard(s) and/or meet the Peak Hour Traffic Signal Warrant, the following improvements are recommended:

2040 Plus Project

- Noble Avenue at SR 198 EB Ramps
    - Alternative 1: Install a three-way stop control:
    - Alternative 2: Install a traffic signal

Neither of the above improvements are currently planned by the County of Tulare or Caltrans. Additionally, neither alternative will require significant revisions to the geometry of the existing intersection. Table 14 shows the projected LOS for the intersection and time periods projected to operate below the adopted LOS standard. Based on the above improvement alternatives, the following improved LOS is anticipated.

Table 14: Mitigated Level of Service Summary

Conditions/Scenario	2040 Plus Project	
	LOS (PM)	Delay[1] (PM)
Noble Avenue at SR 198 EB Ramps		
• Three-Way Stop	C	15.6
• Traffic Signal	B	14.5

[1] *average seconds of delay per vehicle*

FIGURE 8: 2040 NO PROJECT CONDITIONS

FIGURE 9: 2040 PLUS PROJECT CONDITIONS

SECTION 7: CONCLUSIONS AND RECOMMENDATIONS

7.1 ANALYSIS SUMMARY

As previously discussed, the following LOS impacts to the study area roadways and signal warrant results have been identified:

Existing Plus Approved Projects

- Mineral King Avenue at Road 158 – peak hour traffic signal warrant met

Existing Plus Approved Projects Plus Project

- Mineral King Avenue at Road 158 – peak hour traffic signal warrant met
- Noble Avenue at SR 198 EB Ramps – peak hour traffic signal warrant met

2040 No Project

- Mineral King Avenue at Road 158 – peak hour traffic signal warrant met
- Noble Avenue at SR 198 EB Ramps – peak hour traffic signal warrant met

2040 Plus Project

- Mineral King Avenue at SR 198 WB Off-Ramp – peak hour traffic signal warrant met
- Mineral King Avenue at Road 158 – peak hour traffic signal warrant met
- Noble Avenue at SR 198 EB Ramps – LOS "E" exceeds Caltrans threshold
- Noble Avenue at SR 198 EB Ramps – peak hour traffic signal warrant met

7.2 RECOMMENDED IMPROVEMENTS

In order to mitigate the intersections currently operating or are projected to operate below the adopted LOS standard(s) and/or meet the Peak Hour Traffic Signal Warrant, the following improvements are recommended:

2040 Plus Project

- Noble Avenue at SR 198 EB Ramps
    - Alternative 1: Install a three-way stop control:
    - Alternative 2: Install a traffic signal

Neither of the above improvements are currently planned by the County of Tulare or Caltrans. Additionally, neither alternative will require significant revisions to the geometry of the existing intersection. Table 4 shows the projected LOS for the intersection and time periods projected to operate below the adopted LOS standard. Based on the above improvement alternatives, the following improved LOS is anticipated.

7.3 PROJECT REQUIREMENTS

The proposed Sequoia Drive-In Business Park Project does contribute to the identified LOS deficiencies at the Noble Avenue at SR 198 EB Ramps study intersection. The Project's proportionate share for the above improvement is calculated based on Caltrans methodologies, as follows:

$$P = \frac{T}{T^{40} - T^{E}} = \frac{251}{912 - 512} = 62.8\%$$

- P = Project's Proportionate Share
- T = Project PM peak hour trips entering the intersection
- T^{40} = 2040 Plus Project PM peak hour trips entering the intersection
- T^{E} = Existing PM peak hour trips entering the intersection

It is anticipated that an improvement project of this type would generate costs between $75,000 and $100,000. This cost estimate is a rough estimate and will need to be finalized when the required improvements are determined for the project.

Since the impact to the study intersection is only identified in the long-term scenario, the County of Tulare and Caltrans will need to continue to evaluate the intersection for needed improvements. The Road 148 at SR 198 interchange improvement is not currently funded. TCAG's Measure R Expenditure Plan lists the interchange as a Potential Phase 2 project, with an estimated cost of $25M. The City of Visalia lists the interchange as a future improvement in the most recent Circulation Element, but does not define funding other than future long-range capital improvement planning. Finally, TCAG has included the interchange in the adopted 2040 traffic model. While these sources do not guarantee that the interchange will be constructed, they do ensure that the interchange will be thoroughly analyzed and included in future funding opportunities. If the interchange is not constructed, then significant improvements will be needed at the Lovers Lane at SR 198 interchange, along with the Road 156 at SR 198 interchange. The City of Visalia will not be able to continue to expand to the east without improvements at both of these interchanges or construction of the Road 148 interchange. If the Road 148 interchange is not built, then improvements to the Road 156 interchange may be needed much sooner. However, actual traffic volumes in the future will help to determine the necessary and/or appropriate improvements.

APPENDIX A

ANALYSIS METHODOLOGY

APPENDIX A: ANALYSIS METHODOLOGY

A variety of data and technical assumptions were developed for this TIS and are defined in this appendix.

A.1 SOURCES

This report is prepared using information taken from the following sources:

- *2010 Highway Capacity Manual*, Transportation Research Board, 2010.
- Aaron Bock, Chief Planner, Tulare County, email conversations, March 2015.
- *California Manual on Uniform Traffic Control Devices for Streets and Highway*, 2012 Edition, California Department of Transportation, Division of Traffic Operations, January 13, 2012.
- David Deel, Associate Planner, Caltrans, phone and email conversations, March 2015.
- Doug Damko, Community Development Department, Engineering Division, City of Visalia, email conversations, March 2015.
- *Guide for the Preparation of Traffic Impact Studies*, State of California Department of Transportation, December, 2002.
- Roberto Brady, Associate Planner, TCAG, in-person and email conversations, April 2015.
- TCAG Traffic Model, Tulare County Association of Governments, Updated: April 2015.
- *Trip Generation Handbook*, 2nd Edition, Institute of Transportation Engineers, 2003.
- *Trip Generation Manual*, 9th Edition, Institute of Transportation Engineers, 2012.
- *Tulare County General Plan, 2030 Update*, Tulare County Resource Management Agency, August 2012.
- TurnsW32, Dowling Associates, Inc., 2002.
- Synchro 8.0, Trafficware, 2013.

A.2 ANALYSIS TIME PERIODS

According to Traffic Impact Analyses for Site Development, the overall purpose of a traffic impact study is to determine the project impacts that are likely to occur to the surrounding street system. In order to accomplish this purpose you need to determine what occurs when the peak of the project generated traffic overlays the peak of the street traffic. Traffic Impact Analyses for Site Development states “the peak periods [of the adjacent street and highway system] are generally the weekday morning (7-9 a.m.) and evening (4-6 p.m.) peak hours, although local area characteristics occasionally result in other peaks (e.g., at major shopping or recreational centers)”. The peak hours analyzed in this study are:

- 7:00 to 9:00 AM
- 4:00 to 6:00 PM

These are the standard AM and PM peak hours of the street typically used for study in the County of Tulare.

A.3 TRAFFIC COUNTS

According to the Caltrans Guide for the Preparation of Traffic Impact Studies, one of the common rules for counting vehicular traffic is:

> "Vehicle counts should be conducted on Tuesdays, Wednesdays, or Thursdays during weeks not containing a holiday and conducted in favorable weather conditions."[1]

Table A1 shows the date and day the Existing intersection counts were taken for this Project. Prior to conducting these counts it was verified that these were non-holiday weeks.

Table A1: Existing Intersection Counts

Intersections	Day	Date
Mineral King Avenue at SR 198 WB On-Ramp	Tuesday	2/24/15
Mineral King Avenue at Road 156	Tuesday	2/24/15
Mineral King Avenue at SR 198 WB Off-Ramp	Tuesday	2/24/15
Mineral King Avenue at Road 158	Thursday	2/26/15
Noble Avenue at SR 198 EB Ramps	Thursday	2/26/15
Noble Avenue at Road 156	Thursday	2/26/15

As shown in Table A1, all intersection counts were conducted on days that were appropriate to count.

A.4 CUMULATIVE PROJECTS

The 2014-2023 analysis scenarios include incremental development of all future growth built into the TCAG traffic model, according to the County's General Plan and other approved planning documents. Near-Term approved projects supplied by the County of Tulare and City of Visalia include:

- Visalia Sales Yard – Relocation of parking at existing sales yard (TIS completed)
- Visalia Regional Park – 248 acre regional park located north of Mineral King Avenue between Road 152 and Road 148 (no TIS prepared)
- Chandi Group Retail Development – 12 acre retail development located southeast of Noble Avenue at Lovers Lane (TIS completed)

A.5 INTERSECTION ANALYSIS AND VOLUME ADJUSTMENTS

Heavy vehicle percentages used in the analysis 4% for all locations. The peak hour factor of 0.92 is used at all intersection locations in all scenarios. Existing traffic signal coordination timing and phases were measured in the field and used in all scenarios.

[1] *Guide for the Preparation of Traffic Impact Studies*, State of California Department of Transportation, December 2002, page 4.

A.6 Network Improvements

Significant roadway improvement projects are planned for the study area, as follows:

- SR 198 at Road 148 alignment – construct freeway interchange with SR 198
    - Timeline for the construction of the interchange is unknown, but is assumed to be constructed by the 2040 analysis year for the purposes of this TIS.

A.7 Signal Warrant Analysis

Peak-hour signal warrants (Warrant 3, Part B) are prepared for all unsignalized intersections based on the methodology presented in the *California MUTCD 2012 Edition*, pages 833-834. A copy of this warrant analysis is included in Appendix C. According to the MUTCD, "the satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal." Therefore prior to making a final determination on installation of a proposed signal, a thorough engineering investigation, including collision history, should be conducted. Although an intersection may meet the traffic signal warrant, a signal is not recommended unless the intersection also operates (or is projected to operate) below the appropriate adopted LOS standard.

A.8 Level of Service Analysis Methods

Unsignalized and signalized intersection analyses are completed using Synchro 8.0, which incorporates the HCM 2010 methodologies. Synchro 8.0 allows for optimization of signals to provide for the greatest reduction in overall intersection delay. This optimization process can result in different signal cycle lengths across all scenarios. The changing of the signal cycle length somewhat reflects the agency process whereby the agency will adjust intersection signal cycle lengths for differing traffic conditions based on current count data.

Table A2 shows the six levels of service and their corresponding ranges of average control delay for both signalized and unsignalized intersections. Table A2 also contains a brief traffic flow description for signalized intersections for each level of service category. The level of service diagrams provided throughout the report show the levels of service for the study intersections. The levels of service shown for signalized intersections are representative of the overall level of service for that intersection. For TWSC intersections, the level of service shown on the maps is the level of service for the worst operating movement at that intersection as opposed to the overall intersection level of service.

Table A2: Intersection Level Of Service Description			Intersections	
			Signalized	Unsignalized[1]
Level of Service	Conditions	Signalized Intersection Description	Delay (sec/veh)	Delay (sec/veh)
"A"	Free Flow	Users experience very low delay. Progression is favorable and most vehicles do not stop at all.	<10.0	<10.0
"B"	Stable Operations	Vehicles travel with good progression. Some vehicles stop, causing slight delay.	>10.0 – 20.0	>10.0 – 15.0
"C"	Stable Operations	Higher delays result from fair progression. A significant number of vehicles stop, although many continue to pass through the intersection without stopping.	>20.0 to 35.0	>15.0 – 25.0
"D"	Approaching Unstable	Congestion is noticeable. Progression is unfavorable, with more vehicles stopping rather than passing through the intersection.	>35.0 – 55.0	>25.0 – 35.0
"E"	Unstable Operations	Traffic volumes are at capacity. Users experience poor progression and long delays.	>55.0 – 80.0	>35.0 – 50.0
"F"	Forced Flow	Intersection's capacity is oversaturated, causing poor progression and unusually long delays.	>80.0 or v/c > 1.0	>50.0

APPENDIX B

EXISTING CONDITIONS LOS CALCULATIONS

APPENDIX C

TRAFFIC SIGNAL WARRANT ANALYSIS

APPENDIX D

EXISTING PLUS APPROVED PROJECTS LOS CALCULATIONS

APPENDIX E

EXISTING PLUS APPROVED PROJECTS PLUS PROJECT CONDITIONS LOS CALCULATIONS

APPENDIX F

2040 NO PROJECT CONDITIONS LOS CALCULATIONS

APPENDIX G

2040 PLUS PROJECT CONDITIONS LOS CALCULATIONS

APPENDIX H

MITIGATED 2040 PLUS PROJECT CONDITIONS LOS CALCULATIONS