Lorelei H. Oviatt, AICP, Director 2700 "M" Street, Suite 100 Bakersfield, CA 93301-2323 Phone: (661) 862-8600 Fax: (661) 862-8601 TTY Relay 1-800-735-2929 Email: planning@kerncounty.com Web Address: http://kernplanning.com/



PLANNING AND NATURAL RESOURCES DEPARTMENT

Planning Community Development Administrative Operations

October 23, 2019

FILE: CUP #10, Map #165-26

ADDRESSEES (see Distribution List)

In Response Please Reference: Consultation Process on Proposed Negative Declaration for 5584MT Conditional Use Permit No. 10, Map No. 165-26 (Ken Maler by Swanson Engineering, Inc. (PP17196))

Ladies and Gentlemen:

This Department, as Lead Agency, has determined that preparation of a Negative Declaration would be appropriate for the referenced project. As required by Section 15073 of the State CEQA Guidelines, we are submitting the proposed Negative Declaration to all responsible agencies for consultation. This consultation is requested to ensure that the environmental decision by our Department will reflect the concerns of responsible agencies involved with the project.

If a response is not received from your agency by **November 22, 2019**, this Department will assume that your agency has no comment. Should you have any questions, please contact Mark Tolentino, Planner I (TolentinoM@kerncounty.com; (661) 862-5041) of this Department.

Sincerely,

LORELEI H. OVIATT, AICP, Director Planning and Natural Resources Department

Mark Tolentino

By Mark Tolentino Planner I

MT:cc

Enclosure

CUP 10, Map 165-26 es (10/22/2019) I:\Planning\WORKGRPS\WP\LABELS\1 65-26cup10 KenMaler AGENCIES.docx

China Lake Naval Weapons Center Tim Fox, RLA - Comm Plans & Liaison 429 E Bowen, Building 981 Mail Stop 4001 China Lake, CA 93555

Environmental Protection Agency Region IX Office 75 Hawthorn Street San Francisco, CA 94105

Caltrans/Dist 6 Planning/Land Bank Bldg. P.O. Box 12616 Fresno, CA 93778

State Dept of Conservation Director's Office 801 "K" Street, MS 24-01 Sacramento, CA 95814-3528

California Regional Water Quality Control Board/Central Valley Region 1685 E Street Fresno, CA 93706-2020

Kern County Env Health Services Department

Kern County Library/Beale Andie Sullivan 115 South Robinson Street Tehachapi, CA 93561-1722

City of Tehachapi

Attn: John Schlosser

Edwards AFB, Sustainability Office 412 TW/XPO, Bldg 2750, Rm 204-38 195 East Popson Avenue Edwards AFB, CA 93524

U.S. Dept of Agriculture/NRCS 5080 California Avenue, Ste 150 Bakersfield, CA 93309-0711

Caltrans/Dist 9 Planning Department 500 South Main Street Bishop, CA 93514

State Dept of Conservation Division of Oil & Gas 4800 Stockdale Highway, Ste 108 Bakersfield, CA 93309

Kern County Public Works Department/ Building & Development/Floodplain

Kern County Fire Dept David Witt, Interim Fire Chief

Kern County Sheriff's Dept Administration

Kern County Public Works Department/Operations & Maintenance/Regulatory Monitoring & Reporting

Kern County Superintendent of Schools Attention Mary Baker 1300 17th Street Bakersfield, CA 93301 Tehachapi Municipal Advisory Council Attn: Ed Grimes 117 Sunrise Way Tehachapi, CA 93561

Golden Hills Community Serv Dist P.O. Box 637 Tehachapi, CA 93581 U.S. Bureau of Land Management Caliente/Bakersfield 3801 Pegasus Drive Bakersfield, CA 93308-6837

U. S. Fish & Wildlife Service Division of Ecological Services 2800 Cottage Way #W-2605 Sacramento, CA 95825-1846

So. San Joaquin Valley Arch Info Ctr California State University of Bkfd 9001 Stockdale Highway Bakersfield, CA 93311

State Clearinghouse Office of Planning and Research 1400 - 10th Street, Room 222 Sacramento, CA 95814

California Fish & Wildlife 1234 East Shaw Avenue Fresno, CA 93710

Kern County Public Works Department/ Building & Development/Survey

Kern County Library/Beale Local History Room

Kern County Public Works Department/ Building & Development/Development Review

Tehachapi Unified School Dist 300 S Robinson Street Tehachapi, CA 93561

Tehachapi-Cummings Co Water Dist P.O. Box 326 Tehachapi, CA 93561 Kern County Water Agency P.O. Box 58 Bakersfield, CA 93302-0058

Adams, Broadwell, Joseph & Cardozo Attention: Janet M. Laurain 601 Gateway Boulevard, Suite 1000 South San Francisco, CA 94080

U.S. Army Attn: Tim Kilgannon, Region 9 Coordinator Office of Strategic Integration 721 - 19th Street, Room 427 Denver, CO 80202

AT&T California OSP Engineering/Right-of-Way 4540 California Avenue, 4th Floor Bakersfield, CA 93309

Defenders of Wildlife/ Kim Delfino, California Dir 980 - 9th Street, Suite 1730 Sacramento, CA 95814

Smart Growth - Tehachapi Valleys P.O. Box 1894 Tehachapi, CA 93581-1894

Southern California Gas Co Transportation Dept 9400 Oakdale Avenue Chatsworth, CA 91313-6511

Kern Valley Indian Council Historic Preservation Office P.O. Box 401 Weldon, CA 93283

Lozeau Drury LLP 1939 Harrison Street, Suite 150 Oakland, CA 94612

Big Pine Paiute Tribe of the Owens Valley Sally Manning, Environmental Director P.O. Box 700 Paiute Big Pine, CA 93513 Tehachapi Parks & Recreation Dist P.O. Box 373 Tehachapi, CA 93561

U.S. Air Force Attn: David Bell/AFCEC CZPW Western Regional/Leg Branch 510 Hickam Avenue, Bld 250-A Travis AFD, CA 94535-2729

U.S. Navy Attn: Steve Chung Regional Community Plans & Liaison Officer 1220 Pacific Highway San Diego, CA 92132-5190

Center on Race, Poverty & the Environment Attn: Marissa Alexander 1999 Harrison Street – Suite 650 San Francisco, CA 94612

Native American Heritage Council of Kern County Attn: Gene Albitre 3401 Aslin Street Bakersfield, CA 93312

Southern California Edison 2244 Walnut Grove, Ave, GO-1 Quad 2C Rosemead, CA 91770

David Laughing Horse Robinson P.O. Box 20849 Bakersfield, CA 93390

LIUNA Attn: Danny Zaragoza 2201 "H" Street Bakersfield, CA 93301

Southern California Edison Planning Dept. 421 West "J" Street Tehachapi, CA 93561

Big Pine Paiute Tribe of the Owens Valley Danelle Gutierrez THPO P.O. Box 700 Paiute Big Pine, CA 93513 East Kern Air Pollution Control District

U.S. Army Attn: Philip Crosbie, Chief Strategic Plans, S3, NTC P.O. Box 10172 Fort Irwin, CA 92310

U.S. Marine Corps Commanding General MCIWEST-MCB CamPen Attn: A/CS, G7 Box 555010 Camp Pendleton, CA 92055-5246

Center on Race, Poverty & the Environmental/ CA Rural Legal Assistance Foundation 1012 Jefferson Street Delano, CA 93215

Sierra Club/Kern Kaweah Chapter P.O. Box 3357 Bakersfield, CA 93385

Southern California Gas Co 1510 North Chester Avenue Bakersfield, CA 93308

Kern Valley Indian Council Attn: Robert Robinson, Chairperson P.O. Box 401 Weldon, CA 93283

Tehachapi Resource Cons Dist 321 West "C" Street Tehachapi, CA 93561-2011

Big Pine Paiute Tribe of the Owens Valley James Rambeau, Sr., Chairperson P.O. Box 700 Paiute – Shoeshone Big Pine, CA 93513

Chumash Council of Bakersfield Julio Quair, Chairperson 729 Texas Street Bakersfield, CA 93307 Kern Valley Indian Community Julie Turner, Secretary P.O. Box 1010 Lake Isabella, CA 93240

San Manuel Band of Mission Indians Lynn Valbuena, Chairwoman 26569 Community Center Drive Highland, CA 92346

Tejon Indian Tribe Colin Rambo, Cultural Resources Management 1731 Hasti-acres Drive, Suite 108 Bakersfield, CA 93309

Wuksache Indian Tribe/Eshom Valley Band Kenneth Woodrow, Chairperson 1179 Rock Haven Court Salinas, CA 93906

Kathleen Dunn 20590 Tiffany Circle Tehachapi, CA 93561 Kern Valley Indian Community Robert Robinson, Chairperson P.O. Box 1010 Lake Isabella, CA 93240

Santa Rosa Rancheria Ruben Barrios Sr., Chairperson P.O. Box 8 Lemoore, CA 93245

Tubatulabals of Kern County Attn: Robert L. Gomez Jr., Chairperson P.O. Box 226 Lake Isabella, CA 93240

State Water Resources Control Board/ Division of Drinking Water

Don & Sandra Hunt 21086 Schout Road Tehachapi, CA 93561 Kitanemuk & Yowlumne Tejon Indians Delia Dominguez, Chairperson 115 Radio Street Bakersfield, CA 93305

Tejon Indian Tribe Octavio Escobedo, Chairperson 1731 Hasti-acres Drive, Suite 108 Bakersfield, CA 93309

Tule River Indian Tribe Neil Peyron, Chairperson P.O. Box 589 Porterville, CA 93258

Corrine Stone P.O. Box 531 Tehachapi, CA 93581

MITIGATED NEGATIVE DECLARATION NOTICE OF AVAILABILITY FOR PUBLIC REVIEW

This is to advise that the Kern County Planning and Natural Resources Department has prepared a Negative Declaration for the project identified below. As mandated by State law, the minimum public review period for this document is 30 days. The document and documents referenced in the draft Negative Declaration are available for review at the Planning and Natural Resources Department, 2700 "M" Street, Suite 100, Bakersfield, CA 93301.

A public hearing has been scheduled with the Kern County Planning Commission to receive comments on the document on: **January 23, 2020**, at 7:00 p.m. or soon thereafter, Chambers of the Board of Supervisors, First Floor, Kern County Administrative Center, 1115 Truxtun Avenue, Bakersfield, California

The comment period for this document closes on November 22, 2019. Testimony at future public hearings may be limited to those issues raised during the public review period either orally or submitted in writing by 5:00 p.m. the day the comment period closes.

Project Title: Conditional Use Permit Case No. 10, Map No. 165-26; Ken Maler by Swanson Engineering, Inc. (PP17196)

Project Location: 21037 Schout Road, Tehachapi

Project Description: The proposal is a request for a Conditional Use Permit to allow an assisted living facility/retirement home (Section 19.16.030.B) that will house a maximum of 32 elderly residents in the E ($2\frac{1}{2}$) RS (Estate ($2\frac{1}{2}$ acres) – Residential Suburban Combining) District. The proposed project is on a 2.71-acre lot at the northeast corner of Highway 202 and Schout Road. Schout Road provides legal access to the proposed project site and is designated a local street by the Circulation Element within the Greater Tehachapi Area Specific and Community Plan. The Golden Hills Community Services District is available to supply water via proposed annexation and sewer service would be provided by the on-site septic tank.

For further information, please contact Mark Tolentino, Planner I (TolentinoM@kerncounty.com; (661) 862-5041).

LORELEI H. OVIATT, AICP, Director Planning and Natural Resources Department

MT:cc (10/22/2019)

cc: County Clerk (2) (with fee) Environmental Status Board Sierra Club/Kern Kaweah Chapter LiUNA/Arthur Izzo Supervisorial District No. 2 California Native Plant Society/Kern Chapter Kern County Archaeological Society Native American Heritage Pres. Council/Kern County Center on Race, Poverty and Environment (2)

MITIGATED NEGATIVE DECLARATION

TO WHOM IT MAY CONCERN:

Pursuant to the California Environmental Quality Act of 1970 (CEQA),* the State CEQA Guidelines,** and the Kern County Guidelines for Implementation of CEQA and State CEQA Guidelines,*** the Kern County Planning and Natural Resources Department has prepared an Initial Study of possible environmental impacts of the following-described project:

- **APPLICANT:** Ken Maler by Swanson Engineering, Inc. (PP17196)
- APPLICATIONS: Conditional Use Permit Case No. 10, Map No. 165-26
- LOCATION: 21037 Schout Road, Tehachapi
- **DESCRIPTION OF PROPOSED PROJECT:** The proposal is a request for a Conditional Use Permit to allow an assisted living facility/retirement home (Section 19.16.030.B) that will house a maximum of 32 elderly residents in the E (2 ½) RS (Estate (2 ½ acres) Residential Suburban Combining) District. The proposed project is on a 2.71-acre lot at the northeast corner of Highway 202 and Schout Road. Schout Road provides legal access to the proposed project site and is designated a local street by the Circulation Element within the Greater Tehachapi Area Specific and Community Plan. The Golden Hills Community Services District is available to supply water via proposed annexation and sewer service would be provided by the on-site septic tank.

MITIGATION MEASURES: Included in the Proposed Project to Avoid Potentially Significant Effects (if required):

- (a) All exterior/outdoor lighting fixtures shall comply with Chapter 19.81 (Outdoor Lighting "Dark Skies Ordinance") and Section 19.76.125.A of the Kern County Zoning Ordinance. Lighting fixtures shall not exceed a height of twenty (20) feet above grade, if freestanding, or the height of the building upon which they are attached. Light fixtures shall be maintained in sound operating conditions at all times.
- (b) During excavation and grading, or any other construction activity, the following mitigation measures shall apply:
 - 1. In the event any as yet undetected (i.e. buried) cultural or paleontological resources are encountered on the project site at a future time, work in the area of discovery shall be stopped and a qualified archaeologist or paleontologist shall be contacted to evaluate the find in conformance with 15064.5 of CEQA. A copy of the archaeologist's evaluation shall be submitted to the Kern County Planning and Natural Resources Department and any measures recommended by the archaeologist implemented prior to the resumption of work in the area of discovery.
 - 2. If human remains are found during construction, CEQA requires that further work or disturbance of the site shall be halted and the County Coroner shall be notified. The discovery shall be inspected and the remains be handled in a manner consistent with Public Resources Code 5097.98-99, Health and Safety Code 7050.5, and CEQA Section 15064.5. Where remains are found to be of Native American origin, independent monitoring of excavations shall be performed and completed by a Native American Monitor.

INCLUSION OF MITIGATION MEASURES AS PART OF PROJECT:

I, as applicant/authorized agent, have reviewed the mitigation measures noted above and agree to include said measures as part of this project.

____ Dated: <u>/0/19/19</u> 4 Signed:__

FORM13.PDS (10/04)

2

FINDINGS: It has been found that this project, as described and proposed to be mitigated herein, will not have a significant effect on the environment and that an Environmental Impact Report (EIR) is, therefore, not required. A brief statement of reasons supporting such findings is as follows:

- 1. Proposed Project does not appear to have a substantial demonstrable negative aesthetic effect.
- 2. Proposed Project does not appear to have a significant effect on nearby agricultural and forestry resources.
- 3. Proposed Project does not appear to have a significant effect on air quality.
- 4. Proposed Project does not appear to have a significant effect on sensitive biological resources, with the implementation of mitigation measures.
- 5. Proposed Project does not appear to have any potential for disruption or alteration of (1) an archaeological site over 200 years old, (2) a historic site of record, or (3) a paleontological site.
- 6. Proposed Project does not appear to continuously exercise wasteful or inefficient energy practices.
- 7. Proposed Project does not appear to expose humans or structures to major geological hazards.
- 8. Proposed Project does not appear to have a significant effect on greenhouse gas emissions nor conflict with applicable plans, policies or regulations.
- 9. Proposed Project does not create any public health hazard with the incorporation of mitigation measures.
- 10. Proposed Project does not appear to cause a substantial increase in existing ambient noise levels for adjoining areas.
- 11. Proposed Project does not appear to have a significant effect on existing water features and quality standards.
- 12. Proposed Project does not displace a large number of people nor conflict with land use policies or goals relevant to the surrounding community.
- 13. Proposed Project does not appear to have a significant effect on any known mineral resources.
- 14. Proposed Project does not appear to have a significant effect on noise generated in the vicinity.
- 15. Proposed Project does not appear to induce substantial growth or concentration of population.
- 16. Proposed Project does not appear to have a substantial impact on public services.
- 17. Proposed Project does not appear to have a significant impact on utilizing recreational facilities.
- 18. Proposed Project does not appear to create significant conflicts within existing transportation programs or circulation systems.

- 19. Proposed Project does not appear to have a significant effect on tribal cultural resources in the area.
- 20. Proposed Project does not appear to require significant accommodation for new utilities and service systems.
- 21. Proposed Project does not appear to exacerbate the intensity of potential wildfires emergencies.

PUBLIC INQUIRY: Any person may object to dispensing with such EIR or respond to the findings herein. Information relating to the proposed project is on file in the office of the Kern County Waste Management Department at the address shown below. Any person wishing to examine or obtain a copy of that information or this document, or seeking information as to the time and manner to so object or respond, may do so by inquiring at said office during regular business hours.

A copy of the Initial Study is attached hereto.

PROPOSED NEGATIVE DECLARATION DATE: October 23, 2019 NEGATIVE DECLARATION REVIEW PERIOD ENDS: November 22, 2019

LORELEI H. OVIATT, AICP, Director Planning and Natural Resources Department Kern County Planning and Natural Resources Department 2700 "M" Street, Suite 100 Bakersfield, CA 93301 (661) 862-8600

Craig M. Murphy

Assistant Director

AGENCY CONSULTATION REQUIRED: X Yes No

AGENCIES CONSULTED: Kern County Planning Department/Planning Operations; County Clerk; Kern County Public Works Department/Administration and Engineering Division; Kern County Public Works Department/ Floodplain Management Section; Kern County Public Health; Caltrans/9/Gayle Rosander; Golden Hills Community Services District; Southern San Joaquin Valley Information Center/CSU Bakersfield; EKAPCD; City of Tehachapi; Mesa Biological, LLC/Adam Grimes & Joe McFaddin; Native American Heritage Commission

STATE CLEARINGHOUSE NUMBER (if required):

INITIAL STUDY PREPARED BY: <u>Mark Tolentino, Planner I ((661) 862-5041)/Planning and Natural</u> Resources Department

DATE POSTED: October 23, 2019 DATE OF NOTICE TO PUBLIC: October 23, 2019

* Public Resources Code, Section 21000, et seq.

** Title 14, Division 6, California Administrative Code, as amended

*** Resolution No. 88-068, adopted January 19, 1988

KERN COUNTY PLANNING AND NATURAL RESOURCES DEPARTMENT INITIAL STUDY REVIEW

PROJECT DESCRIPTION AND SETTING

PROPOSED PROJECT: Conditional Use Permit No. 10, Map No. 165-26; Ken Maler by Swanson Engineering, Inc. (PP17196)

LOCATION: 21037 Schout Road, Tehachapi area; being a portion of Section 26, Township 32 South, Range 32 East, MDBM, County of Kern; State of California; APN: 377-120-07

PROJECT DESCRIPTION: The proposal is a request for a Conditional Use Permit to allow an assisted living facility/retirement home (Section 19.16.030.B) that will house up to 32 elderly residents in the E (2 $\frac{1}{2}$) RS (Estate (2 $\frac{1}{2}$ acre minimum) – Residential Suburban Combining) District.

The purpose of the request is to construct an assisted living facility/retirement home that would house a maximum of 32 elderly residents under the care of six (6) rotating staff members. Land immediately north of the project site is undeveloped and zoned OS (Open Space) by the Kern County Zoning Ordinance that follows the right shoulder of Highway 202; across Highway 202 is more developed land zoned as E RS (Estate - Residential Suburban Combining) Districts within the Golden Hills Community. The Old Towne Community boundary lies immediately east, beginning with Country Oaks Baptist Church followed by the Tiffany Circle neighborhood; further east lies varied development within the M-1 SC (Light Industrial - Scenic Corridor Combining) District. Land to the west and south are developed with single-family residences with lower density parcels, zoned similarly as E RS (Estate - Residential Suburban Combining). The project proponent has furnished a letter of availability to water services via Golden Hills Community Services District while sewage disposal will be provided by an on-site septic system. Legal access to the site is provided by Schout Road, which is designated as a local street by the Circulation Element of the Greater Tehachapi Area Specific & Community Plan. The project proponent has submitted twice revised site plans reflective of the initial comment letters received from nearby residents regarding potential traffic hazards. Previously, the proposed project situated the driveway on the southern property line with a single, dual-wing residential facility and rear yard at the eastern property line. As currently proposed, the driveway is located at the bend of Schout Road adjacent to the driveway of Country Oakes Baptist Church, splitting the residential facility into two (2) separate buildings.

ENVIRONMENTAL SETTING: The project site consists of a 2.71-acre parcel located at 21037 Schout Road. Schout Road intersects the inflection of Highway 202, midway between Tehachapi City jurisditions. The project site is not located in a restricted Airport Land Use Compatibility Plan zone.

The project site is designated 5.6/2.7 (Residential - Minimum 2.5 gross acres-unit/Liquefaction Risk) by the Greater Tehachapi Area Specific & Community Plan and zoned E (2 $\frac{1}{2}$) RS (Estate - 2 $\frac{1}{2}$ acres – Residential Suburban Combining). The site is currently undeveloped. Surrounding land uses and development patterns are described in the table below:

Direction	Map Code Designation (Greater Tehachapi Area Specific and Community Plan)	Zone District	Land Use
North	8.2/2.7 & 5.6/2.7	OS, E (2 ½) RS	Open Space, SR 202, Undeveloped residential land
East	5.4/2.7, 5.45/2.7 & 5.6/2.7	E (5) RS	County Oaks Baptist Church
South	5.6/2.7	E (20) RS	Single-Family Residences
West	5.6/2.7	E (2 ¹ / ₂) RS	Single-Family Residences

The project site is located within the administrative boundary of Agricultural Preserve 23, however, it is not subject to a Williamson Act land use contract. The project site is identified as "Rural Residential Land" by the California Department of Conservation Farmland Mapping Program, 2017.

The site is not located within the administrative boundaries of an oilfield or an oilfield production area. There are no known oil, gas, or injection wells of record on the project site. The site is not located within the established Alquist-Priolo Earthquake Fault Zones. The closest fault is the Garlock Fault, located approximately half of a mile to the southeast of the site. The closest body of water is Brite Lake located in the Brite Valley Aquatic Recreation Area which is located approximately 2.5 miles southwest of the project site. According to Federal Emergency Management Agency (FEMA) the project site is located in Flood Zone X which is an area where the flood hazard is described to be minimal.

The project area is located in the Mojave Desert Air Basin portion of Kern County. The Eastern Kern Air Pollution Control District acts as the regulatory agency for air pollution control in the air basin and is the local agency empowered to regulate air pollutant emissions for the project.

The project site is located approximately 1.5 miles from Golden Hills Elementary and is within the Tehachapi Unified School District. There is also Heritage Oak School which is a private school provided by Country Oaks Baptist Church that is located east of the project site. The nearest Sheriff station is located at 22209 Old Town Road, approximately 2.3 miles to the north of the project site. The closest Kern County Fire Station is Kern County Station No. 12, which is located at 800 South Curry Street, approximately 3.5 miles to the northeast of the project site.

Finally, the Greater Tehachapi Area Specific & Community Plan identifies the surrounding area as a scenic landscape and is classified as a mixed oak woodland/forest area. There are currently no identified scenic highways, or sensitive view sheds or corridors designated for the project area. The closest scenic highway identified is State Route 14 and State Route 58 which are both approximately located 27 miles east of the project site.

KERN COUNTY ENVIRONMENTAL CHECKLIST FORM

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	Air Quality
Biological Resources	Cultural Resources	Energy
Geology / Soils	Greenhouse Gas Emissions	Hazards & Hazardous Materials
Hydrology / Water Quality	Land Use /Planning	Mineral Resources
Noise	Population / Housing	Public Services
Recreation	Transportation	Tribal Cultural Resources
Utilities / Service Systems	Wildfire	Mandatory Findings of Significance

DETERMINATION. (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

Signature

 \square

 \square

TOLENTIND MARE

Printed Name

10/22/19 Date PLANNER)

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 Environmental Impact Report (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 measure and briefly explain how they reduce the effect to a less than significant level.
- (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(c)(3)(D). In this case, a brief discussion should identify the following:
 - (a) Earlier Analysis Used. Identify and state where they are available for review.
 - (b) Impacts Adequately Addressed. Identify which effects from the above checklist where 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) The adopted guidelines state "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." Kern County has adopted this format and included all questions from Appendix G.
- (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.

FORM 302 (1/2016)

Issues (and S	upporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AE: Res proj	STHETICS. Except as provided in Public ources Code Section 21099, would the ect:				
a)	Have a substantial adverse effect on a scenic vista?			\boxtimes	
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			\boxtimes	
c)	In nonurbanized 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 points) 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 daytime or nighttime views in the area?				

Response to (a) and (b): The project site and surrounding areas are described as scenic landscape and classified as a mixed oak woodland/forest area in the Greater Tehachapi Area Specific & Community Plan (GTASCP). The project site, however, is not zoned as a SC (Scenic Corridor Combining) District. The SC District designates areas containing unique visual and scenic resources as defined within the Kern County Zoning Ordinance which is seen in parcels east of the project site along Santa Lucia Street, South Street and Woodford Tehachapi Road. Furthermore, the Lead Agency notes the closest State scenic highway is located approximately 27 miles east of the project site and is identified as State Route 14 and State Route 58. Thus, the existing trees are not protected as scenic trees, nor are there rock outcroppings, or historic buildings on the project site. Therefore, the impacts from development would be less than significant.

Response to (c): Currently the project site is undeveloped and residentially zoned (Estate – Residential Suburban Combining). The proposal will incorporate design methods compatible with the existing visual character surrounding the project site and would be consistent with the adopted County Development Standards. Additionally, the proposed project will adhere to standard conditions of approval and project-specific recommendations that ensure conformance with all applicable programs, plans, ordinances and policies addressing circulation elements.

Response to (d): Development of the project site into an assisted living facility/retirement home that would consist of two (2) residential buildings typically would create additional lighting to the project site. Although implementation of the project would create a new source of light or glare, it is not anticipated that these impacts would adversely affect daytime or nighttime views when conforming to existing County Development Standards. The Lead Agency requires the proposed project conform with the

Outdoor Lighting/"Dark Skies Ordinance" (Chapter 19.81) for all discretionary permits. Based upon the foregoing evaluation, implementation of the request is not expected to result in the creation of any substantial sources of light or glare which could not be reduced to a less than significant level with adherence to existing regulatory/ordinance requirements.

Issues (a	nd Su	pporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
П.	AGR In de are si refer Site A Dept. asses deter inclu- effect by the regar the F Legac meas adopt the p	AICULTURE AND FOREST RESOURCES. termining whether impacts to agricultural resources ignificant environmental effects, lead agencies may to the California Agricultural Land Evaluation and Assessment Model (1997) prepared by the California . of Conservation as an optional model to use in sing impacts on agriculture and farmland. In mining whether impacts to forest resources, ding timberland, are significant environmental ts, lead agencies may refer to information compiled e California Dept. of Forestry and Fire Protection ding the State's inventory of forest land, including orest and Range Assessment Project and the Forest cy Assessment project; and forest carbon urement methodology provided in Forest Protocols ted by the California Air Resources Board. Would roject:				
	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 nonagricultural use?				
	b)	Conflict with existing zoning for agricultural use, or Williamson Act contract?				\boxtimes
	c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources 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?				\boxtimes
	e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use?				

Response to (a) through (d): The California Department of Conservation Important Farmland Map, 2017 identified the project site as "Nonagricultural and Natural Vegetation" and "Urban and Built-up Land". Therefore, the project would have no impact regarding the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural uses. Additionally, the project site is

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not subject to Williamson Act Land Use Contract or Farmland Security Zone Contract, and would therefore not result in any cancellation.

Response to (e): Currently, the project site is undeveloped and is surrounded by similarly zoned parcels developed in conformance to permitted and conditionally permitted uses. Therefore, with the approval of the requested conditional use permit and with the existing development surrounding the project site, the project would not have applicable nor significant impacts to existing zoning for agricultural use and conversion of farmland to nonagricultural use.

Issues (a	and St	pporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
III.	AIR criter mana may deter	QUALITY. Where available, the significance ria established by the applicable air quality agement district or air pollution control district be relied upon to make the following minations. Would the project:				
	a)	Conflict with or obstruct implementation of the applicable air quality plan?			\boxtimes	
	b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard? Specifically, would implementation of the project (in a specific location) exceed any of the following adopted thresholds:				
		i. San Joaquin Valley Unified Air Pollution Control District:				
		Operational and Area Sources Reactive Organic Gases (ROG) 10 tons per year.				
		Oxides of Nitrogen (NO _x) 10 tons per year. Particulate Matter (PM ₁₀) 15 tons per year.				\boxtimes
		Stationary Sources as determined by <u>District Rules</u> Severe Nonattainment 25 tons per year. Extreme Nonattainment 10 tons per year.				\boxtimes
		* ·				

Issues (a	and Su	upporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
III.	AIR	QUALITY. (Continued)				
		ii.Eastern Kern Air Pollution Control District.				
		Operational and Area Sources				
		Reactive Organic Gases (ROG)			\boxtimes	
		Oxides of nitrogen (NO _x)			\boxtimes	
		25 tons per year. Particulate Matter (PM ₁₀) 15 tons per year.			\boxtimes	
		Stationary Sources - determined by District				
		Rules 25 tons per year.			\boxtimes	
	c)	Expose sensitive receptors to substantial pollutant concentrations?				\boxtimes
	d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.				\boxtimes

Response to (a) & (b): The project area is located in the Mojave Desert Air Basin (MDAB) portion of Kern County, where arid conditions, strong persistent winds, and sandy soils promote dust in this region. The MDAB is subject to the Air Quality Management plans promulgated by the Eastern Kern Air Pollution Control District (EKAPCD) on a regional level, the California Air Resources Board (CARB) at the State level, and the U.S. Environmental Protection Agency (EPA) Region IX office at the federal level. The federal standards are divided into primary standards, designed to protect public health, and secondary standards intended to protect the public from any known or anticipated adverse effects of a pollutant. The federal standards may be equaled continuously and exceeded once per year. In addition to the federal standards, California also establishes standards for visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. State standards for ozone, nitrogen dioxide, carbon monoxide, particulate matter less than 10 microns in aerodynamic diameter, and sulfur dioxide are not to be exceeded.

The Lead Agency notes that a letter (dated October 8, 2018) was submitted by Insight Environmental Consultants, Inc. (IEC) at the request of Swanson Engineering, Inc. (SEI) about the potential for the project to exceed any air quality significance thresholds. The Air Quality Impact Analysis by IEC concluded that the project would not conflict with or obstruct any applicable air quality plan, nor would it violate any adopted air quality standard for the region. In addition, the analysis demonstrated that the project's incremental increase in criteria pollutant emissions would not exceed any of the adopted thresholds within the MDAB, and as such, does not constitute a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standards. The Lead Agency acknowledges that emissions may be generated through on-site activities and the project would be required to comply with all applicable regulations of the

EKAPCD, however, said emissions are projected to result in a less than significant impact.

Response to (c) & (d): Residential areas are considered sensitive to air pollution because residents such as children and the elderly tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Rigorous activities, including exercise, place a high demand on respiratory functions which can be impaired by air pollution even through relatively short exposure periods.

The EKAPCD provides a list of reduction measures that are utilized for construction sites within their jurisdiction. Collaboratively, the San Joaquin Valley Unified Air Pollution Control District provides the *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI), which states that any project with the potential to expose sensitive receptors (including residential areas) or the general public to substantial levels of Toxic Air Contaminants (TAC) would be deemed to have a potentially significant impact. During construction activities, diesel equipment will be operating and diesel particulate matter is known to the State of California as a TAC.

Staff notes, risks associated with exposure to substances with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure, which can be defined as 24 hours per day, 365 days per year, for 70 years. However, the temporary nature of project construction and, as proposed, the subsequent residential land use that would take place on site would create a less than significant impact should there exist any resulting pollutant or odor emissions from the regular operation of the assisted living facility.

Issues (and Suj	oporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IV. BIOI Would	LOGICAL RESOURCES. d 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 Wildlife 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, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
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?				\boxtimes
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?				

Response (a), (e), and (f): A survey of the wildlife made of the GTASCP EIR listed three (3) protected species in the area: Cooper's hawk, California condor and Tehachapi slender salamander. The two (2) bird species will likely not use the project area for habitat due to the existing urban development. The salamander is more closely related to Brite Creek and Tehachapi Creek habitats that are located approximately .5 miles from the proposed project site.

While the majority of the project parcel remains undeveloped, the proposed construction would occur in an area surrounded by existing development including the abutting Country Oaks Baptist Church (Conditional Use Permit No. 12, Map No. 165-25; Approved December 14, 1989) that features a private school with an enrollment maximum of 150 students, modular classroom units, sanctuary, offices, parking lot and playground across 9.47 acres. Due to the level of surrounding development and the proposed use of the property being consistent with the Zoning, Land Use Designation, Zoning Ordinance, and numerous goals and policies within the adopted GTASCP, the impact to biological resources is considered to be less than significant.

Staff notes a standard condition of approval exists that would require a preconstruction survey to be conducted no more than 14 days prior to commencement of construction activities. Should any special-status species be found the California Department of Fish and Wildlife shall be contacted, where applicable, regarding the need to obtain any permits or approvals from those agencies. No impact is expected on either protected or commonly found wildlife species in the area.

Responses (b), (c), (d), and (f): The Lead Agency notes the project site is not located in a riparian or sensitive natural community, or protected wetland, nor will it interfere with native or migratory fish or wildlife. Therefore, there will be no impact.

Issues (a	and Su	pporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
V.	CUI Wo	LTURAL RESOURCES. uld the project:				
	a)	Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?				\boxtimes
	b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5?				\boxtimes
	c)	Disturb any human remains, including those interred outside of dedicated cemeteries?				\boxtimes

Response to (a) through (c): The California Environmental Quality Act (CEQA) considers a unique cultural resource as any artifact, object, or site which can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

A Cultural Resources Records Search (# 18-384 dated October 8, 2018) was provided and identified three (3) previous cultural resource studies conducted with the project area and eleven (11) additional studies conducted within the one-half mile radius. There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks. Furthermore, a standard condition of approval exists to address the discovery of previously unknown cultural resources. Therefore, it is the determination of the Lead Agency that the proposed project will have no impact.

Issues ((and Si	upporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VI.	ENI	ERGY. 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 ?			\boxtimes	
	b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency ?				\boxtimes

Response to (a): The proposed project consists of the construction and operation of an assisted living facility/retirement home that houses up to 32 elderly residents and staffs six (6) rotating employees. The proposed project would be designed and constructed in conformance with the development standards specified within the Kern County Zoning Ordinance.

During construction there would be the temporary consumption of energy resources required for the movement of equipment and materials; however, the duration is limited to each phase of construction. Compliance with local, State, and federal regulations (e.g., limit engine idling times, require the recycling of construction debris, etc.) would reduce short-term energy demand during the project's construction to the extent feasible, and as a result, collectively limit the wasteful or inefficient use of energy.

During operation of the facility, as proposed, there are no unusual project characteristics or processes that would require the use of equipment that would be more energy intensive than is used for comparable developments. Furthermore, through compliance with applicable requirements and regulations previously discussed in Sections III Air Quality and VIII Greenhouse Gas Emissions, individual project elements (e.g., building design, HVAC equipment, etc.) would be consistent with State and local energy reduction policies and strategies, and therefore would result in a less than significant impact.

Response to (b): State and local agencies regulate the use and consumption of energy through various methods and programs. As a result of the passage of Assembly Bill 32 (AB 32; the California Global Warming Solutions Act of 2006) which seeks to reduce the effects of Greenhouse Gas (GHG) Emissions, a majority of the state regulations are intended to reduce energy use and GHG emissions. These include, among others, California Code of Regulations Title 24, Part 6-Energy Efficiency Standards, and the California Code of Regulations Title 24, Part 11-California Green Building Standards (CALGreen). At the local level, the Kern County Public Works Department enforces the applicable requirements of the Energy Efficiency Standards and Green Building Standards in Title 24. In addition, compliance with the goals, policies, and implementation measures of the Kern County General Plan, adopted GTASCP, and local ordinances is required. The proposed project's adherence to the above mentioned policies and implementation measures which reduce environmental impacts would therefore result in no impact.

Issues (and Sup	oporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VII. GEO	LOGY AND SOILS. Would the project:			a the glassic design at a	
a)	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.				
	ii. Strong seismic groundshaking?				\boxtimes
	iii. Seismic-related ground failure, including liquefaction?			\boxtimes	
	iv. Landslides?				\boxtimes
b)	Result in substantial soil erosion or the loss of topsoil?			\boxtimes	
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 (194), creating substantial risks to life or property?				
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				

Response to (*a*)*i* – *iv, and* (*c*): The project area is considered seismically active with the Tehachapi Creek Fault, Cummings Valley Fault, and White Wolf Fault lying within two (2) miles of the site. Several epicenters, one with a 3.0 to 3.9 magnitude just west of the site and another with magnitude measured between 4.0 to 4.9 Richter, have occurred and are noted. Potential Rossi-Forel magnitude of 8.5 is noted at the site. Therefore, the property is subject to potential moderate to severe ground shaking and possible surface readjustment in the event of a maximum magnitude earthquake. The proposed project would allow for the development of new residential facilities. Consequently, any development would be required to demonstrate conformance to the earthquake design requirements of the applicable seismic zone and 2013 California Building Standards Code (Title 24, CA Code of Regulations). Despite the proposed project site having a combined land use designation of 2.7 (Liquefaction Risk), previous surrounding development suggests no indication the project would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death as there would be a less than significant impact to possible liquefaction, subsidence, or landslide.

Response to (b): Erosion is the detachment and movement of soil materials through natural processes or human activities. The detachment of soil particles can be initiated through the suspension of material by wind or water. Silt-sized particles are the most easily removed particles, due to their size and low cohesiveness. Sporadic, torrential rains can cause major flash flood events that create significant erosion. Any disturbance and exposure of topsoil would likely occur as a result of commencement of grading and construction activities. The project, as with any development, would result in the loss of topsoil during grading and construction activities in addition to the possibility of continued erosion of site soils. Significant wind or water events, subsequent to on-site construction activities could occur, thereby resulting in soil erosion or loss of topsoil. Ground disturbance associated with excavation, grading, and earthwork construction, fills, and embankments are addressed through adherence to the Kern County Grading Ordinance. Conformance with the Kern County Grading Ordinance is addressed at the building permit processing stage for construction of any project. Implementation of the project would also require abiding by the jurisdiction of the Eastern Kern Air Pollution Control District to address fugitive dust emissions during construction. Thus, the result would be a less than significant impact.

Response to (d): The Soil Survey of Kern County, California, Southeastern Part (1981) identifies the Tehachapi Variant to consist of very deep, well drained soils on alluvial fans and old stream terraces. These soils formed in alluvial material derived mainly from granite rock. These soils are similar Arujo, Havala, Tweedy, and Wasioja soils. Arujo and Tweedy soils are on mountainous uplands. Havala soils have a clay loam B horizon. Wasioja soils have a calcareous B horizon. Steuber soils are stratified and have a coarse-loamy control section. Tehachapi soils have a thinner mollic epipedon. Because the site contains well drained soils, shrink-swell behavior is not expected to pose a substantial risk to structures. Additionally, the surrounding development further demonstrates that parcels of the same soil composition have been adequate for permitted land uses. Therefore, the resulting development would create no impact.

Response to (e): The soil survey indicates that if the density of housing is moderate to high, community sewage systems are needed to prevent contamination of water supplies as a result of seepage from on-site sewage disposal systems. A soil study for the existing septic tank was not performed. Sewage disposal by septic tank must meet County health standards.

The project is required under the policies of the adopted GTASCP to connect to public sewer. Public sewer lines in proximity to the project site include lines to the Golden Hills Community Services District (GHCSD). The project proponent has furnished proposed annexation letters for the GHCSD and upon approval of annexation, the result would be a less than significant impact.

Response to (f): The probability of discovering paleontological resources is dependent on the geologic formation being excavated and the depth and volume of excavation. Sedimentary rocks, such as those sometimes found in coastal areas, usually contain fossils. Granitic rocks usually will

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not contain fossils. In reference to the above Section V Cultural Resources, the Coordinator of the Historical Resources study was of the recommendation that if the property is currently vacant and has not been previously developed, then prior to project activities, a qualified professional consultant conduct a field survey to determine if any cultural resources are present. Should any cultural resources be unearthed during ground disturbance activities, all work would halt in the area of the find and a qualified professional consultant would be called out to assess the findings.

Issues (a	and Sup	oporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significa nt Impact	No Impact
VIII	GREI projec	ENHOUSE GAS EMISSIONS. Would the t:				
	a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			\boxtimes	
	_ b)	Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			\boxtimes	

Background

Climate change is a shift in the average weather patterns that a given region experiences. This is measured by changes in temperature, wind patterns, precipitation, and storms. Global climate change means change in the climate of the Earth as a whole. It can occur naturally as in the case of the Ice Age or as some evidence suggests, is a result of anthropogenic contributors. Climate varies constantly, warming and cooling occurs at varying rates, magnitudes, and time scales in response to solar variations, orbital variations, volcanic eruptions, and a variety of other natural forcing. According to California Air Resources Board (CARB), the climate change that is occurring today differs from previous climate changes in both rate and magnitude, although this conclusion is still being debated in the scientific community.

Greenhouse gases are those gases that trap heat in the atmosphere. The effect is analogous to the way a greenhouse retains heat. Common greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. The CARB and U.S. Environmental Protection Agency (EPA) regulate greenhouse gas emissions within the State of California and the United States, respectively. Although CARB has primary regulatory responsibility within California for greenhouse gas emissions, local agencies can also adopt policies for greenhouse gas emissions reductions. CARB has divided California into Regional Air Basins according to topographic drainage features. The project site is located in the Eastern Kern Air Basin and is under the Eastern Kern Air Pollution Control District's (EKAPCD) jurisdiction.

Under CEQA, an analysis and mitigation of emissions of greenhouse gases and climate change in relation to a proposed project is required where it has been determined that a project will result in a significant addition of greenhouse gases. Certain Air Pollution Control Districts have proposed their own levels of significance.

With regards, to past, present, and foreseeable future projects, it should be noted that several special interest groups have suggested what has come to be known as the "one molecule theory." This theory supposes the addition of even one (1) molecule of a criteria pollutant in a nonattainment air basin would constitute a significant increase. While these groups have attempted to enforce this theory in various jurisdictions, the Court of Appeals has held that CEQA does not require this approach. One court has stated, "the one [additional] molecule rule is not the law" (Communities

for a Better Environment vs California Resources Agency 2002, 103 Cal. App. 4th 98,119). Therefore, while the EKAPCD's cumulative air quality impacts would remain significant without the project (i.e., since the Air Basin is considered to be in nonattainment for certain criteria pollutants) the proposed project's incremental contribution to these impacts will be mitigated to the extent feasible and poses an insignificant contribution to the cumulative impacts on the Basin's air quality.

It should be noted EKAPCD staff has concluded that existing science is inadequate to support quantification of impacts that project specific greenhouse gas emissions have on global climatic change. This is readily understood when one considers global climatic change is the result of the sum total of greenhouse gas emissions, both manmade and natural, that occurred in the past; that is occurring now; and will occur in the future. The effects of project-specific greenhouse gas emissions are cumulative, and without mitigation their incremental contribution to global climatic change could be seen as cumulatively considerable. The District staff concludes this cumulative impact is best addressed by requiring all projects subject to CEQA to reduce their greenhouse gas emissions through project design elements.

There are a variety of statewide rules and regulations that have been implemented or are in development in California that mandate the quantification or reduction of greenhouse gases. Assembly Bill (AB) 32, the California Global Warming Act of 2006, requires California to reduce its greenhouse gas emissions to 1990 levels by 2020, which is nearly a 30 percent cut from (referred to as Business-As-Usual (BAU)) emission levels projected for 2020, or about a 15 percent cut from today's emission levels. A central element of AB32 is preparation of a Scoping Plan to achieve these goals. In 2008, CARB adopted the *Climate Change Scoping Plan: A framework for Change (Scoping Plan)*, which established an overall framework for the measures that will be adopted to reduce the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent from the otherwise projected 2020 emissions level; i.e. those emissions that would occur in 2020, absent GHG-reducing laws and regulations.

As indicated in the Air Quality Impact Analysis prepared by IEC, Inc., the percent reduction between the project's mitigated emissions and BAU emissions for the project should be equal to or greater than 16% to conform with the goals of AB 32 as indicated in the Scoping Plan; the percent reduction between the projects mitigated emission and 2008 Scoping Plan Baseline emissions should be equal to or greater than 15% to conform with the goals of AB32; thereby BAU and 2008 Scoping Plan Baseline are both treated as a greenhouse gas baseline for the project level analysis.

Responses to (a) and (b): The abovementioned air quality impact analysis determined that the major Climate Change Gases (Greenhouse gases) generated from the project are ROG, NOx, CO, SOx. The proposed project's forecasted emissions were estimated using the California Emissions Estimator Model (CalEEMod). The following tables summarize the emissions results for Construction and Operation:

CONSTRUCTION	Pollutant						
Emissions	ROG	NOx	CO	SOx	PM ₁₀	PM _{2.5}	
Source			(tons	/year)			
2018 Construction Emissions	0.03	0.23	0.15	0.003	0.04	0.02	
2019 Construction Emissions	0.55	2.06	1.69	0.003	0.13	0.12	
SJVAPCD Construction Emissions Thresholds	10	10	100	27	15	15	
Is Threshold Exceeded?	No	No	No	No	No	No	

OPERATIONAL	Pollutant					
Emissions	ROG	NOx	CO	SOx	PM ₁₀	PM _{2.5}
Source	(tons/year)					
Unmitigated						
Operational Emissions	0.16	0.07	0.72	0.003	0.12	.09
SJVAPCD Operational Emissions Thresholds-		10	100	27	15	15
Non-permitted sources						
Is Threshold Exceeded?	No	No	No	No	No	No
Mitigated						
Operational Emissions	0.11	0.05	0.20	0.0004	0.03	0.009
SJVAPCD Operational Emissions Thresholds-	10	10	100	27	15	15
Non-permitted sources						
Is Threshold Exceeded?	No	No	No	No	No	No

Ultimately, the Project Emissions Analysis Review (PEAR) findings indicated that the proposed Project will have less than significant impacts from construction activities as well as operational activities from all criteria air pollutants. The entire study is provided with supplementary tables in the appendices. Therefore, it can be concluded that the proposed project would create less than significant impacts.

Issues (a	and Su	pporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IX.	HAZ MA'	ZARDS AND HAZARDOUS TERIALS. Would the project:				
	a)	Create a significant hazard to the public or the environment through the routine 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 (1/4) 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 § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				
	e)	For a project located within the adopted Kern County Airport Land Use Compatibility Plan, would the project result in a safety hazard or excessive noise for people residing or working in 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?				

Issues	(and Si	upporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IX	HA. MA	ZARDS AND HAZARDOUS TERIALS. (Continued)				. <u></u>
	h)	Would implementation of the project generate vectors (flies, mosquitoes, rodents, etc.) or have a component that includes agricultural waste? Specifically, would the project exceed the following qualitative threshold: The presence of domestic flies, mosquitoes, cockroaches, rodents, and/or any other vectors associated with the project is significant when the applicable enforcement agency determines that any of the vectors:				
		i. Occur as immature stages and adults in numbers considerably in excess of those found in the surrounding environment; and				\boxtimes
		ii. Are associated with design, layout, and management of project operations; and				\boxtimes
		iii. Disseminate widely from the property; and				\boxtimes
		iv. Cause detrimental effects on the public health or wellbeing of the majority of the surrounding population.				\boxtimes

Response (a) and (b): The proposed project is designed to provide nonmedical, assisted living services to elderly individuals. This does not include the transportation, handling, or emission of hazardous or acutely hazardous materials. Therefore, no impact will occur.

Response (c): Staff notes, the abutting parcel to the east is developed with Country Oaks Baptist Church which also contains the Heritage Oak Private School, a Kindergarten through Twelfth Grade institution accredited outside of the Tehachapi Unified School District. Any on-site emissions would be comparable to those created by neighboring single-family residences, with exception to emissions resulting from common household activities that would otherwise take place, including but not limited to: wood-burning fireplaces, barbeques, fireworks, recreational motorsports, etc. Therefore, no impact will occur.

Response (d): As part of the preliminary review of the project, the County requires applicants to provide a Hazardous Verification Statement. This statement has been received by the Lead Agency indicating the project site is not listed on the Cortese List (Government Code 65962.5). Therefore, no impact will occur.

Response to (e): The project does not fall within any specific airport sphere identified by the Kern County Airport Land Use Compatibility Plan area nor are there any private airstrips in the area. Therefore, no impact will occur.

Response to (f): The project will not impair nor interfere with an emergency response plan or emergency evacuation plan. Furthermore, given the vulnerable population to be served at this facility, it can be deduced that heightened security measures through on-site staffing in addition to standard emergency response protocol will be employed in the event of an emergency. This, in turn, would potentially require re-evaluation and enhancement to existing plans rather than the opposite. Therefore, no impact will occur.

Response to (g): As shown in figure 4.8.1 of the GTASCP titled Fire Hazard Severity Zones, the project is not located within wildfire hazard areas and it does not expose people or structures to a significant risk to wildfires. Therefore, no impact will occur.

Response to (h) i, through iv: As with any new development on previously vacant land, the introduction of a new "community," man-made or otherwise, creates a zone of overlap known as an ecotone. The biological diversity in this disturbance zone increases significantly, creating the phenomenon also known as the "edge effect." Implementation of the project would result in the inevitable readjustment and acclimation for all species in the immediate development areas, however the construction and operation will not ultimately generate new vectors. Rather, this type of development and operation requires heightened measures of health safety and sanitation that would in turn reduce the potential of vector hazards and breeding grounds. Moreover, this development will not have an applicable agricultural waste component to it. Therefore, no impact will occur.

Issues (a	and Su	pporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
X	HYI Wou	DROLOGY AND WATER QUALITY. Id the project:				
	a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water 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 impervious surfaces, in a manner which would:				
		i) result in a substantial erosion or siltation on- or off-site			\boxtimes	
		ii) substantially increase the rate of amount of surface runoff in a manner which would result in flooding on-or offsite;			\boxtimes	
		iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or				
		iv) impeded or redirect flood flows?			\boxtimes	
	d)	In flood hazard, tsunami, seiche zones, risk release of pollutants due to project inundation?				\boxtimes
	e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan ?				

Response to (a), (b), (c) i through iv: Kern County Water agency notes depth to groundwater is 90 feet to 105 feet. The Tehachapi Basin is managed under continual court jurisdiction regulating groundwater removal. Tehachapi-Cummings County Water District is the court-designated watermaster, with the groundwater rights of all well pumpers having been adjudicated. Prior to the introduction of water from the State Water project, groundwater levels were dropping. Since 1974 (first year of state project water incorporation), the water table has been steadily rising. The

applicant proposes development of an assisted living facility with 24/7 use of the facility. Use of groundwater should not adversely affect existing conditions. Water supply proposed via annexation to the Golden Hills Community Services District. The applicant also proposes disposition of liquid waste via septic tank system. Soils are Tehachapi sandy loam, 2 to 15 percent slopes; permeability is slow with a generally moderate shrink-swell potential. Because of slow percolation ability, use of septic tank absorption field is considered severe (Soil Conservation Service). Groundwaters should not be affected.

Land slopes at approximately two percent (2%) toward the north. The site is not within a known Flood Hazard A zone. Runoff from stormwater will increase due to the increase in impervious surface generated by the proposed development. The following is a recommended condition of approval required by the Floodplain Management Section for the proposal: "A plan for the disposal of drainage waters originating on-site and from adjacent road right-of-way's (if required), subject to the approval of the Public Works Department." Additionally, the applicant has indicated within the site plan a proposed sump at the northern corner of the proposed project site so as to further control the potential runoff. The State Department of Transportation also requires the applicant and project proposal to "ensure no stormwater greater than historic, enters SR 202 right-of-way," and to provide drainage and grading permits to supplement the proposed sump area.

Response to (d) and (e): The proposed project is not located within a known Flood Hazard A zone. Furthermore, the proposed development it is not within a tsunami, seiche zone or at risk of releasing pollutants due to project inundation. Additionally, the proposed project will adhere to standard conditions of approval and project-specific recommendations that ensure conformance with all applicable programs, plans, ordinances and policies addressing circulation elements.

Issues (and Supporting Information Sources):			Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XI.	LAN Wou	ND USE AND PLANNING. Id the project:				
	a)	Physically divide an established community?				\boxtimes
	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?				

Response to (a): The proposed project site abuts the western boundary of the previously adopted Old Towne Specific Plan and Community. The adopted GTASCP describes the Old Towne Community as having the most commercial and industrial land use designations. Across Highway 202 further to the northwest of the proposed project site lies the Golden Hills Community, described by the adopted GTASCP as a recreational second-home community with an 18-hole championship golf course, stables, horse trail easements, and green belts. The predominant land use for the Golden Hills Community is large-lot residential development with an urban core center.

The proposed project does not, itself, physically divide either of the previously defined Communities and is instead nestled between both boundaries as shown in Figure 1-4 of the GTASCP. The proposed project is both zoned for and predominantly surrounded by varying densities of E RS (Estate – Residential Suburban Combining) Districts. Implementation of the proposed project will not result in the division of any established community. Therefore, no impacts would occur.

Response to (b): The proposed project described as an assisted living/retirement home is listed as a permitted use with a conditional use permit pursuant to Section 19.16.030.B of the Kern County Zoning Ordinance. With the proposed project serving some of the County's most vulnerable residents and providing them with services in an environment geared toward maintaining dignity and quality of life, in addition to increasing access to neighboring community centers and churches, the project scope adheres to the following Land Use Goals listed within the adopted GTASCP:

- Goal LU.1 Ensure that the GTA can accommodate projected future growth and development while maintaining a safe and healthful environment and prosperous economy by guiding development away from hazardous areas, and assuring the provision of adequate public services and infrastructure.
- Goal LU.2 Promote land use development that results in sustainable land use patterns and conservation of GTA resources.
- Goal LU.3 Discourage scattered urban development that is not supported by adequate infrastructure and promote development that is consistent with the existing landscape and character of the GTA.
- Goal LU.4 Promote development that is compatible with surrounding existing land uses, including commercial, industrial and agricultural/open space uses.

Goal LU.6 Discourage scattered residential development that is not supported by adequate FORM 302 (1/2016) 27
infrastructure or that significantly degrades the natural environment.

- Policy LU.1 The County shall discourage sprawling patterns of development that do not recognize the distinct existing communities within the GTA and the County shall encourage varied approaches to residential development that will foster a variety of housing types and densities while preserving the character of individual communities.
- Policy LU.5 Encourage well-planned land use patterns for new uses by reviewing new development proposals on the ability of infrastructure, landforms, physical constraints, and emergency response capabilities to support the proposed development.
- Policy COS.39 Encourage development which facilitates alternative modes of transportation such as walking, biking, and public transportation to reduce traffic congestion and emissions associated with automobile use.
- Policy COS.40 Promote energy-efficient design features and green building measures, including appropriate site orientation, use of lighter color roofing and building materials, and use of deciduous shade trees and windbreak materials to reduce fuel consumption for heating and cooling.

Staff believes the project is consistent with the above-referenced goals and policies of the Greater Tehachapi Area Specific and Community Plan and, therefore, would not result in a significant impact.

Issues (a	and Su	pporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XII.	MIN	ERAL 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?				

Response to (a): The project site is not designated as a mineral recovery area by the Greater Tehachapi Area Specific and Community Plan, nor is it identified as a mineral resource zone by the Department of Conservation's State Mining and Geology Board. Construction and operation of the proposed project would not interfere with mineral extraction and processing, and would not have significant impacts on future mineral development.

Response to (b): As mentioned previously, the project site is not located within a designated mineral and petroleum resource site within the Greater Tehachapi Area Specific Plan. The project site is not located within the NR (Natural Resources) or PE (Petroleum Extraction) Districts. Therefore, the construction and operation of the proposed project would not preclude future mineral resource development nor would it result in the loss of a locally important mineral resource recover site.

Issues (a	and St	pporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIII.	NO	SE. Would the project result in:				
	a)	Generation of a substantial temporary or permanent increase in the 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?				\boxtimes
	c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			\boxtimes	
	d)	For a project located within the Kern County Airport Land Use Compatibility Plan, would the project expose people residing or working in the project area to excessive noise levels?				
						۰.

Response to (a) – As with any new development, the proposed project will require construction that temporarily creates excessive noise due to movement of heavy machinery, hammering of nails, frequent trips for large vehicles and trucks, etc. Furthermore, the adopted GTASCP notes, residents of the GTA may be exposed to excessive noise and/or ground vibration levels adjacent to the identified GTA noise sources. Increased noise levels or more frequent ground vibration events may occur with continued growth occurring in the area and the expected increase in traffic volumes. Additionally, as new roads are built and expanded, new noise contours or increased noise contour distances will form around roadways and potentially expose more sensitive uses to excessive noise levels.

Regarding potential permanent increases in ambient noise levels, the applicant provided traffic studies that analyzed models for Single-Family and Assisted Living land use designations for review by the Kern County Public Works Department/Administration and Engineering Division. It was the recommendation of the Division that the applicant contact the California Department of Transportation for comments since State Route 202 falls within that jurisdiction. Comments and recommendations for development will be provided upon resubmission of the complete study.

Response to (b) and (c): The site is located at the intersection of State Route 202 (Highway) and Schout Road (Minor). The existing Highway is noted within the adopted GTASCP as a major noise source as a result of vehicular traffic that would surpass any expected sources resulting from the operation of the proposed project. Furthermore, the development would ultimately serve as an added buffer to noise generated by the highway, potentially reducing the overall neighborhood ambient noise levels.

Response to (d): The project is not located within the Kern County Airport Land Use Compatibility Plan nor does it contribute to nor fall within the Mountain Valley Airport Noise contours and therefore no impact will occur.

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Issues (a	and Su	upporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIV.	POI Wou	PULATION AND HOUSING.				
·	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?				\boxtimes

Response to (a): The adopted GTASCP states that zoning-based parcel data was collected from the County Assessor's Office in 2008 which demonstrated at the time that existing development totaled 8,754 occupied residential units within the GTA. The existing and theoretical General Plan build-out capacity is calculated at 44,300 dwelling units, however, would likely need to apply known physical and environmental constraint overlays to the Map Code designations. In addition, upon the 2010 adoption of the adopted GTASCP, the population had grown from approximately 28,400 in 2000 to approximately 35,000, an increase of about 23 percent.

Comparatively, the proposed project would contribute two (2) new dwelling units and up to 32 residents that may include current retirees from the Greater Tehachapi area. Therefore, the proposed project would create a less than significant impact.

Response to (b): The proposed project site is currently vacant and therefore no existing people or housing developments will be displaced. Thus, no impact will occur.

Issues (a	and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XV.	PUBLIC SERVICES.				
	 a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or to other performance objectives for any of the public services: 				
	Fire Protection?			\boxtimes	
	Police Protection?			\boxtimes	
	Schools?				\boxtimes
	Parks?				\boxtimes
	Other Public Facilities?				\boxtimes

Response to (a): The proposed project is an assisted living facility/retirement home that would house and provide care for elderly residents that are under the supervision of full-time, on-site support staff. Should external forces, natural disasters or internal emergencies occur, the on-site staff would implement industry standard safety procedures and protocol, which may involve local first responders. Fire emergencies and criminal activity are unexpected possibilities that could occur in any urbanized setting. The development, however, is not designed nor likely to contribute to the increase of either case given the limited capabilities of the residents. Moreover, should the residents require protection from either the Fire or Police Department, on-site staff would respond and collaborate with first responders accordingly. Only during such uncommon circumstances would a less than significant impact occur.

Additionally, the very nature of an assisted living facility/retirement home is to optimize access to social and recreational services appropriate for the residents by including those services within the design. Communal areas including the living area, dining area and covered patio are highlighted in the floor plan addressing the realistic circumstance that the residents will spend the majority of their time on or near the proposed project site. The proximity of nearby churches further minimizes the need for additional transportation services and maximizes the walkability and access to community and public facilities appropriate for prospective residents. Should the facility incorporate community outings to parks or other public facilities in their operational statement, Staff notes the applicant will provide its own high-occupancy shuttle service when needed. Therefore, there will be no impact.

Issues (a	Issues (and Supporting Information Sources):			Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVI.	REC	CREATION.				
	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?				

Responses to (a) & (b): The project does not include new recreational facilities for public use and would not appreciably increase demands on existing facilities. The proposed project would be utilized by occupants that are of retirement age of whom would receive varying levels of nonmedical supportive services or care. The need for recreational facilities in this area would not result in a substantial increase in the number of users at local parks. The applicant specifies that no off site services would be provided by the facility and any extracurricular activities would be at the leisure of the residents' caregiver and/or visiting family. As a result, there would not be a detectable increase in the use of parks or other recreational facilities. Therefore, no impact would occur to either factor.

Issues (a	and Su	pporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVII.	TRA	ANSPORTATION				
	Wou	ld the project:				
	a)	Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				
	b)	Conflict or be inconsistent with CEQA Guidelines § 15064.3 (b)				\boxtimes
	c)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous inter- sections) or incompatible uses (e.g., farm equipment)?				
	d)	Result in inadequate emergency access?				\boxtimes

Response to (a): Through preliminary review, the applicant has provided a revised site plan with acceptable proposed points of ingress and egress. Additionally, the proposed project would adhere to standard conditions and project-specific recommendations to demonstrate conformance with all applicable programs, plans, ordinances and policies addressing circulation elements. Recommendations include: Under the encroachment permit, issued by Kern County Public Works Department, improvements to Schout Road project frontage to Type B Subdivision Standard, in accordance with the Kern County Development Standards; Collaboration with California Department of Transportation with requirements related to State Highway 202. Therefore, no impact would occur.

Response to (b): The proposed project is consistent with the following criteria listed in CEQA Guidelines § 15064.3 (b):

- 1) Land Use Projects. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.
- 2) Transportation Project. The proposed project is not a Transportation Project and therefore will have no impact.
- 3) Qualitative Analysis. Existing models and methods are available to estimate the vehicle miles traveled for the project being considered, and as determined by the Development Review Engineer, the project's impacts will be less than significant.
- 4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled. The traffic studies furnished by the project proponent and the conclusions determined by the Kern County Public Works Department/Administration and Engineering Division serve as an appropriate methodology with resulting evaluation, demonstrating that the impact will be less than significant.

Response to (c): The project proposes access from an existing road, Schout Road. The proposed development does not incorporate the creation of sharp curves, dangerous intersections or other hazardous design features. The project would be setback from roadways as required by the Kern County Zoning Ordinance. Additionally, all roadways, including off site improvements, constructed in association with

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the proposed project would be subject to existing zoning standards and safety requirements for roadways. Therefore, the project would not increase hazards due to a design feature or incompatible uses, and therefore no impact would exist.

Response to (d): The project would not physically impede the existing emergency response plans, emergency vehicle access, or personnel access to the site. The project site and vicinity are accessible via a number of existing roads, with alternative access roads allowing easy access in the event of an emergency. Therefore, no adverse impacts related to impairment of the implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan is anticipated.

Issues (ar	nd Suj	oporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVIII.	TRI Wou	BAL CULTURAL RESOURCES. ld the project:				
	a)	Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
		i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources defined in Public Resources Code section 5020.1 (k) or			\boxtimes	
		ii) A recourse determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native America tribe.				

Response to (a)i & *ii*: This project site is located in an area considered to be highly sensitive for cultural resources. It was the recommendation of San Joaquin Valley Information Center that if the property is currently vacant and has not been previously developed, that a qualified professional consultant conduct a field survey to determine the presence of any cultural resources. Staff has notified the Native American Heritage Commission in Sacramento of the proposed project in addition to the list of applicable tribes and tribal organizations. As of this writing, no comments nor requests for consultation have been made, however the deadline for 90-day consultation period is November 18, 2019.

Based on the discussion in Section V Cultural Resources, reference to previous cultural surveys for adjacent developments requiring discretionary action, and the current intensity of development surrounding the proposed project site, the projected impacts of development can intermittently be deemed less than significant. Furthermore, the Lead Agency will include standard conditions of approval requiring a preconstruction survey be conducted prior to commencement of construction activities. All tribes with possible affiliation and interest within the project area will be notified during the Public Hearing processes.

Issues (a	and St	apporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIX.	UTI Wou	LITIES AND SERVICE SYSTEMS. ld 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 waste water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				
	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 regula- tions related to solid waste				\boxtimes

Response to (a) & (b): As proposed, water supply would be provided by Golden Hills Community Services District. A conditional "will serve" letter was submitted (dated July 23, 2018). Staff notes, in addition to the proposed annexation, the project site currently has an existing well, characteristic of the surrounding development.

The project will retain an on-site sump that will be located in the northern corner of the parcel. However, a drainage plan would be required to be approved by the Kern County Public Works Department/Floodplain Management Section prior to issuance of building permits. With adherence to all applicable regulations, it is anticipated that the project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Response to (c): The project would generate solid waste during construction and operation, thus requiring the consideration of waste reduction and recycling measures. The 1989 California Integrated Waste Management Act (AB 939) requires Kern County to attain specific waste diversion goals. In addition, the California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires expanded or new

development projects to incorporate storage areas for recycling bins into the proposed project design. The proposed project would be required to comply with the 1989 California Integrated Waste Management Act and the 1991 California Solid Waste Reuse and Recycling Access Act of 1991. No further analysis is required.

Response to (d) & (e): As proposed, the project will house a maximum of 32 elderly residents with approximately six (6) total staff. The projected waste generation would not exceed that of the neighboring private school and church, which utilizes a similarly engineered septic system to serve its entire student body and weekly congregation. Furthermore, federal, State and local standards must be satisfied during the permitting and inspection process prior to final occupancy. Therefore, the proposed project would result in no significant impact.

Issues (a	and St	pporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XX.	WII resp high proje	LDFIRE. If located in or near state onsibility areas or lands classified as very fire hazard severity zones, would the ect:				
	a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?				\boxtimes
	b)	Due to slope, prevailing winds, or 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?				\boxtimes

Response to (a) through (d): The maps and analysis listed in the adopted GTASCP indicates that the proposed project site has at least a one-(1-)mile radius from any Fire Hazard Severity Zones. In the event of a natural disaster, the proposed project's proximity to State Route 202 via Schout Road allows for a more timely evacuation of the residents or access for first responders, relative to nearby roads that do not provide through connections, as noted in the adopted GTASCP. Additionally, new facilities constructed after 2016 must incorporate added safety measures with respect to fire hazard including the use of sprinklers and fire-resistant finishes. Therefore, there would be no significant impact.

Issues (a	and St	upporting Information Sources):	Potentially Significant Impact	Less Than Significant With Mitigation Incorporaion	Less Than Significant Impact	No Impact
XXI.	MA SIG	NDATORY FINDINGS OF NIFICANCE.				
	a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?				
	b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant 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?			\boxtimes	

Response to (a): The proposed project site is currently surrounded by developed parcels with exception to the parcels zoned as OS (Open Space) abutting State Highway 202 to the immediate north. Given the extensive surrounding development, supportive studies submitted during the preliminary review of this project, consistency between map code designation and zoning, and the proposed project listed as a permitted use with a Conditional Use Permit within the Zoning Ordinance, the impact of the development would be less than significant.

Response to (b): The adopted GTASCP acknowledges that cumulatively considerable impacts are significant yet unavoidable and any discretionary projects approved after the adoption of the adopted GTASCP must adhere to the Plan. As proposed, the project accomplishes the Goals and abides by the Policies listed within the adopted GTASCP, as discussed previously in Section XI - Land Use Planning. Therefore, the proposed project would have a less than significant impact.

Response to (c): The proposed project is an assisted living facility/retirement home designed to serve 32 elderly residents through communal facilities, under state and locally mandated safety, service and quality standards. Staff notes, the surrounding community response points out the development's effect on aesthetic impacts, home and property values, increased neighborhood traffic, and the potential strain on the provision of water and sewage. The adopted GTASCP, traffic and trip generation studies, and the Golden Hills proposed annexation letter address three of the above concerns, concluding that the adverse effects on human beings would be less than significant while the effect on home and property values remains to be seen. In addition, pursuant to CEQA Section 15183 (a), the proposed project is consistent

with a Community Plan, General Plan and Zoning, and therefore would have a less than significant impact.

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MONITORING PROGRAM #1 FOR

Conditional Use Permit Case No. 10, Map No. 165-26 Ken Maler by Swanson Engineering, Inc. (PP17196)

1. MITIGATION MEASURE (from Negative Declaration):

Prior to the issuance of a Certificate of Occupancy, the following item shall be satisfied:

(a) All exterior/outdoor lighting fixtures shall comply with Chapter 19.81 (Outdoor Lighting "Dark Skies Ordinance") and Section 19.76.125.A of the Kern County Zoning Ordinance. Lighting fixtures shall not exceed a height of twenty (20) feet above grade, if freestanding, or the height of the building upon which they are attached. Light fixtures shall be maintained in sound operating conditions at all times.

2. **JUSTIFICATION** (from Initial Study)

Measure recommended to ensure that potential impacts related to aesthetics are reduced to a less than significant level.

3.	TRUSTEE AGENCIES	JURISDI	CTION
		YES	NO
	State Department of Fish and Game		Х
	State Land Commission		Х
	State Department of Parks and Recreation		Х
	University of California		Х

OTHER PUBLIC AGENCIES

Kern County Planning Department

4. MONITORING AGENCY/FIRM:

Kern County Planning Department

5. **PROCEDURE – STEPS TO COMPLIANCE** (unique to each project)

- A. The mitigation measure will be included as a condition of approval for the Conditional Use Permit.
- B. Prior to the installation of light structures, the applicant shall submit plans indicating where the light structures will be installed within the project area for approval by the Planning Director. The light structures shall be equipped with light glare shields.
- 6. **COMPLIANCE** (each procedure step to be signed off and dated by monitor)

A.

B.

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7. COMMENTS

8.	Fees:	Receipt #	Date:	Rec'd By:	
	Prepared By:			Date:	

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MONITORING PROGRAM #2 FOR

Conditional Use Permit Case No. 10, Map No. 165-26 Ken Maler by Swanson Engineering, Inc. (PP17196)

2. MITIGATION MEASURE (from Negative Declaration):

During excavation and grading, or any other construction activity, the following mitigation measures shall apply:

- a) In the event any as yet undetected (i.e. buried) cultural or paleontological resources are encountered on the project site at a future time, work in the area of discovery shall be stopped and a qualified archaeologist or paleontologist shall be contacted to evaluate the find in conformance with 15064.5 of CEQA. A copy of the archaeologist's evaluation shall be submitted to the Kern County Planning and Natural Resources Department and any measures recommended by the archaeologist implemented prior to the resumption of work in the area of discovery.
- b) If human remains are found during construction, CEQA requires that further work or disturbance of the site shall be halted and the County Coroner shall be notified. The discovery shall be inspected and the remains be handled in a manner consistent with Public Resources Code 5097.98-99, Health and Safety Code 7050.5, and CEQA Section 15064.5. Where remains are found to be of Native American origin, independent monitoring of excavations shall be performed and completed by a Native American Monitor.

2. JUSTIFICATION (from Initial Study)

Measure recommended to ensure that potential impacts related to cultural and tribal resources are reduced to a less than significant level.

3.	TRUSTEE AGENCIES		JURISDICTION	
	State Department of Fish and Game State Land Commission	YES	NO X X	
	State Department of Parks and Recreation University of California		X X	
	OTHER PUBLIC AGENCIES			
	Kern County Planning Department	X		
	Native American Heritage Pres. Council/Kern County	Х		
	Southern San Joaquin Valley Information Center/CSU Bakersfield	Х		

4. MONITORING AGENCY/FIRM:

Kern County Planning Department

5. **PROCEDURE – STEPS TO COMPLIANCE** (unique to each project)

- A. The mitigation measure will be included as a condition of approval for the Conditional Use Permit.
- B. Prior to the installation of light structures, the applicant shall submit plans indicating where the light structures will be installed within the project area for approval by the Planning Director. The light structures shall be equipped with light glare shields.
- 6. **COMPLIANCE** (each procedure step to be signed off and dated by monitor)

A.

B.

7. COMMENTS

8.	Fees:	_ Receipt #	Date:	_ Rec'd By:
	Prepared By:			_ Date:

BIBLIOGRAPHY NOTATION – TO BE ANNOTATED AND DELETED AS NEEDED

- (1) Kern County Planning and Natural Resources Department, "Kern County General Plan" (2004)
- (2) Kern County Planning and Natural Resources Department, "Final Program Environmental Impact Report for the Kern County General Plan" (2004)
- (3) Kern County Planning and Natural Resources Department, "Greater Tehachapi Area Specific and Community Plan" (2010)
- (4) Kern County Planning and Natural Resources Department, "Negative Declaration for CUP 12, Map 165-25 (1988)
- (5) Kern County Planning and Natural Resources Department, "Negative Declaration for CUP 11, Map 165-25" (1988)
- (6) Kern County Planning and Natural Resources Department, "Final Environmental Impact Report for Greater Tehachapi Specific and Community Plan" (2010)
- (7) Kern County Planning and Natural Resources Department, "Noise Element of the Kern County General Plan" (2004)
- (8) Kern County Planning and Natural Resources Department, "Housing Element" (2015-2023)
- (9) Kern County Planning Department, "Zoning Ordinance" (2017)
- (10) Kern County Planning Department, "Land Division Ordinance" (2007)
- (11) Kern County Engineering and Survey Services Department, "Development Standards" (1995)
- (12) Kern County and Incorporated Cities Integrated Waste Management Plan (2000) (revision 2004)
- (13) Kern Council of Governments "Regional Traffic County Data" (online data)
- (14) Institute of Traffic Engineers, "Trip Generation" (2019)
- (15) Kern Council of Governments, "2018 Regional Transportation Plan/ Sustainable Communities Strategy RTP/SCS (2018)
- (16) Kern County Airport Land Use Compatibility Plan (amended 2008)
- U.S. Department of Agriculture/Soil Conservation Service, "General Soils Map and Report" (September 1967)
- (18) U.S. Department of Agriculture/Soil Conservation Service, "Soil Survey of Kern County, Southeastern Part" (1982)
- (19) California Department of Conservation/Farmland Mapping and Monitoring Program, "Kern County Interim Important Farmland " (online 2016)
- (20) San Joaquin Valley Unified Air Pollution Control District, "Guide to Assessing and Mitigating Air Quality Impacts" (2015)
- (21) Munger Map Book, "California-Alaska Oil and Gas Fields Map W-X" (1999)

FORM 302 (1/2016)

- (22) California Division of Mines and Geology, "Mines and Mineral Resources of Kern County" (1962)
- (23) Kern County Planning and Natural Resources Department, "Floodplain Map 165-26" (online GIS)
- (24) Kern County Planning and Natural Resources Department, "Zone Map No. 165-26" (2014)
- (25) Hazardous Waste Verification Statement for Conditional Use Permit Application, Swanson Engineering, Inc. for Ken Maler (2016)
- (27) Swanson Engineering, "Traffic Impact Study Institute of Transportation Engineers, <u>Trip</u> <u>Generation</u>, 10th Edition" (2018)
- (28) Southern San Joaquin Valley Information Center, California State University, Bakersfield "Cultural Resource Survey – Cummings Mountain 7.5'" (2018)
- (29) Mesa Biological, LLC., "Habitat Classification of 21037 Schout Road" (2018)
- Insight Environmental Consultants, Inc. "Project Emissions Analysis Review CUP Map 165-25 – Tehachapi Assisted Living Facility." (2018)
- (31) Allan A. Schoenherr, "A Natural History of California" (1992)















Map produced by the County of Kern Planning and Natural Resources Dept.

0 250 500 1,000 Feet



ZON	NING MAP	165-26
(SEC.7297.	589.8 OF THE ORDINANCE CODE	OF KERN COUNTY)
SEC. 20	6 - T. 32 S., R. 32E	M.D.B. & M.
KERN	COUNTY	CALIFORNIA
DEPARTMEN	T OF PLANNING AND DEVELOPME	NT SERVICES
LEGEN)	
А	(EXCLUSIVE AGRICULTURE)	
A-1	(LIMITED AGRICULTURE)	
E(1/4)	(ESTATE - 1/4 ACRE)	
E (1/2)	(ESTATE-1/2 ACRE)	
E(1)	(ESTATE - I ACRE)	
E (2 1/2)	(ESTATE - 2 1/2 ACRES)	
E (5)	(ESTATE - 5 ACRES)	
E (10)	(ESTATE - IO ACRES)	
E (20)	(ESTATE- 20 ACRES)	
R-1	(LOW-DENSITY RESIDENTIAL)	
R-2	(MEDIUM-DENSITY RESIDENTIAL)	
MS	(MOBILEHOME SUBDIVISION-6000 SQ.F	T.)
MP	(MOBILEHOME PARK)	
C-1	(NEIGHBORHOOD COMMERCIAL)	
C-2	(GENERAL COMMERCIAL)	
CH	(HIGHWAY COMMERCIAL)	

- PD (PRECISE DEVELOPMENT COMBINING) RS (RESIDENTIAL SUBURBAN COMBINING)
- MH (MOBILEHOME COMBINING)
- FPP (FLOODPLAIN PRIMARY)

WE HEREBY CERTIFY THAT THIS PROPOSED ZONE MAP WAS ADOPTED IN THIS FORM BY RESOLUTION OF THE PLANNING COMMISSION OF THE COUNTY OF KERN, STATE OF CALIFORNIA, AT A REGULAR MEETING THEREOF HELD ON THE 15 TH. DAY OF FED. 1970 AND AS REVIEWED AND APPROVED BY THE PLANNING COMMISSION WHICH REVISION WAS REVIEWED AND APPROVED BY THE PLANNING COMMISSION ON THE 15TH. DAYOF WAS REVIEWED AND APPROVED BY THE PLANNING COMMISSION ON THE 15TH. DAYOF COMMISSION CHARMAN

WE HEREBY CERTIFY THAT THIS OFFICIAL ZONE MAP, WAS ADOPTED AS AN AMENOMENT TO THE OFFICIAL "LAND USE ZONING ORDINANCE OF THE COUNTY OF KERN," BY THE BOARD OF SUPERVISORS OF THE COUNTY OF KERN, STATE OF CALIFORNIA, AT A REGULAR MEETING THEREOF, HELD ON THE 25TH. DAY OF AUGUST 1970, BY ORDINANCE NO. G-328 PASSED BY SAID BOARD.

1

(H) ORD. G-7511, 03-01-2007 (DD) ORD. G-7773, 10-23-2008 (EE) ORD. G-8518, 12-20-2014



ZONING MAP# 165 (SEC.7297211.57 OF THE ORDINANCE CODE OF KERN COUNTY) T. 32 S. - R. 32 E. M.D.B. & M. KERN COUNTY CALIFORNIA

DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES. LEGEND

	A	(EXCLUSIVE AGRICULTURE)
	A-I	(LIMITED AGRICULTURE)
	E(1/4)	(ESTATE - 1/4 ACRE)
	E (1/2)	(ESTATE-1/2 ACRE)
	E (I)	(ESTATE -I ACRE)
	E (2 1/2)	(ESTATE - 2 I/2 ACRES)
	E (5)	(ESTATE - 5 ACRES)
	E (10)	(ESTATE - 10 ACRES)
	E (20)	(ESTATE- 20 ACRES)
	R-1	(LOW-DENSITY RESIDENTIAL)
	R-2	(MEDIUM-DENSITY RESIDENTIAL)
	MS	(MOBILEHOME SUBDIVISION-6000 SQ.FT)
	MP	(MOBILEHOME PARK)
	C-1	(NEIGHBORHOOD COMMERCIAL)
	C-2	(GENERAL COMMERCIAL)
	CH	(HIGHWAY COMMERCIAL)
	PD	(PRECISE DEVELOPMENT COMBINING)
	RS	(RESIDENTIAL SUBURBAN COMBINING)
	MH	(MOBILEHOME COMBINING)
66	FPP	(FLOODPLAIN PRIMARY)
n,	FPS	(FLOODPLAIN SECONDARY COMBINING)
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(rr) ORD. 6-6389, 5-21-97 (rs) ORD. 6-6397, 6-4-97 (tt) ORD. 6-6397, 6-4-97 (tt) ORD. 6-6511, 6-22-98

Conditional Use Permit Application

Conditional Use Permit 10, Map 165-26

	APPI	ICATION FOR:
0_ C N	ONDITIONAL USE PERMIT IODIFICATION	PRECISE DEVELOPMENT PLAN VARIANCE
•	KERN COUNTY PLANNING AN 2700 "N Bakersfie (6	D NATURAL RESOURCES DEPARTMENT I'' Street, Suite 100 Id, California 93301 61) 862-8600
		ZM 145-25
Zone	Classification: $E 2\frac{1}{2}RS$	
Reau	est: 16 vinit retiremen	theme
	SECTIO	N A - APPLICANT
1.	Name of Applicant: Ken	Maler
	Mailing Address 3151 CC	irrolos St
	city ACton	State CA Zip Code 93510
	Telephone (b/a) 810-0420Fa	x: Email Kbm993990 aplice
2	Name of Individual Representative (if)	$\sim \sim $
2.	Name of marvidual Representative (if i	
	Mailing Address	
	City	State Zin Code
	Entry	
	receptione rax	
<u></u>	SECTION B -	PROPERTY OWNER(S)
1	Name of Current Record Property Own	er(s) (if not same as above).
1.		
		· · ·
	Mailing Address	
	City	State Zip Code
	Telephone: Fax: _	Email
2.	Approximate Date Interest in Property	Was Acquired:
		Month/ Year
	SECTION C –	PROJECT DESCRIPTION
Asse	ssor's Parcel No.: 377-120	5-01
Prop	erty Location: 21037 Sc	hout Rd, Tehachapi, (A93561
-	(street address or gene	ral location) GE : Hd 8- AON 9102
0010	100 100010	ESS VINIA CANAN

PLICATION FOR

-

.

Complete Legal	Description of Property: METES/BOUNDS * TEHACHAF
GLEN	OAK BANCH THAT PTN DE LOT
Method of Sewa	age Disposal SEPTIC
Method of Wate	Supply PRIVATE WELL
Describe how si	te is currently developed VACANT WEXISTING
WELL	- + SHED
	-
Describe how la	nd is being used currently on parcels adjacent to the site:
North - VP	CANT LAND
EastC.	BUNTRY DAKS BAPTIST CHURCH
South - Si	NGLE FAMILY RESIDENCE
West - SI	NGLE FAMILY RESIDENCE
Explain Fully R	eason for Request:
	•

SECTION D - VARIANCE APPLICATION ONLY

STATEMENT OF JUSTIFICATION

Section 65906 of the State Planning Law requires that a VARIANCE from the terms of the Zoning Ordinance shall be granted only when, because of special circumstances applicable to the property, including size, shape, topography, location, or surroundings, the strict application of the Zoning Ordinance deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification.

The Ordinance Code of Kern County requires that before a VARIANCE can be granted, the applicant show by statements, plans, and other evidence the following:

A. That the variance granted shall be subject to such conditions as will assure that the adjustment thereby authorized shall not constitute a grant of special privilege inconsistent with the limitations upon other properties in the vicinity and one in which the subject property is situated.

/	
/	

B. That special circumstances exist which are applicable to the subject property, including size, shape, topography, location, or surroundings, wherein the strict application of the Zoning Ordinance in question is found to deprive the subject property of privileges enjoyed by other property in the vicinity and under identical zone classification.

NOTE: Additional sheets may be attached if needed.

SECTION D - VERIFICATION STATEMENT

The California Legislature has passed a law that requires persons applying for development projects to review a listing of all hazardous waste sites. For a current list of the Hazardous Waste Sites, please go to the California Environmental Protection Agency website at: <u>http://www.calepa.ca.gov/SiteCleanup/CorteseList/</u>. If the site of your proposed development project is included on the list of hazardous waste sites, then it shall be so noted. Please note that if your proposed development project site is included on the Cortese list, the preparation of an environmental document will be required in conjunction with the project, per Section 65962.5. A copy of the law requiring this verification is attached for your reference. Please review the list of hazardous waste sites and sign the Verification Statement below.

(Review of list related to hazardous waste sites)

I, ______, as applicant for a development project, have reviewed the lists of projects relating to hazardous wastes pursuant to Section 65962.5 of the California Government Code. The proposed site (is) (is not) included on the list. (CIRCLE ONE)

List (if applicable)

> Date

Mal

::1

W Signature

SECTION E - APPLICANT CERTIFICATION

I certify that all statements are correct and that all accompanying documents and maps are accurate.

Senature of Property Owner

Signature of Applicant

Date



CONDITIONAL USE PERMIT MAP 165-25 OPERATIONAL STATEMENT - ASSISTED LIVING FACILITY

The project consists of two Assisted Living homes on one parcel of land. There will be a maximum of 16 residents and five employees per building. Three employees will work during the daytime shift, and two employees will work the night shift. Hours of operation will be continuous, 24 hours per day, seven days per week. Normal office hours will be from 8 am to 8 pm, seven days per week. No special outside activities are planned at this facility. Residents will be able to walk around the developed site, as they are able. Outside lighting will be limited to the parking lot and will comply with the Dark Skies Ordinance.



21415 Reeves Street P.O. Box 657 Tehachapi, CA 93581

(661) 822 3064 Tel. (661) 822 8284 Fax www.ghesd.com

July 23, 2018

Bob Swanson Swanson Engineering, Inc. 5500 Ming Avenue, Suite 250 Bakersfield, CA 93309

RE: PROPOSED ANNEXATION APN 377-120-07, MA LER

Dear Mr. Swanson:

The Board of Directors heard your request dated June 28, 2018, on behalf of Mr. Ma ler, to annex the above referenced property into the Golden Hills Community Services District.

This letter will serve as a conditional approval of the District's ability to serve the parcel ("will serve" letter) with water, for the purpose of the Conditional Use Permit application process through the County of Kern. Please note the annexation process is a separate process; including agreement to a set of conditions and a Local Agency Formation Commission hearing and approval.

Sincerely,

liba o Susan Wells

General Manager

cc: Ravi Patel, Associate Klein, DeNatale, Goldner






LEGAL CERCEPTION

LEGAL DESCRIPTION INCET FAILURE OF LOTE IS AD AND 72, AS SMOKE ON HAP DISTILLE IEMEDIATE SLEW OWE AMALER RECORDED ON AND AN ISTE OF OWE AMALER RECORDED ON AND AND AN ISTE NE ALEN DO ANT RECORDER, SINE OF OURSTAND RECORDED ANY 26, 1965 M BOOK 3343, FACE 481 M DE OTTOE OF THE KERN COUNTY RECORDED ANY 26, 1965 M BOOK 3343, FACE 481 M DE OTTOE OF THE KERN COUNTY RECORDER, SINE OF OURSTAND



SWANSON ENGINEERING, INC.

5500 Hing Ane, Suite 250 ~ Baharabidi CA 43309 P-(651) B31-4918; T-(651) B31-4929

TATISTICS

PAINING F (5) RS APH: 377-120-07 ERSTING USE: WACMAT PROPOSED USE: ASSOCIED LIANG FACULITY SEMACE DISPOSAL: ON-SITE SEPT; RATER SLIPPLY: ON-SITE MATER MELL DRAWMAGE: ON-SITE RETRITION DAGN PARCEL SOLE: 4.19 ACRES

<u>ON-STE LANDSCAPTING</u> DEVELOPED AREA; LANDSCAPE REC.:RED (S%): LANDSCAPE PROVIDED; 57,000 S.F. 2,966 S.F. 4,000 S.F. PARKING PROVIDED

ASSISTED LIVING FACILITY

PORTION OF SECTION 26, T.325, R.32E. CO. OF KERN

CONDITIONAL USE PERMIT

EASTING ALSO PERSONS

9' X 20' REGULAR SPACES: 9' X 20' HANDICAP SPACES: 10"4L PROVIDED;

18 SPACES 2<u>SPACES</u> 20 SPACES

USCOD LS LANDSCAPID AREA

TWO ASSISTED LINNG HOMES (8,573 S.F. EACH): D AJ. OF PAR 32 REDS & I SPACE PER (3) RETS: II SPACES 8 EMPLOYEES/SHIFT AT I SPACE EACH <u>4 SPACES</u> NOTA: RECURLE 17 SPACES ALL OF PARKING SPACES



JOB NO - 17-005

DATE 11-21-18 B) *RT*S DING NAME: 17005972

SHEET # SP1A



SWANSON Engineering, Inc.

5500 Wing Ave, Sulta 250 ~ Bakarstield, CA 93309 P-(561) B31-4919; F-(561) B31-4929 Sum ASSISTED LIVING FACILITY PORTION OF SECTION 26, T.325, R.32E, CO. OF KERN CONDITIONAL USE PERMIT JOB NO.: 17–005 DATE: 3–11–17 BY: RTS DWG NAME: 17006S(TE SHEET #

SP1



LEGAL DESCRIPTION

LEGAL DESCRIPTION THOSET PORTIONS OF LOTS 19, 20 AND 22, AS SHOWN ON MAP ENTITLED TEMACHAPI GLEN GAY, RMACH, RECORDED ON JUNE 30, 1914 IN BOOK 3, PAGE 5 OF MAPS, IN THE OFFICE OF THE KERN COUNTY RECORDER STATE OF CAUFORNIA WHICH LES SOUTH AND ESTS OF THE LAND DESCRIBED IN DEED TO THE STATE OF CAUFORNIA RECORDED MAY 26, 1965 IN BOOK 3343, JAGE 481 IN THE OFFICE OF THE KERN COUNTY RECORDER, STATE OF CALIFORNIA

LEGEND

LS LANDSCAPED AREA

DO NO. OF PARKING SPACES

AC PAVING



SWANSON ENGINEERING, INC.

5500 Hing Ava., Suite 250 ~ Bakerstödd, CA 93309 P-(651) B31-4919; F-(651) B31-4929 6.00

PARKING REQUIREMENTS:

ZONING: E (5) RS ZONING: E (5) RS ARN: 377-120-07 EXISTING USE: ASSISTED LIANG FACILITY FROPOSED USE: ASSISTED LIANG FACILITY SEMAGE DISPOSAL: CAN-SITE WATER WILL DRAINAGE: CAN-SITE WATER WELL DRAINAGE: CAN-SITE RETENTION BASIN PARCEL SZE: 4.19 ACRES

TWO ASSISTED LIVING HOMES (8,573 S.F. EACH): 32 BEDS © 1 SPACE PER (3) BEDS: 11 SPACES 6 EMPLOYEES/SHIFT AT 1 SPACE EACH: <u>6 SPACES</u> TOTAL REQUIRED 77 SPACES

18 SPACES 2<u>SPACES</u> 20 SPACES

57,000 S.F.

2,966 S.F. 4,000 S.F.

<u>PARKING PROVIDED:</u> 9' X 20' REGULAR SPACES: 9' X 20' HANDICAP SPACES: TOTAL PROVIDED:

<u>ON-SITE LANDSCAPING:</u> DEVELOPED AREA: LANDSCAPE REQUIRED (5%): LANDSCAPE PROVIDED:

ASSISTED LIVING FACILITY PORTION OF SECTION 26, T.32S., R.32E. CO. OF KERN CONDITIONAL USE PERMIT



JOB NO.: 17-008 DATE: 11-21-18 BY: RTS DWG NAME: 1700651TE

SHEET # SP1 **Environmental Information Form**

Conditional Use Permit 10, Map 165-26

ENVIRONMENTAL INFORMATION FORM

ſ

(To be completed by Applicant)

Date Filed March 1, 2017

GENERAL INFORMATION

- Name and address of developer or project sponsor: Ken Maler 3151 Carrolos Street, Actonc CA 93510
- 2. Address of project: 21037 SCHOUT ROAD, TEHACHAPI, CA.

Assessor's Parcel Number: 377-120-07

- 3. Name, address, and telephone number of person to be contacted concerning this project: Ken Maler, 3151 Carrolos Street, Acton, CA 93510 (661) 269-4513, (661) 810-0420
- 4. Indicate number of the permit application for the project to which this form pertains: Map 165-25
- List and describe any other related permits and other public approvals required for this project, including those required by city, regional, state, and federal agencies: State Water System Permitting
- 6. Existing Zoning Classification: E (5) RS
- 7. Proposed use of site (project for which this form is filed): Two Assisted Living Homes

*****FOR OFFICE USE*****

Project Case Number or 1		
Date Filed	Rec'd by	_ Recpt #
After completion of envir	onmental document, forward file to	
•		

PROJECT DESCRIPTION

- 8. Site size: 4.19 Acre
- 9. Square footage: Two Buildings, each 7,230 s.f.
- 10. Number of floors of construction: One
- 11. Amount of off-street parking provided: 21 REGULAR SPACES AND 2 HANDICAP SPACES
- 12. Attach plans, if available.
- 13. Proposed scheduling: Begin Conctruction in July, 2017
- 14. Associated project: None
- 15. Anticipated incremental development: None
- 16. If residential, include the number of units, schedule of unit sizes, range of sale prices or rents, and type of household size expected: Two 7,230 s.f. assisted living facilities. Three emplooyees, 16 beds each bldg.

17. If commercial, indicate the type, whether neighborhood, city or regionally oriented, square footage of sales area, and loading facilities: N/A

18. If industrial, indicate type, estimated employment per shift, and loading facilities: N/A

19. If institutional, indicate the major function, estimated employment per shift, estimated occupancy, loading facilities, and community benefits to be derived from the project: <u>N/A</u>

20. If the project involves a variance, conditional use, or rezoning application, state this and indicate clearly why the application is required: <u>Conditional Use Permit required to allow an Assisted Living unit in an E (5) RS</u> zoning.

Are the following items applicable to the project or its effects? Discuss below all items checked yes (attach additional sheets as necessary).

21.	Change in existing features of any bays, tidelands, beaches, or hills, or substantial alteration of ground contours.	Yes	No 7
22.	Change in scenic views or vistas from existing residential areas or public lands or roads.	\checkmark	
23.	Change in pattern, scale, or character of general area of project.		\checkmark
24.	Significant amounts of solid waste or litter.		\checkmark
25.	Change in dust, ash, smoke, fumes, or odors in vicinity.		\checkmark
26.	Change in ocean, bay, lake, stream, or groundwater quality or quantity, or alteration of existing drainage patterns.		\checkmark

27.	Substantial change in existing noise or vibration levels in the vicinity.		\checkmark
28.	Site on filled land or on slope of 10 percent or more.	\checkmark	
29.	Use of disposal of potentially hazardous materials, such as toxic substances, flammables, or explosives.		\square
30.	Substantial change in demand for municipal services (police, fire, water, sewage, etc.).		\checkmark
31.	Substantially increase fossil fuel consumption (electricity, oil, natural gas, etc.).		\checkmark
32.	Relationship to a larger project or series of projects.		\checkmark

(

ENVIRONMENTAL SETTING

1

- 33. Describe the project site as it exists before the project, including information on topography, soil stability, plants and animals, and any cultural, historical, or scenic aspects. Describe any existing structures on the site and the use of the structures. Attach photographs of the site. Snapshots or polaroid photos will be accepted.
- 34. Describe the surrounding properties, including information on plants and animals and any cultural, historical, or scenic aspects. Indicate the type of land use (residential, commercial, etc.), intensity of land use (one-family, apartment houses, shops, department stores, etc.), and scale of development (height, frontage, setback, rear yard, etc.). Attach photographs of the vicinity. Snapshots or polaroid photos will be accepted.
- 35. Attach a completed fiscal impact form unless project consists of a parcel split of four or less parcels.

CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date _____

Signature _____

For _____



CONDITIONAL USE PERMIT MAP 165-25

Environmental Setting

33. The site is triangular in nature, on a gently sloping hillside with numerous small oak trees scattered through the middle and north portion of the property. A water well and tall fire storage tank are located in the southern portion of the site. Small drainage swales flow from southeast to northwest over to State Highway 202 (West Valley Blvd.). The site is fenced with barbed wire. There is no visible evidence of historical or cultural resources.

34. The surrounding uses are a church to the east, a single estate residential unit to the west side of State Route 202, and two houses to the south across Schout Road. The proposed buildings have been situated along the east side of the parcel in order to maintain the mountain view as much as possible for the existing southerly residents.





Appendix 1 Biological Survey

MESA Biological, LLC Habitat Classification



Habitat Classification - of -21037 Schout Road Assisted Living Facility Tehachapi, CA Portion of Section 26, T32S, R32E, M.D.B.&M.

Prepared by:

Adam Grimes – MESA Biological, LLC Joe McFaddin – MESA Biological, LLC

Date: March 28, 2018

Prepared for: Mr. Bob Swanson – Swanson Engineering, Inc.

<u>Site Setting</u>. The Site (Parcel #37712007) is located at 21037 Schout Road in Tehachapi and currently exists as an undeveloped 2.71-acre parcel. Residential housing border the Site to the south and west. Assisted living housing borders the east and the 202 West Valley Boulevard borders the north.

<u>Site Conditions</u>. The parcel exists currently as an undeveloped lot. A water tank and pump house shed was installed on the lot in 2008. With the exception of access roads and the structures found on the Site, natural lands exist within the Site. The conditions at the Site are considered moderately disturbed and of low guality with respect to habitat for any native wildlife or plant species.

The site consists of integrated foothill oak woodland habitat on the northeast portion of the lot and annual grassland (nonnative) habitat on the southwest portion of the lot. Dominant vegetation at the Site can be described as dense herbaceous growth including red brome (*Bromus madritensis* ssp. *rubens*), foxtail barley (*Hordeum jabatum*), fiddleneck (*Amsinckia intermedia*), black mustard (*Brassica nigra*), and blue oak (*Quercus douglasi*).

No sensitive plant species were observed.

Appendix 2 Traffic Impact Study

NE Corner HWY 202 & Schout Rd Swanson Engineering, Inc

Traffic Impact Study

for:

Proposed CUP #20, Map 165-25 4.19 Acres **Assisted Living Facility** Northeast Corner Highway 202 & Schout Road Kern County, California

Prepared for:

Ken Maler

October 2018

Job # 17-006

No. 43032

Submitted by: 10-10-18

Robert T. Swanson, R.C.E. 43032

Date:

Prepared by: Swanson Engineering, Inc. 5500 Ming Ave, Suite 250 Bakersfield, CA 93309

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Trip Generation Page 3

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I. INTRODUCTION

This traffic analysis has been prepared to evaluate the impact on the local street network of a new Assisted Living Facility (Project) associated with proposed Conditional Use Permit (CUP) #20, Map 165-25.

Project Description

The Project site consists of 4.19 gross acres zoned for Single Family Residential development. The proposed Project consists of two new buildings of Assisted Living facilities. The new buildings total 14,460 square feet and comprise a total of 36 beds. The site is presently undeveloped, with two churches nearby and single family residences on large lots spread throughout the vicinity.

The site is located in the County of Kern, near the City of Tehachapi. The project is bounded on the northwest by the State Highway 202, on the south by Schout Road, and on the east by an existing church. Access to the site will be via Schout Road off of State highway 202; see **Figure 1**, *Project Vicinity & Site*.

II. EXISTING CONDITIONS

Street Network

The following is a summary of existing streets in the immediate vicinity of the proposed Project.

State Highway 202 (West Valley Boulevard)

State highway 202 is the main, internal, east-west route connecting the communities of Cummings Valley, Stallion Springs, and Bear Valley Springs with the City of Tehachapi and Highway 58. In the immediate vicinity of the project it exists as a two-lane roadway with various levels of shoulder widening at each intersection and major drive approach.

Schout Road

Schout Road is a two-lane, east-west roadway adjacent to the project site, and intersecting with State Highway 202. It is designated as a collector east of State Highway 202 and as a local street west of State Highway 202, providing access to State Highway 202 for various residential areas and two churches.

Figure 1, Project Vicinity & Site, as referenced above shows the immediate Street Network.

-- insert figure 1 --

III. TRAFFIC ANALYSIS

Project Generated Traffic

The weekday P.M. peak hour traffic volumes generated from the proposed Project were estimated using the *"Institute of Transportation Engineers"* <u>Trip Generation Manual</u>, These results are shown in **Table 1**

Table 1: Trip Generation

Current Land Use:										
							P.M. Peak Hour Trips			
Land Use	ITE Code	DU	Trip Rate	Veh. Trips	Trip Rate	Veh. Trips	Split In	Split Out		
Single Family Residential	210	1	9.44	9	0.99	1	1	0		

Proposed Lane Use:

			Daily	Trips	P.I	M. Peak H	our Trip	s
Land Use	ITE Code	BEDS	Trip Rate	Veh. Trips	Trip Rate	Veh. Trips	Split In	Split Out
Assisted Living	254	36	2.66	96	0.22	8	3	4

	Daily	P.M. Peak
		Hour
NET INCREASE IN VEHICLE TRIPS:	86	7

DU = Dwelling Units

BEDS = Number of Beds in Facility, per CUP Application

Traffic Assignment

Project generated traffic was assigned to the existing street network based on observations of existing traffic patterns during the P.M. peak hour, characteristics of the existing street network, and knowledge of trip attractions.

Figure 2, *Project Generated Trips & Distribution,* shows all Trips generated by the proposed Project during the PM Peak Hour, distributed onto the immediate street network.

-- insert figure 2 --

V. TRAFFIC MITIGATION

Conclusion & Recommendations

Project Generated trips are shown to be less than 10 total trips during the Peak Hour, while Daily trips are fewer than 100. The project generated 8 total trips during the PM Peak Hour; this is a less than significant impact to the local street network, and no mitigation measures are required.

Appendix 3 Trip Generation Comparison

NE Corner HWY 202 & Schout Rd Swanson Engineering, Inc



SWANSON Engineering, Inc.

July 30, 2018

Job: 17-006

Kern County Planning and Natural Resources Department 2700 M Street Bakersfield, CA 93301

Attn: Danielle Monsibais

RE: Proposed CUP #20 – MAP #165-25 Northeast Corner of Highway 202 & Schout Road, Kern County, CA Trip Generation Comparison

Dear Ms. Monsibais,

The above referenced Conditional Use Permit (CUP) Application, takes place on 2.93 gross acres of land at the Northeast corner of Highway 202 and Schout Road, outside the City of Tehachapi. The CUP proposes two buildings of Assisted Living use. The total proposed square footage is 16,460.

Trip generation rates were taken from the Institute of Transportation Engineers, <u>Trip Generation</u>, 10th Edition. Land use designation 210 (Single Family) was used to determine the trip generation rates for property under its existing General Plan and Zoning, with an estimated development of a single housing unit. Land use designation 254 (Assisted Living) was used for the proposed Project, with actual number of proposed beds from the CUP Application being used.

The Proposed Project increases generated traffic compared to the existing General Plan and Zoning for all analyzed periods: Daily Trips, AM Peak Hour, and PM Peak Hour. The enclosed exhibits show General Plan & Zoning Comparisons along with the Trip Generation Rates and the Existing versus Proposed Generated Trips. Peak Hour increases are shown to be less than 10 additional trips in both the AM and PM periods, while Daily trips increase by fewer than 100 overall. The greatest Peak Hour addition of trips resultant from the Project is 7, during the PM Peak Hour; this is a less than significant increase in Peak Hour traffic.

Based on the guidelines set forth in Division Nine, Section 902-1, of the Kern County Development Standards, this Project is exempt from a regional traffic impact study.

Please call me with any questions or comments. Thank you for your consideration in this matter.

Sincerely,

Bob Swanson

Encl.: Trip Generation Exhibits p:\17006\letters\17-006 trip generation report.docx



TRIP GENERATION RATES

				PEAK	HOUR			
ITE LAND USE	Variable		AM		PM			DAILY
		TOTAL	% IN	% OUT	TOTAL	% IN	% OUT	
Single Family (210)	DU	0.74	25%	75%	0.99	63%	37%	9.44
Assisted Living (254)	BEDS*	0.14	65%	35%	0.22	44%	56%	2.66

.

DU - Dwelling Units

BEDS* - Total Beds in Facility, per CUP Application

Source: Institute of Transportation Engineers (ITE), Trip Generation, Tenth Edition, Land Use Categories 210 & 254

	LAISTINGL	AND USE	- OLNLI	AILDI				
LAND USE	DU	DU AM			PM			DAILY
		TOTAL	IN	OUT	TOTAL	IN	OUT	
Single Family (210)	1	1	0	1	1	1	0	9

EXISTING LAND USE - GENERATED TRIPS

PROPOSED LAND USE - GENERATED TRIPS

				PEAK	HOUR			
LAND USE	BEDS*		AM		PM			DAILY
		TOTAL	IN	OUT	TOTAL	IN	OUT	
Assisted Living (254)	36	5	3	2	8	3	4	96

Net Increase in Traffic Resultant from Proposed CUP Application:



86

DU - Dwelling Units

BEDS* - Total Beds in Facility, per CUP Application



July 30, 2018

Job: 17-006

Kern County Planning and Natural Resources Department 2700 M Street Bakersfield, CA 93301

Attn: Danielle Monsibais

RE: Proposed CUP #20 – MAP #165-25 Northeast Corner of Highway 202 & Schout Road, Kern County, CA Trip Generation Comparison

Dear Ms. Monsibais,

The above referenced Conditional Use Permit (CUP) Application, takes place on 2.93 gross acres of land at the Northeast corner of Highway 202 and Schout Road, outside the City of Tehachapi. The CUP proposes two buildings of Assisted Living use. The total proposed square footage is 16,460.

Trip generation rates were taken from the Institute of Transportation Engineers, <u>Trip Generation</u>, 10th Edition. Land use designation 210 (Single Family) was used to determine the trip generation rates for property under its existing General Plan and Zoning, with an estimated development of a single housing unit. Land use designation 254 (Assisted Living) was used for the proposed Project, with actual number of proposed beds from the CUP Application being used.

The Proposed Project increases generated traffic compared to the existing General Plan and Zoning for all analyzed periods: Daily Trips, AM Peak Hour, and PM Peak Hour. The enclosed exhibits show General Plan & Zoning Comparisons along with the Trip Generation Rates and the Existing versus Proposed Generated Trips. Peak Hour increases are shown to be less than 10 additional trips in both the AM and PM periods, while Daily trips increase by fewer than 100 overall. The greatest Peak Hour addition of trips resultant from the Project is 7, during the PM Peak Hour; this is a less than significant increase in Peak Hour traffic.

Based on the guidelines set forth in Division Nine, Section 902-1, of the Kern County Development Standards, this Project is exempt from a regional traffic impact study.

Please call me with any questions or comments. Thank you for your consideration in this matter.

Sincerely,

Bol See

Bob Swanson

Encl.: Trip Generation Exhibits p:\17006\letters\17-006 trip generation report.docx



TRIP GENERATION RATES

				PEAK	HOUR			
ITE LAND USE	Variable		AM			PM		DAILY
		TOTAL	% IN	% OUT	TOTAL	% IN	% OUT	
Single Family (210)	DU	0.74	25%	75%	0.99	63%	37%	9.44
Assisted Living (254)	BEDS*	0.145	65%	(35%)	0.22	(44%)	(56%)	(2.68)
			63%	3720	. 1	38%	62%	2.60
BEDS* - Total Beds in Facility per CUP A	nnlication	0.19			0.26			

.

er

BEDS* - I otal Beds in Facility, per CUP Application Source: Institute of Transportation Engineers (ITE), <u>Trip Generation</u>, Tenth Edition, Land Use Categories 210 & 254

	CAG TING E	HID OOL			<u> </u>			
LAND USE	טס	PEAK HOUR						
		AM			PM			DAILY
		TOTAL	IN	OUT	TOTAL	IN	OUT	
Single Family (210)	1	1	0	1	1	1	0	9

EXISTING LAND USE - GENERATED TRIPS

	BEDS*	PEAK HOUR						
LAND USE		AM		РМ			DAILY	
		TOTAL	IN	OUT	TOTAL	IN	OUT	
Assisted Living (254)	36	(5)	(3)	0	(2)	3	4	(96)
		7	ef	3	9	4	6	94
Net Increase in Traffic Resultant from Proposed CUP Application:								86
DU - Dwelling Units		6			8			84

PROPOSED LAND USE - GENERATED TRIPS

BEDS* - Total Beds in Facility, per CUP Application

17-006 Trip Generation Exhibits.xlsx

Appendix 4

Cultural Resources Record Search

Southern San Joaquin Valley Information Center / CSU Bakersfield

<u>C</u> aliforn <u>H</u> istor <u>R</u> eso <u>I</u> nf <u>S</u> y	nia ical urces ormation ystem	Fresno Kern Kings Madera Tulare	Southern San Joaquin Valley Information Center California State University, Bakersfield Mail Stop: 72 DOB 9001 Stockdale Highway Bakersfield, California 93311-1022 (661) 654-2289 E-mail: ssjvic@csub edu Website: www.csub.edu/ssjvic
То:	George Dickey Swanson Engineering, Inc. 5500 Ming Ave., Suite 250 Bakersfield, CA 93309		Record Search 18-384
Date:	October 3, 2018		
Re:	APN 377-120-07 Schout Road at	Highway 202 Tehac	hapi
County:	Kern		
Map(s):	Cummings Mountain 7.5'		

CULTURAL RESOURCES RECORDS SEARCH

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, Historic Property Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND WITHIN THE ONE-HALF MILE RADIUS

According to the information in our files, there have been three previous cultural resource studies conducted within the project area, KE-00420, 04278, and 04873. There have been 11 additional studies conducted within the one-half mile radius, KE-00159, 00440, 01386, 01433, 01454, 01602, 02870, 03194, 03239, 03567, and 04741.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND WITHIN THE ONE-HALF MILE RADIUS

There are no recorded cultural resources within project area. There are three recorded resources within the one-half mile radius, P-15-004750, 004751, and 018451. These resources include an historic area well, and prehistoric era lithic scatters, bedrock milling features, and habitation debris.

There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand this project consists of construction of an assisted living/retirement home. No information was give as to the current development of the property. Two of the three studies conducted within the project area were completed more than five years ago. The newest study, completed in 2017, was a survey along Hwy. 202 and does not move far into the property. This area of Kern County is considered highly sensitive for cultural resources. Therefore, if the property is currently vacant and has not been previously developed, then prior to project activities, we recommend a qualified professional consultant conduct a field survey to determine if any cultural resources are present. If there are any existing structures on the property that are 45 years or older, prior to alteration or demolition, we recommend they be recorded and evaluated for historical significance by a qualified professional consultant. If the project area is currently developed and there are no structures more than 45 years old, then no further cultural resource investigation is recommended at this time. However, if cultural resources are unearthed during ground disturbance activities, all work must halt in the area of the find and a qualified professional consultant should be called out to assess the findings and make the appropriate mitigation recommendations. A list of qualified consultants can be found at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file in order to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By:

Celeste M. Thomson, Coordinator

Date: October 3, 2018

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Appendix 5 Project Emissions Analysis Review

Insight Environmental Consultants, Inc. Tehachapi Assisted Living Facility



5500 Marg Ave | Suite 140 | Balersheld, CA. 93309 | P (661) 282-2200 | F (661) 282-2204 -

trinityconsultants.com

Insight

VIA E-MAIL bob@swansonengr.com

October 8, 2018

Bob Swanson Swanson Engineering, Inc. 5500 Ming Ave., Suite 250 Bakersfield, CA 93309

RE: Project Emissions Analysis Review CUP Map 165-25 – Tehachapi Assisted Living Facility – Tehachapi, California

Mr. Swanson:

Based on information provided in your email of September 9, 2018, it is our understanding that Swanson Engineering, Inc. (SEI) represents a client that has proposed a project (Project) consisting of two assisted living facilities with a maximum of 16 residents and five employees per building.

Insight Environmental Consultants, Inc, a Trinity Consultants company, has completed a Project Emissions Analysis Review (PEAR) of the proposed project to determine the base emissions impacts posed by the project. The following tables provide these impacts based on calculations completed by the California Emissions Estimator Model (CalEEMod).

EMISSIONS RESULTS

Construction Emissions

Emissions	Pollutant						
Emissions	ROG	NOx	CO	SOx	PM ₁₀	PM _{2.5}	
Source	(tons/year)						
2018 Construction Emissions	0.03	0.23	0.15	0.003	0.04	0.02	
2019 Construction Emissions	0.55	2.06	1.69	0.003	0.13	0.12	
SJVAPCD Construction Emissions Thresholds	10	10	100	27	15	15	
Is Threshold Exceeded?	No	No	No	No	No	No	

HEADQUARTERS > 1 2770 Merit Drive (Suite 900 | Dallas, TX 75251 | ₱ (972) 661-8100 | ₱ (972) 385-9203

North America | Europe | Middle East | Asia

Swanson Engineering October 8, 2018 Page 2

Project	Pollutant								
Emissions	ROG	NOx	CO	SOx	PM10	PM _{2.5}			
Source		(tons/year)							
Unmitigated									
Operational Emissions	0.16	0.07	0.72	0.003	0.12	0.09			
SJVAPCD Operational Emissions Thresholds –	10	10	100	27	15	15			
non-permitted sources	10	10	100	27	15	15			
Is Threshold Exceeded Before Mitigation?	No	No	No	No	No	No			
Mitigated									
Operational Emissions	0.11	0.05	0.20	0.0004	0.03	0.009			
SJVAPCD Operational Emissions Thresholds -	10	10	100	27	15	15			
non-permitted sources	10	10	100	27	13	12			
Is Threshold Exceeded?	No	No	No	No	No	No			

In determining the emissions impacts detailed above, the following Mitigation Measures were input to the CalEEMod Model.:

- Improve Walkability Design
- Improve Destination Accessibility
- Improve Pedestrian Network
- No Hearths
- 3% Electrical Landscape Equipment

PEAR LIMITATIONS

This PEAR does not include the determination of any health risk impacts, Ambient Air Quality Impacts or impacts to global warming (Greenhouse Gas) posed by the proposed Project. All model data inputs were based solely on either information provided by Swanson Engineering or default values within the CalEEMod program. No other assumptions were made.

PEAR FINDINGS

The results of this PEAR indicate that the proposed Project will have less than significant impacts from construction activities as well as operational activities from all criteria air pollutants.

If you have any questions or comments about the information presented herein, please do not hesitate to call me at (661)282-2200 or email at <u>rhunter@insenv.com</u>.

Sincerely,

Ronald W. Hunter Managing Principal Consultant
Page 1 of 32

Swanson Assisted Living - Kern-Mojave Desert County, Annual

Swanson Assisted Living Kern-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	11.00	Dwelling Unit	2.71	17,146.00	31

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	32				
Climate Zone	3			Operational Year	2019				
Utility Company	Pacific Gas & Electric Com	pany							
CO2 Intensity (Ib/MWhr)	641.35	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	0.006				

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage - Parcel 377-120-07 size Square feet based on site plan

Construction Phase -

Fleet Mix - Residential fleet mix for 2019

Woodstoves - According to Rule 4901

Mobile Land Use Mitigation -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Swanson Assisted Living - Kern-Mojave Desert County, Annual

Table Name	Column Name	Default Value	New Value		
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15		
tblConstructionPhase	PhaseEndDate	12/12/2019	11/14/2019		
tblConstructionPhase	PhaseEndDate	11/14/2019	10/17/2019		
tblConstructionPhase	PhaseEndDate	1/10/2019	12/13/2018		
tblConstructionPhase	PhaseEndDate	11/28/2019	10/31/2019		
tblConstructionPhase	PhaseEndDate	1/2/2019	12/5/2018		
tblConstructionPhase	PhaseStartDate	11/29/2019	11/1/2019		
tblConstructionPhase	PhaseStartDate	1/11/2019	12/14/2018		
tblConstructionPhase	PhaseStartDate	1/3/2019	12/6/2018		
tblConstructionPhase	PhaseStartDate	11/15/2019	10/18/2019		
tblConstructionPhase	PhaseStartDate	12/29/2018	12/3/2018		
tblFireplaces	NumberGas	6.05	11.00		
tblFireplaces	NumberNoFireplace	1.10	11.00		
tblFireplaces	NumberWood	3.85	0.00		
tblFleetMix	HHD	0.14	0.02		
tblFleetMix	LDA	0.47	0.51		
tblFleetMix	LDT1	0.03	0.21		
tblFleetMix	LDT2	0.16	0.17		
tblFleetMix	LHD1	0.02	2.1000e-003		
tblFleetMix	LHD2	7.2900e-003	1.0000e-003		
tblFleetMix	МСҮ	6.1200e-003	3.1000e-003		
tblFleetMix	MDV	0.13	0.06		
tblFleetMix	МН	1.0260e-003	2.3000e-003		
tblFleetMix	MHD	0.02	9.5000e-003		
tblFleetMix	OBUS	1.6450e-003	0.00		
tblFleetMix	SBUS	9.9700e-004	1.0000e-003		

Swanson Assisted Living - Kern-Mojave Desert County, Annual

tblFleetMix	UBUS	1.8580e-003	3.8000e-003
tblLandUse	LandUseSquareFeet	11,000.00	17,146.00
tblLandUse	LotAcreage	0.69	2.71
tblWoodstoves	NumberCatalytic	0.55	2.71
tblWoodstoves	NumberNoncatalytic	0.55	2.71

2.0 Emissions Summary

Swanson Assisted Living - Kern-Mojave Desert County, Annual

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											МТ	7/yr		and a
2018	0.0272	0.2337	0.1477	2.6000e- 004	0.0228	0.0125	0.0353	0.0106	0.0118	0.0224	0.0000	22.5710	22.5710	5.5800e- 003	0.0000	22.7104
2019	0.5462	2.0553	1.6844	2.8100e- 003	8.0800e- 003	0.1178	0.1259	2.1600e- 003	0.1128	0.1150	0.0000	237.2294	237.2294	0.0484	0.0000	238.4392
Maximum	0.5462	2.0553	1.6844	2.8100e- 003	0.0228	0.1178	0.1259	0.0106	0.1128	0.1150	0.0000	237.2294	237.2294	0.0484	0.0000	238.4392

Mitigated Construction

	ROG	NOx	со	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					toi	ns/yr			nine en e				M	ſ/yr		
2018	0.0272	0.2337	0.1477	2.6000e- 004	9.3600e- 003	0.0125	0.0219	4.2400e- 003	0.0118	0.0160	0.0000	22.5710	22.5710	5.5800e- 003	0.0000	22.7104
2019	0.5462	2.0553	1.6844	2.8100e- 003	8.0800e- 003	0.1178	0.1259	2.1600e- 003	0.1128	0.1150	0.0000	237.2291	237.2291	0.0484	0.0000	238.4389
Maximum	0.5462	2.0553	1.6844	2.8100e- 003	9.3600e- 003	0.1178	0.1259	4.2400e- 003	0.1128	0.1150	0.0000	237,2291	237.2291	0.0484	0.0000	238.4389
	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	43.54	0.00	8.34	49.69	0.00	4.60	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	12-3-2018	3-2-2019	0.7285	0.7285
2	3-3-2019	6-2-2019	0.7119	0.7119
3	6-3-2019	9-2-2019	0.7119	0.7119
4	9-3-2019	9-30-2019	0.2167	0.2167
	-	Highest	0.7285	0.7285

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	со	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											tons/yr								МТ	/yr		
Area	0.1524	0.0166	0.5868	1.6900e- 003		0.0829	0.0829		0.0829	0.0829	10.9558	8.7976	19.7533	0.0515	1.6000e- 004	21.0885							
Energy	7.2000e- 004	6.1700e- 003	2.6300e- 003	4.0000e- 005		5.0000e- 004	5.0000e- 004		5.0000 e- 004	5.0000e- 004	0.0000	21.5365	21.5365	7.9000e- 004	2.7000e- 004	21.6354							
Mobile	0.0113	0.0432	0.1320	3.9000 e- 004	0.0317	4.2000e- 004	0.0321	8.4800e- 003	3.9000e- 004	8.8700e- 003	0.0000	35.4662	35.4662	2.0500e- 003	0.0000	35.5175							
Waste	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					0.0000	0.0000		0.0000	0.0000	2.0380	0.0000	2.0380	0.1204	0.0000	5.0491							
Water						0.0000	0.0000		0.0000	0.0000	0.2274	4.1751	4.4025	0.0235	5.9000 e- 004	5.1670							
Total	0.1644	0.0660	0.7214	2.1200e- 003	0.0317	0.0838	0.1155	8.4800e- 003	0.0838	0.0922	13.2212	69.9755	83.1966	0.1983	1.0200e- 003	88.4575							

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2.2 Overall Operational Mitigated Operational

Fugitive PM2.5 ROG NOx CO SO2 Bio- CO2 NBio- CO2 Total CO2 Fugitive Exhaust **PM10** Exhaust PM2.5 CH4 N20 CO2e PM10 PM10 PM2.5 Total Total Category tons/yr MT/yr Area 0.0963 9.4000e-0.0815 0,0000 4.5000e-4,5000e-4,5000e-4.5000e-0,0000 0,1322 0.1322 1.3000e-0.0000 0.1354 004 004 004 004 004 004 7.2000e-6.1700e-2.6300e-4.0000e-21.5365 7.9000e-2.7000e-21.6354 Energy 5.0000e-5.0000e-5.0000e-5.0000e-0.0000 21.5365 004 003 003 005 004 004 004 004 004 004 Mobile 0.0109 0.0401 0.1200 3.4000e-0.0280 3.7000e-0.0283 7.4800e-3.5000e-7.8300e-0.0000 31.5558 31.5558 1.8800e-0.0000 31.6029 004 004 003 004 003 003 Waste 0.0000 0.0000 0.0000 0.0000 2.0380 0.0000 2.0380 0.1204 0.0000 5.0491 Water 0.0000 4.1751 4.4025 0.0235 5.9000e-5.1670 0.0000 0.0000 0.0000 0.2274 004 0.1079 0.0472 3.8000e-0.0280 0.0293 8.7800e-57,3997 59.6651 8.6000e-63.5899 Total 0.2041 1.3200e-7.4800e-1.3000e-2.2654 0.1468 004 003 003 003 003 004 ROG NOx CO SO2 Fugitive Exhaust PM10 Fugitive Exhaust PM2.5 Bio-CO2 NBio-CO2 Total CO2 CH4 N20 CO2e PM10 PM10 Total PM2.5 PM2.5 Total 28.11 34.40 28.39 71.71 82.08 11.80 98.42 74,64 11.79 98.45 82.87 17.97 28,28 25.99 15.69 Percent 90,48 Reduction

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	12/3/2018	12/5/2018	5	3	
2	Grading	Grading	12/6/2018	12/13/2018	5	6	
3	Building Construction	Building Construction	12/14/2018	10/17/2019	5	220	
4	Paving	Paving	10/18/2019	10/31/2019	5	10	
5	Architectural Coating	Architectural Coating	11/1/2019	11/14/2019	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 34,721; Residential Outdoor: 11,574; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Welders	3	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
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	8.00	1.00	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	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

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	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												МТ	7/yr		
Fugitive Dust				1 1 1	2.3900e- 003	0.0000	2.3900e- 003	2.6000e- 004	0.0000	2.6000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8500e- 003	0.0354	0.0191	4.0000e- 005		1.4300e- 003	1.4300e- 003		1.3200e- 003	1.3200e- 003	0.0000	3.3590	3,3590	1.0500e- 003	0.0000	3.3851
Total	2.8500e- 003	0.0354	0.0191	4.0000e- 005	2.3900e- 003	1.4300e- 003	3.8200e- 003	2.6000e- 004	1.3200e- 003	1.5800e- 003	0.0000	3.3590	3.3590	1.0500e- 003	0.0000	3.3851

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3.2 Site Preparation - 2018

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					ton	s/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	6.0000 e- 005	4.0000e- 005	4.0000 e- 004	0.0000	1.0000e- 004	0.0000	1.0000 e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.0945	0.0945	0.0000	0.0000	0.0946
Total	6.0000e- 005	4.0000e- 005	4.0000e- 004	0.0000	1.0000e- 004	0.0000	1.0000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.0945	0.0945	0.0000	0.0000	0.0946

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					ton	s/yr							M1	ſ/yr		
Fugitive Dust	ut 81 AJ Et	,	T T T T	1 1 1	9.3000e- 004	0.0000	9.3000e- 004	1.0000e- 004	0.0000	1.0000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8500e- 003	0.0354	0.0191	4.0000e- 005		1.4300e- 003	1.4300e- 003		1.3200e- 003	1.3200e- 003	0.0000	3.3590	3.3590	1.0500e- 003	0.0000	3.3851
Total	2.8500e- 003	0.0354	0.0191	4.0000e- 005	9.3000e- 004	1.4300e- 003	2.3600e- 003	1.0000e- 004	1.3200e- 003	1.4200e- 003	0.0000	3.3590	3.3590	1.0500e- 003	0.0000	3.3851

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3.2 Site Preparation - 2018

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	an a				ton	s/yr							МТ	/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	6.0000e- 005	4.0000e- 005	4.0000 e- 004	0.0000	1.0000e- 004	0.0000	1.0000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.0945	0.0945	0.0000	0.0000	0.0946
Total	6.0000e- 005	4.0000e- 005	4.0000e- 004	0.0000	1.0000e- 004	0.0000	1.0000e- 004	3.0000e- 005	0.0000	3.0000e- 005	0.0000	0.0945	0.0945	0.0000	0.0000	0.0946

3.3 Grading - 2018

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					ton	s/yr							M	7yr	•	
Fugitive Dust	71 81 81 81 81 81 81 81				0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4500e- 003	0.0729	0.0311	6.0000e- 005		3.5000e- 003	3.5000e- 003		3.2200e- 003	3.2200e- 003	0.0000	5.6539	5.6539	1.7600 e- 003	0.0000	5.6979
Total ·	6.4500e- 003	0.0729	0.0311	6.0000e- 005	0.0197	3.5000e- 003	0.0232	0.0101	3.2200e- 003	0.0133	0.0000	5.6539	5.6539	1.7600e- 003	0.0000	5.6979

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3.3 Grading - 2018 <u>Unmitigated Construction Off-Site</u>

	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					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e- 004	1.0000 e - 004	9.9000e- 004	0.0000	2.4000e- 004	0.0000	2.4000e- 004	6.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2363	0.2363	1.0000 e- 005	0.0000	0.2365
Total	1.4000e- 004	1.0000e- 004	9.9000e- 004	0.0000	2.4000e- 004	0.0000	2.4000e- 004	6.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2363	0.2363	1.0000e- 005	0.0000	0.2365

Mitigated Construction On-Site

	ROG	NOx	со	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					ton	s/yr							M	ī/yr		
Fugitive Dust					7.6700e- 003	0.0000	7.6700e- 003	3.9400e- 003	0.0000	3.9400e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4500e- 003	0.0729	0.0311	6.0000e- 005		3.5000e- 003	3.5000e- 003	1 1 1 1 1	3.2200e- 003	3.2200e- 003	0.0000	5.6539	5.6539	1.7600e- 003	0.0000	5.6979
Total	6.4500e- 003	0.0729	0.0311	6.0000e- 005	· 7.6700e- 003	3.5000e- 003	0.0112	3.9400e- 003	3.2200e- 003	7.1600e- 003	0.0000	5.6539	5.6539	1.7600e- 003	0.0000	5.6979

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3.3 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	со	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					ton	s/yr							МТ	'/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000 /	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e- 004	1.0000e- 004	9.9000e- 004	0.0000	2.4000e- 004	0.0000	2.4000e- 004	6.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2363	0.2363	1.0000 e - 005	0.0000	0.2365
Total	1.4000e- 004	1.0000e- 004	9.9000e- 004	0.0000	2.4000e- 004	0.0000	2.4000e- 004	6.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2363	0.2363	1.0000e- 005	0.0000	0.2365

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	co	SO2	Fugitive Exhau PM10 PM10	st PM10) Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					tons/yr							ΓM	7/yr		
Off-Road	0.0175	0.1243	0.0943	1.5000e- 004	7.5400 003	e- 7.5400e- 003	7 1 F T	7.2300e- 003	7.2300e- 003	0.0000	12.6812	12.6812	2.7300e- 003	0.0000	12.7495
Total	0.0175	0.1243	0.0943	1.5000e- 004	7.5400 003	e- 7.5400e- 003		7.2300e- 003	7.2300e- 003	0.0000	12.6812	12.6812	2.7300 e- 003	0.0000	12.7495

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3.4 Building Construction - 2018 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					ton	s/yr							МТ	/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	3.0000e- 005	8.5000e- 004	1.8000e- 004	0.0000	4.0000e- 005	1.0000e- 005	5.0000e- 005	1.0000e- 005	1.0000e- 005	2.0000e- 005	0.0000	0.1680	0.1680	1.0000e- 005	0,0000	0.1684
Worker	2.3000e- 004	1.6000 e- 004	1.5900e- 003	0.0000	3.9000e- 004	0.0000	3.9000e- 004	1.0000e- 004	0.0000	1.1000e- 004	0.0000	0.3781	0.3781	1.0000e- 005	0.0000	0.3784
Total	2.6000e- 004	1.0100e- 003	1.7700e- 003	0.0000	4.3000e- 004	1.0000e- 005	4.4000e- 004	1.1000e- 004	1.0000e- 005	1.3000e- 004	0.0000	0.5461	0.5461	2.0000e- 005	0.0000	0.5468

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					ton	s/yr							МТ	Ууг		
Off-Road	0.0175	0.1243	0.0943	1.5000e- 004		7.5400 e- 003	7.5400e- 003		7.2300e- 003	7.2300e- 003	0.0000	12.6812	12.6812	2.7300 e- 003	0.0000	12.7495
Total :	0.0175	0.1243	0.0943	1.5000e- 004		7.5400e- 003	7.5400e- 003		7.2300e- 003	7.2300e- 003	0.0000	12.6812	12.6812	2.7300e- 003	0.0000	12.7495

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3.4 Building Construction - 2018 <u>Mitigated Construction Off-Site</u>

	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					ton	s/yr							МТ	/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	3.0000e- 005	8.5000e- 004	1.8000e- 004	0.0000	4.0000e- 005	1.0000e- 005	5.0000e- 005	1.0000e- 005	1.0000e- 005	2.0000e- 005	0.0000	0.1680	0.1680	1.0000 e- 005	0.0000	0.1684
Worker	2.3000e- 004	1.6000e- 004	1.5900 e- 003	0.0000	3.9000e- 004	0.0000	3.9000e- 004	1.0000e- 004	0.0000	1.1000 e- 004	0.0000	0.3781	0.3781	1.0000 e- 005	0.0000	0.3784
Total	2.6000e- 004	1.0100e- 003	1.7700e- 003	0.0000	4.3000e- 004	1.0000e- 005	4.4000e- 004	1.1000e- 004	1.0000e- 005	1.3000e- 004	0.0000	0.5461	0.5461	2.0000e- 005	0.0000	0.5468

3.4 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					ton	s/yr							МТ	/yr		
Off-Road	0.2660	1.9667	1.5865	2.6000e- 003		0.1134	0.1134		0.1087	0.1087	0.0000	218.1445	218.1445	0.0454	0.0000	219.2790
Total	0.2660	1.9667	1.5865	2.6000e- 003		0.1134	0.1134	<u>in the second</u> from the	0.1087	0.1087	0.0000	218.1445	218.1445	0.0454	0.0000	219.2790

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3.4 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					ton	s/yr							МТ	/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	5.1000 e 004	0.0139	2.8100e- 003	3.0000e- 005	6.9000e- 004	1.0000 e- 004	8.0000e- 004	2.0000e- 004	1.0000e- 004	3.0000e- 004	0.0000	2.8881	2.8881	2.5000 e- 004	0.0000	2.8942
Worker	3.5300e- 003	2.4700e- 003	0.0242	7.0000e- 005	6.7000 e- 003	5.0000e- 005	6.7500 e- 003	1.7800e- 003	4.0000e- 005	1.8300e- 003	0.0000	6.3506	6.3506	1.8000 e- 004	0.0000	6.3551
Total	4.0400e- 003	0.0164	0.0270	1.0000e- 004	7.3900e- 003	1.5000e- 004	7.5500e- 003	1.9800e- 003	1.4000e- 004	2.1300e- 003	0.0000	9.2386	9.2386	4.3000e- 004	0.0000	9.2493

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					ton	s/yr							ΓM	/уг		
Off-Road	0.2660	1.9667	1.5865	2.6000e- 003	,	0.1134	0.1134	1 1 1 1 1	0.1087	0.1087	0.0000	218.1442	218.1442	0.0454	0.0000	219.2788
Total	0.2660	1.9667	1.5865	2.6000e- 003		0.1134	0.1134		0.1087	0.1087	0.0000	218.1442	218.1442	0.0454	0.0000	219.2788

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3.4 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					ton	s/yr							МТ	/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	5.1000e- 004	0.0139	2.8100e- 003	3.0000e- 005	6.9000e- 004	1.0000 e- 004	8.0000e- 004	2.0000e- 004	1.0000e- 004	3.0000e- 004	0.0000	2.8881	2.8881	2.5000 c- 004	0.0000	2.8942
Worker	3.5300e- 003	2.4700e- 003	0.0242	7.0000e- 005	6.7000 e- 003	5.0000e- 005	6.7500e- 003	1.7800e- 003	4.0000e- 005	1.8300e- 003	0.0000	6.3506	6.3506	1.8000 e- 004	0.0000	6.3551
Total	4.0400e- 003	0.0164	0.0270	1.0000e- 004	7.3900e- 003	1.5000e- 004	7.5500e- 003	1.9800e- 003	1.4000e- 004	2.1300e- 003	0.0000	9.2386	9.2386	4.3000e- 004	0.0000	9.2493

3.5 Paving - 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	anteres Anteres Anteres Anteres Anteres				ton	s/yr					in the second		МТ	7/yr		
Off-Road	6.2300e- 003	0.0628	0.0593	9.0000e- 005		3.6500 e - 003	3.6500e- 003	r r r r	3.3600e- 003	3.3600e- 003	0.0000	7.9208	7.9208	2.4600 e- 003	0.0000	7.9823
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.2300e- 003	0.0628	0.0593	9.0000e- 005		3.6500e- 003	3.6500e- 003	400,0	3.3600e- 003	3.3600e- 003	0.0000	7.9208	7.9208	2.4600e- 003	0.0000	7.9823

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3.5 Paving - 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					ton:	s/yr							MT.	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e- 004	2.2000e- 004	2.1800e- 003	1.0000e- 005	6.0000e- 004	0.0000	6.1000e- 004	1.6000e- 004	0.0000	1.6000e- 004	0,0000	0.5725	0.5725	2.0000 e - 005	0.0000	0.5729
Total	3.2000e- 004	2.2000e- 004	2.1800e- 003	1.0000e- 005	6.0000e- 004	0.0000	6.1000e- 004	1.6000e- 004	0.0000	1.6000e- 004	0.0000	0.5725	0.5725	2.0000 e- 005	0.0000	0.5729

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		J.			tons	i/yr				ler engl			· MT	/yr		
Off-Road	6.2300e- 003	0.0628	0.0593	9.0000e- 005		3.6500e- 003	3.6500e- 003	1 1 1 1	3.3600e- 003	3.3600e- 003	0.0000	7.9208	7.9208	2.4600 e- 003	0.0000	7.9823
Paving	0.0000		1	1 1 1 1		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.2300e- 003	0.0628	0.0593	9.0000e- 005		3.6500e- 003	3.6500e- 003		3.3600e- 003	3.3600e- 003	0.0000	7.9208	7.9208	2.4600e- 003	0.0000	7.9823

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3.5 Paving - 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					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e- 004	2.2000e- 004	2.1800e- 003	1.0000e- 005	6.0000 e- 004	0.0000	6.1000 e- 004	1.6000e- 004	0.0000	1.6000e- 004	0.0000	0.5725	0.5725	2.0000e- 005	0.0000	0.5729
Total	3.2000e- 004	2.2000e- 004	2.1800e- 003	1.0000e- 005	6.0000e- 004	0.0000	6.1000e- 004	1.6000e- 004	0.0000	1.6000e- 004	0.0000	0.5725	0.5725	2.0000e- 005	0.0000	0.5729

3.6 Architectural Coating - 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					ton	s/yr							МТ	/yr		
Archit. Coating	0.2682	1 1 1				0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e- 003	9.1800e- 003	9.2100e- 003	1.0000e- 005		6.4000e- 004	6.4000e- 004		6.4000e- 004	6.4000e- 004	0.0000	1.2766	1.2766	1.1000 e- 004	0.0000	1.2793
Total	0.2696	9.1800e- 003	9.2100e- 003	1.0000e- 005		6.4000e- 004	6.4000e- 004		6.4000e- 004	6.4000e- 004	0.0000	1.2766	1.2766	1.1000e- 004	0.0000	1.2793

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3.6 Architectural Coating - 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					ton	s/yr				МТ	/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	4.0000e- 005	3.0000 e- 005	2.9000e- 004	0.0000	8.0000e- 005	0.0000	8.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0763	0.0763	0.0000	0.0000	0.0764
Total	4.0000e- 005	3.0000e- 005	2.9000e- 004	0.0000	8.0000e- 005	0.0000	8.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0763	0.0763	0.0000	0.0000	0.0764

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					ton	s/yr							MT	7уг		
Archit. Coating	0.2682	7 1 1 1				0.0000	0.0000	r	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e- 003	9.1800e- 003	9.2100e- 003	1.0000e- 005		6.4000e- 004	6.4000e- 004	η == == = = = = = = = = = = = = = = ↓ ↓ ↓ ↓	6.4000e- 004	6.4000e- 004	0.0000	1.2766	1.2766	1.1000 e- 004	0.0000	1.2793
Total	0.2696	9.1800e- 003	9.2100e- 003	1.0000e- 005		6.4000e- 004	6.4000e- 004		6.4000e- 004	6.4000e- 004	0.0000	1.2766	1.2766	1.1000e- 004	0.0000	1.2793

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3.6 Architectural Coating - 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					ton	s/yr							МТ	/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	4.0000e- 005	3.0000 e- 005	2.9000e- 004	0.0000	8.0000e- 005	0.0000	8.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0,0000	0.0763	0.0763	0.0000	0.0000	0.0764
Total	4.0000e- 005	3.0000e- 005	2.9000e- 004	0.0000	8.0000e- 005	0.0000	8.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0763	0.0763	0.0000	0.0000	0.0764

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Walkability Design

Improve Destination Accessibility

Improve Pedestrian Network

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	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					ton	s/yr							МТ	/yr		
Mitigated	0.0109	0.0401	0.1200	3.4000e- 004	0.0280	3.7000e- 004	0.0283	7.4800e- 003	3.5000e- 004	7.8300e- 003	0.0000	31.5558	31.5558	1.8800e- 003	0.0000	31.6029
Unmitigated	0.0113	0.0432	0.1320	3.9000e- 004	0.0317	4.2000e- 004	0.0321	8.4800e- 003	3.9000e- 004	8.8700e- 003	0.0000	35.4662	35.4662	2.0500e- 003	0.0000	35.5175

4.2 Trip Summary Information

	Ave	erage Daily Trip F	Rate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	30.14	24.20	26.84	83,809	73,920
Total	30.14	24.20	26.84	83,809	73,920

4.3 Trip Type Information

	÷	Miles			Trip %			Trip Purpos	e %
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
Congregate Care (Assisted	10.80	7.30	7.50	46.40	16.40	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted	0.511700	0.213500	0.169100	0.060900	0.002100	0.001000	0.009500	0.022000	0.000000	0.003800	0.003100	0.001000	0.002300
Living)	-					1		1					

5.0 Energy Detail

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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				<u> </u>	ton	s/yr							МТ	/уг		
Electricity Mitigated	40,	r r t t t	1 1 1 1 1			0.0000	0.0000		0.0000	0.0000	0.0000	14.3881	14.3881	6.5000e- 004	1.3000e- 004	14.4445
Electricity Unmitigated	n: 0: 0: 0: 0:	q t t t	,			0.0000	0.0000	1	0.0000	0.0000	0.0000	14.3881	14.3881	6.5000e- 004	1.3000e- 004	14.4445
NaturalGas Mitigated	7.2000e- 004	6.1700e- 003	2.6300e- 003	4.0000e- 005		5.0000e- 004	5.0000e- 004		5.0000e- 004	5.Ó000e- 004	0.0000	7.1484	7.1484	1.4000e- 004	1.3000 e - 004	7.1909
NaturalGas Unmitigated	7.2000e- 004	6.1700e- 003	2.6300e- 003	4.0000e- 005		5.0000e- 004	5.0000e- 004		5.0000e- 004	5.0000e- 004	0.0000	7.1484	7.1484	1.4000e- 004	1.3000e- 004	7.1909

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5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s 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				<u> </u>	ton	is/yr							МТ	/yr		
Congregate Care (Assisted Living)	133956	7.2000 e- 004	6.1700e- 003	2.6300e- 003	4.0000e- 005		5.0000e- 004	5.0000e- 004	9	5.0000e- 004	5.0000e- 004	0.0000	7.1484	7.1484	1.4000e- 004	1.3000e- 004	7.1909
Total		7.2000e- 004	6.1700e- 003	2.6300e- 003	4.0000e- 005		5.0000e- 004	5.0000e- 004		5.0000e- 004	5.0000e- 004	0.0000	7.1484	7.1484	1.4000e- 004	1.3000e- 004	7.1909

Mitigated

	NaturalGa s 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					ton	s/yr							МТ	/yr		
Congregate Care (Assisted Living)	133956	7.2000e- 004	6.1700e- 003	2.6300e- 003	4.0000e- 005		5.0000 e - 004	5.0000e- 004		5.0000 e- 004	5.0000e- 004	0.0000	7.1484	7.1484	1.4000e- 004	1.3000e- 004	7.1909
Total		7.2000e- 004	6.1700e- 003	2.6300e- 003	4.0000e- 005		5.0000e- 004	5.0000e- 004		5.0000e- 004	5.0000e- 004	0.0000	7.1484	7.1484	1.4000e- 004	1.3000e- 004	7.1909

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5.3 Energy by Land Use - Electricity <u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		MT	ī/yr	
Congregate Care (Assisted Living)	49458.8	14.3881	6.5000e- 004	1.3000e- 004	14.4445
Total		14.3881	6.5000e- 004	1.3000e- 004	14.4445

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		M	ſ/yr	
Congregate Care (Assisted Living)	49458.8	14.3881	6.5000e- 004	1.3000e- 004	14.4445
Total		14.3881	6.5000e- 004	1.3000e- 004	14.4445

6.0 Area Detail

6.1 Mitigation Measures Area

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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					ton	s/yr							M	"∕yr		
Mitigated	0.0963	9.4000e- 004	0.0815	0.0000		4.5000e- 004	4.5000e- 004		4.5000e- 004	4.5000e- 004	0.0000	0.1322	0.1322	1.3000 e- 004	0.0000	0.1354
Unmitigated	0.1524	0.0166	0.5868	1.6900e- 003		0.0829	0.0829		0.0829	0.0829	10.9558	8.7976	19.7533	0.0515	1.6000 e- 004	21.0885

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6.2 Area by SubCategory

<u>Unmitigated</u>

	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					ton	s/yr							МТ	/yr		1.00
Architectural Coating	0.0268				3	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0,0000	0.0000	0.0000
Consumer Products	0.0670					0.0000	· 0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0561	0.0157	0.5047	1.6800e- 003		0.0824	0.0824		0.0824	0.0824	10.9558	8.6642	19.6199	0.0514	1.6000e- 004	20.9518
Landscaping	2.5100e- 003	9.5000e- 004	0.0821	0.0000		4.5000e- 004	4.5000e- 004		4.5000e- 004	4.5000e- 004	0.0000	0.1334	0.1334	1.3000e- 004	0.0000	0.1367
Total	0.1524	0.0166	0.5868	1.6800e- 003		0.0829	0.0829		0.0829	0.0829	10.9558	8.7976	19.7534	0.0515	1.6000e- 004	21.0885

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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					ton	s/yr							МТ	/yr		
Architectural Coating	0.0268	1 1 1				0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0,0000
Consumer Products	0.0670	1 1 1 1				0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4800e- 003	9.4000e- 004	0.0815	0.0000		4.5000e- 004	4.5000e- 004		4.5000e- 004	4.5000e- 004	0.0000 [.]	0.1322	0.1322	1.3000e- 004	0.0000	0.1354
Total	0.0963	9.4000e- 004	0.0815	0.0000		4.5000e- 004	4.5000e- 004		4.5000e- 004	4.5000e- 004	0.0000	0.1322	0.1322	1,3000e- 004	0.0000	0.1354

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category		M.	T/yr	
Mitigated	4.4025	0.0235	5.9000e- 004	5.1670
Unmitigated	4.4025	0.0235	5.9000e- 004	5.1670

7.2 Water by Land Use

Unmitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		M	Γ/yr	
Congregate Care (Assisted Living)	0.716694/ 0.451829	4.4025	0.0235	5.9000e- 004	5.1670
Total		4.4025	0.0235	5.9000e- 004	5.1670

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7.2 Water by Land Use <u>Mitigated</u>

Total CO2 CH4 Indoor/Out N20 CO2e door Use Land Use Mgal MT/yr Congregate Care 0.716694 / (Assisted Living) 0.451829 5.9000e-004 4,4025 0.0235 5.1670 i. 4.4025 0.0235 5.9000e-004 Total 5.1670

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
		M	l T/yr	
Mitigated	2.0380	0.1204	0.0000	5.0491
Unmitigated	2.0380	0.1204	0.0000	5.0491

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8.2 Waste by Land Use

<u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		M	ſ/yr	
Congregate Care (Assisted Living)	10.04	2.0380	0.1204	0.0000	5.0491
Total		2.0380	0.1204	0.0000	5.0491

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		M	ſ/yr	
Congregate Care (Assisted Living)	10.04	2.0380	0.1204	0.0000	5.0491
Total		2.0380	0.1204	0.0000	5.0491

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Davs/Year	Horse Power	Load Factor	Euel Type
=qaipinein i/po	(tallie of	riodiciteay	Duyerrou			
			Contraction of the local data and the local data an	the second s	the second s	Contraction of the owner

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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

					ومبيدة بالمتحديق فيستجد والمتراكد والمتحد والمتحد والمتحد
	and the second secon	THE REPORT OF A DESCRIPTION OF A DESCRIP	and a state of the	the second se	
Equipment Lype	Numper Hours	/Dav Hours/Year	Horse Power	I load hactor	HUP IVDP
-q-pinoid ()po		ibuy ilouio/icui	TIOISC TO NOT		1 401 1 9 9 0
				[1] M. M. Markett, M. M. Markett, M. M. Markett, M. M. Markett, Nucl.	

Boilers

					والمحمد المحادث والمحادث والم
Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
					and the second

User Defined Equipment

Equipment Type Number

11.0 Vegetation

Eastern Kern Air Pollution Control District Policy

Best Practices



Eastern Kern Air Pollution Control District Policy

Addendum to CEQA Guidelines Addressing GHG Emission Impacts For Stationary Source Projects When Serving As Lead CEQA Agency

Board Adopted March 8, 2012

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VII.	ALTERNATE STRATEGY FOR REDUCTIONS
App	endix A: Definitions
App	endix B: Adopted Best Performance StandardsB-1
I. PURPOSE

This Policy establishes and details the process of evaluating new or modified stationary source Greenhouse Gas (GHG) emissions impacts on global climate change (climate change) for purposes of the California Environmental Quality Act (CEQA). This Policy is to be used when the Eastern Kern Air Pollution Control District (EKAPCD) has discretionary approval authority over new stationary source projects and serves as lead CEQA review agency when determining GHG emissions significance.

Project-Specific CEQA significance for GHG Emissions will be assessed as follows:

- A. If project is exempt from CEQA due to either a statutory or categorical exemption, no further analysis under CEQA is required.
- B. Project-Specific GHG Emissions must be quantified if the project is not exempt from CEQA.
- C. Project is considered to have a less than significant impact on GHG emissions if it meets one of the following conditions:
 - 1. Project-Specific GHG emissions are less than 25,000 tons per year (tpy);
 - 2. Project demonstrates to EKAPCD that it is in compliance with state GHG reduction plan such as AB 32or future federal GHG reduction plan if it is more stringent than state plan;
 - 3. Project GHG emissions will be mitigated to a less than significant impact if GHGs can be reduced by at least 20% below Business-As-Usual (BAU) through implementation of one or more of the following strategies:
 - (a) Compliance with a Best Performance Standard (BPS) as set forth in Section VI of this Policy;
 - (b) Compliance with GHG Offset as detailed in Section VI of this Policy;
 - (c) Compliance with an Alternative GHG Reduction Strategy as discussed in Section VII of this Policy.
- D. If none of the above is met the project will be deemed significant and an Environmental Impact Report (EIR) will be required.

II. BACKGROUND

A. State GHG Reduction Program

California is the twelfth largest emitter of GHGs in the world and second largest emitter in the United States. In recognizing the need to reduce California's GHGs, Assembly

EKAPCD CEQA GHG Policy

Speaker Fabian Nunez, and Assembly Member Fran Pavley introduced Assembly Bill 32, California Global Warming Solutions Act of 2006 (AB 32) to the State Legislature in early 2006. The legislation clearly designates the California Air Resources Board (ARB) as the leading agency for developing a plan to address GHG emissions in California. Governor Schwarzenegger signed AB 32 into law on September 27, 2006.

AB 32 states that climate change poses a threat to California's economy, public health, natural resources, and environment, and states the necessity of federal and international action to effectively combat global warming. AB 32 is the first law to limit GHG emissions at the state level and is considered to be the most comprehensive, economy-wide climate change policy in the nation by committing to lower California's GHG emission levels to 11% below business as usual to 1990 levels by 2020, 25% below 1990 levels by 2025, and 80% below 1990 levels by 2050.

As the designated lead state agency responsible for establishing and implementing all aspects of AB 32, ARB has development a Scoping Plan designed to achieve the statutory GHG reduction goals. In December 2008, ARB released a Scoping Plan that recommended a mix of GHG emission reduction strategies designed to meet the targets established in AB 32 that included compliance requirements, a market-based cap-and-trade program, and other GHG reduction incentives. The 2008 Scoping Plan was challenged under CEQA and in August 2011 ARB approved a Supplement to the AB 32 Scoping Plan that updated emission projections in light of the economic downturn. The updated projections in the 2011 Scoping Plan estimates 2020 BAU GHG emissions of 506 million metric tons (MMT) of CO2 equivalents (CO2e). This would require a reduction of 80 MMT of CO2e, which equates to a 16% statewide reduction (20% reductions from Industrial Sources) in order to meet the 1990 GHG levels by 2020. The original 2008 Scoping Plan estimated that 2020 BAU GHG emissions would be 596 MMT of CO2e, and projected that 174 MMT of CO2e (27.3% state-wide) reductions were required in order to meet 1990 levels by 2020

The Scoping Plan relies in part on the Cap-and-Trade Program (Program) in order to meet the GHG reduction targets. The first phase of the Program will be initiated on January 1, 2013 and will include 600 facilities, which produce 85% of the GHG emissions throughout California's economy. The Program requires listed sources to reduce GHGs in accordance with emission levels established for each facility. Under the Program GHGs will be represented and traded by allowances with each allowance representing one ton of CO2e. Each year allowances in the program will be reduced until the 1990 emission levels are reached in 2020.

On December 22, 2011, ARB adopted the allowance allocation requirements for the Capand-Trade Program. Allowances are calculated based upon the type of industry, the fuel efficiency standard set for the industry and the actual GHG emissions in the base year. The rule includes a chart of the annual GHG allowances beginning in 2013 and ending in 2020 when the 1990 BAU levels must be met. The allowance budget decreases for the first two years (2013 and 2014), dramatically increases with the second phase in 2015 when additional GHG sources are required to enter the Program and then decreases steadily by slightly over 12 million tons per year to meet the 2020 target.

B. Federal GHG Reduction Program

There is currently no federal GHG reduction program. If a federal program is adopted in the future that is more stringent than the state GHG reduction program then EKAPCD will revise this policy to include it.

C. GHG CEQA Review

Lead agencies are required to establish specific procedures for administering its responsibilities under CEQA. These requirements include orderly project evaluation and preparation of environmental documents. On April 13, 2009, the Governor's Office of Planning and Research sent proposed amendments of the CEQA Guidelines to the Secretary of the Resources Agency for promulgation. The amendments require lead agencies to determine new stationary source project GHG emissions significance on climate change.

EKAPCD staff anticipates that most projects within its jurisdiction will be subject to CEQA review for GHG emission impacts by other lead agencies and only a few projects each year will be subject to review by EKAPCD acting as lead agency. These projects are anticipated to be large industrial projects or modifications to existing industrial projects that do not require conditional use permits from a land-use agency or a permit from the California Energy Commission. Smaller industrial projects that EKAPCD serves as lead CEQA review agency would be below the significance threshold for GHGs.

EKAPCD staff has reviewed various methods of addressing GHG emissions through the CEQA process and recommends EKAPCD should follow an approach compatible with San Joaquin Valley Air Pollution Control District (SJVAPCD)'s approach. Due to geography Kern County is divided into two air districts. EKAPCD has the Eastern portion and the western portion is included in the SJVAPCD. By following a CEQA GHG review process similar to SJVAPCD's, EKAPCD will maintain substantial consistency throughout Kern County.

D. SJVAPCD GHG CEQA Policy

SJVAPCD's Governing Board adopted a Climate Change Action Plan (CCAP) that directed their APCO to develop guidance to assist SJVAPCD staff, valley businesses, land–use agencies, and other permitting agencies in addressing GHG emissions as part of the CEQA process. SJVAPCD prepared a staff report titled, *Addressing Greenhouse Gas Emissions under the California Environmental Quality Act* to support their CEQA GHG policy. The staff report provides a summary of background information on climate change, the current regulatory environment surrounding GHG emissions, and the various concepts in addressing the potential impacts of climate change. The report also evaluates different approaches for estimating impacts and summarizes potential GHG emission reduction measures.

This policy incorporates SJVAPCD's staff report, *Addressing Greenhouse Gas Emissions under the California Environmental Quality Act* by reference as an additional support document for EKAPCD's CEQA GHG review approach and methodology for approved BPS as detailed in Appendix B of this Policy.

III. DETERMINING PROJECT SIGNIFICANCE

CEQA encourages lead agencies to develop and publish thresholds of significance for use in determining the significance of environmental impacts. EKAPCD proposes the following process for determining individual and cumulative significance of project specific GHG emissions on climate change when issuing permits for new stationary source projects:

- A. Project subject to a CEQA statutory exemption or subject to a CEQA categorical exemption that does not otherwise have significant individual and cumulative effects on GHG emissions would not require further CEQA review.
- B. Project that is not exempt from CEQA would require quantification of Project-Specific GHG Emissions to determine annual GHG emissions.
- C. Project that emits less than 25,000 tons per year (tpy) of GHGs would be determined to have a less than significant individual or cumulatively considerable impact on GHG emissions and would not require further CEQA review.

EKAPCD believes a 25,000 tpy threshold is appropriate for determining that a project will have no significant or cumulatively considerable impact because:

- 25,000 tpy is the EKAPCD GHG reporting requirement as stated in Section VI.B of EKAPCD Rule 201.3, Federally Enforceable Limits on Potential to Emit. ARB and EPA have determined that a 25,000 metric ton per year (mtpy) threshold is appropriate for GHG reporting because it would encompasses facilities whose GHG emissions may be subject to regulation. (See 74 Fed. Reg. 56260, 56273 (Oct. 30, 2009)); and
- 2. 25,000 tpy is less than the threshold ARB uses for industrial source applicability as the first phase of the AB 32 Cap-and Trade Program and is therefore slightly more stringent than the Cap-and-Trade Program. (See ARB, Cap-and-Trade Instructional Guidance, Cap-and-Trade regulation Applicability Guidance (Jan. 2012)).
- D. Project with Project-Specific GHG Emissions equal to or greater than 25,000 tpy will be assessed for CEQA significance as follows:
 - 1. Project subject to a state or federal GHG emission reduction plan or program that can demonstrate to EKAPCD that the project will be in compliance with such plan or program would be determined less than significant. State or federal GHG reduction plans or programs must be specified in law. For example, if a project

will be covered by the Cap-and-Trade Program, which is designed to require reductions in GHG emissions consistent with the statutory goals set forth in AB 32, the project would be in compliance with a state GHG emission reduction program and under this Policy the project would be determined to have a less than significant or cumulatively considerable impact on GHG emissions. The APCO will consider each project's compliance with state or federal GHG reduction plans or programs on a project-by-project basis.

- 2. Project that implements one or more of the following strategies that achieve at least a combined 20% reduction in GHG emissions compared to BAU will be determined to be less than significant:
 - (a) BPS as set forth in Section VI of this Policy;
 - (b) Offsets as defined in Section III of this Policy;
 - (c) Alternative GHG Reduction Strategies as defined in Section III and discussed in Section VII of this Policy.

EKAPCD believes that a 20% reduction in GHGs compared to BAU is appropriate because it reflects the Industrial Sector target listed in the Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document released August 19, 2011 and is more conservative than the 16% overall reduction set forth in the Scoping Plan.

E. Project that is not exempt from CEQA, not subject to an adopted state or federal GHG reduction plan, or cannot demonstrate that Project-Specific GHG Emissions will be reduced at least 20% below BAU will require preparation of an EIR.

IV. ESTABLISHING BAU AND BASELINE

In executing its legislative mandate to establish emission reduction targets which would achieve 1990 GHG emission levels by the year 2020, ARB used its emission inventory to establish a three-year average for GHG emissions occurring by sector during the baseline period of 2002-2004. This three-year average baseline emissions inventory was projected to the year 2020 using assumptions about potential growth, and assuming no change in the existing business practices. ARB has determined that a 20% reduction from the Industrial Sector's BAU is necessary in order to achieve 1990 GHG emissions level by 2020.

BAU as established by ARB is a projected emissions inventory and does not represent actual business or operational practices generating GHG emissions. To translate BAU into an emissions generating activity, EKAPCD staff will establish emission factors per unit of activity for each class and category using the Baseline as defined in Appendix A of this policy. Example: an emissions factor for a combustion process could be expressed as pounds of GHG emissions generated per cubic feet of gas consumed or pounds of GHG emissions generated per unit of production.

GHG emission reductions would be determined by establishing a GHG emissions factor per unit of activity for the proposed project and comparing it to the emissions factor established for the baseline period.

The percent reduction in GHG emissions would be calculated using the following methodology:

% Reduction in GHGs = $\frac{(Baseline GHG factor) - (Proposed project GHG factor)}{Baseline GHG factor} x 100\%$

V. ESTABLISHING BPS

Use of BPS streamlines the significance determination process by pre-quantifying the emission reductions that would be achieved by a specific GHG emission reduction measure and pre-approving the use of such a measure to reduce project-related GHG emissions. Establishing BPS also streamlines the CEQA review process by providing EKAPCD staff, project proponents, and the public with clear guidance on how to reduce GHG emission impacts. Thus, if a project proponent incorporates GHG reduction measures during the initial project design phase that reduces Project-Specific GHG emissions by at least 20% the project would be considered mitigated to less than significant.

A. Process for Establishing BPS

BPS will be the most effective Achieved-in-Practice means of reducing or limiting GHG emissions from a GHG emissions source. EKAPCD will develop and approve BPS for specific classes and categories of stationary sources for use within the District, or adopt a BPS that has been developed, approved and implemented by another air district, ARB, or CAPCOA. To ensure a BPS reflects the most current available technology periodic reviews will be conducted and approved BPS will be revised as necessary. Revisions to BPS only apply to future projects and do not apply retroactively to projects already permitted or approved.

B. Process Steps for BPS Developed by EKAPCD

EKAPCD will implement the following process for developing a BPS:

- 1. Establish Baseline GHG emissions factor per unit of activity for the proposed equipment or operation identified within a specific class and category.
- 2. For the specific equipment or operation being proposed within a specific class and category, list all technologically feasible GHG emissions reduction measures, including equipment selection, design elements and best management practices, that

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do not result in an increase in criteria pollutant emissions compared to the proposed equipment or operation.

- 3. For all technologically feasible GHG emission reduction measures identified in Step 2, identify all GHG reduction measures determined to be Achieved-in-Practice. In determining Achieved-in-Practice, consider the extent to which grants or other financial subsidies influence economic feasibility.
- 4. For each Achieved-in-Practice GHG emission reduction measure identified in Step 3:
 - (a) Quantify the potential GHG emission reduction, as compared to the Baseline GHG emissions factor per unit of activity; and
 - (b) Express the potential GHG emission reduction as a percent of Baseline GHG emissions factor per unit of activity.
- 5. Rank all Achieved-in-Practice GHG emission reduction measures by order of percent GHG emissions reduction.
- 6. Deem the Achieved-in-Practice GHG emissions reduction measure(s) with the highest percent reduction in GHG emissions as the EKAPCD approved BPS for the respective class and category of equipment or operation being proposed.
- 7. Public notice for proposed BPS will be provided through a workshop notice posted on the EKAPCD website and hard copies mailed to stakeholders and other interested parties no less than 3 weeks before the workshop. If the BPS affects a large number of sources or significant public participation is anticipated an official public notice will be released at least 30 days prior to the workshop. An electronic copy of proposed BPS will be made available on the EKAPCD's website and hard copy will be made available in the EKAPCD's administrative office prior to the workshop.
- 8. Hold a public workshop to present proposed BPS to stakeholders and other interested parties.
- 9. Provide 30-day question, comment, and suggestion period on proposed BPS.
- 10. The final draft of a proposed BPS will be presented to EKAPCD's Governing Board for adoption. Once the Board adopts the BPS it will become part of the EKAPCD's GHG CEQA policy.

C. Process Steps for Incorporating BPS by Reference

BPS located in Appendix B have been developed, approved, and implemented by SJVAPCD and are adopted by reference into this Policy. Any other or future SJVAPCD BPS must be approved by the APCO prior to being implemented in EKAPCD. Furthermore, the APCO may adopt a BPS by reference for specific equipment or operation that has been developed, approved, and implemented by another air district, CAPCOA, ARB, or EPA. In such cases EKAPCD staff will review and evaluate the BPS. The APCO must approve the BPS prior to its use within the District. A BPS that is adopted by reference is not required to undergo the public review process. BPS must demonstrate that it achieves quantifiable GHG emission reductions in order to be approved for use within the District. EKAPCD may rely on the findings of a BPS developed, approved, or implemented by another agency, including but not limited to, GHG emissions quantification or percent of GHG reductions achieved by the BPS.

VI. COMPLIANCE WITH GHG OFFSET

Project proponents may propose a reduction or removal of GHG emissions occurring elsewhere to compensate for, or offset an increase in GHG emissions resulting from the project. Individual projects can be developed to achieve the reduction of emissions from activities not otherwise regulated, covered under an emissions cap, or resulting from government incentives. Any offset must be real, permanent, quantifiable, verifiable, enforceable, and subject to APCO approval.

VII. ALTERNATE STRATEGY FOR REDUCTIONS

Implementation of strategies to achieve AB 32 emission reduction targets is anticipated to drive technology development, potentially obsolescing or improving established standards over time.

Project proponents may propose other technologies, equipment designs, or operational/maintenance practices in lieu of an adopted BPS or if no BPS is available. An alternative GHG reduction strategy must demonstrate that Project-Specific GHG Emissions would be reduced or mitigated by at least 20% compared to BAU. The APCO will evaluate and approve the proposed alternative GHG emission reduction strategy if it is found to be appropriate for the project.

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APPENDIX A DEFINITIONS

- A. <u>Achieved-in-Practice</u>: Any equipment, technology, practice or operation available in the United States that has been installed and operated or used at stationary source site for a reasonable period of time sufficient to demonstrate that the equipment, technology, practice or operation is reliable when operated in a manner that is typical for the process. In determining whether equipment, technology, practice or operation is Achieved-in-Practice, the EKAPCD will consider the extent to which grants, incentives or other financial subsidies influence the economic feasibility of its use.
- B. <u>Alternate Strategies for Reductions</u>: Technologies, equipment designs, or operation/maintenance practices proposed by a project sponsor in lieu of an adopted BPS if no BPS is available, where the project sponsor can demonstrate that Project-Specific GHG Emissions would be reduced by at least 20% compared to BAU.
- C. APCO: Air Pollution Control Officer, or his designee.
- D. <u>Approved Alternate Technology</u>: Any EKAPCD approved, Non-Achieved-in-Practice GHG emissions reduction measure equal to or exceeding the GHG emission reduction percentage for a specific BPS.
- E. <u>Baseline</u>: Three year average (2002-2004) of GHG emissions for a type of equipment or operation within an identified class and category, expressed as annual GHG emissions per unit. The percent reduction in GHG emissions is calculated using the following methodology:

% Reduction in GHGs = $\frac{(2002-2004 \text{ baseline GHG factor}) - (Proposed project GHG factor)}{2002-2004 \text{ baseline GHG factor}} x 100\%$

- F. <u>Best Performance Standard (BPS)</u>: For a specific Class and Category, the most effective, EKAPCD approved, and Achieved-In-Practice means of reducing or limiting GHG emissions from a GHG emissions source, which is also economically feasible per the definition of Achieved-in-Practice. BPS includes equipment type, equipment design, and operational and maintenance practices for the identified service, operation, or emissions unit class and category.
- G. <u>Business-As-Usual (BAU)</u>: Emissions for a type of equipment or operation within an identified class and category projected for the year 2020, assuming no change in GHG emissions per unit of activity as established for the baseline period.
- H. <u>Category</u>: EKAPCD approved subdivision within a "class" as identified by unique operational or technical aspects.
- I. <u>Class</u>: Broadest EKAPCD approved division of stationary GHG sources based on fundamental type of equipment or industrial classification of the source operation.

- J. <u>GHG Offset</u>: Reduction, removal, or avoidance of GHG emissions that is used to compensate for GHG emissions that occur elsewhere, subject to approval of APCO.
- K. <u>Metric Ton per Year (mtpy)</u>: Tonne = 2,204.6 pounds (1000 kg).
- L. <u>Project-Specific GHG Emissions</u>: Emissions resulting from a specific operation or process, e.g. fuel combustion emissions from a boiler. Project-Specific GHG Emissions will be quantified in accordance with established Clean Air Act permit requirements or through methodology approved by the APCO on a project-specific basis.
- M. <u>Ton Per Year (tpy)</u>: United States short ton = 2000 lb (907.2 kg).

APPENDIX B ADOPTED BEST PERFORMANCE STANDARDS

This appendix contains a list of Best Performance Standards (BPS) approved for use with in the Eastern Kern Air Pollution Control District (EKAPCD).

The following list of BPS is adopted by reference from the San Joaquin Valley Air Pollution Control District:

- Fossil Fuel-Fired Boilers, Steam Generators & Process Heaters With Firing Capacity > 5 MMBtu/hour (HHV): (SJVAPCD Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under The California Environmental Quality Act, December 17, 2009);
- Non-Emergency Onsite Electric Power Generation with Fossil Fuel Combustion > 5 MMBtu/hour Or With Fossil Fuel-Fired Mechanical Driver > 50 bhp: (SJVAPCD Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under The California Environmental Quality Act, December 17, 2009);
- Non-Emergency Mechanical Equipment Driver (requirement in lieu of reciprocating IC engines > 50 hp and combustion turbines > 3 MMBtu/hour excluding combustion turbines in cogeneration service): (SJVAPCD Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under The California Environmental Quality Act, December 17, 2009);
- Cogeneration Topping Cycle Plants (not including Combined Cycle units): (SJVAPCD BPS, Effective November 1, 2011);
- Landfill Operations: (SJVAPCD Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under The California Environmental Quality Act, December 17, 2009);
- Direct-Fired Combustion Heat Transfer Equipment (Dryers, Kilns, etc): (SJVAPCD Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under The California Environmental Quality Act, December 17, 2009).

Soil Survey of Kern County

Southeastern Part

Soil Survey of KERN COUNTY CALIFORNIA SOUTHEASTERN PART



United States Department of Agriculture, Soil Conservation Service, in cooperation with University of California, Agricultural Experiment Station

soil survey of Kern County, California Southeastern Part

By Mario A. Valverde and Hal L. Hill, Soil Conservation Service

Fieldwork by Hal L. Hill, Ronald D. Edwards, Griffith S. Jones, Kan Kim Chang, Mario A. Valverde, James C. Wardlaw, and Kenneth E. Weaver, Soil Conservation Service

United States Department of Agriculture, Soil Conservation Service, in cooperation with the University of California Agricultural Experiment Station

The survey area is in the southeastern part of Kern County in the central part of California, 300 miles south of San Francisco and 120 miles north of Los Angeles. It covers about 1,600 square miles, or 1,007,800 acres.

The northern boundary of the area is formed by Panama Lane eastward to San Bernadino County, which borders the area on the east. Parts of Los Angeles County and Antelope Valley soil survey areas form the southern boundary. The western boundary runs south from the Di Giorgio settlement.

This part of Kern County includes rugged mountains, foothills, and desert areas. Elevation ranges from 400 to nearly 8,000 feet.

general nature of the area

This section provides general information about the area. It describes the history and agricultural development; population trends; physiography, relief, and drainage; climate; water supply; and vegetation.

history and agricultural development

The first record of agricultural development in Kern County was in 1860, when cattle and sheep were brought into the area. Because of the low precipitation, crops depend largely upon irrigation water. Development of water for irrigation, however, began with the mining industry. As miners came to the area, irrigation ditches were established and vegetable crops were grown. In 1862, a farmer in the area now known as Tehachapi wrote to a Los Angeles newspaper that "There is no place more inviting than this valley. Perfectly healthy—there are many thousand acres of the best kind of land, plenty of water of the best quality, and an inexhaustible supply of timber" (\mathcal{J}).

The Kern County Land Company, which had a great influence on the development of agriculture in the area, was established in 1890. Many kinds of fruit and vegetables were grown. In 1910 the first irrigation well in the Tehachapi Valley was drilled. By 1914 electrical power was available and there were over 1,500 water pumping plants in the county (4).

Today, agriculture is still one of the main industries in the area. Much of the nearly level to moderately sloping land in the western part of the survey area is used for grapes, citrus, nuts (such as almonds and pistachios), alfalfa, and cotton. Except for small areas of citrus and dryland grain, areas at the edge of the mountains are used primarily for livestock grazing. The mountainous areas are used for grazing, and a few wooded areas provide firewood. In areas of the Mojave Desert where irrigation water is available, alfalfa and cotton are the main crops.

Although agriculture is the main industry, the mining of borax, the production of cement, and the processing of carbon products also bring revenue into the area.

population trends

The population of Kern County has grown considerably since 1870, when it was 2,925. In 1950 the population was 228,309, and in 1970 it was 330,234. By 1980 it is expected (6) to reach 360,000.

The major towns in the survey area are Boron (population 2,900), California City (2,100), Mojave (2,840), and Tehachapi (4,200). Between 1960 and 1970 the population within the soil survey area increased 13.1 percent. It is generally assumed (6) that (1) the petroleum industry and agriculture, including their dependent industries, will continue to be a stable economic base for Kern County; (2) the decline in rural population during the 1960's has halted; and (3) there will be a natural increase in population. Migration presently has a minor net effect on the population growth.

physiography, relief, and drainage

The eastern half of the survey area is in the Mojave Desert. Alluvial fans, plains, low pediments, and scattered buttes are the main landscape features. The general slope is toward the southeast, but some low pediments and a few steep buttes face other directions in localized areas.

A small segment of the Sierra-Nevadas and part of the Tehachapi Mountains occupy about three-fourths of the western half of the area. In the middle of this rugged terrain are the valleys in which the city of Tehachapi is located. There are several geologic faults in this area. The major ones are the Garlock Canyon and Whitewolf.

The westernmost part of the survey area is the southeast edge of the San Joaquin Valley. It consists of nearly level and gently sloping alluvial fans and stream flood plains.

The highest elevation, about 8,000 feet, is on the mountainous uplands. The lowest, about 400 feet, is in the San Joaquin Valley.

From the mountains to the desert, Sand Canyon and the eastern part of the Tehachapi Valley drain to Cache Creek. The rest of the desert drainage flows southeasterly. The major outlets from the mountain valleys are Tehachapi Creek and its tributary, Brite Creek. Both drain most of the Tehachapi and Brite Valley northward into the San Joaquin Valley. Cummings Valley drains to Chanac Creek which flows westward into the San Joaquin Valley. Pastoria Creek, Tunis Creek, El Paso Creek, and Tejon Creek are the main streams from the mountains to the San Joaquin Valley.

climate

Prepared by Jerry L Hatfield, biometerologist, University of California at Davis.

Because of the mountain ranges and desert areas, the survey area has a highly variable climate. The Tehachapi

Mountains form the southern border of the San Joaquin Valley; to the east lies the Mojave Desert. Within this region, the climate is generally sunny, dry, and warm.

Table 1 gives data on air temperature (degrees F) and precipitation for the Tehachapi Mountains as recorded at Tehachapi. Table 2 gives data on air temperature (degrees F) and precipitation for the Mojave Desert as recorded at Cantil. In general, the climate varies more between stations in the mountains than between stations on the desert.

In Tehachapi the summer maximum temperatures are in the upper 80's and nights are cool. This is typical of the mountain areas. In Cantil days are very hot and nights are cool. Even during the winter the maximum temperature on the desert averages 60 degrees; nights are below freezing.

Tehachapi receives more than 10 inches of precipitation annually. Most falls in November through March. Precipitation at Cantil is very light and averages just slightly more than three inches annually. Most falls in December, January, and February. Because precipitation is so light, soil moisture supplies are depleted by June 9 at Tehachapi and April 2 at Cantil. At Tehachapi every winter has measurable snowfall; at Cantil about 12 percent of the winters have one day of snowfall.

Table 3 shows the probabilities of freezing temperatures (degrees F) and length of growing seasons at Tehachapi and Cantil. Tehachapi has a growing season of 156 days above 32 degrees. The last frost in spring is about May 1, and the first frost in fall is around the middle of October. Cantil has a growing season of 224 days above 32 degrees. Generally, the last frost in spring occurs before April 15 and the first frost in fall occurs after November 1.

Because of the topography in this survey area, large climatic variations occur within relatively short distances. Annual precipitation ranges from 12 to 21 inches in the mountains, 6 to 12 inches in the foothills, 3 to 6 inches in the Mojave Desert, and 6 to 9 inches for areas in the San Joaquin Valley.

Growing degree days are shown in tables 1 and 2. They are equivalent to "heat units." During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (40 degrees F). The normal monthly accumulation can be used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall. Tehachapi has a moderate temperature regime but ample growing degree days for plant growth. Cantil has enough growing degree days for multiple cropping, but most plants would not survive the very hot summer temperatures and would require large amounts of water.

Winds are highly variable in the mountains because of the complex terrain. At Tehachapi winds blow with equal frequency from the west-northwest and from the eastsoutheast. On the Mojave Desert winds are prevalently from the west-southwest. In the San Joaquin Valley winds are prevalently from the northwest. Throughout the survey area the winds are generally light, 4 to 12 miles per hour. Winds at any location within the area, however, may vary from these patterns.

water supply

In the mountainous uplands, all areas except one are serviced by ground water supplies. The water table has been monitored in the Tehachapi, Brite, and Cummings Valleys. It shows a history of dropping. The Tehachapi Valley alone has a water right for 5,500 acre feet annually. In another area of the mountains, immediately north of the survey area, intensive studies show the water table is dropping rapidly.

The mountain valley area imports water for agriculture and urban use. The current capacity is 15,000 acre feet for municipal use and 5,000 acre feet for agriculture.

The survey area in the San Joaquin Valley is supplied by the Arvin-Edison water district, which has an annual capacity of about 540,000 acre feet from the California Aqueduct, Kern Friant Canal, and local ground water.

The desert part of the survey area is associated with the Antelope Valley-Eastern Kern Water District but is still serviced by ground water.

vegetation

Natural vegetation in the soil survey area is classified into six major cover types: woodland-grass, annual grassland, chaparral, desert shrub, conifers, and the pinyon-juniper type (5). Within each of these groups there are many intergrades.

In some areas, the vegetation has been changed significantly by fires and accelerated erosion. An example of this is in the Oak Creek area.

The woodland-grass cover type surrounds Cummings and Brite Valleys and all but the southeastern part of Tehachapi Valley. Blue oak is the predominant tree, although California white oak is often mixed with the blue oak in the more moist valleys of the foothills. Cheatgrass, annual fescues, and scattered perennials make up most of the understory vegetation. Woodlandgrass stands occur on most of the residual and alluvial soils. This vegetative type, however, is not present in the Sand Canyon watershed.

Annual grassland of the survey area is typified by cheatgrass, filaree, red brome, annual fescues, ripgut brome, wild oats, and burclover. It commonly includes bunchgrasses, especially purple needlegrass, pine bluegrass, and bottlebrush squirreltail. This cover type is extensive and is mostly between the woodland-grass cover and cultivated alluvial soils. Soils supporting grass are extremely varied and include soils of nearly all of the soil series in the survey area. Fallowed or abandoned farmlands are quickly covered with the aggressive annual bromes.

Chaparral plants are mostly Brewer oak, buckbrush, desert ceanothus, manzanita, western mountainmahogany, California scrub oak, and dwarf canyon oak. Chaparral occurs at elevations from 2,400 to 6,800 feet. It is supported principally by the upland Walong, Friant, Arujo, Anaverde, and Tollhouse soils that have moderate to steep slopes.

The desert shrub type is limited to elevations under 3,000 feet in the Mojave Desert (9). Alkali blite, allscale, creosotebush, shadscale, spiny hopsage, and white bursage are the main shrubs. Desert needlegrass, Indian ricegrass, schismus, and red brome are the major grasses. The proportion and combination of these plants vary with changes in the soils and topography of the desert.

The conifers are limited mostly to elevations above 6,000 feet in the southern part of the survey area, including the Tehachapi, Brite, and Cummings Valleys. Jeffrey pine, sugar pine, and white fir make up most of this type. California black oak commonly occurs with one or all of the conifers. Edmundston and Tweedy soils support the pine and fir species.

Most of the Sand Canyon watershed and parts of the eastern side of the Tehachapi Valley watershed are covered with a pinyon-juniper-chaparral mixture. Pinyon pine and California juniper occur together and separately with California scrub oak. A wide variety of shrubs, including those in the genera Haplopappus and Ephedra, are in this cover type. Desert needlegrass and cheatgrass are the principal grasses of the understory vegetation. Tweedy-Anaverde complex, Nacimiento soils, and Porterville soils support much of this type, although most of it occurs on rocky land; rough, broken, and stony land; and rock outcrop.

At least three other shrubs grow in significant amounts in the mountain areas: big sagebrush, rabbitbrush, and California buckwheat. Big sagebrush has invaded and appears to be increasing primarily in woodland-grass chaparral. Rabbitbrush is restricted mostly to canyon washes of mixed alluvium and small areas of Tujunga and Tehachapi soils, where it often forms a dense canopy. California buckwheat, a widely adapted shrub associated with all the types mentioned previously, is most abundant in drier areas—especially in Sand Canyon.

how this survey was made

Soil scientists made this survey to learn what soils are in the survey area, where they are, and how they can be used. They observed the steepness, length, and shape of slopes; the size of streams and the general pattern of drainage; the kinds of native plants or crops; and the kinds of rock. They dug many holes to study soil profiles. A profile is the sequence of natural layers, or horizons, in a soil. It extends from the surface down into the parent material, which has been changed very little by leaching or by plant roots.

The soil scientists recorded the characteristics of the profiles they studied and compared those profiles with others in nearby counties and in more distant places. They classified and named the soils according to nationwide uniform procedures. They drew the boundaries of the soils on aerial photographs. These photographs show trees, buildings, fields, roads, and other details that help in drawing boundaries accurately. The soil maps at the back of this publication were prepared from aerial photographs.

The areas shown on a soil map are called map units. Most map units are made up of one kind of soil. Some are made up of two or more kinds. The map units in this survey area are described under "General soil map units" and "Detailed soil map units." While a soil survey is in progress, samples of some soils are taken for laboratory measurements and for engineering tests. All soils are field tested to determine their characteristics. Interpretations of those characteristics may be modified during the survey. Data are assembled from other sources, such as test results, records, field experience, and state and local specialists. For example, data on crop yields under defined management are assembled from farm records and from field or plot experiments on the same kinds of soil.

But only part of a soil survey is done when the soils have been named, described, interpreted, and delineated on aerial photographs and when the laboratory data and other data have been assembled. The mass of detailed information then needs to be organized so that it can be used by farmers, rangeland and woodland managers, engineers, planners, developers and builders, home buyers, and others.

2. Chanac-Pleito-Badlands

Very deep, gently sloping to steep, well drained soils on old dissected terraces; and Badlands

This map unit is near the base of the Tehachapi Mountains on the west side of the survey area (fig. 1). The soils formed in old, weakly consolidated, moderately fine textured alluvium of mixed origin or in moderately fine textured alluvium derived from granitic rock. Elevation ranges from 575 to 2,000 feet.

This unit covers about 3 percent of the survey area. It is about 22 percent Chanac soils, 16 percent Pletto soils, and 14 percent Badlands. The remaining 48 percent is minor soils.

Chanac soils are well drained. Slope ranges from 5 to 50 percent. Typically, the surface layer and subsoil are sandy clay loam. The substratum is stratified coarse sandy loam and clay loam. These soils have layers of accumulated calcium carbonate below a depth of about 10 inches.

Pleito soils are well drained. Slope ranges from 2 to 50 percent. Typically, surface layer and subsoil are sandy clay loam. The substratum is gravely sandy clay loam. These soils have layers of accumulated calcium carbonate below a depth of about 16 inches.

Badlands consist of steep barren land that has been dissected by many gullies. Local relief ranges from 25 to 500 feet.

Minor in this unit are areas of Haploxerolls and Rock outcrop. There are some small areas of Anaheim Variant, Tunis soils, and Walong soils.

Soils in this unit are used mainly for rangeland, wildlife habitat, and oilfields. The gently sloping soils are used for irrigated crops and dryland grain. Excessively steep slopes and a hazard of erosion are the main limitations. In many areas these soils have little or no vegetation.

Soils on uplands and in valleys of the Sierra Nevada and Tehachapi Mountains

The soils in this group are on mountains in the central to western part of the survey area. The soils are dominantly strongly sloping to very steep, but some soils in the mountain valleys are nearly level. Elevation ranges from about 2,000 feet in the lower part of the Tehachapi Mountains to nearly 8,000 feet at the mountain peaks. The mean annual precipitation ranges from 10 inches at the lower elevations to 21 inches near the high mountain peaks. The average annual temperature is about 59 degrees F, and the average frost-free season ranges from 150 to 250 days. Vegetation is dominantly conifers at the higher elevations and a grass-oak mixture at the lower elevations.

These soils are shallow to very deep and well drained or somewhat excessively drained. They have gravelly sandy loam, gravelly loam, or sandy loam surface layers.

Most soils in this group are used for woodland, rangeland, recreation, wildlife habitat, and watershed. However, soils in the mountain valleys, where slopes are smoother, are used mainly for irrigated crops. A few soils in these areas are also used for urban development.

Most soils in this group are well suited to wildlife. They provide habitat for quail, mourning dove, bandtailed pigeon, and a few chukars, which are the common game birds of the survey area. The principal big game animal of the Tehachapi and Sierra Nevada Mountains is mule deer. Black bears and mountain lions are common. Small mammals include ground squirrels, jackrabbits, coyotes, and bobcats. Fish are limited, but some reservoirs may contain warm water fish such as bluegill, largemouth bass, and channel catfish. Streams at higher elevations contain trout. There are many other small and nongame animals and birds throughout the mountains. Proper management of the native plants can improve the potential for wildlife habitat. Dense vegetation and rock outcrops provide dense and good wildlife cover.

Four map units are in this group. They cover about 37 percent of the survey area.

3. Walong-Anaverde-Edmundston

Very deep to moderately deep, hilly to very steep, well drained soils underlain by weathered granite or schist; on mountainous uplands

This map unit is mainly on side slopes between the terraces on the eastern edge of the San Joaquin Valley (fig. 1) and the mountains edging the west side of the Tehachapi Valley (fig. 2). The soils formed in medium and moderately coarse textured residuum weathered from granite and schist. Elevation ranges from 2,000 to 6,000 feet.

This unit covers about 20 percent of the survey area. It is about 45 percent Walong soils, 10 percent Anaverde soils, and 10 percent Edmundston soils. The remaining 35 percent is minor soils.

Walong soils are moderately deep. Slope ranges from 15 to 75 percent. Typically, these soils have a sandy loam surface layer and subsoil. Below this is weathered granitic rock.

Anaverde soils are very deep. Slope ranges from 30 to 75 percent. Typically, these soils have a gravelly loarn surface layer and subsoil and a gravelly sandy loarn and stony sandy loarn substratum.

Edmundston soils are deep. Slope ranges from 30 to 75 percent. Typically, these soils have a sandy loam surface layer and subsoil. The substratum is gravelly coarse sandy loam. Below this is weathered granite.

Minor in this unit are well drained Arujo, Friant, Steuber, and Tehachapi soils and somewhat excessively drained Godde, Tollhouse, and Tunis soils. There are also small areas of Psamments, Xerolls, and Xererts-Xerolls and some small bodies of water.

Soils in this unit are used mainly for rangeland, wildlife habitat, and watershed Soils in a few areas are used for homesites and recreation. Excessively steep slopes, a hazard of erosion, and low to moderate available water capacity are the main limitations. Among the recreational uses are hiking paths, camping, and parks.

4. Edmundston-Tollhouse-Godde

Deep and shallow, steep to very steep, well drained and somewhat excessively drained soils underlain by weathered granite; on mountainous uplands

This map unit is on complex slopes located both north and south of the high mountain valleys (fig. 1). The soils formed in moderately coarse textured residuum weathered mainly from granitic rocks. Elevation ranges from 4,000 to 8,000 feet.

This unit covers about 4 percent of the survey area. It is about 36 percent Edmundston soils, 26 percent Tollhouse soils, and 25 percent Godde soils. The remaining 13 percent is minor soils.

Edmundston soils are deep and well drained. Slope ranges from 30 to 75 percent. Typically, these soils have a sandy loam surface layer and subsoil and a gravelly coarse sandy loam substratum. Below this is weathered granite.

Tollhouse soils are shallow and somewhat excessively drained. Slope ranges from 30 to 75 percent. Typically, these soils have a sandy loam and gravelly sandy loam surface layer. Below this is highly weathered granite.

Godde soils are shallow and somewhat excessively drained. Slope ranges from 30 to 75 percent. Typically, these soils have a surface layer and underlying material of gravelly sandy loam. Below this is a highly fractured granitic rock.

Minor in this unit are well drained Arujo, Havala, Nacimiento, Steuber, Tehachapi, and Walong soils. There are also areas of Xerorthents-Rock outcrop.

Soils in this unit are used mainly for rangeland, recreation, watershed, and wildlife habitat. The main limitations are the excessively steep slopes, limited soil depth, a hazard of erosion, and very low to moderate available water capacity.

5. Tweedy-Rock outcrop-Edmundston

Rock outcrop and deep and moderately deep, steep and very steep, well drained soils underlain by weathered granite or schist; on mountainous uplands

This map unit is in the north-central part of the survey area (fig. 3). The soils formed in moderately coarse and medium textured residuum weathered from granite and schist. Elevation ranges from 4,000 to 6,000 feet.

This unit covers about 8 percent of the survey area. It is about 25 percent Tweedy soils, 21 percent Rock outcrop, and 14 percent Edmundston soils. The remaining 40 percent is minor soils.

Tweedy soils are moderately deep. Slope ranges from 30 to 75 percent. Typically, these soils have a sandy loam surface layer and a sandy clay loam subsoil. Below this is highly weathered schist.

Rock outcrop are areas with little or no soil. Slope ranges from 30 to 75 percent. These areas consist of exposures of igneous, metamorphic, and sedimentary rock. The kinds of rock include granite, basalt, gneiss, and sandstone.

Edmundston soils are deep. Slope ranges from 30 to

75 percent. Typically, these soils have a sandy loam surface layer and subsoil. The substratum is gravelly coarse sandy loam. Below this is weathered granite.

Minor in this unit are well drained Anaverde, Sween Variant, Tehachapi, and Walong soils and somewhat excessively drained Godde soils. There are also small areas of Xerolls, Xerorthents, and Torriorthents.

Soils in this unit are used mainly for rangeland, recreation, watershed, and wildlife habitat. The main limitations are the excessively steep slopes, a hazard of erosion, limited soil depth, and low or moderate available water capacity.

6. Steuber-Tehachapi-Havala

Very deep, nearly level to hilly, well drained soils; on alluvial fans, stream flood plains, and terraces of the mountain valleys

This map unit is dominantly in an area around the city of Tehachapi in the central part of the survey area (fig. 2). Two small areas are also near Chanac Creek and El Paso Creek on the western foot slopes of the Tehachapi Mountains. The soils formed in moderately coarse and moderately fine textured alluvium derived from granitic rock. Elevation ranges from 3,000 to 5,000 feet.

This unit covers about 5 percent of the survey area. It is about 42 percent Steuber soils, 27 percent Tehachapi soils, and 21 percent Havala soils. The remaining 10 percent is minor soils.

Steuber soils are on alluvial fans and stream flood plains. Slope ranges from 0 to 9 percent. Typically, these soils are sandy loam throughout.

Tehachapi soils are on alluvial fans and old terraces. Slope ranges from 2 to 30 percent. Typically, these soils have a sandy loam surface layer and a sandy clay loam and clay loam subsoil. The substratum is sandy loam.

Havala soils are on alluvial fans and old terraces. Slope ranges from 0 to 30 percent. Typically, these soils have a sandy loam surface layer and a sandy clay loam subsoil. The substratum is sandy loam.

Minor in this unit are well drained Arujo, Nacimiento, and Potterville soils; somewhat excessively drained Tujungo soils; and poorly drained Chino Variant soils. There are also small areas of Xerorthents-Rock outcrop and Psamments-Xerolls and a few bodies of water.

Soils in this unit are used mainly for irrigated crops, orchards, rangeland, watershed, and wildlife habitat. Where these soils are cultivated, the main limitations are a low or moderate available water capacity and a hazard of erosion on the steeper slopes. In most areas, nowever, these soils are well suited to cultivated crops and orchards as long as water for irrigation is available.

Soils on the eastern foot slopes of the Sierra Nevada and Tehachapi Mountains

The soils in this group are in relatively dry transitional areas between the high mountains and the Mojave

Desert. The soils are nearly level to very steep. Elevation ranges from 2,800 feet near the desert to 5,000 feet in the mountainous areas. The mean annual precipitation ranges from 6 to 9 inches, and the mean annual temperature ranges from 60 to 65 degrees F. The average frost-free season ranges from 175 days at the highest point to 225 days near the Mojave Desert.

These soils are shallow and very deep and well or somewhat excessively drained. They have gravelly loamy sand, gravelly sandy loam, or loamy sand surface layers.

These soils are used mainly for rangeland, watershed, and wildlife habitat.

The soils in this group provide native habitat for a combination of mountain and desert wildlife. It is inhabited by the common game birds of the survey area, which are quail, chukar, mourning dove, and band-tailed pigeon. The principal big game animal is the mule deer. Small game mammals include jackrabbits, desert cottontails, ground squirrels, coyotes, and bobcats. There are many other small animals, such as lizards and rattlesnakes, and various kinds of birds. Rock outcrop and Torriorthents provide good dens and cover.

Two map units are in this group. They cover about 8 percent of the survey area.

7. Rock outcrop-Jawbone-Xeric Torriorthents

Rock outcrop and shallow, hilly to very steep, well drained and somewhat excessively drained soils; on mountainous uplands

This map unit is east of the Mojave Desert in the foothills of the mountainous uplands (fig. 3). The soils formed dominantly in coarse and moderately coarse residuum weathered mainly from granitic rock. Elevation ranges from 3,000 to 5,000 feet.

This unit covers about 7 percent of the survey area. It is about 24 percent Rock outcrop, 17 percent Jawbone soils, and 17 percent Xeric Torriorthents. The remaining 42 percent is minor soils.

Rock outcrop consists of barren areas of outcrops, mainly of granite, basalt, and sandstone. Slope ranges from 50 to 75 percent.

Jawbone soils are excessively drained. Slope ranges from 15 to 75 percent. Typically, these soils have a gravelly loamy sand surface layer. Below this is highly weathered granite.

Xeric Torriorthents are well drained to somewhat excessively drained soils. Slope ranges from 50 to 85 percent. These soils range from sandy loam to clay loam. In some places, they are gravelly and are as much as 20 percent coarse fragments.

Minor in this unit are well drained Edmundston, Hi Vista, and Randsburg soils; somewhat excessively drained Cajon soils; and excessively drained Cinco soils. There are also small areas of Xerorthents and Xerolls-Rock outcrop.

Soils in this unit are used mainly for rangeland, watershed, and wildlife habitat. The main limitations are

the excessively steep slopes, limited soil depth, very low available water capacity, and a hazard of erosion.

8. Pajuela-Whitewolf

Very deep, nearly level to steep, somewhat excessively drained soils; on old stream terraces, alluvial fans, and flood plains

This map unit is east of the Mojave Desert at the base of the Tehachapi Mountains. The soils formed in coarse and moderately coarse alluvial material derived mainly from granitic rock. Elevation ranges from 2,800 to 4,500 feet.

This unit covers about 1 percent of the survey area. It is about 44 percent Pajuela soils and 30 percent Whitewolf soils. The remaining 26 percent is minor soils.

Pajuela soils are on old stream terraces. Slope ranges from 30 to 50 percent. Typically, these soils have a gravelly sandy loam and gravelly loamy sand surface layer. The underlying material is extremely gravelly loamy sand.

Whitewolf soils are on alluvial fans and flood plains. Slope ranges from 0 to 5 percent. Typically, these soils have a loamy sand surface layer. The underlying material is loamy coarse sand. Whitewolf soils in this unit are cooler than the Whitewolf soils near the San Joaquin Valley.

Minor in this unit are well drained Garlock and Wasioja soils and small areas of Torriorthents-Rock outcrop.

Soils in this unit are used mainly for rangeland, watershed, and wildlife habitat. In a few areas they are used for recreation. A very low to moderate available water capacity and a hazard of erosion are the main limitations. These soils, however, receive slightly more precipitation than soils in the desert and as a result have slightly higher forage production.

Soils of the Mojave Desert

The soils in this group are in the Mojave Desert in the eastern part of the survey area. They occupy several different landscapes ranging from low basins to high mountain ridges. The soils are nearly level to very steep. Elevation ranges from about 2,000 feet near Cantil to nearly 4,200 feet on Soledad Mountain in the southcentral part of the survey area. The mean annual precipitation ranges from 4 to 6 inches, and the mean annual temperature ranges from 60 to 66 degrees F. The average frost-free season ranges from 175 days near the mountains to 250 days in the Mojave Desert.

Soils in this group are shallow, deep or very deep, and well drained to excessively drained. The surface layer ranges from sand to clay loam.

Most soils in this group are used for rangeland, recreation, or wildlife habitat. Where water is available, a few soils are used for cropland or for homesites.

Major soil limitations are a high susceptibility of the sandy surface layers to soil blowing; shallow soil depth; low available water capacity; and a hazard of excessive saturation is 75 percent or more. Gravel content ranges from 0 to 25 percent. Some pedons may be as much as 20 percent cobbles or stones on the surface or throughout the profile. Reaction is neutral to moderately alkaline. The A horizon ranges from 4 to 15 inches in thickness. It has hue of 10YR, value of 4 or 5, and chroma of 2 or 3. The C horizon has hue of 10YR, value of 4 or 5, and chroma of 2 or 3. It is sandy loam or gravelly sandy loam.

Sween Variant

The Sween Variant consists of moderately deep, well drained soils on mountainous uplands. These soils formed from residual material weathered from basalt of andesitic rocks. Slope ranges from 5 to 30 percent. The mean annual precipitation ranges from 13 to 15 inches, and the mean annual air temperature is about 55 degrees F.

Sween Variant soils are similar to Arujo, Tweedy, and Tehachapi soils. They are near Anaverde, Tweedy, and Walong soils. Arujo soils have a fine-loamy control section and a mollic epipedon more than 20 inches thick. Tweedy and Tehachapi soils have a fine-loamy control section. Anaverde soils are very deep and have a fineloamy control section. Walong soils have a coarse-loamy control section.

Typical pedon of Sween Variant in an area of Sween Variant-Rock outcrop complex, 5 to 30 percent slopes, in SW1/4SE1/4NE1/4 sec. 29, T. 31 S., R. 35 E. MDB&M.

- A11-0 to 6 inches; brown (7.5YR 4/2) stony sandy clay loam, dark brown (7.5YR 3/2) when moist; moderate fine granular structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine and fine roots; few fine and medium tubular pores; approximately 15 percent stones; neutral (pH 7.0); clear wavy boundary.
- A12—6 to 12 inches; brown (7.5YR 5/2) stony sandy clay loam, dark brown (7.5YR 3/2) when moist; week medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; few very fine roots; few medium tubular pores; aproximately 15 percent stones and cobbles; neutral (pH 7.0); clear wavy boundary.
- B2t—12 to 38 inches; light reddish brown (5YR 6/3) stony clay, dark reddish brown (5YR 3/3) when moist; strong coarse angular blocky structure; hard, firm, sticky and very plastic; few fine roots; approximately 20 percent stones; slightly acid (pH 6.5).
- R-38 inches; hard basalt.

Depth to the lithic contact and solum thickness ranges from 24 to 40 inches. Content of stones in the profile ranges from 15 to 35 percent, and the gravel content ranges from 0 to 10 percent. The A horizon ranges 10 to 24 inches in thickness. It has hue of 7.5YR and 5YR, value of 4 or 5, and chroma of 2. Clay content ranges from 25 to 35 percent. The B horizon has hue of 5YR, value of 5 or 6, and chroma of 3. The clay content ranges from 40 to 45 percent.

Tehachapi series

The Tehachapi series consists of very deep, well drained soils on old alluvial fans and terraces. These soils formed in alluvial material derived mainly from granitic rock. Slope ranges from 2 to 30 percent. The mean annual precipitation ranges from 9 to 15 inches, and the mean annual air temperature is about 61 degrees F.

Tehachapi soils are similar to Arujo, Garlock, Havala, Neuralia, and Tweedy soils. They are near Arvin, Chanac, Havala, Pleito, and Walong soils. Arujo and Tweedy soils are on mountainous uplands. Garlock and Neuralia soils are in the Mojave Desert with aridic moisture regimes. Havala soils have a thicker A horizon. Arvin and Walong soils have coarse-loamy control sections. Chanac and Pleito soils have secondary lime in the profile, and they are on terraces near the San Joaquin Valley.

Typical pedon of Tehachapi sandy loam in an area of Tehachapi sandy loam, 2 to 15 percent slopes, in NW1/4NE1/4SW1/4 sec. 24, T. 32 S., R. 32 E. MDB&M.

- A11—0 to 2 inches; dark grayish brown (10YR 4/2) sandy loam, very dark grayish brown (10YR 3/2) moist; strong medium granular structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine roots; common fine tubular pores; neutral (pH 7.0); clear smooth boundary.
- A12—2 to 11 inches; dark grayish brown (10YR 4/2) sandy loam, very dark grayish brown (10YR 3/2) moist; moderate medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; common very fine roots; common fine tubular pores; neutral (pH 7.0); clear smooth boundary.
- B1t—11 to 19 inches; dark grayish brown (10YR 4/2), with equal amounts of dark reddish gray (5YR 4/2) sandy clay loam, dark grayish brown (10YR 3/2) and dark reddish brown (5YR 3/2) moist; moderate medium subangular blocky structure; slightly hard, firm, slightly sticky and plastic; few medium roots; few fine and medium tubular pores; many moderate thick clay films on faces of peds and as bridges between mineral grains; neutral (pH 7.0); gradual smooth boundary.
- B2t—19 to 32 inches; yellowish red (5YR 4/6) clay loam, reddish brown (5YR 4/3) moist; strong coarse angular blocky structure; very hard, firm, slightly sticky and plastic; few medium and coarse roots; few fine and medium tubular pores; common thick clay films on faces of peds and as bridges between

mineral grains; slightly acid (pH 6.5); abrupt wavy boundary.

- B31t—32 to 38 inches; yellowish red (5YR 5/6) sandy clay loam, reddish brown (5YR 4/4) moist; massive; very hard, friable, slightly sticky and slightly plastic; some pieces exhibit thick clay films when broken; approximately 15 percent by volume mixed gravel, .1 to 1 inch; neutral (pH 7.0); clear wavy boundary.
- B32t—38 to 44 inches; brown (7.5YR 4/4) sandy clay loam, reddish brown (5YR 4/4) moist; massive; very hard, very firm, sticky and plastic; few very fine roots; many moderately thick clay films coating mineral grains and as colloidal stains; approximately 10 percent by volume mixed gravel, .1 to 1.0 inch; moderately alkaline (pH 7.8); clear smooth boundary.
- Cca—44 to 60 inches; reddish yellow (5YR 6/6) sandy loam, reddish brown (5YR 4/4) moist; massive; very hard, few thin lime silica cemented lamellae; some lamellae have thin clay films bridging mineral grains; moderately alkaline (pH 8.0).

Solum thickness ranges from 38 to 89 inches. Content of rock fragments ranges from 0 to 35 percent. In some places, 20 to 50 percent of the fragments below 40 inches are cobbles and stones. Clay content ranges from 18 to 35 percent. Reaction ranges from slightly acid to moderately alkaline. The A horizon ranges from 11 to 20 inches in thickness. It has hue of 10YR, 7.5YR, or 5YR; value of 3 to 5; and chroma of 1 to 4. The B horizon has hue of 7.5YR or 5YR; value of 4 to 6; and chroma or 2, 4, or 6. It is sandy clay loam, clay loam, gravelly sandy clay loam, or cobbly sandy clay loam. The C horizon has hue of 10YR, 7.5YR, or 5YR; value of 4 to 7; and chroma of 2, 4, or 6. It is stratified with texture ranging from loamy sand to sandy clay loam and their gravely or cobbly equivalents. In some pedons, weakly cemented thin lamellae of lime-silica material occurs below 40 inches.

Tehachapi Variant

The Tehachapi Variant consists of very deep, well drained soils on alluvial fans and old stream terraces. These soils formed in alluvial material derived mainly from granitic rock. Slope ranges from 15 to 50 percent. The mean annual precipitation ranges from 10 to 15 inches, and the mean annual air temperature is about 59 degrees F.

Tehachapi Variant soils are similar to Arujo, Havala, Tweedy, and Wasioja soils. They are near Arujo, Steuber, Tehachapi, and Walong soils. Arujo and Tweedy soils are on mountainous uplands. Havala soils have a clay loam B horizon. Wasioja soils have a calcareous B horizon. Steuber soils are stratified and have a coarse-loamy control section. Tehachapi soils have a thinner mollic epipedon.

Typical pedon of Tehachapi Variant in an area of Tehachapi Variant sandy clay loam, 15 to 50 percent slopes, in NW1/4SE1/4NW1/4 sec. 17, T. 32 S., R. 33 E. MDB&M.

- A1—0 to 17 inches; dark grayish brown (10YR 4/2) sandy clay loam, very dark grayish brown (10YR 3/2) moist; moderate medium granular structure; slightly hard, friable, slightly sticky and slightly plastic; many very fine and fine roots; common very fine and fine tubular pores and few medium tubular pores; moderately alkaline (pH 8.0); clear smooth boundary.
- B1t—17 to 31 inches; dark grayish brown (10YR 4/2) sandy clay loam, very dark grayish brown (10YR 3/2) moist; moderate medium and coarse subangular blocky structure; hard, firm, sticky and plastic; few very fine and fine roots; common fine and few medium tubular pores; common thin clay films bridging mineral grains and on faces of peds; mildly alkaline (pH 7.5); clear smooth boundary.
- B21t—31 to 42 inches; brown (10YR 4/3) sandy clay loam, dark brown (10YR 3/3) moist; moderate medium and coarse subangular blocky structure; very hard, firm, sticky and very plastic; few fine roots; few fine tubular pores; many moderately thick clay films bridging mineral grains and on faces of peds; neutral (pH 7.0); clear smooth boundary.
- B22t—42 to 60 inches; brown (10YR 4/3) sandy clay loam, dark yellowish brown (10YR 3/4) moist; moderate medium and coarse subangular blocky structure; few very fine tubular pores; common thick clay films bridging mineral grains and on faces of peds; mildly alkaline (pH 7.5); clear smooth boundary.

Solum thickness ranges from 23 to 67 inches. The mollic epipedon is more than 20 inches thick. Depth to carbonates ranges from 23 to 60 inches. Reaction is neutral to moderately alkaline. Content of coarse fragments ranges from 0 to 15 percent. The A horizon ranges from 10 to 20 inches in thickness. It has hue of 10YR, value of 4 or 5, and chroma of 2 or 3. The clay content ranges from 20 to 25 percent. The B horizon has colors similar to the A horizon, but the clay content of the B horizon ranges from 25 to 35 percent.

Tollhouse series

The Tollhouse series consists of shallow, somewhat excessively drained soils on mountains. These soils formed in residual material weathered mainly from granitic rock. Slope ranges from 30 to 75 percent. The mean annual precipitation ranges from 10 to 18 inches, and the mean annual air temperature is about 55 degrees F.

Tollhouse soils are similar to Friant, Godde, Tunis, and Walong soils. They are near Edmundston, Friant, Godde, Tweedy, and Walong soils. Friant and Godde soils have lithic contacts. Tunis and Walong soils are warmer.

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Allan A. Schoenherr

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Foothill Woodland

As illustrated in figure 7.6, throughout most of the Coast Ranges the predominant community is Foothill Woodland (fig. 7.7). Many authorities refer to the community as Oak Woodland. This apparent discrepancy has arisen because the Coast Ranges are not true foothills. In practice, it has become conventional to refer to the Foothill Woodland of the Coast Ranges as Oak Woodland and to reserve the term *Foothill* Woodland for the Sierran counterpart of the same community. For the purposes of this book, the two terms will be considered equivalent. This is a mixed community of trees and grasses. Many authorities refer to it as a savannah. Dominant tree species include Blue Oak, *Quercus douglasii*, (fig. 4.20), and Digger Pine, *Pinus sabiniana* (pl. 5B). At slightly higher elevations and on north-facing slopes, particularly in the northern Coast Ranges, California Buckeye, *Aesculus californica* (fig. 4.21), is locally common. Redbud, *Cercis occidentalis*, may be locally common in the northern Coast Ranges as well.

A community known by some authors as Northern Oak Woodland dominates ridgetops up to 5000 feet (1600 m) in the northern Coast Ranges. This community, dominated by Garry Oak or Oregon White Oak (*Quercus garryana*) rather than Blue Oak, is also discussed in chapter 6. In Humboldt and Mendocino counties, grassy "balds" and open woodlands of Garry Oak occur in patches on ridges in the Mixed Evergreen Forest. These bald hills occur in patterns caused by different soil types. This grass-tree mosaic reflects the soil mosiac associated with the diverse geologic nature of the region.

Other oaks include Coast Live Oak, Quercus agrifolia (pl. 7B), Interior Live Oak, Quercus wislizenii, and Valley Oak, Quercus lobata (fig. 10.13). To the south of the Coast Ranges, Blue Oak is ultimately replaced by Coast Live Oak. Where the two species occur together, in the southern Coast Ranges, Blue Oak tends to grow on south-facing slopes, and Coast Live Oak grows on north-facing slopes. Interior Live Oak and Valley Oak are more common toward the interior of the Coast Ranges where Oak Woodland grades into Valley Grassland. Valley Oak dominates in valleys and on gentle upper slopes with deep soils. These deep soils are the result of reduced erosion rates. One author describes these open woodlands of Valley Oak as montane savannahs that are ecologically equivalent to the open woodlands of Garry Oak. Valley Oak grows as far south as the Tehachapi Mountains, where it occurs on gentle, sloping ridges up to 6000 feet (1800 m) in elevation.

Old gnarled oaks can be very picturesque. Large specimens are spectacular. The largest Blue Oak, located in Alameda County, is over 6 feet (2 m) in diameter and stands 94 feet (29.4 m) high. Its crown spread is 48 feet (15 m). The largest Coast Live Oak, found near Gilroy, is even more impressive. With a diameter of over 9 feet (3 m), it stands 85^{1} feet (26.6 m) high and has a crown spread of a whopping 127 feet (40 m). The largest Valley Oak is found in Butte County in the Great Central Valley. It is also an impressive specimen, standing 120 feet (3 m) in diameter.



FIGURE 7.6 Biotic zonation of the northern Coast Ranges.

In canyons, particularly on north-facing slopes, there is Canyon Live Oak, *Quercus chrysolepis* (pl. 7A). Canyon Live Oak resembles Coast Live Oak in size and shape but has small whitish hairs on the undersides of the leaves. In addition, the leaf margins of Canyon Live Oak are highly variable, ranging from smooth to spiny. Canyon Live Oak therefore may be identified at a glance by noting the undersides of the leaves and the variety of leaf shapes on a single tree. The largest Canyon Live Oak is a massive tree found in the Santa Ana Mountains of southern California. Its trunk diameter is nearly 11 feet (3.5 m), but it stands only 72 feet (22.5 m) in height. Its crown width is 80 feet (25 m). Another 70-foot (22-m) Canyon Live Oak, located at the foot of Duckwall Mountain in Tuolumne County, was lost in 1965 when it split apart and toppled during a snowstorm.

North of San Francisco the ranges of Coast Live Oak and Interior Live Oak overlap. Where this occurs, microclimatic preferences between the two species become apparent. Coast Live Oak tends to occur more commonly on the coast-facing slopes, where there is more soil moisture. Interior Live Oak prefers slopes that face away from the coast and becomes more common toward the interior of the Coast Ranges. Where the two species occur together, they may hybridize, which indicates that they have not been separate species for long. Identification of each species where their ranges overlap is complicated by hybridization, but in their pure forms, they can be identified by the color of their leaves. Interior Live Oak is bright green and shiny on both leaf surfaces. The leaf of the Coast Live Oak is a darker green and shiny only on the top surface. Coast Live Oak also has small tufts of hairs where leaf veins intersect on the lower surface.

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ree, however, makes a few large caches near its home, which it defends vigorously. In deep snow there is more reward for digging out a larger cache of food.

The Marten, *Martes americana*, is a large weasel, up to 20 inches (50 cm) from nose to rump. It is an agile predator that hunts on the ground and in the trees. Its prey is largely squirrels and chipmunks. Small Chickarees frequently escape from the Marten, but presumably the large Gray Squirrel is no match for it. Why the Marten does not go down the mountain in search of plump, succulent Gray Squirrels is a question that has not been answered, but two hypotheses are worth considering. First, perhaps competition from other predators such as Bobcats, *Lynx rufus* (fig. 8.49), and Coyotes (Fig. 8.47) excludes them. Second, it is suspected that the thick fur of the Marten would cause it to overheat during times of maximum energy expenditure, such as when it is running down its prey.

Martens are seldom seen. They hunt at night and early morning. When they are seen, they are usually running, probably across a snowfield. Their short legs and long bodies give them a very distinctive appearance when they run. The only animal with which it might be confused is the Fisher, *Martes pennanti*, which is rare in the Sierra

Martens remain active during winter. They grow additional hair on their feet to aid locomotion on soft snow, and they feed on winter-active mammals such as pocket gophers, Pikas, and mice. They dive and/or dig rapidly in the snow to chase their prey. It is said that they will dive under the snow and attack Porcupines from beneath, thus avoiding the quills.

Chipmunks (*Tamius* spp.) are small squirrels, seldom exceeding 6 inches (15 cm) from nose to rump. There are eight different species in the Sierra, and they all look alike. As in the case of woodpeckers and warblers, each has its own ecologic niche. They are separated by behavioral interactions, elevation, latitude, and slope exposure. Some remain in trees, some seldom climb trees, and others prefer rocks and fallen timber.

The complex of factors responsible for separation of chipmunks into different ecologic niches can be illustrated with three species that occur in Lee Vining Canyon, on the eastern slope of the Sierra Nevada, in the Yosemite area. The Lodgepole Chipmunk, Tamius speciosus, primarily inhabits Lodgepole Pine forests. It is restricted to forested sites because it is vulnerable to heat stress. It excludes other chipmunks by aggression. The Yellow-pine Chipmunk, Tamius amoenus (pl. 12F), occurs in the Jeffrey Pine and Pinyon Pine forests. It is more tolerant of heat stress than the Lodgepole Chipmunk. The Least Chipmunk, Tamius minimus, occupies open Sagebrush Scrub habitats. Throughout the Great Basin, the Least Chipmunk occurs in all habitats that are available in the eastern Sierra Nevada. In the Sierra it is kept from entering adjacent forested habitat by aggression from the Yellow-pine Chipmunk, but it is able to inhabit hot, dry habitat because it possesses thermoregulatory adaptations absent in other species. For example, the Least Chipmunk can tolerate a body temperature of 109°F (43°C) and a range of 13°F (7°C). So, in general, dispersal up the mountain is restricted by aggression, and movements down the mountain are restricted by physiological adaptations to heat stress.

Chipmunks are conspicuous and abundant. They feed mostly on small seeds, which they store in small holes in the ground. They also eat a surprising number of insects, including grasshoppers. One of the important controls on the abundance of termites seems to be predation by chipmunks, particularly when termites in winged form are dispersing. Chipmunks hibernate during winter, but unlike Golden-mantled Ground Squirrels, they are unable to rely on stored brown fat. Chipmunks become aroused frequently, during which time they urinate and eat. They dig through the snow to their food caches, which they locate by memory and odor.

Northern Flying Squirrels, *Glaucomys sabrinus*, are not common. They occur mostly in moist forests from Yosemite northward on the west side of the Sierra, but they are locally abundant on the east side of the Sierra as well. One interesting population occurs at Sagehen Basin north of Truckee, and residents of Mammoth, south of Yosemite, report that Northern Flying Squirrels beg for food in residential areas. These are small squirrels, about the size of chipmunks. They have a large web of loose skin between their forelimbs and hindlimbs, which they use to glide from tree to tree. They are nocturnal, and perhaps this is why they seem more scarce than they really are. Apparently, they are omnivorous, as many of them have been caught in meat-baited traps set for carnivores.

Riparian Woodland

Ripatian communities occur along watercourses. Abundant water and cold-air drainage provide a cold, moist climate that is unique in California, where hot, dry summers dictate the nature of most communities. Characterized primarily by small trees and large shrubs, this community is often called a woodland. At higher elevations, however, the vegetation is typically all shrubs. At lower elevations, the trees are so large and dense that the community may be referred to as Riparian Forest. Discussion here will emphasize elevational differences in the community. Where it is relevant, a comparison will be made with riparian communities in other parts of the state.

The density and diversity of species in a riparian community are greater than in any other community in California. This occurs for two reasons. First, a riparian community is very productive. Lots of food means lots of animals. Second, the riparian community is a transitional community between water and land. The zone where two communities overlap, called an ecotone, shares characteristics of both communities and therefore is diverse. That is, the edge of a community is more diversified than its center, a phenomenon also known as "edge effect."

Trees and shrubs that grow along a watercourse are highly water-dependent. Abundant water on a year-round basis dictates that many species of plants will be broadleaved. Because there are seasonal fluctuations in temperature, and winter is particularly cool due to cold-air drainage, most of these species are winter-deciduous. Unlike conifers, broad-leaved plants are particularly sensitive to low temperature. Photosynthesis in these plants during winter is unable to keep up with cellular respiration. The net effect is that, rather than use up carbohydrate stores during the winter, the

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making the Chagoopa surface Pliocene in age. Following this, the glacial episodes of the Pleistocene, coincident with the bulk of the Sierran uplift, raised the mountains to their present elevation. Glaciers sliding along the Kern fault cut the U-shaped Kern Gorge a full 2000 feet (600 m) deeper into the surface of the Chagoopa Plateau. From the west a small glacier cut a 1000-foot (300-m) gorge known as Big Arroyo. At the confluence of Big Arroyo and the Kern Gorge there is a spectacular hanging valley and waterfall.

BIOTIC ZONATION

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The distribution of communities in the Sierra Nevada (fig. 4.18) is influenced by elevation, latitude, rain-shadow effect, and slope effect. Complex interactions of living and nonliving factors provide an environment that is called the habitat. Among the nonliving (abiotic) factors of the environment are variations in light, heat, water, and soil. The biotic factors include all the organisms and their interactions. A habitat, therefore, is where organisms live.

Changes in environment that are associated with elevation are superimposed upon the differences in latitude between the northern and southern parts of the Sierra. As one moves to the north, precipitation increases and temperature decreases. Three hundred miles (480 km) of latitude is roughly equivalent to 1000 feet (300 m) of elevation. The trend, therefore, is for biotic zones to be displaced downward as a person goes northward. Upper timberline is about 1000 feet (300 m) lower at the northern end of the Sierra than at the southern end.



FIGURE 4.18 Biotic zonation of the central Sierra Nevada. Corresponding zones are elevated toward the south and on the east side of the Sierra Nevada.



FIGURE 4.19 Principal trees and shrubs of the Sierra Nevada biotic zones. (From T. I. Storer and R. L. Usinger. Sierra Nevada Natural History. Berkeley: University of California Press, 1963.)

Greater Tehachapi Area Specific and Community Plan - Maps

(full version available at the Kern County Planning and Community Development Department)





GTA Boundary

FIGURE 1-5. Previously Adopted Specific Plans





FIGURE 1-4. Greater Tehachapi Area Communities

GTA Boundary





Draft Environmental Impact Report Greater Tehachapi Area Specific Plan August 2010



Liquefaction Risk

Draft Environmental Impact Report Greater Tehachapi Area Specific Plan


---- GTA Boundary



Fire Hazard Severity Zones Areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones define the application of various mitigation strategies to reduce risk associated with wildland fires.

Figure 4.8-1 Fire Hazard Severity Zones

Draft Environmental Impact Report Greater Tehachapi Area Specific Plan



August 2010



GTA Boundary



Figure 4.12-2
Major Noise Sources





FIGURE 3-4. Oak Woodland/Forest Areas



2 Miles California Condor Critical Habitat

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GTA Boundary

Agricultural Preserves

23 Preserve Boundaries & Numbers In Pr

In Preserve & Eligible for Contract

FIGURE 2-3. Agriculture Preserves





GTA Boundary

FIGURE 1-4. Greater Tehachapi Area Communities





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