EXPANDED INITIAL STUDY/PROPOSED NEGATIVE DECLARATION

FOR THE

CITY OF COALINGA TENTATIVE SUBDIVISION MAP #5451

CITY OF COALINGA
COMMUNITY DEVELOPMENT DEPARTMENT
155 WEST DURIAN
COALINGA, CA 93210
(559-935-1533)

JANUARY 4, 2005

Notice of Completion and Environmental Document Transmittal Form

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 — 916/445-0613

See NOTE below
SCH# _____

1 Project Title City of Coalinga - Tract #5451 Initial Study
2 Lead Agency City of Coalinga
3 Contact Person Bill Skinner
3 a Street Address 155 West Durian
3 b City Coalinga
3 c County Fresno
3 d Zip 93210
3 c Phone (559) 935-1533

Project Location
4 County Fresno
4 a City/Community City of Coalinga
4 b Assessor's Parcel No. ;083-009-006 & 036
4 c Section _____ Twp _____ 11S Range _____
5 a Cross Streets City Wide
5 b For Rural, Nearest Community _____
6 Within 2 miles: a State Hwy. 33/198
b Airports _____
c Railways _____
d Waterways _____

7 Document Type

CEQA:
01 [ ] NOP
02 [ ] Early Cons
03 [X] Neg Dec
04 [ ] Draft EIR
05 [ ] Supplement/Subsequent EIR (prior SCH# _____)
06 [ ] NOE
07 [ ] NOC
08 [ ] NOD

NEPA:
09 [ ] NOI
10 [ ] FONSI
11 [ ] Draft EIS
12 [ ] EA

OTHER:
13 [ ] Joint Document
14 [ ] Final Document
15 [ ] Other

8 Local Action Type
01 [ ] General Plan Update
02 [ ] New Element
03 [X] General Plan Amendment
04 [ ] Master Plan
05 [ ] Annexation
06 [ ] Specific Plan
07 [ ] Community Plan
08 [ ] Redevelopment
09 [x] Rezone
10 [x] Land Division (subdivision Parcel Map, Tract Map, etc.)
11 [ ] Use Permit
12 [ ] Waste Management Plan
13 [ ] Cancel Ag Preserve
14 [ ] Other

9 Development Type
01 [X] Residential *Units* 351 *Acre* 137
02 [ ] Office *Sq.ft.* _____ *Acres* _____
03 [ ] Shopping/Commercial *Sq.ft.* _____ *Acre* _____ *Employees* _____
04 [ ] Industrial *Sq.ft.* _____ *Acres* _____ *Employees* _____
05 [ ] Water Facilities *MGD* _____
06 [ ] Transportation *Type* _____
07 [ ] Mining *Mineral* _____
08 [ ] Power *Type* _____ *Watts* _____
09 [ ] Waste Treatment *Type* _____
10 [ ] OCS Related
11 [x] Other Recreational

10 Total Acres 137
11 Total Jobs Created N/A

12 Project Issues Discussed in Document
01 [x] Aesthetic/Visual
02 [x] Agricultural Land
03 [x] Air Quality
04 [x] Archeological/Historical
05 [ ] Coastal Zone
06 [ ] Economic
07 [x] Fire Hazard
08 [x] Flooding/Drainage
09 [x] Geologic/Seismic
10 [ ] Jobs/Housing Balance
11 [x] Minerals
12 [x] Noise
13 [x] Public Services
14 [ ] Schools
15 [ ] Septic Systems
16 [ ] Sewer Capacity
17 [ ] Social
18 [ ] Soil Erosion
19 [ ] Solid Waste
20 [x] Toxic/Hazardous
21 [x] Traffic/Circulation
22 [x] Vegetation
23 [x] Water Quality
24 [x] Water Supply
25 [x] Wetland/Riparian
26 [x] Wildlife
27 [ ] Growth Inducing
28 [x] Incompatible Land Use
29 [ ] Cumulative Effects
30 [ ] Other

13 Funding (approx.): Federal $ _____ **State $** _____ **Total $** _____

14 Present Land Use and Zoning
General Plan land use classification of Agriculture
Zoning Ordinance designation as Agriculture (5 acre minimum)

15 Project Description
General Plan Amendment to change from agriculture to low density single family residential, re-zoning from agriculture to single family residential
Tentative Subdivision Map to develop the project area into 351 single family homes, linear park/trail and on-site stormwater basin.

16 Signature of Lead Agency Representative _____ **Date:** 1-4-05

Note: Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. from a Notice of Preparation or previous draft document) please fill it in.

Form Revised 4/86 - Replaces CA 189

Mark Distribution of Reverse.

Reviewing Agencies

- [ ] Resources Agency
- [ ] Boating/Waterways
- [ ] Conservation
- [x] Fish and Game
- [ ] Forestry
- [ ] Colorado River Board
- [x] Dept. Water Resources
- [ ] Reclamation
- [ ] Parks and Recreation
- [ ] Office of Historic Preservation
- [ ] Native American Heritage Commission
- [ ] S.F. Bay Cons. and Dev't. Commission
- [ ] Coastal Commission
- [ ] Energy Commission
- [ ] State Lands Commission
- [ ] Air Resources Board
- [ ] Solid Waste Management Board
- [ ] SWRCB: Sacramento
- [x] RWQCB: Region # Central Valley
- [ ] Water Rights
- [ ] Water Quality
- [x] Caltrans District 6
- [ ] Dept. of Transportation Planning
- [ ] Aeronautics
- [ ] California Highway Patrol
- [ ] Housing and Community Dev't.
- [ ] Statewide Health Planning
- [ ] Health
- [ ] Food and Agriculture
- [ ] Public Utilities Commission
- [ ] Public Works
- [ ] Corrections
- [ ] General Services
- [ ] OLA
- [ ] Santa Monica Mountains
- [ ] TPRA
- [ ] OPR - OLGA
- [ ] OPR — Coastal
- [ ] Bureau of Land Management
- [ ] Forest Service
- [ ] Other _____
- [ ] Other _____

For SCH Use Only

Date Received at CSH _____ Catalog Number _____

Date Review Started _____ Applicant _____

Date to Agencies _____ Consultant _____

Date to SCH _____ Contact _____ Phone _____

Clearance Date _____ Address _____

Notes: _____

City of Coalinga
Environmental Document Transmittal Letter

Date: January 4, 2005

To: (See Attached List)

From: Lead Agency:
City of Coalinga
155 West Durian
Coalinga, CA 93210

Subject: Public Review of City of Coalinga Crossroads Shopping Center Initial Study/Proposed Negative Declaration.

Enclosed is a copy of the Public Notice of Availability for the above named environmental document. A copy of the environmental document is being transmitted to each "Responsible", "Trustee", and other public agency included on the attached list, which may exercises authority over resources that may be affected by the project or which has jurisdiction by law over some aspect of the project. Anyone not identified on the attached may obtain a copy of the above named environmental document by contacting the above noted Lead Agency at (559) 935-1533.

Any written comments regarding the above named environmental document must be received at the Lead Agency address no later than 5:00 p.m., February 11, 2005. Facsimiles will not be accepted. If no comments are received by the date indicated, it will be assumed that the document is acceptable. Further information may be obtained by contacting Mr. Bill Skinner, Contract Director – Community Development Department at Coalinga City Hall (559-935-1533) or at Valley Planning Consultants (559-675-8724).

Mr. Bill Skinner, Contract Director
Community Development Department
City of Coalinga

CITY OF COALINGA
ENVIRONMENTAL DISTRIBUTION LIST

Regional Water Quality Control Board
1685 "E" Street
Fresno, CA 93706-2020

PG&E
240 Coalinga Plaza
Coalinga, CA 93210

Pacific Bell
Right-of-Way Manager
Attn: Mr. Don Daily
1250 East Ashlan Avenue
Fresno, CA 93704

Central Valley Cable
100 North 1st Street
Coalinga, CA 93219

Coalinga Library
305 North Fourth Street
Coalinga, CA 93210

Fresno County Clerk
2221 Kern Street
Fresno, CA 93721

Coalinga Huron Unified School District
657 North Sunset
Coalinga, CA 93210

Coalinga Huron Recreation & Parks District
555 Monroe
Coalinga, CA 93210

Planning Commission

Mayor and City Council

Applicant and Project Engineer

DATE: January 13, 2005

CITY OF COALINGA

COMBINED NOTICE OF PUBLIC HEARING, NOTICE OF AVAILABILITY AND NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION

NOTICE IS HEREBY GIVEN THAT, February 22, 2005 at 6:30 p.m., or as soon thereafter as possible, the Planning Commission of the City of Coalinga will hold a public hearing at a regularly scheduled meeting at the City Council Chambers 155 West Durian, Coalinga for the following purpose:

General Plan Amendment, Re-Zoning, Environmental Review and Tentative Subdivision Map application #04-03.

The project site consists of 137.6 ac of disc'd agriculture land. The proposed project consists of utilizing approximately 89.7 acres for development. The site provides for 351 single family lots, an 18 acres outlot for public park/open space use, and a 3.9 ac outlot for a public storm drainage retention basin. Residential lots will be setback from the existing Warthen Creek according to Fish and Game/City requirements. Residential units are comprised of a mixture of small and large lots ranging from 6,600 square feet to 21,601 square feet, with exception of 32 lots which are proposed as a density bonus ranging from 5,280 square feet to 6,623 square feet. Density bonus lots are clustered together in a single area on the site which contains 46 lots, of which 32 lots meet the density bonus. It is proposed that 5 out of 32 units be reserved for lower income residents and 4 out of 32 units be reserved for moderate income residents in accordance with the State of California Planning, Zoning, and Development Code Section 65915.

An Initial Study and Proposed Negative Declaration has been prepared for the project in accordance with Sections 15222, 15072 and 15073 of the California Environmental Quality Act. The mandated thirty (30) day public review period will commence on January 11, 2005 and terminate on February 11, 2005. All comments relating to the Proposed Negative Declaration must be submitted to the address listed above by not later than February 11, 2005 (5:00 p.m.). Copies of the Initial Study Proposed Negative Declaration may be reviewed at Coalinga City Hall, Community Development Department, Coalinga City Hall, 155 West Durian Coalinga, California, Monday through Friday (8:00 a.m. to 5:00 p.m.).

All interested persons are invited to appear at the time and place specified above to give testimony regarding the proposed actions listed above. Written Comments may be forwarded to the City of Coalinga Community Development Department, at the address listed above.

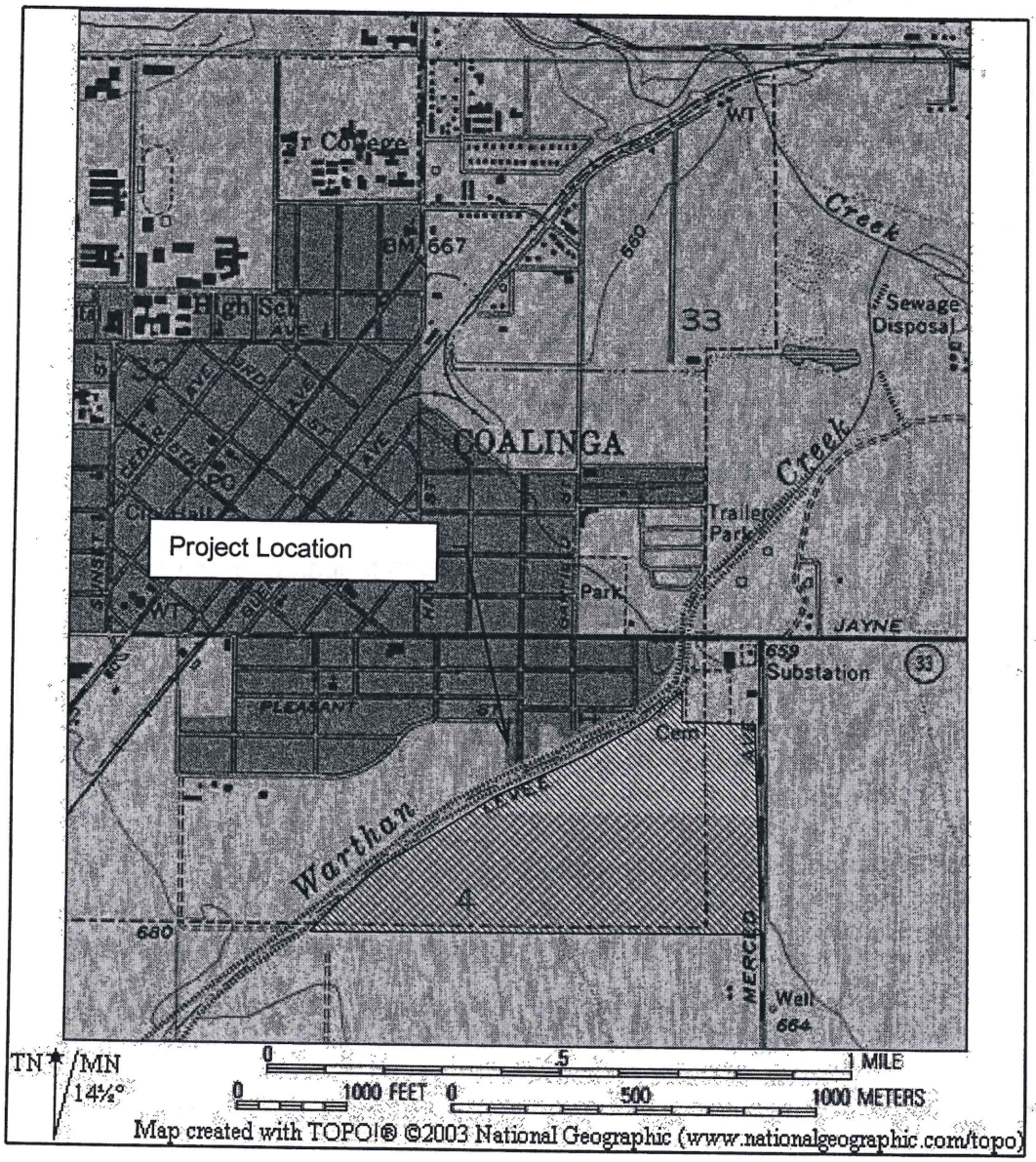
If you challenge the above matter in court, you may be limited to raising only those issues you or someone else raised at the Public Hearing, or in written correspondence delivered to the Planning Commission of the City of Coalinga at, or prior to, the Public Hearing or any comments received during the public review period of the Initial Study/Proposed Negative Declaration

To be published in the 1/13/05 edition of the Coalinga Record.
Please furnish "Proof of Publication".

cc: City Hall Bulletin window
City Manager
Mayor and City Council
City Clerk

DATE/TIME POSTED: 1/13/05 VERIFIED BY: Cindy Johnson, Deputy City Clerk

PROJECT LOCATION MAP



CITY OF COALINGA
PUBLIC NOTICE OF AVAILIBILITY OF AN INITIAL STUDY AND NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION

(Public Resources Code Section 21092 and 21092.3, and California Code of Regulation, Title 14, Sections 15072 and 15073)

The City of Coalinga has completed, independently reviewed and analyzed the Initial Study/Proposed Negative Declaration for the following project:

Project Title: City of Coalinga Tentative Subdivision Map Application #04-03 (Tract #5451) Initial Study/Proposed Negative Declaration

Project Description/Location:

General Plan Amendment, Re-Zoning, Environmental Review and Tentative Subdivision Map application #04-03.

The project site consists of 137.6 ac of disc'd agriculture land. The proposed project consists of utilizing approximately 89.7 acres for development. The site provides for 351 single family lots, an 18 acres outlot for public park/open space use, and a 3.9 ac outlot for a public storm drainage retention basin. Residential lots will be setback from the existing Warthen Creek according to Fish and Game/City requirements. Residential units are comprised of a mixture of small and large lots ranging from 6,600 square feet to 21,601 square feet, with exception of 32 lots which are proposed as a density bonus ranging from 5,280 square feet to 6,623 square feet. Density bonus lots are clustered together in a single area on the site which contains 46 lots, of which 32 lots meet the density bonus. It is proposed that 5 out of 32 units be reserved for lower income residents and 4 out of 32 units be reserved for moderate income residents in accordance with the State of California Planning, Zoning, and Development Code Section 65915.

Please refer to the attached Project Location Map for project area boundaries.

Availability of Document:

A copy of the Initial Study/Proposed Negative Declaration may be reviewed and/or obtained at the following address:

City of Coalinga
Community Development Department
155 West Durian
Coalinga, CA 93210

Public Review Period:

The review period for the Initial Study/Proposed Negative Declaration shall commence on January 11, 2005 and terminate on February 11, 2005 (5:00 p.m.).

Any written comments pertaining to this document must be received at the above stated address no later than February 11, 2005 (5:00 p.m.). Facsimiles will not be accepted.

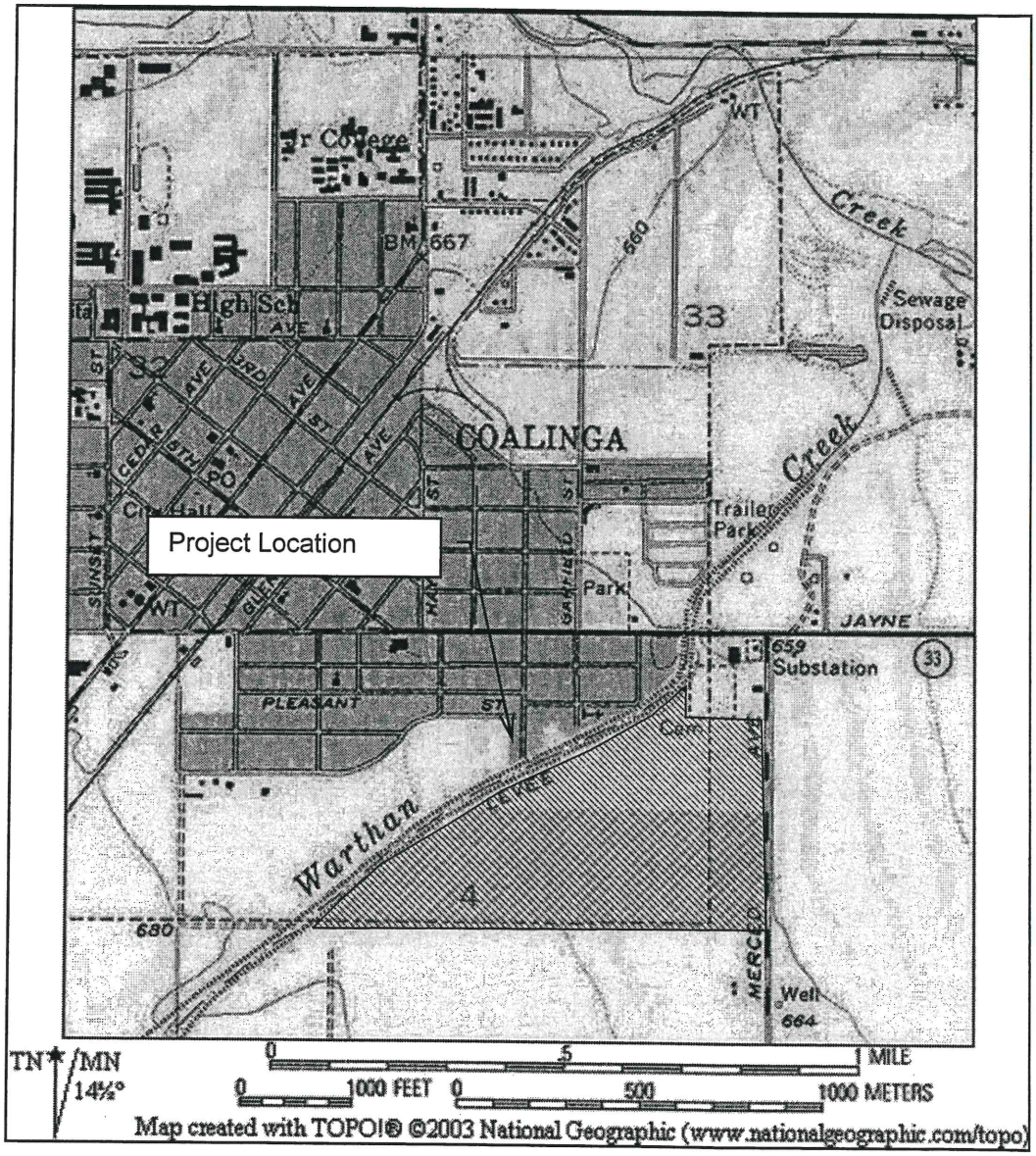
Public Hearing Schedule:

The City of Coalinga Planning Commission will conduct a Public Hearing to consider the Initial Study and adoption of the proposed Negative Declaration in accordance with Section 15070 of the CEQA Guidelines. The Public Hearing is scheduled for the Planning Commission meeting of February 22, 2005 @ 6:30 p.m., and the City Council on March 3, 2005 to be held in the City of Coalinga City Council Chambers, 155 West Durian, Coalinga.

Further information may be obtained by contacting the City of Coalinga Community Development Department at 559-935-1533.

Mr. Bill Skinner, Contract Director,
Community Development Department
City of Coalinga

Project Location Map



AFFIDAVIT OF FILING AND POSTING
BY THE COUNTY CLERK OF THE COUNTY OF FRESNO

I declare that on the date stamped below, I received and posted this notice as required by California Public Resources Code Section 21092.3. Said notice will remain posted for thirty (30) days from the filing date.

_____
Signature:

_____
Date:

Introduction

This Initial Study evaluates the potential environmental effects from the proposed Tentative Subdivision Map (Tract Number 5451) Warthan Creek Estates, which intents the development of a 137.6 acre parcel into 351 single family lots, herein referred as the "proposed project".

This Initial Study is being provided as part of the CEQA document for the use of City of Coalinga's consideration. The project is anticipated to be classified and determined as a Negative Declaration.

Environmental Review Process

The City of Coalinga's review and determination regarding the potential environmental impacts of the project will be based on the data presented in this Initial Study. This Initial Study has been prepared to provide the environmental documentation for the City's review of the proposed project. The City of Coalinga is assuming the role of "Lead Agency" for this project in accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines.

This document contains an "Environmental Checklist Form" for assessing potential environmental impacts of the project, in a modified form suggested by Appendix G of the State CEQA Guidelines. This form does not identify any significant environmental impacts associated with the construction of the project. This document also fulfills the environmental review requirements for various other reviews and approvals by the City of Coalinga and other agencies, as noted in Item 10 of the Environmental Checklist Form.

A brief explanation is provided for all the responses contained in the Environmental Checklist Form except for those provided with a "No Impact" response. Supportive documentation is provided for those responses identified as "No Impact". Where appropriate, mitigation measures havebeen identified to reduce potentially significant impacts to a less-than-significant level.

The proposed project is not expected to result in any significant environmental impacts that would not be mitigated to an acceptable level through project design or implementation of existing federal, state or City regulations or standards. Based on this determination, the City of Coalinga is proposing to adopt a "Negative Declaration" for the proposed project.

Environmental Checklist Form

1. **Project Title:**

   Tract # 5451
   General Plan Amendment, Pre-Zoning, Tentative Subdivision Map and Environmental Review #04-03

2. **Lead Agency Name and Address:**

   City of Coalinga, Community Development Department
   155 W. Durian Avenue, Coalinga, CA 93210

3. **Contact Person and Phone Number:**

   Bill Skinner
   Contract Director
   Community Development Department
   (559) 935-1533 (Coalinga City Hall)
   (559) 675-8724 (Valley Planning Consultants)

4. **Project Location:**

   Fresno County Assessor's Parcel Number 083-009-008 & 036

5. **Project Sponsor's Name and Address:**

   Contour Development Inc.
   14502 Brook Hollow
   San Antonio, TX 78232

6. **General Plan Designation:**

   The project area is designated on the General Plan Land Use Map as Agriculture. Proposed action is for a General Plan Amendment to re-designate to Low Density Residential.

7. **Zoning:**

   The 137 acre parcel is currently zoned as AE-5 (Agriculture Exclusive – Minimum 5 acre parcels). Proposed action is to Re-Zone the parcel to R-1/P-D (single family residential/planned development overlay).

8. **Description of Project:**

   The project site consists of 137.6 ac of disc'd agriculture land. The proposed project consists of utilizing approximately 89.7 acres for development. The site provides for 351 single family lots, an 18 acres outlot for public park/open space use, and a 3.9 ac outlot for a public storm drainage retention basin. Residential lots will be setback from the existing Warthen Creek according to Fish and Game/City requirements. Residential units are comprised of a mixture of small and large lots ranging from 6,600 square feet to 21,601 square feet, with exception of 32 lots which are proposed as a density bonus ranging from 5,280 square feet to 6,623 square feet. Density bonus lots are clustered together in a single area on the site which contains 46 lots, of which 32 lots meet the density bonus. It is proposed that 5 out of 32 units be reserved for lower income residents and 4 out of 32 units be reserved for moderate income

residents in accordance with the State of California Planning, Zoning, and Development Code Section 65915.

9. **Surrounding Land Uses and Setting:** Briefly describe the project's surroundings.

North – Agriculture (Fresno County – unincorporated territory)
South – Agriculture (Fresno County – unincorporated territory)
East – Vacant land (zoned agriculture)
West – Warthan Creek and single family residential dwellings

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

Agency	Approval Required
Regional Water Quality Control Board	Issuance of a NPDES Permit for grading activities in exceedance of 1 acre.
FEMA	Amendment to the Floodplain Map

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	☐ Agricultural Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards & Hazardous Materials	☐ Hydrology/Water	☐ Land Use and Planning
☐ Energy and Mineral Resources	☐ Noise	☐ Population and Housing
☐ Public Services	☐ Recreation	☐ Transportation/Circulation
☐ Utilities and Service Systems	☐ 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.

☐ 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 the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION will be prepared.

☐ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find the proposed project MAY have a significant effect(s) on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An

ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects: (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards; and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.

Signature — Date: 1-4-05

Bill Skinner, Community Development Director
Printed Name

City of Coalinga
For

Evaluation of Environmental Impacts:

1. A brief explanation has been provided for all answers except "No Impact," answers that are adequately supported by the information sources City cites in the parentheses following each question. A "No Impact" answer is adequately supported by information sources that show 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 is 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 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 City has determined that a particular physical impact may occur, then the check list answers 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 is significant. If there are more than one or more "Potentially Significant Impacts" entries when the determination is made, an EIR is required.
4. "Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The City must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5. Earlier analysis may be used where, pursuant to the teiring, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). Earlier analyses are discussed in Section XVII at the end of the checklist.

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

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

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

6. The City has incorporated into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). References 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 has been attached, and other sources used or individuals contacted should be cited in the discussion.

8. The explanation of each issue identifies:

    a) the significant 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 significant

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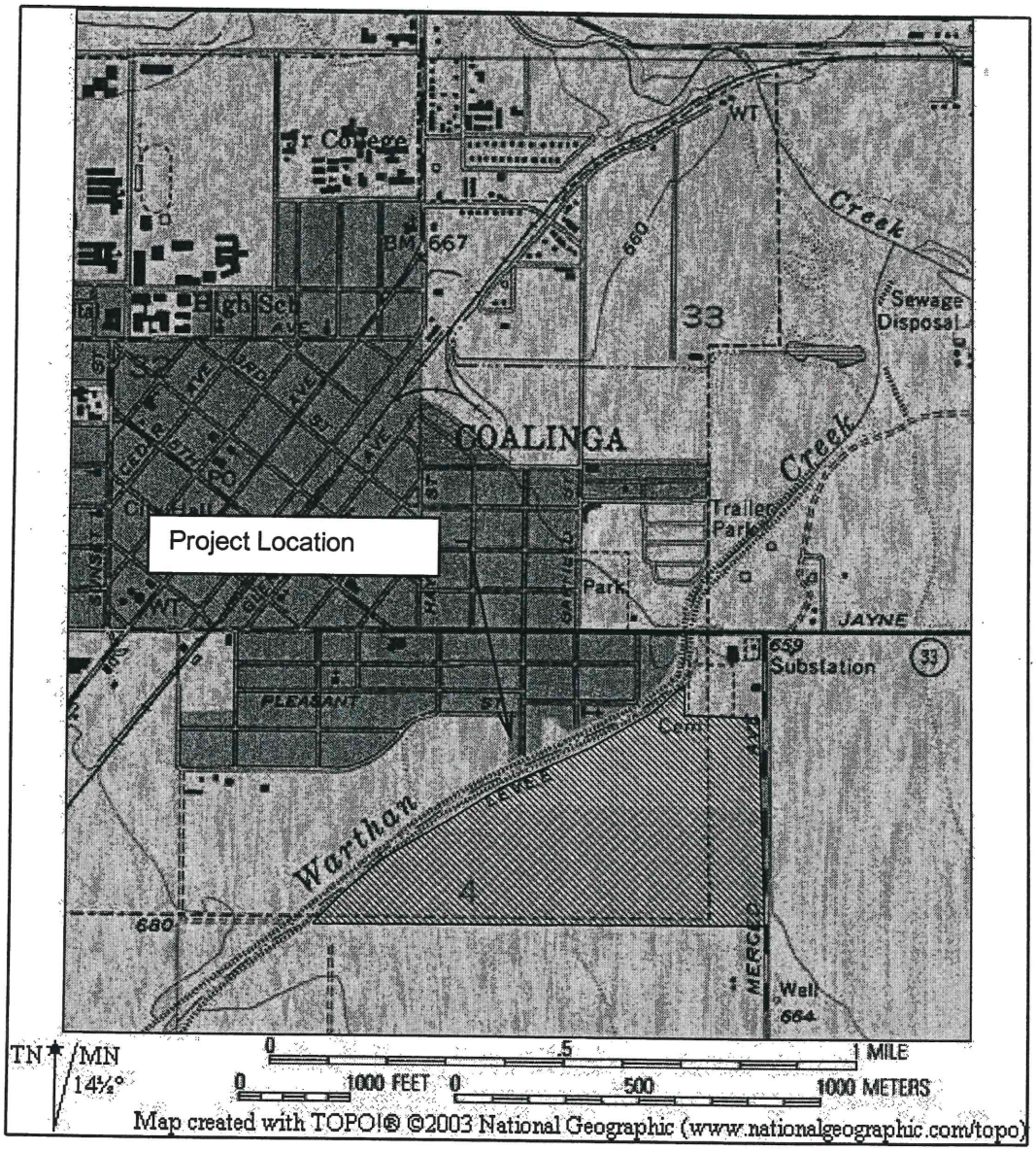
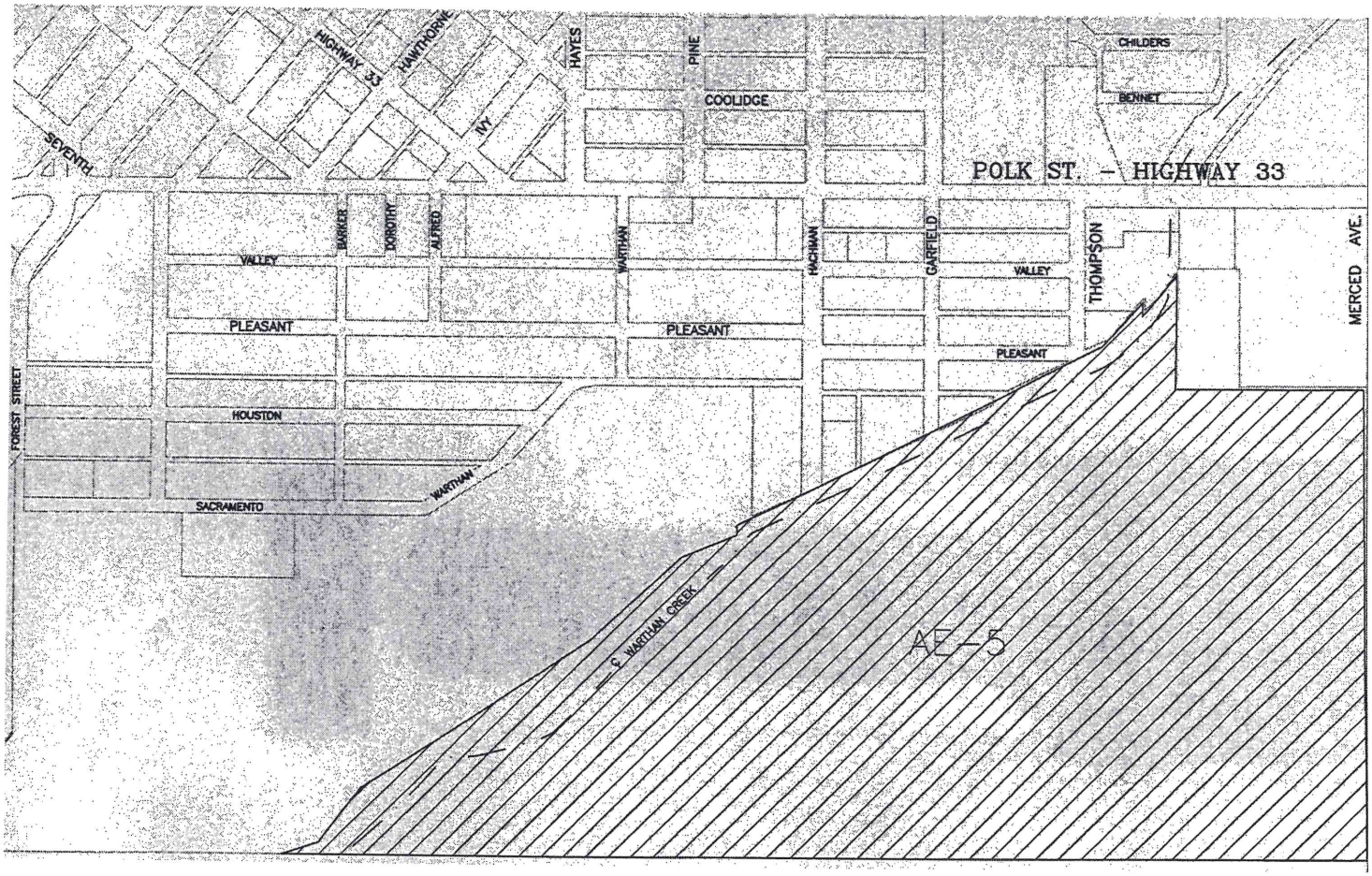
REGIONAL LOCATION MAP

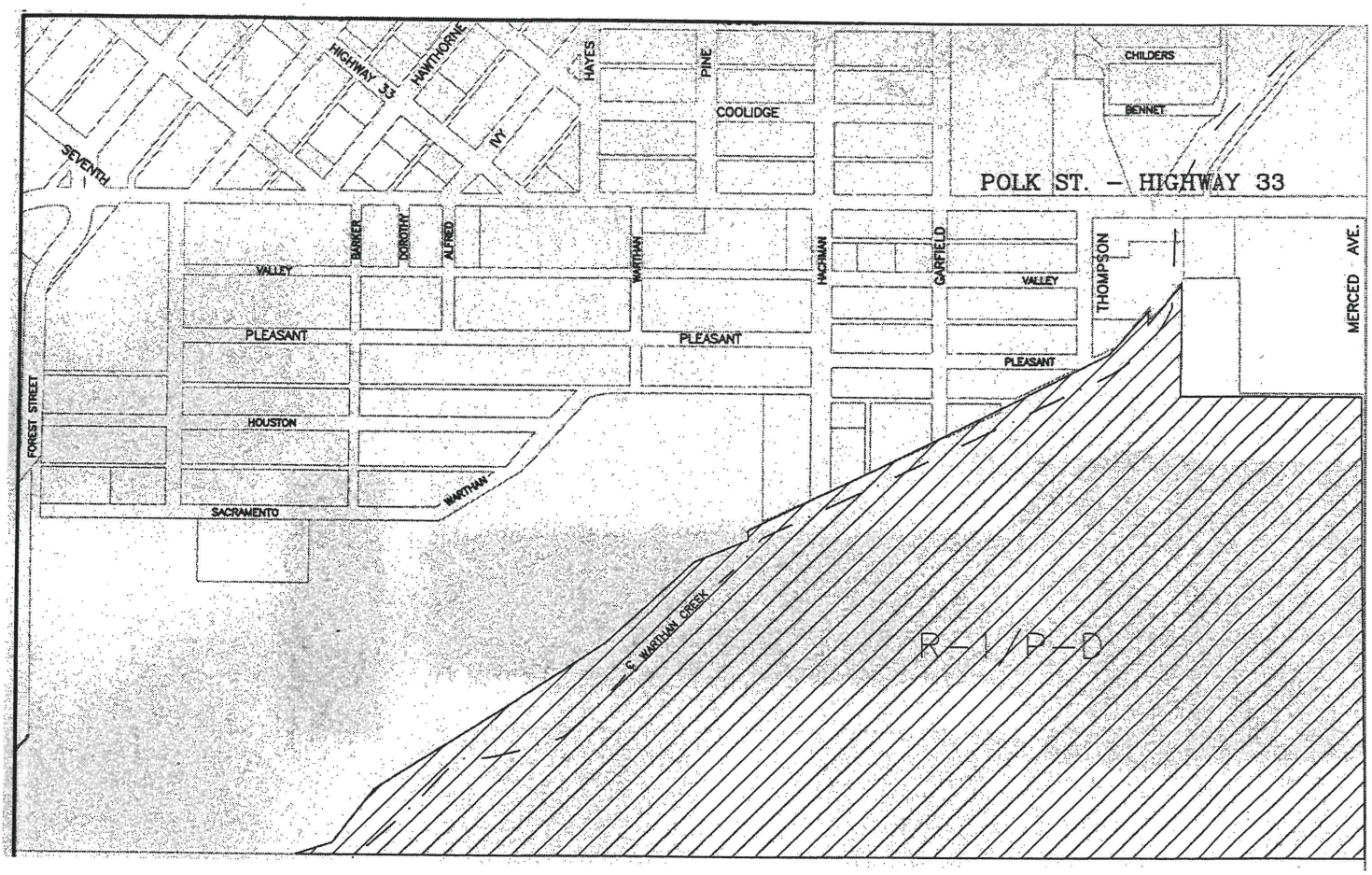
PROJECT LOCATION MAP



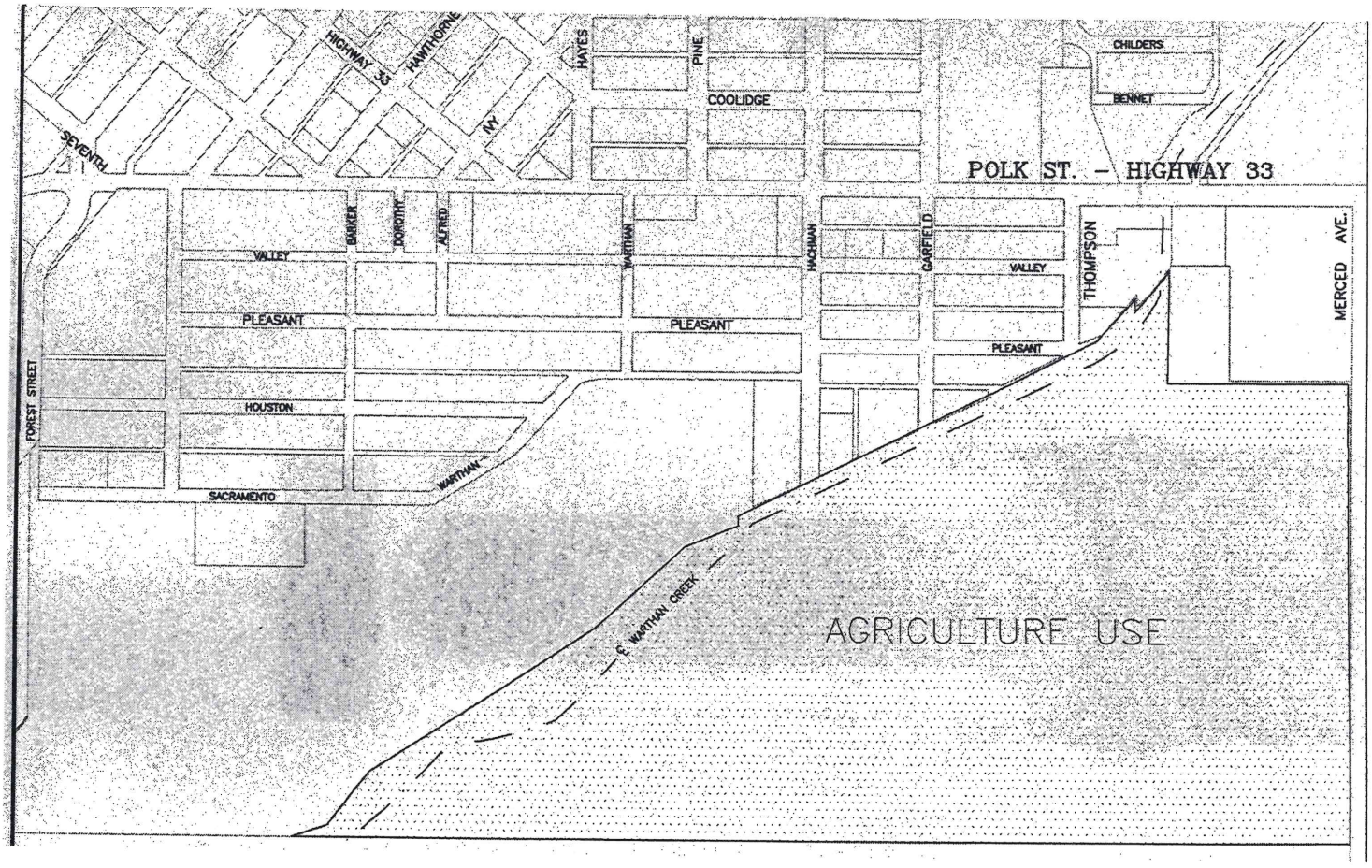
EXISTING ZONING MAP



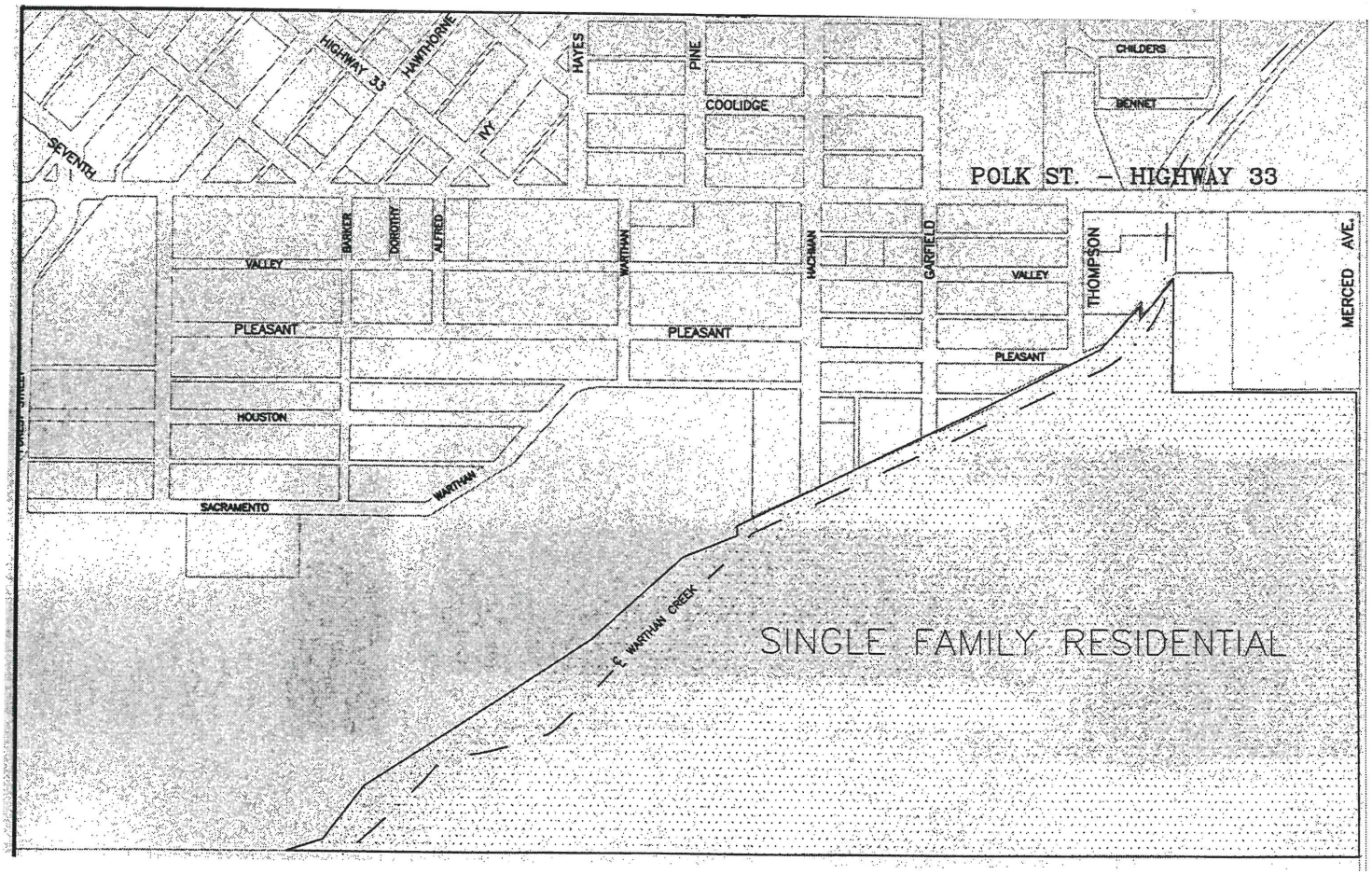
PROPOSED RE-ZONING DESIGNATION MAP



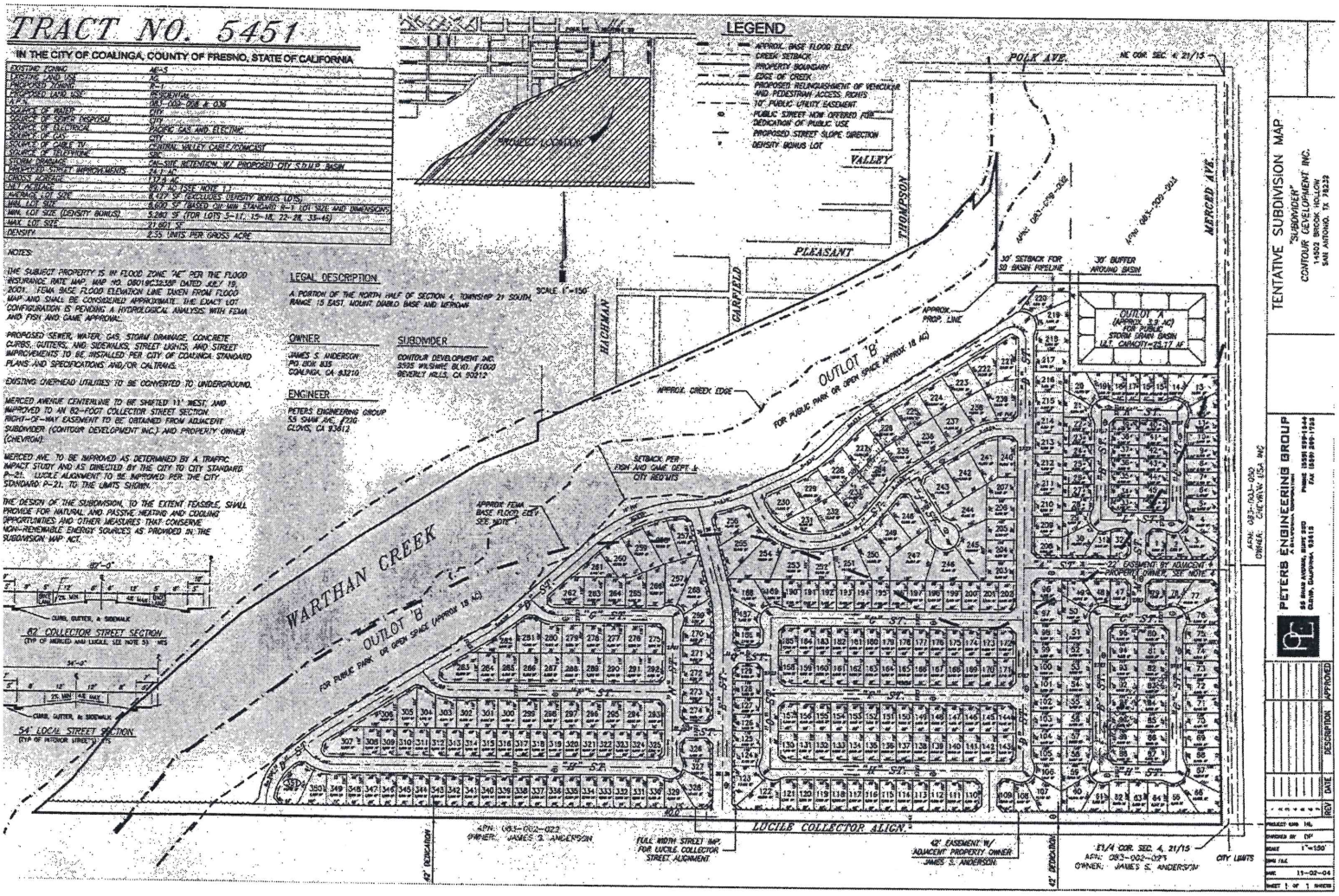
CURRENT GENERAL PLAN LAND USE DESIGNATION



GENERAL PLAN AMENDMENT PROPOSAL



TENTATIVE SUBDIVISION MAP



Issues (Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Included	Less Than Significant Impact	No Impact	Development Related Temporary Impact
I. AESTHETICS. Would the proposal:					
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒	☐
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐	☐
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:					
a) Convert Prime Farmland, Unique farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	☐
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒	☐

Issues (Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Included	Less Than Significant Impact	No Impact	Development Related Temporary Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project regions is non-attainment under an applicable federal or state ambient air quality standard (Including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒	☐
IV. BIOLOGICAL RESOURCES. Would the project:					
a) Has a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special statue species in local or regional plans, policies, or regulation, or by California Department of Fish and Game or US Fish?	☐	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulation or by the California Department of Fish and Game or US Fish and Wild Life Service?	☐	☐	☐	☒	☐

Issues (Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Included	Less Than Significant Impact	No Impact	Development Related Temporary Impact
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?	☐	☐	☐	☒	☐
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?	☐	☐	☐	☒	☐
V. CULTRUAL RESOURCES. Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined In 15064.5?	☐	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	☐	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒	☐

Issues (Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Included	Less Than Significant Impact	No Impact	Development Related Temporary Impact
VI. GEOLOGY AND SOILS. Would the project:					
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 ground shaking?	☐	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒	☐
iv) Landslides or mudflows?	☐	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒	☐
c) Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial 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?	☐	☐	☐	☒	☐
HAZARDS AND HAZARDOUS MATERIALS. Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒	☐

Issues (Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Included	Less Than Significant Impact	No Impact	Development Related Temporary Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident condition involving the release of hazardous materials into the environment?	☐	☐	☐	☒	☐
c) Emit hazardous emission or handle hazardous or acutely hazardous material, substance, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒	☐
VIII. HYDROLOGY AND WATER QUALITY. Would the project:					
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒	☐

Issues (Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Included	Less Than Significant Impact	No Impact	Development Related Temporary Impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be an deficit in aquifer volume or a lowing of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltaiton on- or off-site?	☐	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of exiting or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒	☐
g) Place Housing within a 100-year flood hazard area as mapped on the federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒	☐
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a right as a result of the failure of a levee or dam?	☐	☐	☐	☒	☐

Issues (Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Included	Less Than Significant Impact	No Impact	Development Related Temporary Impact
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒	☐
IX. LAND USE AND PANNING Would the project:					
a) Physically divide an established community?	☐	☐	☐	☒	☐
b) Conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation Plan?	☐	☐	☐	☒	☐
X. MINERAL RESOURCES. Would the proposal:					
a) Result in the loss of availability of a known mineral resource that would be of that would be of future 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?	☐	☐	☐	☒	☐
XI. NOISE. Would the project result in:					
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒	☐

Issues (Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Included	Less Than Significant Impact	No Impact	Development Related Temporary Impact
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels exiting without the project?	☐	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒	☐
XII. POPULATION AND HOUSING. Would the project:					
a) Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	☐
XIII. PUBLIC SERVICES					
a) Would the project result in a substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒	☐
Fire protection?	☐	☐	☐	☒	☐

Issues (Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Included	Less Than Significant Impact	No Impact	Development Related Temporary Impact
Police protection?	☐	☐	☐	☒	☐
Schools?	☐	☐	☐	☒	☐
Parks?	☐	☐	☐	☒	☐
Other public facilities?	☐	☐	☐	☒	☐
XIV. RECREATION					
a) Would the project increase the use of existing neighbor hood 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?	☐	☐	☐	☒	☐
XV. TRANSPORTATION/TRAFFIC. Would the project					
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either and increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersection) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒	☐

Issues (Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Included	Less Than Significant Impact	No Impact	Development Related Temporary Impact
e) Result in inadequate emergency access?	☐	☐	☐	☒	☐
f) Result in inadequate parking capacity?	☐	☐	☐	☒	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒	☐
XVI. UTILITIES AND SERVICE SYSTEMS. Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of exiting facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒	☐
f) Be serviced by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulation related to solid waste?	☐	☐	☐	☒	☐

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

Discussion:

Section I Aesthetics

The proposed project location is currently on vacant fallow land. The surrounding areas possess little aesthetic interest and scenic vistas are marginal. The project location and adjacent areas do not possess attributes that could be classified as scenic resource, including but not limited to trees, rock outcroppings or historic buildings within a state scenic highway.

The proposed project will increase the amount of off-site light and glare from automobiles, residences and street lighting, however these are typical of development planned at an urban standard. The production of light and glare will be consistent with residential and single family residential development within the City of Coalinga and will remain consistent with the existing developments surrounding the project site.

Short-term visual impacts are expected to occur due to construction related activities (e.g., heavy equipment, excavation, stockpiling). The short-term construction related visual impacts do not affect the overall design or project design, which would adversely affect surrounding or adjacent property owners/residents.

These impacts are considered less than significant.

Section II Agriculture Resources

According to the California Department of Conservation, Fresno County Important Farmlands Map (2002), the proposed project site is located on lands classified as urban land within the corporate limits of the City of Coalinga.

The parcel is currently zoned AE-5 and designed as Agriculture in the Land Use Map of the General Plan. However, since the parcel is within the City limits, staff has determined that this zoning is inconsistent with the land use and growth patterns of the City. Furthermore, the proposed General Plan Update classifies this parcel as single family residential and proposes a zoning of R-1.

However, the project site is located adjacent to the City Limits and is abutted by land zoned by Fresno County as Agriculture. A standard condition of development entitlements when the project is located adjacent to agriculturally zoned land is to include a Right-to-Farm condition in the approval, which will be recorded with the Final Map.

Section III Air Quality

Construction Phase:

The construction phase of the proposed project would temporarily increase particulate matter (PM_{10}), oxides of nitrogen (Nox), reactive organic compounds (ROG) and carbon monoxide (CO) concentrations in the project vicinity. Motorized equipment traveling over exposed earth surfaces during construction, dirt clinging to truck wheels carried from the construction areas onto roadways, dust escaping from loaded haul trucks during transportation of materials would be a major source of short-term PM_{10} emissions, this is considered a potentially significant impact that can be successfully mitigated by adherence to the San Joaquin Valley Air Pollution Control District Regulation VIII.

Standard development conditions required as part of the land use entitlement process by the City, include the San Joaquin Valley Air Pollution Control District PM_{10} measures, as well as, the inclusion of the provisions of Rule 8021. The construction of the proposed project shall also use the "Best Available Control Techniques" as established by the SJVAPCD.

In addition, the City requires that the project applicant and/or land developer adhere to the San Joaquin Valley Air Pollution Control District Regulation VIII and the through the implementation of the following measures to reduce air pollutant emissions generated during the construction phase of the project:

1. On-site vehicle speed on unpaved roads shall be limited to 15 miles per hour;
2. Loaded haul trucks, operating at speeds over 15 miles per hour, shall be equipped with tarpaulins or other effective covers, or shall maintain at least two feet of freeboard;
3. Water trucks shall be used regularly to reduce dust and particulates generated during construction and along non-paved surfaces;
4. Construction shall be restricted or banned on days of high winds (exceeding 30 miles per hour).

Single Family Residential:

Development of the project would result in a gradual long-term increase in ROG and NOx emissions through direct and indirect sources. An Urbemis2002 program was used to determine if any thresholds were exceeded by the proposed project. The program revealed a NOx emission would not exceed the threshold established by the SJVAPCD at 55 pounds per day.

For residential uses, direct sources would include gasoline fueling, natural gas combustion, wood burning, consumer products, lawn and garden equipment, and electricity use. Indirect emissions would be generated by motor vehicle traffic.

The San Joaquin Valley Air Basin is classified as non-attainment for Ozone and PM_{10}. Any increase in these pollutants is considered to be substantial. Recommended provisions of the SJVAPCD will be incorporated during the land use entitlement process of the City.

The City of Coalinga continues to work with the SJVAPCD to develop and implement strategies and programs for reducing air quality impacts from stationary sources. Mobile sources are subject to state and federal controls for reducing emissions. A continuing issue is the inter-regional transfer of pollutants from northerly parts of the San Joaquin Valley which make it impossible for the Cityand the County to meet state and federal standards for ozone and particulate at current levels.

The following are project level measures recommended by the SJVAPCD, but are not required. Some of these measures may already exist as City development standards. The recommendations should be considered for inclusion as conditions of development as they will reduce the amount of ozone precursors:

1. Trees should be carefully selected and located to shade the structures during the hot summer months. This measure should be implemented on the southern and western exposures. Deciduous trees should be considered since they provide shade in the summer and allow sun to reach residences during cold and winter months.

2. Housing units should be oriented to maximize passive solar cooling and heating when practicable.

3. Buildings to use Central water heating systems.

4. As many energy saving features as possible.

5. Provide electric maintenance equipment.

6. Any gas fired appliances should be low nitrogen oxide (NOx) emitting appliances complying with California NOx Emissions Rule #1121.

7. Limit the amount or type of wood-burning devices installed (i.e. EPA certified wood-stoves instead of open hearth).

8. Pedestrian enhancing infrastructure that includes sidewalks and pedestrian paths; drect pedestrian connections; street tree to shade sidewalks; pedestrian safety designs/infrastructure.

9. Provide transit-enhancing infrastructure that includes: transit shelters, benches, etc.; street lighting, route signs and displays; and/or bus turnouts.

Air Quality Study Summary Analysis:

Development of the project would result in a gradual long term increase in ROG and NOx emissions through direct and indirect sources. For residential uses, direct sources would include gasoline fueling, natural gas combustion, wood burning, consumer products, lawn and garden equipment, and electricity use. Indirect emissions would be generated by motor vehicle traffic. However, the size of the project and the results of this analysis ROG and NOx emissions fall well below the threshold criteria emissions of 55 lbs/day in 2009.

The General Plan addresses motor vehicle traffic and was adopted with a finding of overriding considerations for air quality impacts (CO) as a result of vehicle emissions.

Ozone Precursor Emissions Thresholds for Project Operations

Pollutant	Tons/Yr.
ROG	10
Nox	10

Source: GAMAQI, 2002

Note: One ton = 2,000 pounds
Maximum threshold is 20,000 pound per year
Maximum daily threshold is 54.79 pound per day

Analysis Total Emissions 2003

Project 351 Single Family Dwellings	**Pollutants (tons per year)**				
	ROG	**NO_x**	**CO**	**SO_2**	**PM_{10}**
Auto Emissions	5.72	8.10	71.38	0.05	7.95
Area Source Emissions	6.14	1.26	24.00	0.09	3.80
Total	11.87	9.36	95.38*	0.14	11.75

Source: URBEMIS 2002 Program SJVAPCD (tpy mitigated area source emission estimates)

* Project impacts on carbon monoxide concentrations are considered less-than-significant. Fresno County is considered in attainment for carbon monoxide as is the San Joaquin Air Basin.

It is not expected that the LOS in or around the project area to increase to unacceptable levels. A Traffic Study prepared for the project by Peter's Engineering (November 22, 2004) revealed no CO hotspots within the area.

An Air Quality Analysis was completed utilizing the San Joaquin Valley Air Pollution Control District URBEMIS 2002 program and is on file with the City Community Development Departmentand is included at Appendix "A" of this document.

With the inclusion of the San Joaquin Valley Air Pollution Control District requirements into the project design, air quality impacts are considered to result in a less than significant impact.

Section IV Biological Resources

Natural Resources Assessment

A Natural Resources/Biological Assessment was prepared by Live Oak Associates on November 10, 2004 for the entire project site and is included as Appendix "B" of this document.

The proposed project plans to construct 351 residential lots on approximately on 90 acres of the 137 acre parcel. The site is located near the southwest corner of Merced and Polk Avenues in southeast Coalinga, Fresno County. During the fall of 2004, Live Oak Associates, Inc., surveyed the site for biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law.

Two habitats, fallow agricultural field and the channel and flood plain of Warthan Creek, were present. The fallow field was barren of vegetation. The channel and flood plain of Warthan Creek was heavily impacted by off-road vehicle use. Vegetation was present within the flood plain and along the banks of Warthan Creek. The site provides no habitat for any of the nine special-status plant species that occur in the general project vicinity. The site could be used from time to time by up to 23 special-status animal species. Most would pass over or through the site during migration or while foraging. The site could also serve as seasonal foraging habitat for a number of special-status animal species, but it does not provide important foraging habitat for any species. Breeding habitat suitable for special-status species of regional occurrence is present within the Warthan Creek flood plain. Suitable breeding habitat for burrowing owls is present within the fallow field. Potential waters of the United States and a known water of the state of California were present on the site at the time of the survey.

Proposed site development would not result in a significant impact to any special-status plant species, riparian areas, other sensitive biotic habitats, jurisdictional waters, or wildlife movement corridors. The proposed 200 foot buffer along Warthan Creek will avoid most special status species potentially breeding on site. Furthermore, conversion of the agricultural field would not result in the "take" of any threatened or endangered plant species listed under the state and federal endangered species acts. Only the burrowing owl, a California species of special concern, would potentially breed in the fallow field. Avoidance measures are recommended for San Joaquin kit fox and burrowing owl to ensure that take does not occur in the unlikely event that either of these species would move onto the site during or prior to the start of construction. Such measures include pre-construction surveys for each species as well as various safety precautions to follow during construction. Eventual site development would not conflict with local ordinances or general plan policies. The proposed project would have no effect on state or federally listed threatened and endangered species, potential jurisdictional waters, and other biological resources protected by federal, state, and local statutes.

Design Measures

Development of the parcel with the approximately 200-foot disturbance free buffer along Warthan Creek will result in no impact or less than significant impact on special status animal species. Avoidance measures for San Joaquin kit fox and burrowing owl are discussed below.

Kit Fox.

Project-related injury or mortality to any San Joaquin kit fox that may wander on to the site during site development, however unlikely this eventuality may be, would be a violation of the federal Endangered Species Act. Standard pre-construction avoidance measures drafted by the U.S. Fish and Wildlife Service have been included in Appendix D of attached Biological Report at the conclusion of this document

Burrowing Owl.

The burrowing owl is a raptor, protected by federal law. This species was not observed on the site, but the availability of suitable nest burrows in the form of ground squirrel burrows may attract burrowing owls to the site in future years. Project construction could result in mortality to resident and breeding burrowing owls by: 1) burying them in their nest burrows; and 2) disrupting nesting activities such that adult owls abandon their nestlings. Construction-related mortality of burrowing owls would be a violation of federal law and a significant environmental effect according to provisions of NEPA. Mitigation measures that protect burrowing owls from possible direct mortality or nest failure would be warranted. Therefore the following measures will be implemented to ensure that burrowing owl mortality from project construction is avoided.

- A pre-construction survey will be conducted by a qualified biologist for Burrowing Owls within 30 days prior to the on-set of construction. This survey will be conducted according to methods described in the *Staff Report on Burrowing Owl Mitigation* (CDFG 1995), which although a state rather than federal guideline is standard for all burrowing owl surveys in California

- If pre-construction surveys undertaken during the breeding season (February through July) locate active nest burrows within or near construction zones, these nests, and an appropriate buffer around them (as determined by a qualified biologist) will remain off-limits to construction until the breeding season is over. Setbacks from occupied nest burrows of 100 meters where construction will result in the loss of foraging habitat are required.

- During the non-breeding season (August through January), resident owls may be relocated to alternative habitat. The relocation of resident owls must be according to a relocation plan prepared by a qualified biologist. Passive relocation will be the preferred method of relocation. This plan must provide for the owl's relocation to nearby lands possessing available nesting and foraging habitat.

Since the project site contains the potential to provide foraging and denning opportunities for San Joaquin kit foxes the City standard development conditions adopted by the Habitat Conservation Plan shall be listed and adopted as conditions of approval for the Tentative Subdivision Map and are included at the conclusion of this section.

Habitat Conservation Plan Consistency

The project area is generally devoid and lacking of any natural terrestrial habitat and does not represent any significant habitat value. The project site is surrounded with urban level development and land in agricultural production, which provides relatively few opportunities for terrestrial vertebrates to exploit, because they are neither structurally complex nor floristically diverse.

The site is regularly disturbed by discing and is not considered likely to support any endangered plant species. Extensive biological surveys had been conducted as part of the draft Coalinga Habitat Conservation Plan. These surveys did not indicate the presence of special status plant species. For these reasons, the project will not have an impact on special status plant species.

The repeated disturbance for the site associated with discing has prevented burrowing animals from becoming established in such areas. Implementation of the project, however, will remove a segment of foraging habitat for animal species adapted to fallow land. With the introduction of urban uses, the Project site will create additional foraging and nesting habitat for species more adaptable to residential landscaping, moisture, and shelter provided by urban development.

The project site is required to conform with the provisions of the Coalinga Habitat Conservation Plan (HCP), currently a draft-working document. The purpose of the HCP is to meet the requirements of the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA). Specifically the HCP is intended to avoid, minimize, and mitigate impacts on listed species and their habitats, ensure protection of other sensitive species, and reduce potential conflicts between sensitive species and development for disturbance of wildlife habitat. The project area is located within the designated "take" area as outlined by the HCP.

The City collects a Habitat Conservation Mitigation fee of $1,750.00 per acre for undeveloped land converting to urban standards within the City Limits. The Mitigation Fee is required to be paid prior to the recordation of the Final Map by the City.

Mitigation required for habitat "take" is outlined within the Coalinga HCP and Section 8-1.B.05 of the Coalinga Municipal Code. Specifically a development project with cultivated lands is required to mitigate using a 1:1 ratio. The specific form in which the land mitigation may take place is outlined within the Coalinga HCP and Section 8-1.B.05 of the Coalinga Municipal Code. Additional mitigation relating to actual site construction as outlined within the Coalinga HCP is specified below.

Utilizing the above mitigation requirement, 21.90 acres of mitigation are required at the 1:1 ratio. By providing the required mitigation in conformance with the Coalinga HCP and Section 8-1.B.05 of the Coalinga Municipal Code, the impacts associated with the project are reduced to a level of less than significant.

Development Conditions

1. The subdivider shall comply with the requirements of Section 8-1.B.05 of the Coalinga Municipal Code for endangered species mitigation.

2. Pre-construction surveys shall be conducted 60 days prior to initiating soil-disturbing activities. A qualified biologist shall conduct a pre-activity survey to inventory the activity zone and a 500-foot zone of any undisturbed land surrounding the zone for the occurrence of San Joaquin kit fox dens and other threatened or endangered species. Should a den be discovered, the following protection measures to avoid and reduce take shall be followed:

   a) Natal dens shall be avoided if possible and a 500-foot radius buffer zone established. If an occupied natal den cannot be avoided then the subdivider shall contact the CA Department of Fish and Game and US Department of Fish and Wildlife before proceeding.

   b) Known and potential dens (excluding natal dens) may be hand excavated (under the supervision of a qualified biologist) at any time following protocols established by the CA Department of Fish and Game and US Department of Fish and Wildlife. Unoccupied dens may be collapsed and backfilled by mechanical means. A qualified biologist shall monitor the process.

Based on the limited habitat available and regular disturbance of the project site, there is no impact to biological resources as a result of project approval and the implementation of the Standard Development Conditions required at time of Land Use Entitlement.

Section V Cultural Resources

The City's General Plan EIR found no evidence of archeological, prehistoric, or cultural artifacts of significance in the area of the project site. However, since the project site is adjacent to Warthan Creek and in close proximity to the location of a relocated cemetery, a Cultural Resources Analysis was prepared by Sierra Valley Cultural Planning (please refer to Appendix C).

On November 16, 2004, a cultural resources survey was performed of a ca. 137-acre (53-hectare) parcel located along the eastern banks of Warthan Creek, between Merced and Polk avenues, in the City of Coalinga in western Fresno County, California (Township 21S, Range 15E, Section 4, MDB&M). A cultural resources survey and identification of historic properties within the project area is required pursuant to guidelines set forth in the California Environmental Quality Act (CEQA) to determine the project's potential environmental effects.

No cultural resources were identified as a result of surface inspection of the project study area, thus it is unlikely that the development of the project area will have an effect on important or significant cultural resources. No further cultural resources investigations are therefore recommended.

In the unlikely event that buried archaeological deposits are encountered during project-related activities, work in the immediate vicinity of the discovery should cease until the finds have been evaluated by a qualified archaeologist. Should human remains be encountered within the project area, the County Coroner should be contacted immediately; if the remains are determined to be Native American, then the Coroner shall contact the Native American Heritage Commission

Nevertheless, the project construction could result in the disturbance of subsurface paleontological, archaeological or historical resources as a result of excavation activities. If subsurface cultural material is uncovered during construction, work within 300 feet is required to cease until a qualified archaeologist can complete a significance evaluation of the find(s). If human remains are found the County Coroner must be notified and the provisions specified in Section 15064.5 of the CEQA Guidelines shall be adhered to.

As part of the City's land use entitlement process the above specified criteria is included in the conditions of approval for the project. This condition ensures that in the event the project results in the disturbance of cultural remains, implementation of the condition of approval will reduceany impact to cultural resources to a less than significant level.

Section VI Geology and Soils

The subject site consists of flat terrain which historically has been farmed. Development of the project would not require extensive grading or excavation, and therefore would not result in unstable earth conditions or significant changes to geologic substructures.

Construction of the project and associated infrastructure would disrupt, displace, and compact certain small areas of soil on the subject property. The project will be required to submit grading and development plans, which identifies the nature and extent of the work proposed, project phasing, and soil compaction levels in compliance with City standards. City review of the development plans shall ensure that the proposed work complies with City Standards, and will verify that the work proposed is consistent with, and necessary for, the construction project.

The subject property is comprised of flat terrain. No substantial change to topography orground surface relief features would take place as a result of project construction. No unique geologic or physical features are found on the site and no such features would be affected by the proposed project.

According to the General Plan EIR, the project area lies within an area described as seismically active, both historically and recently. Geologic hazards that are associated with seismic activity at the project site could include ground shaking, liquefaction, seismic settlement, compressible soils, collapsible soils, and expansive soils. The General Plan addresses the seismicity of the region and incorporates polices relating thereto. Reference should be made to Public Safety Element Policies 1 and 2; and Fire and Police Protection Policies 1, 3, and 4. In addition, the Uniform Building Code requires specific design and construction standards within seismically active areas. Adherence with these requirements will reduce the level of impact associated with geologic hazards.

City Standard Development Conditions:

1. The subdivider will submit a grading and utility plan, which identifies the nature and extent of the work proposed, project phasing, and soil compaction levels, in compliance with City standards.

2. The subdivider and its contractors shall minimize dust with regular watering to control dust formation, to the satisfaction of the Field Services Manager.

3. All housing structures shall be designed and constructed in conformance with the applicable Uniform Building Code seismic zone requirements to ensure seismic stability of structures, to the satisfaction of the Building Inspector.

No significant impact relating to geological or soils conditions exist on the project site.

Section VIIHazards and Hazardous Materials

Residual pesticides could exist in the soils on the project site, as the area has been in agricultural production. It is unknown if hazardous materials have been stored or disposed of on the project site. Prior to

development, a site assessment is required by the City to be completed in order to determine the presence of any hazardous materials.

Based on the City of Coalinga General Plan, the project site will not impede any designated primary or secondary emergency evacuation routes. The proposed project development will not generate a significant increase in population which would require an emergency response plan or an emergency evacuation plan.

The proposed project will not produce any potential hazardous health conditions. The project site and adjacent areas are not included in the Fresno County Environmental Health Department list of hazardous materials sites.

The project location is not within the Fresno County Airport Land Use Compatibility area for the City of Coalinga Municipal Airport.

The development of the project area would not increase the fire hazard due to the presence of flammable brush, grass or trees since the project site is currently fallow land.

No significant impacts that would expose people to hazardous materials or hazardous situations will result with the implementation of the proposed project.

The State of California Department of Conservation Division of Oil, Gas and Geothermal Resources was contacted regarding the presence of any oil wells (active or abandoned) on the project. According the Coalinga Field Office, no oil wells (active or abandoned) are present on the site.

Section VIII Hydrology and Water Quality

The project site does not contain fresh or marine waters. Consequently, it will not affect the course and/or direction of such water movements.

The project is designed to connect to an existing drainage system in order to reduce the effect of surface water runoff.

The project location is partially located in a Floodplain. As part of the subdivision design and improvement plans, the developer will be responsible for compliance with the City of Coalinga Floodplain Management Ordinance, which requires the raising of the foundation of each structure in the designated floodplain one (1) foot above the base elevation of the floodplain as determined in consultation with FEMA. Furthermore, the developer and/or successor's-in-interest shall provide the City of Coalinga Community Development Department with verification of completion of a FEMA Map Amendment for the structures located inthe designated floodplain prior to issuance of any building permits in the subdivision.

The project site does not contain any water body and will therefore not alter the amount of surface water in any water body.

<u>Construction Phase</u>

During construction periods, soils are exposed and are more susceptible to wind and water erosion, which can contribute to the degradation of surface water quality in the short term. However, due to the type of development activity proposed, potential impacts are determined to be less-than-significant.

The developer shall be responsible for implementing the Regional Water Quality Control Board provisions for grading and the submission of remediation plan to the City Engineer for review and approval prior to the issuance of a grading permit.

Domestic Water

The 351 residential homes will utilize approximately 280,800 gallons a day, a rate of 800 gallons per household per day. The City has sufficient water capacity to provide potable water for the proposed development. This being the case, the amount of water to be utilized is determined to be less-than-significant.

Section IX Land Use and Planning

The proposed project is consistent with the City of Coalinga Housing Element (2002-2007) Goals, Policies and Objectives for providing a wide range of housing opportunities for the citizens of Coalinga. Furthermore, the implementation of the project will not physically divide an established community, as the project site is currently vacant land, and is adjacent to an existing residential neighborhood.

This project will assist the City of Coalinga in achieving the goals for new housing construction as specified in the City's 2002-2007 Housing Element adopted by the State in June 2003.

The project development is generally consistent with the Zoning Ordinance provisions for the development of single family residential development. This Expanded Initial Study will be utilized by the Planning Commission and City Council during the land use entitlement process to develop conditions of approval for the development of the subdivision.

Relation to General Plan

Section 15063 of the California Environmental Quality Act (CEQA) provides that if a development project is consistent with the General Plan for which an environmental impact report has been prepared and certified, the environmental review shall be limited to the effects which are specific to the project. Accordingly, the proposed project serves as a second tier environmental that identifies potential impacts that are site-specific.

The Coalinga General Plan Land Use Map represents the culmination of the land use planning process completed as part of the Coalinga General Plan. The map provides a comprehensive, graphic representation of many of the goals and policies of that Plan, establishing general locations and relationships between land uses and the circulation system. The Project represents an ongoing process toward implementation of the General Plan Land Use Map. Consequently, the Project is considered to be a subsequent project to the General Plan.

As a subsequent development project, some potential environmental effects of the project have been previously considered at the program level and addressed within the General Plan and associated EIR (Copies of the General Plan and General Plan EIR are available for review at the Coalinga Community Development Department). The project Initial Study incorporates the goals of the General Plan, along with measures from the EIR, as mitigation for potential impacts of the Project.

No significant impacts will result in the implementation of the project, with Land Use policies, goals and objectives of the City of Coalinga.

General Plan Amendment/Re-Zoning

The City of Coalinga is currently in the process of completing the 2025 General Plan Update. As part of the General Plan Update the subject project is being proposed to be re-designated to single family residential. This re-designation is in response to the adoption and certification of the City's Housing Element by the California Department of Housing and Community Development which included a Regional Housing Needs Assessment for the City.

The Regional Housing Needs Assessment assigned to the City by the State is as follows:

Income Level	Number of Units Allocated
Very Low	74
Low	68
Moderate	68
Above Moderate	46
Total	**256**

The proposed General Plan Amendment and Re-Zoning of the property from Agriculture to residential has been planned for and does not constitute an agricultural land conversion, as the project area is within the City and has been included in the General Plan Update as a new growth area.

Zoning Ordinance

All R-1/PD District provisions of the Zoning Ordinance will be required to be complied with at time of unit construction. The Community Development Department is responsible for conducting site plan review approval for all new residential unit construction at the time of the building permit to ensure that all Standards and Specification for the unit are in compliance.

Density Bonus

The project site consists of 137.6 ac of disc'd agriculture land. The proposed project consists of utilizing approximately 89.7 acres for development. The site provides for 351 single family lots, an 18 ac outlet for public park/open space use, and a 3.9 ac outlet for a public storm drainage retention basin. Residential lots will be setback from the existing War then Creek according to Fish and Game/City requirements. Residential units are comprised of a mixture of small and large lots ranging from 6,600square feet to 21,601 square feet, with exception of 32 lots which are proposed as a density bonus ranging from 5,280 square feet to 6,623 square feet. Density bonus lots are clustered together in a single area on the site which contains 46 lots, of which 32 lots meet the density bonus. It is proposed that 5 out of 32 units be reserved for lower income residents and 4 out of 32 units be reserved for moderate income residents in accordance with the State of California Planning, Zoning, and Development Code section 65915.

Section X Mineral Resources

Construction of the proposed project will result in the use of non-renewable resources. These materials include but are not necessarily limited to concrete, metals, petroleum products, etc. In addition, construction equipment will consume fuel, during that phase of development. The use and consumption of these resources will be similar to construction of other urban level residential developments.

According to the City of Coalinga General Plan and the State of California, Conservation Department, Division of Mines and Geology, there are no locally or state wide important mineral resources located on or adjacent to the project site.

The State of California Department of Conservation Division of Oil, Gas and Geothermal Resources was contacted regarding the presence of any oil wells (active or abandoned) on the project. According the Coalinga Field Office, no oil wells (active or abandoned) are present on the site.

Section XI. Noise

Construction Related Impacts:

During the construction phase of the project, noise from construction activities would dominate the noise environment in the immediate area. Construction activities would be temporary in nature. During the land

entitlement phase, the City will include a condition ofapproval that would limit construction activity during normal daytime hours and only during weekdays.

With the incorporation of the City standard conditions for construction noise regulations, the impact to noise sensitive uses is considered less than significant.

a. Weekdays from 7:00 a.m. to 6:00 p.m.;
b. Saturday from 8:00 a.m. to 5:00 p.m.;
c. Sunday and Holidays – no construction allowed unless authorization is granted by the City Manager.

Section XII Population and Housing

The implementation of the project will increase the population in the area, however, the population increases were addressed and planned for in the Draft General Plan Update.

The anticipated increase in population is not considered a significant impact as it was forecasted in the Regional Housing Needs Assessment issued by the State Department of Housing and Community Development and incorporated in the recently adopted Housing Element (June 2003). Population generated by the proposed project is estimated at 1,123 persons. This estimate is based on an estimated per person dwelling unit occupation of 3.2 person for 351 dwellings.

The proposed project will have no significant impact on population or housing beyond what has been forecasted by the Department of Housing and Community Development.

Section XIII Public Services

The City of Coalinga has adopted fire protection standards that include the location and maximum separation of fire hydrants. Additional fire hydrants will be required consistent with these standards. The projectwill result in increased urban uses, which will result in an incremental increase on the demands on the City's fire protection staff, equipment, and facilities. Demands of the project will include the need for fire protection on site, as well as the need for first aid and rescue assistance. The City of Coalinga and the fire department continually assess service demands based upon population growth consistent with City policy. Service demands for the subject project will be calculated into future City budgets/allocation.

The project will result in an incremental increase on the demands on the City's police department, including the allocation of police officers to serve the project, and additional demands on the use of vehicles and facilities. The City of Coalinga and the police department continually assess service demands based upon population growth consistent with City policy. Service demands for the subject project will be calculated into future City budgets/allocation.

The project will have a limited effect upon, and will not result in a need for new or altered governmental services in the area of schools. The impact on school facilities will be offset by the Coalinga Unified School District's developer fee for the new construction. The mandated school fee is designed to mitigate effects on school facilities.

The project will have a limited effect upon, and will not result in a need for new or altered governmental services and public facilities. The impact will be offset through payment of the connection fees and capital in-lieu fees.

Educational Facilities

The findings that were made in the Initial Study supporting the determinations of a Negative Declaration as they related to the impact of the project to school facilities are as follows:

1. The Leroy F. Green School Facilities Act of 1998 (SB 50) amended Government Code Section 65995(a) prohibits state or local agencies from imposing school impact mitigation fees, dedications or other requirements in excess of those provided in the statute in connection with any legislative or adjudicative act by any state or local agency involving the planning, use or development of real property.

2. Under Section 17620 of the Education Code, school districts also may impose only the school impact fees authorized by statute.

3. SB 50 also amended Government Code Section 65996(b) prohibiting local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approval of any legislative or adjudicative act involving the planning, use or development of real property.

4. The maximum amount of school impact fees for residential development was established by the State Allocation Board under Government Code Section 69995(b) at $2.14 per square foot.

5. The Coalinga Elementary School District adopted such fees, commonly referred to as "Level 1" in the Districts Impact Fee Justification Study of August 2002.

6. Included in the referenced Impact Fee Justification Study, the District did note that the maximum amount of Level 1 fees of $2.14 per square foot of residential development did not adequately address the districts need to provide for future facilities, the District did not meet the eligibility requirements as specified in Government Code Section 65995.5 for Level 2 fees that would impose fees in excess of the Level 1 fees.

Standard Development Condition

Prior to issuance of a building permit, the subdivider shall pay all applicable development impact fees, connection fees, and Coalinga-Huron Unified School District's development fees.

Other Public Facilities

Pacific Gas and Electric provide electric service to the City of Coalinga. Natural gas is provided by the City of Coalinga and both natural gas and electric service are available near the project site. These services will have to be extended to the site. Pacific Bell provides telephone service and has facilities near the site. This service will have to be extended to the site. Central Valley Cable provides cable television service and their facilities will also need to be extended to serve the site. The City of Coalinga provides for refuse collection and disposal. The collection routes will have to be extended to provide service to the site.

Other governmental and/or public facilities will not be adversely affected by the approvaland construction of the proposed project.

Section XIV Recreation

The Coalinga/Huron Parks and Recreation District is the responsible agency for the collection of Parks Impact Fees for all new development within the District. The collection of impact fees are utilized to develop existing parks facility within the District.

The proposed development is being required to provide a 200 foot buffer separating the urban level development and Warthan Creek, comprising approximately 18 acres. This 18 acre linear parcel will be zoned Open Space and will be utilized as a passive recreational trail system for the community. It is the City's policy that in the General Plan Update that a system of linear walking trails be created along the creek banks (Warthan and Los Gatos) to provide recreational (exercise) opportunities for the citizens of the community.

The impacts to recreational/open space opportunities and facilities is considered to be less than significant.

Section XV Transportation and Traffic

A Traffic Impact Study was prepared for the project by Peter's Engineering on November 22, 2004.

The Traffic is included as Appendix "D" of this document.

Project Description

The proposed project includes 351 single-family residential lots located southwest of the intersection of Polk Street and Merced Avenue. The site covers an area of approximately 137.6 gross acres. Site access is expected to be from Merced Avenue and Lucille Avenue on the south side of the site. Opening day traffic will all be required to access the site from the intersection of Merced and Polk. A future bridge extending Lucille over Warthan Creek is expected to provide an additional access route. However, for purposes of this study it is assumed that the bridge will not be constructed prior to the year 2025.

Study Area and Time Period

The scope of the traffic impact study was discussed with Caltrans staff prior to beginning the study. This report includes analysis and/or traffic volume determinations at the following intersections as noted:

- Merced Avenue and Polk Street (volumes and analysis)
- Juniper Ridge and Polk Street (volumes)
- 5th and Polk Streets (volumes)
- 3rd and Elm Streets (volumes)
- 5th and Elm Streets (volumes)

The study time periods include the weekday AM and PM peak hours determined between 7:00 and 9:00 AM and between 4:00 and 6:00 PM. The peak hour volumes were determined, and analyses performed as applicable, for the following conditions:

- Existing Conditions,
- Cumulative-Without-Project Conditions,
- Cumulative-With-Project Conditions, and
- Future With Project Conditions (Year 2025).

Trip Generation

Data provided in the Institute of Transportation Engineers (ITE) *Trip Generation, 7th Edition*, (Code 210, Single-Family Detached Housing) were used to estimate the number of trips anticipated to be generated by the project based on 351 units.

Table 1
Project Trip Generation

Time Period	Trips Entering Site	Trips Exiting Site
Weekday	1,680	1,680
Weekday AM Peak Hour	66	198
Weekday PM Peak Hour	224	131

Pass-by and captured-trip reductions were not applied to the project traffic volumes. A select zone analysis was performed for the project; however, in the opinion of the consultant the select zone analysis directed too much project traffic toward the City of Coalinga. An adjustment was made to distribute the project traffic in the proportion described in Table 2.

Table 2
Project Trip Distribution

Trip Type	AM Peak Hour		PM Peak Hour	
	West of Site	East of Site	West of Site	East of Site
Trips Entering	80%	20%	50%	50%
Trips Exiting	50%	50%	80%	20%

Other Projects

The traffic volumes expected to be generated by other projects assumed to be constructed in the near future in the vicinity of the project site are included in the analyses. The other projects considered include the following:

- mental health facility currently under construction east of the site,
- proposed apartments on Juniper Ridge south of Polk,
- proposed hotel and gas station at Juniper Ridge and Polk,
- proposed supermarket near the intersection of Polk and Forest,
- proposed residential development on Phelps Avenue east of Hannah Avenue.

A significant amount of the traffic generated by the residential projects is also expected to be included in the commercial/medical projects.

For the future conditions, approximately 500 residences, 10 acres of apartments (approximately 200 units), and 10 acres of commercial (assumed approximately 110,000-square-foot shopping center) were assumed southeast of Polk and Merced.

Analyses

The levels of service at the intersection were determined using the computer program Synchro 6 (Build 612), which is based on the 2000 Highway Capacity Manual procedures for calculating levels of service. Level of service characteristics for both unsignalized and signalized intersections are presented in Tables 3 and 4.

Table 3
Level of Service Characteristics for Unsignalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Little or no delay.	0-10
B	Short traffic delays.	>10-15
C	Average traffic delays.	>15-25
D	Long traffic delays.	>25-35
E	Very long traffic delays.	>35-50
F	Stop-and-go conditions.	>50

Table 4
Level of Service Characteristics for Signalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Uncongested operations; all queues clear in a single cycle.	≤10
B	Very light congestion; an occasional phase is fully utilized.	>10-20
C	Light congestion; occasional queues on approaches.	>20-35
D	Significant congestion on critical approaches, but intersection is functional. Cars required to wait through more than one cycle during short peaks. No long-standing queues formed.	>35-55
E	Severe congestion with some long-standing queues on critical approaches. Traffic queue may block nearby intersection(s) upstream of critical approach(es).	>55-80
F	Total breakdown, stop-and-go conditions.	> 80

Discussion

Caltrans typically requires that an intersection level of service C or better be maintained. The results of the analyses indicate that improvements to the intersection of Polk and Merced will be required for the intersection to operate at acceptable levels of service. Based on cumulative conditions with full-buildout of the project, the intersection will require construction of turn lanes in accordance with Caltrans requirements. The intersection will likely require, at a minimum, a westbound left turn lane, a continuous two-way left-turn lane or acceleration lane on Polk west of Merced, one westbound through lane, one eastbound through lane, and one eastbound right-turn lane. Northbound Merced Avenue will require one left-turn lane and one right-turn lane, with provision for future through lanes if required by the City of Coalinga General Plan.

The results of the analyses based on the assumed year 2025 traffic volumes indicate that, with the recommended intersection configuration, signalization will be required prior to the year 2025 .

The eastbound approach to an existing bridge on Polk Street west of Merced Avenue is constructed with a vertical curve that may result in sight distance issues with signalization at the intersection of Polk and Merced. The distance between the bridge and Merced Avenue is roughly estimated to be 650 feet. A stopping sight distance of approximately 500 feet based on a speed of 55 miles per hour isexpected to be required on Polk. This would limit the allowable eastbound queue to a maximum of approximately 150 feet. Therefore, prior to signalization the eastbound sight distance may need to be increased.

Equitable Share Responsibility

Caltrans recommends the following equation to determine a project's equitable share of the cost of improvements required as mitigation of impacts:

$$P = \frac{T}{T_B - T_E}$$

where:

P = The equitable share of the project's traffic impact;
T = The project trips generated during the peak hour of the adjacent State Highway facility;
T_B = The forecasted (future with project) traffic volume on the impacted State highway facility;
T_E = The existing traffic on the State Highway facility plus approved projects traffic (cumulative).

Table 4 presents preliminary equitable share responsibility calculations.

Table 4
Equitable Share Responsibility Calculations – Weekday AM (PM) Peak Hour

Location	Project Traffic	Existing Traffic	Future Traffic	Equitable Share (Percent)
Merced and Polk	264 (356)	336 (589)	1,543 (2,401)	21.9 (19.6)
Juniper Ridge and Polk	112 (138)	427 (623)	1,254 (1,788)	13.5 (11.8)
3rd and Elm	72 (104)	719 (900)	1,163 (1,469)	16.2 (18.3)
5th and Elm	90 (131)	853 (976)	1,947 (2,368)	8.2 (9.4)

Conclusions

Generally-accepted traffic engineering principles and methods were employed to estimate the amount of traffic expected to be generated by the project and to analyze the traffic conditions expected to exist in the future. The conclusion of this limited traffic analysis is that the intersecton of Polk Street and Merced Avenue can be mitigated to provide suitable site access for the project in the absence of the planned bridge southwest of the site. Such mitigation will likely include the addition of turn lanes and traffic signals. The actual improvements will be subject to the Caltrans encroachment permit process and will likely incorporate planned future improvements, such as additional through lanes.

Recommended Development Conditions

1. At the intersection of Polk and Merced, construct a westbound left-turn lane, a westbound acceleration lane accepting northbound left turns from Merced Avenue, and an eastbound right-turn lane for opening-day conditions. Maintain one-way stop sign control.
2. Contribute an equitable share of future intersection improvements as calculated in Table 4.

Section XVI Utilities and Service Systems

According to the City Engineer and Director of Public Works, all public utilities and service systems are available to be extended to the project area by the respective service provider.

Municipal water supplies and delivery systems will serve the project. The development of the project will require a minor extension of water service extending from the existing Foxhallow Development.

According to the City Engineer the 351 units will generate a discharge flow of 102,000 gallons per day.

The project will be served by municipal sewer capacity and processing systems. The City's sewer plant has sufficient sewer capacity to accommodate the proposed project. In addition, the project will be required to pay City sewer development impact (connection) fees.

The development of the project will require a minor extension of the City's storm drainage system in accordance with the adopted Storm Water Master Plan for an on-site basin. The City Engineer has reviewed the incorporation of the storm water basin and has determined that the size and capacity is sufficient to accommodate the development area consistent with the Storm Water Master Plan flowcalculations.

Solid waste generated by proposed project has been determined to not impact the existing City services. All City Ordinances regarding the provisions of AB 939 (recycling and source reduction) are required to be implemented.

XVIII. EARLIER ANALYSES.

a) **Earlier analyses used.**

1. City of Coalinga General Plan
2. City of Coalinga General Plan Draft EIR
3. City of Coalinga Housing Element (2002-2007)
4. Fresno County Important Farmlands Map 2000
5. State Department of Conservation, Division of Mines and Geology, Seismic Hazards Map, 1997;
6. U.S.G.S. Quadrangle Map 7.5 minute;
7. Fresno County Environmental Health Department, Hazardous Sites List, 2003;

b) **Impacts adequately addressed.**

On the basis of the initial evaluation:

The analysis of impacts associated with development of the project indcated that the project would contribute to the cumulative impacts identified in the General Plan EIR. The nature and extent of these impacts, however, falls within the parameters of impacts previously analyzed. No new individual or cumulative impacts will be created by the project that have not previously been considered at the program level by the General Plan EIR or by this Initial Study.

The Plant/Animal Life Section of this Initial Study indicates that project site does not support a substantial amount of habitat for fish or wildlife species and will not substantially reduce the habitat for fish and wildlife species.

The project site does not support substantial amounts of habitat for fish and wildlife species and is not expected to substantially reduce the population of fish and wildlife species below self-sustaining levels.

The project will not have the potential to reduce the number or types of plant or animal communities and, therefore, will not result in the elimination of such plant or animal communities.

The project will remove potential endangered species habitat. However, the project site is required to conform with the requirements of the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA) by avoiding, minimizing, and mitigating impacts on listed species and their habitats. Specifically the subdivider is required to provide mitigation in the form of habitat replacement. In addition, construction related mitigation has been outlined wherein surveys are conducted, and subsequent protection measures to avoid and minimize "take" are followed. These specific City Standard Development Conditions have reduced the level of impact to less-than-significant.

As noted in the Cultural Resources Section of this Initial Study, the project site is believed to contain no examples of objects that will be historically or archaeological significant. Should new evidence be revealed during the construction of the site, specific City Development Conditions has been identifed that will reduce any potential impact to a less-than-significant level.

The analysis of impacts associated with development of the project indicated that the project would contribute to the cumulative impacts identified in the General Plan EIR. The nature and extent of these impacts, however, falls within the parameters of impacts previously analyzed. No cumulative impacts will be created by the project that have not been mitigated by this Initial Study or previously considered in the General Plan EIR.

Development of the project is not anticipated to result in substantial adverse effects on human beings. Where appropriate, mitigation measures have been specified that will reduce impacts to a less-than-significant level.

The project does not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals. Future development in accordance with the proposed Coalinga General Plan will extend urbanization into existing underdeveloped areas. Economic pressure for growth within the Coalinga Planning Area is such that complete preservation of the environment at the expense of community growth is not feasible. As a result, a balance must be sought that accommodates the needs of the growing population within the Coalinga Planning Area, while maintaining the quality of the environment.

c) **Mitigation measures.**

Based on the findings contained above the entire environmental record no mitigation measures are required beyond the Mitigation Measures that are included in the General Plan and/or City Standard Development Conditions that will be included as provisions of the Land Use Entitlement Permits to be issued by the City Council.

APPENDIX A
AIR QUALITY STUDY

Donald Ballanti
Certified Consulting Meteorologist

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December 21, 2004

Brett Baillio
Contour Development Inc.
14502 Brook Hollow
San Antonio, CA. 78232

Subject: Air Quality Analysis for a 351-Unit Residential Subdivision, Coalinga

Dear Mr. Baillio:

The following is my analysis of air quality impacts for the proposed 351-Unit Residential Project in Coalinga (Southwest of the Intersection of Polk Street and Merced Avenue). Bill Skinner, city planner, asked for a URBEMIS-2002 analysis for the proposed project.

The project would be an indirect source of air pollutants, in that it would attract and cause an increase in vehicle trips in the region. The project would also be an area source of emissions, primarily from the combustion of natural gas for space and water heating and landscaping activities.

Estimates of operational emissions generated by project traffic and project area-sources were made using a program called URBEMIS-2002.[1] URBEMIS-2002 is a program that estimates the emissions that result from various land use development projects. Land use project can include residential uses such as single-family dwelling units, apartments and condominiums, and nonresidential uses such as shopping centers, office buildings, and industrial parks.

Wood burning emissions calculated by URBEMIS-2002 were modified to reflect residential wood-burning restrictions imposed by the SJVAPCD's recently-adopted Regulation 4901. Regulation 4901 prohibits wood burning fireplaces within the project, and limits the number of wood burning heaters that can be constructed.

The URBEMIS-2002 was run to calculate annual emissions assuming a year 2009 completion date. The URBEMIS-2002 output is attached and the results are shown in Table 1.

[1] Jones and Stokes Associates, Software User's Guide: *URBEMIS2002 for Windows with Enhanced Construction Module*, Version 7.5.0, May 2003.

TABLE 1
PROJECT AUTO AND AREA-SOURCE EMISSIONS (TONS PER YEAR)

	ROG	NOx	CO	SO2	PM_{10}
Auto Emissions	5.72	8.10	71.38	0.05	7.95
Area Source Emissions	6.14	1.26	24.00	0.09	3.80
Total	11.87	9.36	95.38	0.14	11.75

ROG = Reactive Organic Gases
NOx = Nitrogen Oxides
CO = Carbon Monoxide
SO2 = Sulfur Dioxide
PM_{10} = Particulate Matter, 10 Microns

Please call if you have any questions regarding this analysis.

Sincerely,

Donald Ballanti
Certified Consulting Meteorologist

Attachment

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\coalinga.urb
Project Name: Coalinga Residential Development
Project Location: San Joaquin Valley
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	6.14	1.26	24.00	0.08	3.80

OPERATIONAL (VEHICLE) EMISSION ESTIMATES	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	5.72	8.10	71.38	0.05	7.95
TOTALS (tpy, mitigated)	5.72	8.10	71.38	0.05	7.95

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	11.87	9.36	95.38	0.13	11.75

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

URBEMIS 2002 For Windows 7.5.0

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\coalinga.urb
Project Name: Coalinga Residential Development
Project Location: San Joaquin Valley
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.06	0.80	0.34	-	0.00
Wood Stoves	2.95	0.46	23.27	0.08	3.80
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping	0.04	0.01	0.39	0.01	0.00
Consumer Prdcts	3.13	-	-	-	-
TOTALS (tpy, unmitigated)	6.14	1.26	24.00	0.09	3.80

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	5.72	8.10	71.38	0.05	7.95
TOTAL EMISSIONS (tons/yr)	5.72	8.10	71.38	0.05	7.95

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2009 Temperature (F): 85 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.67 trips / dwelling units	351.00	3,359.07

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.90	1.30	98.40	0.30
Light Truck < 3,750 lbs	15.10	2.60	95.40	2.00
Light Truck 3,751- 5,750	16.10	1.20	98.10	0.70
Med Truck 5,751- 8,500	7.30	1.40	95.90	2.70
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	75.00	25.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.40	7.10	85.70	7.20

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The fireplcase option switch changed from on to off.
The percentage of wood stoves changed from 35 to 27.

Changes made to the default values for operations

The operational emission year changed from 2004 to 2009.
The travel mode environment settings changed from both to: none

APPENDIX B
BIOLOGICAL ASSESSMENT

LIVE OAK ASSOCIATES, INC.
an Ecological Consulting Firm

BIOLOGICAL EVALUATION
137.6-ACRE WARTHAN CREEK SUBDIVISION
COALINGA, CALIFORNIA

Prepared by

LIVE OAK ASSOCIATES, INC.

David J. Hartesveldt, Senior Biologist
Austin Pearson (Wildlife Biologist)
Gordon Michaud (Botanist/Wetlands Ecologist)

Prepared for

Hal Lore
Peters Engineering Group
55 Shaw Avenue
Suit 220
Clovis, California 93612

November 10, 2004

File No. 700-01

EXECUTIVE SUMMARY

First American Commercial Property Group proposes to construct on Tract No. 5451 consisting of 396 residential lots on approximately on 90 acres of the 137 acre parcel. The site is located near the southwest corner of Merced and Polk Avenues in southeast Coalinga, Fresno County. During the fall of 2004, Live Oak Associates, Inc., surveyed the site for biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law.

Two habitats, fallow agricultural field and the channel and flood plain of Warthan Creek, were present. The fallow field was barren of vegetation. The channel and flood plain of Warthan Creek was heavily impacted by off-road vehicle use. Vegetation was present within the flood plain and along the banks of Warthan Creek. The site provides no habitat for any of the nine special-status plant species that occur in the general project vicinity. The site could be used from time to time by up to 23 special-status animal species. Most would pass over or through the site during migration or while foraging. The site could also serve as seasonal foraging habitat for a number of special-status animal species, but it does not provide important foraging habitat for any species. Breeding habitat suitable for special-status species of regional occurrence is present within the Warthan Creek flood plain. Suitable breeding habitat for burrowing owls is present within the fallow field. Potential waters of the United States and a known water of the state of California were present on the site at the time of the survey.

Proposed site development would not result in a significant impact to any special-status plant species, riparian areas, other sensitive biotic habitats, jurisdictional waters, or wildlife movement corridors. The proposed 200-foot buffer along Warthan Creek will avoid most special status species potentially breeding on site. Furthermore, conversion of the agricultural field would not result in the "take" of any threatened or endangered plant species listed under the state and federal endangered species acts. Only the burrowing owl, a California species of special concern, would potentially breed in the fallow field. Avoidance measures are recommended for San Joaquin kit fox and burrowing owl to ensure that take does not occur in the unlikely event that either of these species would move onto the site during or prior to the

start of construction. Such measures include pre-construction surveys for each species as well as various safety precautions to follow during construction. Eventual site development would not conflict with local ordinances or general plan policies. The proposed project would have no effect on state or federally listed threatened and endangered species, potential jurisdictional waters, and other biological resources protected by federal, state, and local statutes.

TABLE OF CONTENTS

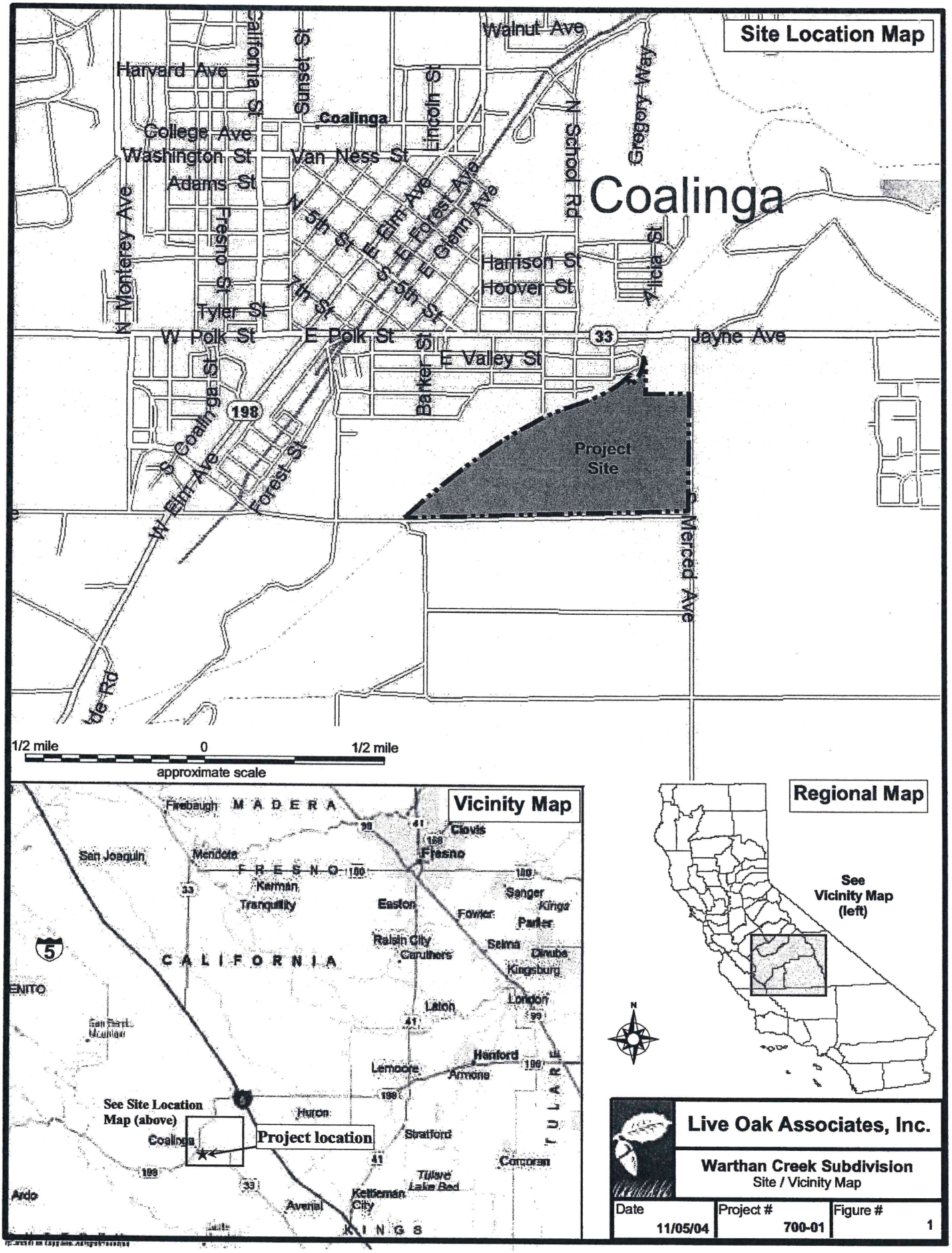
1.0 INTRODUCTION

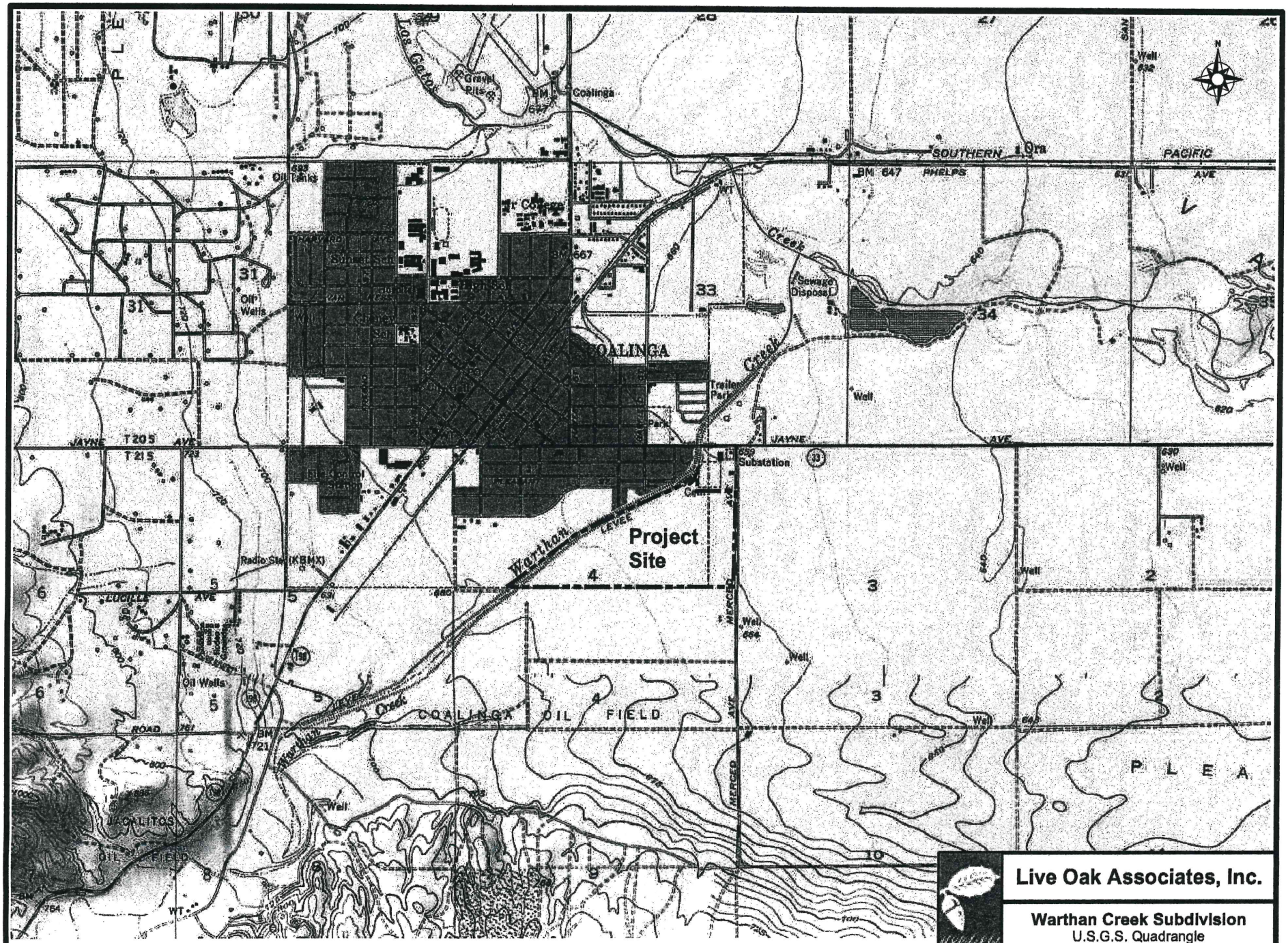
The technical report that follows describes the biotic resources of the 137-acre Parcel (hereafter referred to as the study area) in western Fresno County, California, and evaluates possible impact to those resources resulting from the proposed construction of a residential subdivision on the site. The study area is located near the southwest corner of Merced and Polk Avenues, in the southeast section of the city of Coalinga, California (Figure 1). It is surrounded by residential neighborhoods to the north and fallow fields on the south, east and west. The study area can be found on the Coalinga USGS 7.5-minute quadrangle, in Section 4, Township 21 South, Range 15 East, Mount Diablo Base Meridian (Figure 2).

First American Commercial Property Group proposes to construct, on Tract No. 5451, 396 residential lots on approximately 90 acres of the 137 acre parcel.

Projects constructed in previously undeveloped open space such as is proposed by First American Commercial Property Group can damage or modify biotic habitats used by sensitive plant and wildlife species. In such cases, site development may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act (NEPA), covered by policies of the County General Plan, or some combination of the four. This report addresses the issues often raised by the California Department of Fish and Game (CDFG) and the United States Fish and Wildlife Service (USFWS) with respect to local land development projects, as well as other issues related to sensitive biotic resources occurring or potentially occurring in the study area. This report also addresses the federal, state, and local laws related to sensitive biological resources.

The impact analysis and mitigation proposals found in Section 3.0 of this report have been based on the known and potential biotic resources of the study area (discussed in Section 2.0). Sources of information used in the preparation of this analysis included: (1) the *California Natural*


Site Location Map
Coalinga
Walnut Ave
Harvard Ave
College Ave
Washington St
Adams St
Van Ness St
Elm Ave
E Forest Ave
E Glenn Ave
Harrison St
Hoover St
Tyler St
W Polk St
E Polk St
33
Jayne Ave
E Valley St
Barker St
Project Site
198
W Elm Ave
Forest St
Merced Ave
N Monterey Ave
Fresno St
California St
Sunset St
Lincoln St
N School Rd
Gregory Way
Polk St
1/2 mile
0
1/2 mile
approximate scale
Vicinity Map
Firebaugh
MADERA
Clovis
Fresno
San Joaquin
Mendota
FRESNO
Kerman
Tranquility
Easton
Sanger
Kings
Fowler
Parlier
Raisin City
Caruthers
Selma
Dinuba
Kingsburg
CALIFORNIA
Laton
London
Hanford
Lemoore
Armona
See Site Location Map (above)
Huron
Coalinga
Project location
Stratford
Corcoran
Tulare Lake Bed
Ardo
Avenal
Kettleman City
KINGS
Regional Map
See Vicinity Map (left)
N
Live Oak Associates, Inc.
Warthan Creek Subdivision
Site / Vicinity Map
Date
11/05/04
Project #
700-01
Figure #
1



From USGS
Coalinga 7.5' Quadrangle

Live Oak Associates, Inc.

Warthan Creek Subdivision
U.S.G.S. Quadrangle

Date	Project #	Figure #
11/05/04	700-01	2

Diversity Data Base (CDFG 2004); (2) the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2001); and (3) miscellaneous other planning documents and biological studies from the general project vicinity. Additional information was gathered in the field by botanist/wetland ecologist Gordon Michaud and wildlife biologist Austin Pearson during a site survey conducted on October 21, 2004.

2.0 EXISTING CONDITIONS

The study area is located in southwest Coalinga at the western edge of the San Joaquin Valley. The city of Coalinga is located near the confluence of two intermittent streams, Warthan Creek and Los Gatos Creek. About half of the study area includes a 3,600-feet reach of Warthan Creek. The other half of the site is a level recently disced field. The study area varies in elevation from approximately 658 feet National Geodetic Vertical Datum (NGVD) along the northern and western boundary near Merced Street to 675 feet NGVD at the southern end of the study area.

Three soil mapping units representing Excelsior Sandy Loam 0 to 2% slopes, Excelsior Sandy Substratum Westhaven Association 0 to 2% slopes and Posochanet Clay Loam Saline Sodic 0 to 2% slopes have been identified within the study area (United States Department of Agriculture, USDA 2003). The Excelsior Sandy Substratum Westhaven Association 0 to 2% slopes underlays Warthan Creek and the remaining two-soil mapping equally comprise the remaining acreage of the study area. The Fresno County Natural Resource Conservation Service does not consider the Excelsior and the Posochanet soil series hydric. Both are well drained to moderately well drained, with negligible to medium runoff. Both of these soils are used for irrigated cropland growing alfalfa, barley, cotton and grapes. It is also used for dairy and cattle production and building site development. The soils of the site have long been used for agriculture.

This portion of the San Joaquin Valley has a Mediterranean climate with warm to hot dry summers and cool winters. Annual precipitation in the general vicinity of the site is highly variable from year to year. Annual rainfall is approximately 7 to 9 inches, almost 85% of which falls between the months of October and March. Winter rainfall infiltrates the study area's soil through the early part of the winter. During winters of average precipitation, the soils of the area reach field capacity by February or March, at which time surface runoff may be generated by some storms. Because natural drainages are absent from the site, all runoff would occur in the form of sheet flow.

Lands surrounding the site have like the site itself been farmed for many years. At the time of the site survey agricultural lands to the north, east and west were fallow. A residential subdivision was under construction to the south. Therefore, intact native biotic habitats have not been present on the site or surrounding lands for many years.

2.1 BIOTIC HABITATS

Two biotic habitats, the channel and flood plain of Warthan Creek and a disced fallow agricultural field were identified in the study area. A list of vascular plants observed in the study area can be found in Appendix A. A list of terrestrial vertebrates using, or potentially using the study area can be found in Appendix B.

2.1.1 Channel and Flood Plain of Warthan Creek

A 3,600-foot reach of Warthan Creek and its adjoining flood plain form the northern boundary of the study area. The term ruderal" refers to areas commonly disturbed by human activities. Both the creek bed and flood plain were heavily impacted from off-road vehicles, which used the creek bed as a road, as well as people using this area as a dump for appliances and other miscellaneous items. No vegetation was growing in the bed of Warthan Creek. The dominant vegetation of the creek banks and adjoining flood plain included California matchstick (*Gutierrezia californica*), ripgut brome (*Bromus diandrus*), and soft chess brome (*Bromus hordeaceus*). Scattered along the top of the creek bank and throughout the floodplain were trees and bushes that included Chinese tamarisk (*Tamarisk chinensis*), Fremont cottonwood (*Populus fremontii ssp. fremontii*), screw bean mesquite (*Prosopis pubescens*) and spearscale (*Atriplex subspicata*). See Appendix C photos one through four.

The vegetation found in this habitat provides cover for several vertebrate species. Amphibians that would use this habitat include pacific chorus frogs (*Pseudacris regilla*) and western toads (*Bufo boreas*). Reptiles such as western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis melanoleucus*), and common kingsnake (*Lampropeltis getulus*) could use this habitat as well.

The various trees found here provide habitat for several bird species. Some of the birds observed foraging here included white crowned sparrow (*Zonotrichia leucophrys*), yellow-rumped warbler (*Dendroica coronata*), black phoebe (*Sayornis nigricans*) and Anna's hummingbird (*Calypte anna*). Some other birds that would be expected to forage here include spotted towhee (*Pipilo maculatus*) and American robin (*Turdus migratorius*). Raptors observed in this habitat include American kestrel (*Falco sparverius*) and red-tailed hawk (*Buteo jamaicensis*). Great horned owl (*Bubo virginianus*) and western screech owl (*Otus kennicottii*) would be likely to use this habitat as well.

Understory vegetation occurring on the channel banks and in the flood plain provides cover for various small mammal species. Such species could include ornate shrew (*Sorex ornatus*), California voles (*Microtus californicus*) and deer mice (*Peromyscus maniculatus*). These species would in turn attract various predators including species such as striped skunk (*Memphitis memphitis*), coyote (*Canis latrans*), and gray fox (*Urocyon cinereoargenteus*). Bat species such as pallid bat (*Antrozous pallidus*) and California mastiff bat (*Eumops perotis californicus*) could forage over the site and potentially roost in trees found here as well.

2.1.2. Fallow Agricultural Field

The fallow agriculture field at the time of the survey had been recently disced. As a result this field supported no vegetation. Russian thistle (*Salsola traegus*) and spearscale (*Atriplex subspicata*) were observed along the margins of the field.

Due to the absence of vegetative cover in all but the margins of the field, there was very little suitable habitat for terrestrial vertebrates at the time of the site survey. Small mammal populations may increase slightly during the late winter and early spring when winter grains and/or weedy vegetation provide greater cover on the site. The value of the site as foraging habitat for raptors (birds of prey) would increase somewhat at this time. It is likely, however, that the site never provides significant habitat value for any vertebrate species due to weed control practices in the form of discing and possibly the application of herbicides.

The site provided limited habitat for amphibians and reptiles. Some amphibians found in Warthan Creek may move into the fallow field during the winter and spring, but the site provides at best marginal habitat for these species. Reptile species occurring on the site probably include side-blotch lizards (*Uta stansburiana*), gopher snakes, and common kingsnakes.

Due to limited food resources during much of the year, most bird species would either pass over the site or linger for brief periods only. A small number of bird species that benefit from disturbed habitats and open ground nevertheless may use the site. Birds observed flying over the study area and foraging in the fallow field include ravens (*Corvus corax*) and mourning doves (*Zenaida macroura*). Other bird species that may forage on the site include European starlings (*Sturnus vulgaris*), killdeer (*Charadrius vociferous*), red-winged blackbirds (*Agelaius phoeniceus*), and American pipits (*Anthus rubescens*).

A number of species such as red-tailed hawks, white-tailed kites (*Elanus leucurus*), northern harriers (*Circus cyaneus*), and barn owls (*Tyto alba*) would, however, forage over the fallow field for small mammals from time to time. None of these raptors would be expected to use the site on a regular basis due to the low numbers of small mammals that would serve as a food base.

Small mammals may increase in abundance on the site during some seasons due to agricultural practices influencing available cover and forage. Winter grains would provide limited cover for California voles, deer mice, and house mice (*Mus musculus*), at least up to the time of harvest in May or June. These small mammals may then attract such mammalian predators as striped skunks, coyotes, and gray foxes. Various species of bats may periodically forage over the site for flying insects, but would be precluded from roosting in this habitat due to lack of roosting structures such as trees and buildings.

2.2 SPECIAL-STATUS PLANTS AND ANIMALS

Several species of plants and animals occurring within the state of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species

occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided the CDFG and the USFWS with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as "candidates" for such listing. Still others have been designated as "species of special concern" by the CDFG. The California Native Plant Society (CNPS) has developed its own lists of native plants considered rare, threatened, or endangered (CNPS 2001). Collectively, these plants and animals are referred to as "special-status species."

A number of special-status plants and animals occur in the vicinity of the study area (see Figure 3). These species, and their potential to occur in the study area, are listed in Table 2 on the following pages. Sources of information for this table included *California's Wildlife, Volumes I, II, and III* (Zeiner et al. 1988), *California Natural Diversity Data Base* (CDFG 2004), *Special Animals and Special Plant List, Natural Diversity Data Base* (2004), *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (CDFG 2000), *The Recovery Plan for Upland Species of the San Joaquin Valley, California* (USFWS 1998), *Amphibian and Reptile Species of Special Concern in California* (CDFG 1994), *The Jepson Manual: Higher Plants of California* (Hickman ed., 1993), and *The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2001).

TABLE 1. LIST OF SPECIAL-STATUS SPECIES THAT OCCUR OR HAVE THE POTENTIAL TO OCCUR WITHIN THE VICINITY OF THE STUDY AREA

PLANTS (adapted from CNDDB 2004 and CNPS 2001)

Species Listed as Threatened or Endangered

Species	Status	Habitat	*Occurrence in the Study Area
San Joaquin Woollythreads (*Monolopia congdonii*)	FE CNPS 1B	Chenopod Scrub, Valley and Foothill Grassland that have alkaline loamy to sandy soils. Blooms February-May (CNPS 2001).	**Unlikely.** The fallow agricultural field is routinely disced, which results in marginal habitat for this species. Warthan Creek and the adjoining flood plain are significantly disturbed and provide only marginal habitat as well. This species was not observed. Several populations within a 5 mile radius, all last seen between 1989-1991 (CDFG 2004).

CNPS Listed Plants

Brittlescale (*Atriplex depressa*)	CNPS 1B	Chenopod Scrub, Meadows, Playas, Valley and Foothills Grasslands and Vernal Pools. Blooms May-October (CNPS 2001).	**Absent.** The fallow agricultural field is routinely disced, which results in marginal habitat for this species. Warthan Creek and the adjoining flood plain are significantly disturbed and provide only marginal habitat as well. This species was not observed. The closest population is 8 air miles east of the study area, last observed in 2000 (CDFG 2004).
Dwarf Calycadenia (*Calycadenia villosa*)	CNPS 1B	Chaparral, Valley and Foothill Grassland. Blooms May-October (CNPS 2001).	**Absent.** The fallow agricultural field is routinely disced, which results in marginal habitat for this species. Warthan Creek and the adjoining flood plain are significantly disturbed and provide only marginal habitat as well. This species was not observed. The closest population is 11 air miles southwest of the study area, last observed in 1995 near south end of summit of Parkfield Grade (CDFG 2004).
California Jewel-Flower (*Caulanthus californicus*)	CNPS 1B	Chenopod scrub, Valley and Foothill Grassland. Blooms February-May (CNPS 2001).	**Unlikely.** The fallow agricultural field is routinely disced, which results in marginal habitat for this species. Warthan Creek and the adjoining flood plain are significantly disturbed and provide only marginal habitat as well. This species was not observed. The closest population is 3 air miles southeast of the study area, last observed in 1991 near Jacilitos Cayon (CDFG 2004).
Hall's Tarplant (*Deinandra halliana*)	CNPS 1B	Chenopod scrub, Valley and Foothill Grassland; Blooms April-May (CNPS 2001).	**Unlikely.** The fallow agricultural field is routinely disced, which results in marginal habitat for this species. Warthan Creek and the adjoining flood plain are significantly disturbed and provide only marginal habitat as well. This species was not observed. Closest population is approximately 12 air miles southwest of the study area, last observed in 1997 (CDFG 2004).

TABLE 1. LIST OF SPECIAL-STATUS SPECIES THAT OCCUR OR HAVE THE POTENTIAL TO OCCUR WITHIN THE VICINITY OF THE STUDY AREA

PLANTS (adapted from CNDDB 2004 and CNPS 2001)

CNPS Listed Plants

Species	Status	Habitat	*Occurrence in the Study Area
Recurved Larkspur (*Delphinium recurvatum*)	CNPS 1B	Chenopod Scrub, Valley and Foothill Grassland. Blooms March-May (CNPS 2001).	**Unlikely.** The fallow agricultural field is routinely disced, which results in marginal habitat for this species. Warthan Creek and the adjoining flood plain are significantly disturbed and provide only marginal habitat as well. This species was not observed. Closest population is 10 air miles southwest of the study area near Coalinga-Parkfield grade, last observed in 1989 (CDFG 2004).
Pale-Yellow Layia (*Layia heterotricha*)	CNPS 1B	Valley and Foothill Grassland. Blooms March-June (CNPS 2001).	**Unlikely.** The fallow agricultural field is routinely disced, which results in marginal habitat for this species. Warthan Creek and the adjoining flood plain are significantly disturbed and provide only marginal habitat as well. This species was not observed. Closest population is 5 to 10 air miles north of the study area near Oil Canyon, last observed in 1995 (CDFG 2004).
Showy Madia (*Madia radiata*)	CNPS 1B	Grasslands of California's San Joaquin Valley and Inner Coast Range. Blooms March-May (CNPS 2001).	**Unlikely.** The fallow agricultural field is routinely disced, which results in marginal habitat for this species. Warthan Creek and the adjoining flood plain are significantly disturbed and provide only marginal habitat as well. This species was not observed. Closest population is 11 air miles west of the study area (CDFG 2004).
Indian Valley Bush Mallow (*Malacothamnus aboriginum*)	CNPS 1B	Chaparral and Cismontane Woodland. Blooms April-October (CNPS 2001).	**Absent.** The fallow agricultural field is routinely disced, which results in marginal habitat for this species. Warthan Creek and the adjoining flood plain are significantly disturbed and provide only marginal habitat as well. This species was not observed. Closest population is 5 air miles southwest of the study area near Alcade Canyon, last observed in 1997 (CDFG 2004).

ANIMALS (adapted from CNDDB 2004)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)	FT	Found in vernal pools of California's Central Valley.	**Absent.** Vernal pools required by this species are absent from the study area.
Vernal Pool Tadpole Shrimp (*Lepidurus packardi*)	FE	Found in deep vernal pools of California.	**Absent.** Vernal pools required by this species are absent from the study area.
Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*)	FT	Lives in mature elderberry shrubs of California's Central Valley and Sierra Foothills.	**Absent.** No elderberry plants occur on site. Habitat for this species is absent.

TABLE 1. LIST OF SPECIAL-STATUS SPECIES THAT OCCUR OR HAVE THE POTENTIAL TO OCCUR WITHIN THE VICINITY OF THE STUDY AREA.

ANIMALS (adapted from CNDDB 2004)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence in the Study Area
California Tiger Salamander (*Ambystoma californiense*)	FT	Requires vernal pools for breeding and rodent burrows in annual grasslands for refuge.	**Absent.** Breeding habitat was absent from the study area and adjacent habitats. This species has not been documented in the vicinity of the study area.
California Red-legged Frog (*Rana aurora draytonii*)	FT, CSC	Perennial rivers, creeks and stock ponds of the Coast Range and northern Sierra foothills with overhanging vegetation.	**Absent.** Habitat for this species is absent from the study area and adjacent habitats.
Blunt-Nosed Leopard Lizard (*Gambelia silus*)	FE, CE	Frequents grasslands, alkali meadows and chenopod scrub of the San Joaquin Valley from Merced south to Kern Co.	**Possible.** There are several historical sighting in the vicinity of Coalinga; however, agricultural and residential development within the study area and surrounding areas has significantly altered most suitable habitat in which this species may have historically occurred. Undisturbed portions of Warthan Creek provide potential habitat for this specie See expanded discussion below.
Giant Garter Snake (*Thamnophis gigas*)	FT, ST	Found in freshwater marsh and low gradient streams.	**Absent.** There is no suitable habitat within the study area or adjacent habitats. The study area is outside of their known range.
Swainson's Hawk (*Buteo swainsoni*)	CT	Uncommon resident and migrant in the Central Valley. Forages in grasslands and fields close to riparian areas.	**Unlikely.** Swainson's Hawks frequently forage in agricultural fields; however the site provides poor foraging opportunities. This species has not been documented in the vicinity of the study area.
Peregrine Falcon (*Falco peregrinus*)	CE	Individuals breed on cliffs in the Sierra or in coastal habitats; occurs in many habitats of the state during migration and winter.	**Unlikely.** Foraging habitat on the site is marginal and this species is not known to nest in the vicinity of the study area. This species may pass over the site during migration.
Willow Flycatcher (Empidonax traillii)	CE	Breeds in willow thickets found in montane meadows of the Sierra Nevada.	**Unlikely.** Patchy vegetation along Warthan Creek provides only marginal habitat for this species, however this species could pass through during migration.
San Joaquin Antelope Ground Squirrel (*Ammospermophilus nelsoni*)	CT	Occurs on the southwest portion of the valley on dry, sparsely vegetated loamy soils.	**Unlikely.** Squirrel burrows were not observed in Warthan Creek or its adjoining flood plain. The remainder of the site consists of fallow field. California ground squirrels, a species known to displace the antelope squirrel, were observed around the margins of the fallow field. The nearest sighting is approximately four miles from the site (CDFG 2004).

TABLE 1. LIST OF SPECIAL-STATUS SPECIES THAT OCCUR OR HAVE THE POTENTIAL TO OCCUR WITHIN THE VICINITY OF THE STUDY AREA.

ANIMALS (adapted from CNDDB 2004)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	Occurrence in the Study Area
San Joaquin Kit Fox (*Vulpes macrotis mutica*)	FE, CT	Frequents desert alkali scrub, annual grasslands and may forage in adjacent agricultural habitats.	**Possible.** Potential kit fox denning habitat was absent and foraging habitat was marginal, however the kit fox has been documented approximately one mile north of the study area (CDFG 2004). Although the study area supports only marginal foraging habitat the potential exists for a kit fox to pass through the study area during foraging or dispersal movements. See expanded discussion below.

State Species of Special Concern

Western Spadefoot (*Scaphiopus hammondii*)	CSC	Primarily occurs in grasslands, but also occurs in valley and foothill hardwood woodlands. Requires vernal pools or other temporary wetlands for breeding.	**Absent.** There are no vernal pools on the site. Suitable breeding habitat is absent.
Foothill Yellow-legged Frog (*Rana boylii*)	CSC	Frequents partly shaded, shallow streams and riffles with rocky substrate in a variety of habitats.	**Absent.** The study area and adjacent habitats provide no breeding or foraging habitat for this species.
Western Pond Turtle (*Clemmys marmorata*)	CSC	An aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Needs basking sites and sandy banks or grassy open fields for egg laying.	**Absent.** There is no suitable habitat on the site or adjacent property.
Coast Horned Lizard (*Phrynosoma coronatum*)	CSC	Grasslands, scrublands, oak woodlands, etc. of central California. Common in sandy washes with scattered shrubs.	**Possible.** Agricultural practices during the past several years would have eliminated any coast horned lizard populations that may have at one time been present in the now fallow field. Warthan creek does, however, provide suitable habitat for this species.
Silvery Legless Lizard (*Anniella pulchra pulchra*)	CSC	Occurs in loose sandy soils where overhanging plants, logs and rocks provide cover. There are sporadic occurrences on the floor of San Joaquin Valley.	**Possible.** Warthan Creek provides suitable habitat for this species.
San Joaquin Coachwhip (*Masticophis flagellum ruddocki*)	CSC	This species occurs in a variety of arid lowland environments in sandy soils of the San Joaquin Valley.	**Unlikely.** Historically suitable habitats of the site have been converted to agriculture and no longer support a suitable prey base. The patchy vegetation along Warthan Creek is not typical habitat for this species.
Two-Striped Garter Snake	CSC	This species is found in or near permanent fresh water in coastal California from near Salinas to northwestern Baja California.	**Absent.** Suitable aquatic habitat is absent from the site.

TABLE 1. LIST OF SPECIAL-STATUS SPECIES THAT OCCUR OR HAVE THE POTENTIAL TO OCCUR WITHIN THE VICINITY OF THE STUDY AREA.

ANIMALS (adapted from CNDDB 2004)

State Species of Special Concern

Species	Status	Habitat	Occurrence in the Study Area
White Faced Ibis (*Plegadis chihi*)	CSC	Occurs in shallow fresh-water marsh. Nests in dense tule thickets interspersed with areas of shallow water for foraging.	**Unlikely.** Ibis frequently forage in fields in the Central Valley during winter, however this site is too close to human development for ibis to use frequently. The site is also a significant distance away from wetland habitats in which it is typically found.
Northern Harrier (*Circus cyaneus*)	CSC	Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.	**Possible.** Harriers forage in open country, such as rangeland and grain fields, however the foraging habitat here is poor quality. Harriers would not breed on the site.
Ferruginous Hawk (*Buteo regalis*)	CSC	Breeds in the Pacific Northwest and Canada, but winters in a variety of California habitats, including grasslands, savannahs, and wetlands.	**Possible.** Ferruginous Hawks forage in open country and agricultural fields during the winter, but the site would not provide optimal foraging habitat. Breeding habitat is absent.
Sharp-Shinned Hawk (*Accipiter striatus*)	CSC	Breeds in the mixed conifer forests of the northern Sierra Nevada. This species winters in a variety of habitats of the state.	**Possible.** Foraging habitat is poor and there is no breeding habitat on the site, however they may pass through the site on occasion.
Cooper's Hawk (*Accipiter cooperii*)	CSC	Breeds in oak woodlands, riparian forests and mixed conifer forest of the Sierra Nevada, but winters in a variety of lowland habitats.	**Possible.** Foraging habitat is poor and there is no breeding habitat on the site, however they may pass through the site on occasion.
Merlin (*Falco columbarius*)	CSC	Frequents open habitats at low elevation near water and tree stands. Favors coastlines, lakeshores, and wetlands. Breeds in Alaska and Canada.	**Possible.** Foraging habitat is poor and there is no breeding habitat on the site, however falcons may pass through the site on occasion.
Prairie Falcon (*Falco mexicanus*)	CSC	Frequents dry open terrain. Breeding sites are located on cliffs.	**Possible.** Foraging habitat is poor and there is no breeding habitat on the site, however falcons may pass through the site on occasion.
Burrowing Owl (*Athene cunicularia*)	CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low growing vegetation. This species is dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	**Possible.** Squirrel burrows found on site provide potential burrowing owl nesting habitat. No evidence of burrowing owls was found on site.
Long-eared Owl (*Asio otus*)	CSC	Frequents dense, riparian and live oak thickets near meadow edges and nearby woodland and forest habitats. Breeds from valley foothill hardwood up to ponderosa pine habitats.	**Absent.** Dense riparian required by this species for roosting is absent. Long-eared owls would not use the area for foraging.
Short-eared Owl (*Asio flammeus*)	CSC	Transient or occasional breeder in grasslands, marshes, and in some agricultural lands of the San Joaquin Valley.	**Unlikely.** Short-eared owls forage in open country, but this site would not provide optimal foraging habitat. Short-eared owls would not breed on the site due to lack of cover.

TABLE 1. LIST OF SPECIAL-STATUS SPECIES THAT OCCUR OR HAVE THE POTENTIAL TO OCCUR WITHIN THE VICINITY OF THE STUDY AREA.

ANIMALS (adapted from CNDDB 2004)

State Species of Special Concern

Species	Status	Habitat	Occurrence in the Study Area
Black Swift (*Cypseloides niger*)	CSC	Migrants found in many habitats of state; in Sierra nests are often associated with waterfalls.	**Unlikely.** Swifts forage at altitude, so black swifts could pass over the site, but this site would not be especially attractive to swifts. There is no breeding habitat on or near the site.
Vaux's Swift (*Chaetura vauxi*)	CSC	Migrants move through the foothills of the western Sierra in spring and late summer. Some individuals breed in region.	**Possible.** Swifts forage high in the air, and while swifts undoubtedly fly over the site from time to time, there is little about the site that would make it especially attractive to swifts. Breeding habitat is absent from the site, however potential breeding habitat exists in the Coalinga area.
California Horned Lark (*Eremophila alpestris actia*)	CSC	Found in a variety of open habitats where trees and shrubs are absent; breeds in grasslands and fallow fields.	**Possible.** Horned larks may forage on the site, but are unlikely to breed there due to lack of cover and frequent disturbance of the site.
Loggerhead Shrike (*Lanius ludovicianus*)	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Can often be found in cropland.	**Possible.** Trees along Warthan Creek provide suitable nesting habitat. This species would also forage on site.
Le Conte's Thrasher (*Toxostoma lecontei*)	CSC	Found in desert shrub and alkali scrub habitats.	**Absent.** This species has presumably been extirpated from Fresno County. Suitable habitat is absent.
Yellow Warbler (*Dendroica petechia*)	CSC	Breeds in riparian thickets of alder, willow and cottonwoods. Migrants move through many habitats of the state.	**Unlikely.** Patchy vegetation along Warthan Creek provides only marginal habitat for this species, however this species could pass through during migration.
Tricolored Blackbird (*Agelaius tricolor*)	CSC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	**Possible.** Tricolored blackbirds could forage on the site, but breeding habitat is absent.
Short-Nosed Kangaroo Rat (*Dipodomys nitratoides brevinasus*)	CSC	Found mostly in chaparral and desert shrub communities.	**Possible.** Warthan Creek provides suitable habitat for this species. The nearest documented sighting is about 4miles to the east on Los Gatos Creek.
Big-Eared Kangaroo Rat (*Dipodomys elephantinus*)	CSC	Yearlong resident of chaparral-covered slopes of the southern part of the Gabilan Range, in the vicinity of the Pinnacles, in San Benito and Monterey Counties. Little is known about this species	**Unlikely.** Suitable habitat is absent. The nearest sighting is about 20 miles northwest of the site.

TABLE 1. LIST OF SPECIAL-STATUS SPECIES THAT OCCUR OR HAVE THE POTENTIAL TO OCCUR WITHIN THE VICINITY OF THE STUDY AREA.

ANIMALS (adapted from CNDDB 2004)

State Species of Special Concern

Species	Status	Habitat	Occurrence in the Study Area
Southern Grasshopper Mouse (*Onychomys torridus*)	CSC	Desert regions of the southern half of the state including parts of the San Joaquin Valley. Usually found in sandy areas or those with friable soils. Predatory on insects and small mice.	**Possible.** Warthan Creek provides suitable habitat for this species. This species has not been documented in the vicinity of the study area.
Pale Big-eared Bat (*Corynorhinus townsendii pallescens*)	CSC	Primarily a cave-dwelling bat, which may also roost in buildings. Occurs in a variety of habitats.	**Possible.** This species may forage over the site, but roosting and breeding habitat are absent.
Townsend's Western Big-eared Bat (*Corynorhinus townsendii townsendii*)	CSC	Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats.	**Possible.** This species may forage over the site, but roosting and breeding habitat are absent.
Pallid Bat (*Antrozous pallidus*)	CSC	Roosts in rocky outcrops, cliffs, and crevices with access to open habitats for foraging. May also roost in caves, mines, hollow trees and buildings.	**Possible.** This species may forage over the site. Trees along Warthan Creek may provide roosting habitat.
California Mastiff Bat (*Eumops perotis* ssp. *californicus*)	CSC	Frequents open, semi-arid to arid habitats, including conifer, and deciduous woodlands, coastal scrub, grasslands, palm oasis, chaparral and urban. Roosts in cliff faces, high buildings, trees and tunnels.	**Possible.** This species may forage over the site. Trees along Warthan Creek may provide roosting habitat.

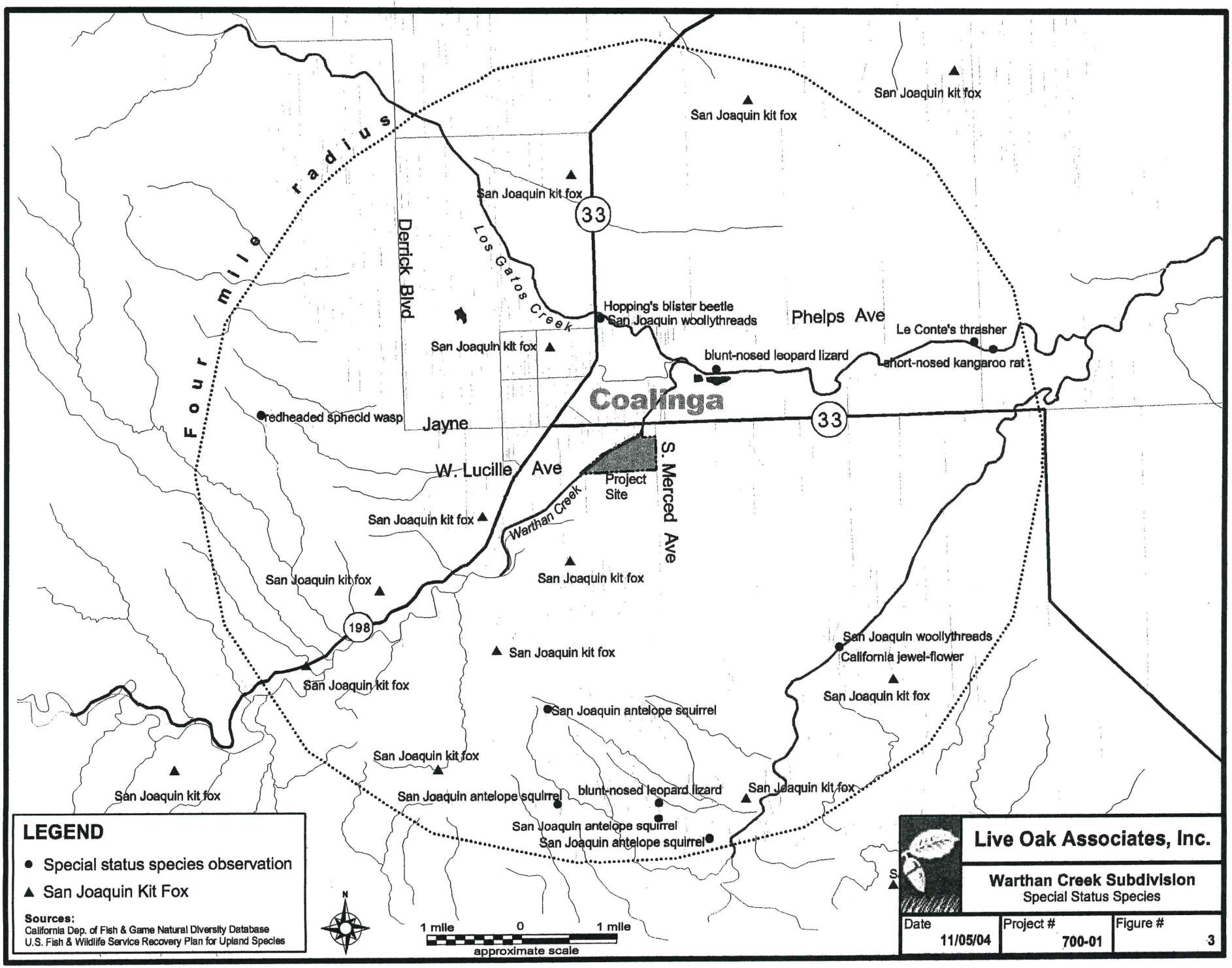
OCCURRENCE EXPLANATIONS

*Present: Species observed on the site at time of field surveys or during recent past.
Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.
Possible: Species not observed on the site, but it could occur there from time to time.
Unlikely: Species not observed on the site, and would not be expected to occur there except, perhaps, as a transient.
Absent: Species not observed on the site, and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE Federally Endangered
FT Federally Threatened
FPE Federally Endangered (Proposed)
FC Federal Candidate

CE California Endangered
CT California Threatened
CR California Rare
CSC California Species of Special Concern
CNPS 1B Plant is threatened or endangered in California and elsewhere


Four mile radius
Derrick Blvd
Los Gatos Creek
Warthan Creek
S. Merced Ave
Phelps Ave
W. Lucille Ave
Coalinga
Jayne
Project Site
33
198
San Joaquin kit fox
Hopping's blister beetle
San Joaquin woollythreads
blunt-nosed leopard lizard
Le Conte's thrasher
short-nosed kangaroo rat
redheaded sphecid wasp
California jewel-flower
San Joaquin antelope squirrel
LEGEND
Special status species observation
San Joaquin Kit Fox
Sources:
California Dep. of Fish & Game Natural Diversity Database
U.S. Fish & Wildlife Service Recovery Plan for Upland Species
N
1 mile 0 1 mile
approximate scale
Live Oak Associates, Inc.
Warthan Creek Subdivision
Special Status Species
Date 11/05/04
Project # 700-01
Figure # 3

The study area, by virtue of its small size and frequent disturbance from agricultural practices, provides limited habitat for special-status species. However, due to the presence of San Joaquin kit fox and blunt-nosed leopard lizard in the area, an expanded discussion of these species is provided below.

San Joaquin Kit Fox. Kit foxes historically occupied most of the San Joaquin Valley from Kern County in the south to San Joaquin County in the north (Grinnell et al. 1937). Local surveys, research projects, and incidental sightings indicate that kit foxes currently occupy available habitat on the San Joaquin Valley floor and in the surrounding foothills. Of primary interest for this project are kit fox records from the vicinity of the proposed study area, the Coalinga area. According to the USFWS Recovery Plan for Upland Species of the San Joaquin Valley, California 1998, and the CNDDB (CDFG 2004), a total of 11 sightings have occurred within four miles of the study area (Figure 3). One of the sightings was about a mile from the site at Coalinga High School, where a den was found in 2002. According to the CNDDB, a plan was formulated to trap and relocate the foxes associated with this den. It is unknown where the new den location is relative to the study area.

Most of the land surrounding the study area consists of farmland and residential development, land uses that are not generally suitable for the San Joaquin kit fox. Lands to the north, east, and south of the site are in agricultural use and do not appear to provide suitable foraging or denning kit fox habitat due to periodic plowing or discing, intensive irrigation, and pest and weed control management. The remaining lands adjacent to the study area consist of residential development. Residential development clearly lacks the habitat elements required by kit foxes and serves as a significant barrier to kit fox movements. Some land in the project vicinity consists of open rangeland, which may include suitable foraging and denning habitat for kit foxes. If so, kit foxes may pass through the study area from time to time while making home range and dispersal movements.

Suitable denning habitat for kit foxes was not observed on the site during the field survey. Denning habitat consists of ground squirrel complexes in which some burrows have been enlarged to 4 to 10 inches in diameter for the length of one's arm. A number of ground squirrel

burrows were observed along the margins of the fallow field, but none possessed the dimensions suitable for the San Joaquin kit fox.

The site provides at best marginal foraging habitat. The diet of kit foxes varies geographically, seasonally, and annually. In the central portion of their range, which includes lands around the study area, known prey includes white-footed mice, insects, California ground squirrels, black-tailed hares, San Joaquin antelope squirrels, kangaroo rats, desert cottontails, and ground-nesting birds (Jensen 1972, Archon 1992). The site provides a limited prey base for kit foxes. Evidence of small populations of California ground squirrels and Botta's pocket gophers was present in the form of scattered burrows along the margins of the fields and in the floodplain of the creek. Because of intensive farming practices, ground-nesting birds that sometimes constitute prey for this species would be of limited occurrence on the site.

While this site is located near known kit fox areas and historical sightings, the lack of connectivity of suitable habitats to the site and the suitability of the site to support kit foxes indicate that the site is unlikely to be regularly used by the species.

Blunt-nosed Leopard Lizard. The blunt-nosed leopard lizard is a large lizard with a long tail. The short, blunt snout and dark bands across its back and tail give this species its common name. The species was originally found throughout the San Joaquin Valley and adjacent foothills from San Joaquin County southward and into eastern San Luis Obispo County (CDFG 2004). It inhabits sparsely vegetated plains, alkali flats, low foothills, grasslands, canyon floors, large river washes and arroyos (CDFG 2004). The blunt-nosed leopard lizard now occurs in scattered locations in the valley and in the eastern portions of the Coast Ranges, including the Antelope and Carrizo Plains and Cuyama Valley (CDFG 2004). Blunt-nosed leopard lizards feed primarily on insects (particularly grasshoppers, crickets and moths), other lizards and occasionally plant material.

Two sightings have been made within a four mile radius of the study area. One sighting was made on Los Gatos Creek in 1935 approximately one mile down stream of the study area. The other sighting was made in 1979 about four miles south of the study area in the Jacalitos Hills

Most of the study area is in agriculture and is not suitable habitat for the blunt-nosed leopard lizard, however, Warthan Creek does provide potential habitat. Julie Vance, an environmental scientist with the California Department of Water Resources, has conducted surveys in the area and considers this portion of Warthan Creek to be of moderate to low value as blunt-nosed leopard lizard habitat.

While the site contains potential blunt-nose leopard lizard habitat the proposed project includes a 200-foot buffer along Warthan Creek that avoids all potential habitat for this species. Given the low quality of the habitat for blunt-nosed leopard lizard and the proposed buffer, the proposed project is unlikely to impact this species.

2.3 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, lakes, ponds, reservoirs, wetlands, and drainages with a defined bed and bank that may carry at most ephemeral flows. Such waters may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the CDFG and the California Regional Water Quality Control Board (CRWQCB) (see Section 3.2.4 of this report for additional information).

The bed and bank of Warthan Creek would potentially be considered a Water of the United States also subject to the jurisdiction of resource agencies of the state of California. Live Oak Associates, Inc. completed a study of the creek and a report addressing possible jurisdictional waters of Warthan Creek will be provided the U.S. Army Corps of Engineers for verification. The creek bed did not meet the technical criteria of jurisdictional wetlands, but the Corps may nonetheless consider non-wetland channels tributary waters if the channel is continuously connected to other jurisdictional waters. A jurisdictional determination will be finalized by the Corps within the next 2-3 months.

No areas outside of Warthan Creek met the vegetation, soils, or hydrology criteria of jurisdictional wetlands, or any other criteria of jurisdictional waters.

3.0 IMPACTS AND MITIGATIONS

As noted in Section 1.0 of this report, wetlands, other sensitive habitats, special-status plants and animals, and animal movement corridors are all biotic resource issues that may affect the use of private and public lands. The discussion below addresses possible constraints to the use of the subject parcel that would be associated with sensitive biological resources occurring on the site or on adjoining lands. This discussion recognizes that not all possible impacts from various forms of site use would be significant. This discussion therefore establishes the criteria by which significance is determined. The discussion also examines state and federal laws that may affect how sensitive habitats are developed.

3.1 SIGNIFICANCE CRITERIA

General plans, area plans, and specific projects are subject to the provisions of the California Environmental Quality Act (CEQA). The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are constructed. For example, site development may require the removal of some or all of its existing vegetation, and animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, or other disturbance associated with humans may replace those species formerly occurring on a site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed. These impacts may be considered either significant or not significant. According to *Guide to the California Environmental Quality Act* (Remy et al. 1999), "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest. Specific project impacts to biological resources may be considered "significant" if they will:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS;

- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of a native wildlife nursery site;
- reduce substantially the habitat of a fish or wildlife species, including causing a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate an animal community;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- conflict with the provisions of an adopted Habitat Conservation Plan, or other approved local, regional, or state habitat conservation plan (Remy et al. 1999).

Furthermore, CEQA Guidelines Section 15065 states that a project may trigger the requirement to make a "mandatory finding of significance" if "the project has the potential to subsequently degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory."

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 Threatened and Endangered Species

State and federal "endangered species" legislation has provided the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as "species of special status." Permits may be required from the CDFG

and USFWS if activities associated with a proposed project will result in the "take" of a listed species. "Take" is defined by the state of California as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (California Fish and Game Code, Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFG and the USFWS are responding agencies under the California Environmental Quality Act (CEQA). The agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.2.2 Migratory Birds

Most birds are protected under federal law. The federal Migratory Bird Treaty Act (MBTA: 16 U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. This law protects all wild birds except house sparrows (*Passer domesticus*), feral pigeons (*Columba livia*), European starlings, and game birds in the family Galliformes, such as quail and pheasants.

3.2.3 Birds of Prey

Birds of prey are further protected in California under provisions of the State Fish and Game Code, Section 3503.5, (1992), which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (vultures, hawks, eagles, and falcons) or Strigiformes (owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFG.

3.2.4 Wetlands and Other Jurisdictional Waters

Natural drainage channels and wetlands are considered "Waters of the United States" (hereafter referred to as "jurisdictional waters"). The U.S. Army Corps of Engineers (USACE) regulates the filling or grading of such waters under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by "ordinary high water marks" on opposing channel banks. Wetlands are habitats with soils that are intermittently or permanently saturated or inundated. The resulting anaerobic conditions encourage plant species known as hydrophytes that show a high degree of fidelity to such soils. Wetlands are identified by the presence of hydrophytic vegetation, hydric soils (soils saturated by water either intermittently or permanently), and wetland hydrology according to methodologies outlined in the 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987).

All activities that involve the discharge of fill into jurisdictional waters are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that results in no net loss of wetland functions or values. No permit can be issued until the Regional Water Quality Control Board (RWQCB) issues a certification (or waiver of such certification) that the proposed activity will meet state water quality standards. The RWQCB is also responsible for enforcing National Pollutant Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit. All projects requiring federal money must also comply with Executive Order 11990 (Protection of Wetlands).

The CDFG has jurisdiction over the bed and bank of natural drainages in accordance with provisions of Section 1601 and 1603 of the California Fish and Game Code (CDFG 1995). Activities that would disturb these drainages are regulated by the CDFG via a Streambed Alteration Agreement. Such an agreement typically stipulates that certain measures will be implemented which protect the habitat values of the drainage in question.

3.3 ENVIRONMENTAL IMPACTS/MITIGATION

As described in Section 1.0, the proposed action is the construction of a residential subdivision on 90-acres of a 137.6-acre site along Warthan Creek in Coalinga, Fresno County. For the purposes of this analysis, it has been assumed that the existing fallow field observed on site will be entirely replaced with residences and associated infrastructure and that Warthan Creek along with its associated habitats will not be developed.

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

Impact. Nine special-status vascular plant species are known to occur in the general project vicinity in Fresno County (Table 1). Neither the channel and flood plain of Warthan Creek nor the fallow agriculture field provided suitable habitat for these nine species. In addition to the agriculture practices the site's close proximity to the City of Coalinga has resulted in a degradation of the study area due to human activities. Therefore, eventual site development would have no effect on regional populations of these 9 species.

Mitigation. Because no special-status plant species occur on site, mitigation measures are not considered warranted.

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

Impact. Forty-three special-status animal species occur regionally (see Table 1). Possible impact to regional populations of these species from eventual site development is discussed below:

Species Absent from or Unlikely to Occur on the Site. As shown in Table 1, 20 special-status animals would not occur or would be unlikely to occur in the study area due to the absence of suitable habitat. For example, vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetles, etc., would not occur on the site due to the absence of suitable habitat. Eventual site development would have no effect on these 20 species.

Species Potentially Present on Site as Migrants or Transients. Four species could visit the site as transients or migrants only. These species include peregrine falcon, willow flycatcher, yellow warbler and black swift. Although the aforementioned species could perhaps forage on the site from time to time, the site possesses no intrinsic habitat qualities that make it uniquely valuable for these species. In fact, most of these species pass through or over many types of habitats en route to breeding or wintering habitat. Considerable habitat suitable for migratory movements will continue to be available for these species after project construction. Furthermore, construction of the proposed project on the site will not preclude its use by most of these species in the future. Therefore, the project will have little or no effect on regional populations of these four species.

Species That May Forage on the Site. Twelve special-status species potentially breed or roost in other habitats and forage in the study area from time to time. Breeding habitat for these species is either not present on the site, or is of marginal suitability. For example, there is no breeding habitat on the site for San Joaquin kit fox, Cooper's hawk or horned larks, but all these species may occasionally forage on the site. The site does not provide regionally important foraging habitat for any of these species. Site development will result in at most the loss of a minor amount of marginal foraging habitat. This potential impact is considered to be less than significant.

Species That May Breed on the Site. Nine special status species possibly use portions of the study area for breeding and foraging. These species include the blunt-nosed leopard lizard, coast horned lizard, silvery legless lizard, burrowing owl, loggerhead shrike, short-nosed kangaroo rat, southern grasshopper mouse, pallid bat and California mastiff bat. With exception of the burrowing owl, all of the species would forage and breed within Warthan Creek and the

associated flood plain, which will not be developed. The approximately 200-foot buffer from Warthan Creek, as proposed in the project plan, allows for development to avoid direct impacts to all of these species except the burrowing owl. The site provides limited habitat for burrowing owls and a considerable amount of suitable habitat will remain in the region after project construction. Therefore, project implementation will not substantially reduce the availability of suitable habitat for regional populations of these nine species, nor would it result in significant adverse effects on regional populations of any of these nine species. Potential project impacts to these nine species are considered less than significant.

Mitigation. Development of the parcel with the approximately 200-foot disturbance free buffer along Warthan Creek will result in no impact or less than significant impact on special status animal species. Avoidance measures for San Joaquin kit fox and burrowing owl are discussed below.

Kit Fox.

Project-related injury or mortality to any San Joaquin kit fox that may wander on to the site during site development, however unlikely this eventuality may be, would be a violation of the federal Endangered Species Act. Standard pre-construction avoidance measures drafted by the U.S. Fish and Wildlife Service have been included in Appendix D of this document.

Burrowing Owl.

The burrowing owl is a raptor, protected by federal law. This species was not observed on the site, but the availability of suitable nest burrows in the form of ground squirrel burrows may attract burrowing owls to the site in future years. Project construction could result in mortality to resident and breeding burrowing owls by: 1) burying them in their nest burrows; and 2) disrupting nesting activities such that adult owls abandon their nestlings. Construction-related mortality of burrowing owls would be a violation of federal law and a significant environmental effect according to provisions of NEPA. Mitigation measures that protect burrowing owls from possible direct mortality or nest failure would be warranted. Therefore the following measures will be implement to ensure that burrowing owl mortality from project construction is avoided.

- A pre-construction survey will be conducted by a qualified biologist for Burrowing Owls within 30 days prior to the on-set of construction. This survey will be conducted according to methods described in the *Staff Report on Burrowing Owl Mitigation* (CDFG 1995), which although a state rather than federal guideline is standard for all burrowing owl surveys in California

- If pre-construction surveys undertaken during the breeding season (February through July) locate active nest burrows within or near construction zones, these nests, and an appropriate buffer around them (as determined by a qualified biologist) will remain off-limits to construction until the breeding season is over. Setbacks from occupied nest burrows of 100 meters where construction will result in the loss of foraging habitat are required.

- During the non-breeding season (August through January), resident owls may be relocated to alternative habitat. The relocation of resident owls must be according to a relocation plan prepared by a qualified biologist. Passive relocation will be the preferred method of relocation. This plan must provide for the owl's relocation to nearby lands possessing available nesting and foraging habitat.

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

Impact. Riparian habitat or other sensitive natural communities identified in local and regional plans, policies, regulations, or by state and federal agencies are not present in the study area. Therefore, the proposed project would have no effect on such communities.

Mitigation. Because the project will have no effect on sensitive natural communities of any kind, mitigation measures are not warranted.

3.3.4 Will the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Impact. Potential Waters of the United States, including wetlands, appear to be present within the study area and are associated with Warthan Creek. This creek continues to flow out of the study area and into Los Gatos Creek. Los Gatos Creek originates at the Fresno County-San Benito County lines, approximately 10 air miles southeast of the Hernandez Reservoir. Below the confluence of Los Gatos Creek and Warthan Creek, Los Gatos Creek is known as Arroyo

Pasajero and continues south, southeast and simply ends approximately 3 air miles west of the California Aqueduct and two air miles northwest of the unincorporated village of Huron. Warthan Creek is a tributary to Los Gatos Creek, but it appears that Los Gatos Creek is not tributary to any other jurisdictional water

Waters of the United States and other possible jurisdictional waters (i.e. those subject to the jurisdiction of the state of California) are potentially present within the site. Surveys for jurisdictional waters have been performed and the results of this survey are currently be written and reviewed. The results of this survey will be made available to state and federal agencies, so that the status of any on-site drainage features can be verified by these agencies.

Impacts to wetland habitats are generally considered significant under provisions of CEQA. The placement of fill in areas delineated as jurisdictional waters will require a Clean Water Act permit from the U.S. Army Corps of Engineers. The Applicant is advised to implement the following measures in order to reduce impacts to jurisdictional waters and comply with state and federal law. Full compliance with the measures below would mitigate all impacts to jurisdictional waters to a less than significant level.

- **Avoidance.** It is recommended that any development of this parcel be designed that avoids the placement of fill within potential jurisdictional waters and seasonal drainages.

- **Completion of a Wetland Delineation**. If areas of potential jurisdictional waters identified in this report cannot be avoided, then all potential jurisdictional waters should be identified and mapped by a qualified wetlands biologist. This would require an appropriate topographic map at a minimum scale of 1 inch = 200 feet. The report and map would then be submitted to the U.S. Army Corps of Engineers for verification. As of November 5, 2004 a wetland delineation has been completed and the maps identifying the potential jurisdictional were in the process of being drawn by a surveying company.

- **Permits.** If the project results in a loss of jurisdictional waters, then the applicant must obtain from the U.S. Army Corps of Engineers the appropriate Clean Water Act permit. The

USACE will determine the type of Clean Water Act Permit appropriate for the project. The type of permit required could, in part, be dependent on the final project design.

- **Mitigation Plan.** A mitigation plan could be required that either results in the creation of new jurisdictional waters as replacement for those lost, or enhances the quality of existing jurisdictional waters for native plants and wildlife. When mitigation measures for wetland impacts have been selected, the applicant must write Kathy Norton of the U.S. Army Corps of Engineers, Sacramento District, 1325 "J" Street, Sacramento, CA 95814-2922, requesting review of this report and review of project plans and proposed mitigation.

3.3.5 Will the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Potential Impact. No detailed studies of wildlife movement were conducted within the study area. Movement corridors are characterized by the regular movements of one or more species through relatively well-defined areas, and are often associated with ridgelines, wetland complexes and well-developed riparian habitats of major rivers and creeks. Warthan Creek, which flows along the northeastern border of the study area, may facilitate the movements of some species. The 200-foot buffer around Warthan Creek will prevent this corridor from being impacted by development. Clearly, a number of vertebrate species, including reptiles, birds, and mammals use this site. Home range and dispersal movements also take place here. These movements of species resident in the area do not, however, indicate a "movement corridor." Reptiles, birds and mammals would, for the most part move through all portions of the parcel, as they would also do on surrounding parcels. The proposed project certainly will alter the home range and dispersal movements of some terrestrial vertebrates using the site, but these effects will be relatively minor, given the small amount of development proposed for the site. Therefore, the proposed project will have a less than significant impact on on-site and regional wildlife movements.

Mitigation. The project will result in a less than significant effect on regional wildlife movement patterns. Therefore, no mitigation has been proposed.

3.3.6 Will the project reduce substantially the habitat of a fish or wildlife species, including causing a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate an animal community?

Impact. Proposed site development would eliminate agricultural land as habitat for native wildlife now occurring there. As noted above, this habitat is not of significant importance to regional wildlife populations. Because the loss of wildlife habitat associated with site development would not be substantial, project impacts to such habitat are considered less-than-significant.

Although the fallow field is of relatively low value for native wildlife, it may still be used from time to time by various species. Cumulative losses of foraging habitat in the region resulting from commercial and residential development may well be considered significant. Eventual development of the study area would potentially contribute to regionally significant cumulative losses of habitat used by various wildlife species.

Mitigation. Because this project will by itself have a less than significant effect on habitat for native wildlife occurring in this portion of Fresno County, mitigation measures are not considered warranted. This project may contribute to significant cumulative habitat losses in the Coalinga area, but mitigation measures for this contribution must be addressed at a regional level.

3.3.7 Will the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact. The project appears to be consistent with the General Plan Policies of Fresno County that are relevant to natural resource protection.

Mitigation. Because this project appears to be consistent with the General Plan Policies of Fresno County relevant to natural resource protection, mitigation measures further protecting biological resources are not considered warranted.

3.3.8 Will the Project Contribute to the Degradation of Water Quality in Seasonal Creeks, Reservoirs and Downstream Waters?

Impact. Due to the close proximity to Warthan Creek any cut-and-fill grading necessary for site development could result in significant erosion. Eroded sediment may be deposited in Warthan Creek and therefore impair water quality.

Mitigation. Implementing the following measures will minimize erosion and sedimentation from any future development of the site:

- **Compliance with Fresno County Grading Ordinance and NPDES Permits Issued by the Regional Water Quality Control Board.** Any grading on site will require a Fresno County grading permit. Grading of more than 1 acre of land requires a General Construction Permit issued by the Regional Water Quality Control Board.

- **Preparation of an Erosion Control Plan.** Required permits typically require the preparation and implementation of an erosion control plan incorporating best management practices (BMPs). The applicant will have a qualified engineer prepare such a plan. Provisions of this plan will implemented fully during project construction.

3.3.9 Will Active Raptor Nests Be Disturbed from Construction Activities During Project Implementation?

Impact. Trees found along Warthan Creek provide potential nesting habitat for raptors. Some raptors that could potentially nest in these habitats include red-tailed hawks, white-tailed kites, American kestrels and western screech owls. If the project were to be constructed during the raptor breeding season of some future year (February through August), then construction activities might disturb any raptors that were nesting in trees found on or near the project area. Should raptors be nesting in trees located on or near the project area at the time of project construction, construction-related disturbance to the nest would constitute a potentially significant adverse impact.

Mitigation. The project will have no impact on active raptor nests if construction occurs between the months of early September and late January. If the project were to be constructed between the months of February and August, the applicant must then implement the following measures:

- A qualified biologist will conduct a pre-construction survey, within 30 days prior to construction, of all suitable raptor nesting habitat within 200 feet of the project site for active raptor nests;
- If no active raptor nests are found, the applicant will then be able to proceed with the project without additional mitigation measures being necessary;
- If an active raptor nest is found, the applicant and the biologist will consult with the California Department of Fish and Game to establish a suitable construction-free setback from the nest site. No construction will occur within this setback until the conclusion of the nesting season.

Implementation of the above measure will fully mitigate possible impact to an active raptor nest resulting from project construction.

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APPENDIX A: VASCULAR PLANTS OF THE STUDY AREA

APPENDIX A
VASCULAR PLANTS OF THE STUDY AREA

The plants species listed below were observed on the study area during surveys conducted by Live Oak Associates, Inc. on October 21, 2004. The U.S. Fish and Wildlife Service wetland indicator status of each plant has been shown following its common name.

OBL - Obligate
FACW - Facultative Wetland
FAC - Facultative
FACU - Facultative Upland
UPL - Upland
+/- - Higher/lower end of category
NR - No review
NA - No agreement
NI - No investigation

ASTERACEAE – Sunflower Family		
Artemesia douglasiana	mugwort	FACW
Baccharis salicifolia	mule fat	FACW
Gutierrezia californica	California matchstick	UPL
Helianthus annuus	common sunflower	FAC-
Xanthium strumarium	cocklebur	FAC+
BORAGINACEAE – Borage Family		
Heliotropium curassavicum	salt heliotrope	OBL
BRASSICACEAE – Mustard Family		
Brassica sp.	mustard	
Brassica nigra	black mustard	UPL
CHENOPODIACEAE – Goosefoot Family		
Atriplex lentiformis	big saltbush	FAC
Atriplex subspicata	spearscale	FACW
Chenopodium rubrum	red goosefoot	UPL
Salsola tragus	Russian thistle	FACU
FABACEAE –Bean Family		
Prosopis pubescens	screw bean mesquite	FAC
GERANIACEAE – Geranium Family		
Erodium botrys	broad-leaf filaree	UPL
POACEAE – Grass Family		
Arundo donax	giant reed	FACW
Avena sativa	oats	UPL
Bromus diandrus	ripgut brome	UPL
Bromus hordeaceus	soft-chess brome	FACU
Bromus madritensis ssp. *rubens*	red brome	UPL
Cynodon dactylon	Bermuda grass	FAC
Hordeum marinum ssp. *gussoneanum*	Mediterranean barley	FAC
Hordeum murinum ssp. *leporinum*	foxtail barley	NI
POLYGONACEAE – Buckwheat Family		
Rumex crispus	curly dock	FACW

SALICACEAE – Willow Family		
Populus fremontii ssp. *fremontii*	Fremont Cottonwood	FACW
SOLANACEAE – Nightshade Family		
Datura wrightii	jimson weed	UPL
Nicotiana glauca	tree tobacco	FAC
TAMARIACEAE- Tamarisk Family		
Tamarix chinensis	Chinese tamarisk	FACW

APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE STUDY AREA

APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE STUDY AREA

The species listed below are those that may reasonably be expected to use the habitats of the study area from time to time. The list is not intended to include birds that are vagrants or occasional transients. Terrestrial vertebrate species observed in or adjacent to the site on October 21, 2004 are noted with an asterisk.

CLASS: AMPHIBIA (Amphibians)
ORDER: SALIENTIA (Frogs and Toads)
FAMILY: BUFONIDAE (True Toads)
Western Toad (*Bufo boreas*)
FAMILY: HYLIDAE (Treefrogs and relatives)
Pacific Treefrog (*Pseudacris regilla*)

CLASS: REPTILIA (Reptiles)
ORDER: SQUAMATA (Lizards and Snakes)
SUBORDER: SAURIA (Lizards)
FAMILY: CROTAPHYTIDAE (Collard and Leopard Lizards)
Blunt-nosed Leopard Lizard (*Gambelia sila*)
FAMILY: PHRYNOSOMATIDAE
Western Fence Lizard (*Sceloporus occidentalis*)
Side-blotched Lizard (*Uta stansburiana*)
Coast Horned Lizard (*Phrynosoma coronatum*)
FAMILY: TEIIDAE (Whiptails and relatives)
Western Whiptail (*Cnemidophorus tigris*)
FAMILY: ANGUIDAE (Alligator Lizards and relatives)
Southern Alligator Lizard (*Elgaria multicarinatus*)
FAMILY: ANNIELIDAE (California Legless Lizards)
Silvery Legless Lizard (*Anniella pulchra pulchra*)
SUBORDER: SERPENTES (Snakes)
FAMILY: COLUBRIDAE (Colubrids)
Coachwhip (*Masticophis flagellum*)
Glossy Snake (*Arizona elegans*)
Gopher Snake (*Pituophis melanoleucus*)
Common Kingsnake (*Lampropeltis getulus*)
Long-nosed Snake (*Rhinocheilus lecontei*)
Common Garter Snake (*Thamnophis sirtalis*)
FAMILY: VIPERIDAE (Vipers)
Western Rattlesnake (*Crotalus viridis*)

CLASS: AVES (Birds)
ORDER: CICONIIFORMES (Herons, Storks, Ibises and Relatives)
FAMILY: ARDEIDAE (Herons and Bitterns)
Cattle Egret (*Bubulcus ibis*)
FAMILY: CATHARTIDAE (American Vultures)
Turkey Vulture (*Cathartes aura*)
ORDER: FALCONIFORMES (Vultures, Hawks, and Falcons)
FAMILY: ACCIPITRIDAE (Hawks, Old World Vultures, and Harriers)

White-tailed Kite (*Elanus leucurus*)
Northern Harrier (*Circus cyaneus*)
*Red-tailed Hawk (*Buteo jamaicensis*)
Ferruginous Hawk (*Buteo regalis*)
Rough-legged Hawk (*Buteo lagopus*)
Sharp-Shinned Hawk (*Accipiter striatus*)
Cooper's Hawk (*Accipiter cooperii*)

FAMILY: FALCONIDAE (Caracaras and Falcons)

*American Kestrel (*Falco sparverius*)
Merlin (*Falco columbarius*)
Prairie Falcon (*Falco mexicanus*)

ORDER: GALLIFORMES (Megapodes, Curassows, Pheasants, and relatives)

FAMILY: PHASIANIDAE (Quails, Pheasants, and relatives)

Ring-necked Pheasant (*Phasianus colchicus*)

ORDER: CHARADRIIFORMES (Shorebirds, Gulls, and relatives)

FAMILY: CHARADRIIDAE (Plovers and relatives)

Killdeer (*Charadrius vociferus*)

FAMILY: LARIDAE (Skuas, Gulls, Terns and Skimmers)

Ring-billed Gull (*Larus delawarensis*)
California Gull (*Larus californicus*)

ORDER: COLUMBIFORMES (Pigeons and Doves)

FAMILY: COLUMBIDAE (Pigeons and Doves)

Rock Dove (*Columba livia*)
*Mourning Dove (*Zenaida macroura*)

ORDER: STRIGIFORMES (Owls)

FAMILY: TYTONIDAE (Barn Owls)

Common Barn Owl (*Tyto alba*)

FAMILY: STRIGIDAE (Typical Owls)

Burrowing Owl (*Athene cunicularia*)
Great Horned Owl (*Bubo virginianus*)
Western Screech Owl (*Otus kennicottii*)

ORDER: CAPRIMULGIFORMES (Goatsuckers and relatives)

FAMILY: CAPRIMULGIDAE (Goatsuckers)

Lesser Nighthawk (*Chordeiles acutipennis*)

ORDER: APODIFORMES (Swifts and Hummingbirds)

FAMILY: APODIDAE (Swifts)

Vaux's Swift (*Chaetura vauxi*)

FAMILY: TROCHILIDAE (Hummingbirds)

Black-chinned Hummingbird (*Archilochus alexandri*)
*Anna's Hummingbird (*Calypte anna*)
Rufous Hummingbird (*Selasphorus rufus*)

ORDER: PICIFORMES (Woodpeckers and relatives)

FAMILY: PICIDAE (Woodpecker and Wrynecks)

*Northern Flicker (*Colaptes chrysoides*)
Downy Woodpecker (*Picoides pubescens*)
Nuttall's Woodpecker (*Picoides nuttallii*)

ORDER: PASSERIFORMES (Perching Birds)

FAMILY: TYRANNIDAE (Tyrant Flycatchers)

*Black Phoebe (*Sayornis nigricans*)
Western Kingbird (*Tyrannus verticalis*)

FAMILY: LANIIDAE (Shrikes)

Loggerhead Shrike (*Lanius ludovicianus*)

FAMILY: CORVIDAE (Jays, Magpies, and Crows)

Western Scrub Jay (*Aphelocoma coerulescens*)

Yellow-billed Magpie (*Pica nuttalli*)

American Crow (*Corvus brachyrhynchos*)

*Common Raven (*Corvus corax*)

FAMILY: ALAUDIDAE (Larks)

Horned Lark (*Eremophila alpestris*)

FAMILY: HIRUNDINIDAE (Swallows)

Northern Rough-winged Swallow (*Stelgidopteryx serripennis*)

Cliff Swallow (*Hirundo pyrrhonota*)

Barn Swallow (*Hirundo rustica*)

FAMILY: TURDIDAE

Western Bluebird (*Sialia mexicana*)

American Robin (*Turdus migratorius*)

FAMILY: MIMIDAE (Mockingbirds and Thrashers)

*Northern Mockingbird (*Mimus polyglottos*)

FAMILY: STURNIDAE (Starlings)

European Starling (*Sturnus vulgaris*)

FAMILY: MOTACILLIDAE (Wagtails and Pipits)

American Pipit (*Anthus rubescens*)

FAMILY: BOMBYCILLIDAE (Waxwings)

Cedar Waxwing (*Bombycilla cedrorum*)

FAMILY: PARULIDAE (Wood Warblers and Relatives)

Orange-crowned Warbler (*Vermivora celata*)

Yellow Warbler (*Dendroica petechia*)

*Yellow-rumped Warbler (*Dendroica coronata*)

FAMILY: EMBERIZIDAE (Wood Warblers, Sparrows, Blackbirds, and relatives)

Spotted Towhee (*Pipilo maculatus*)

Savannah Sparrow (*Passerculus sandwichensis*)

Song Sparrow (*Melospiza melodia*)

Golden-crowned Sparrow (*Zonotrichia atricapilla*)

*White-crowned Sparrow (*Zonotrichia leucophrys*)

FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)

Red-winged Blackbird (*Agelaius phoeniceus*)

Tricolored Black Bird (*Agelaius tricolor*)

*Western Meadowlark (*Sturnella neglecta*)

Brewer's Blackbird (*Euphagus cyanocephalus*)

Brown-headed Cowbird (*Molothrus ater*)

FAMILY: PASSERIDAE (Old World Sparrows)

House Sparrow (*Passer domesticus*)

CLASS: MAMMALIA (Mammals)

ORDER: DIDELPHIMORPHIA (Marsupials)

FAMILY: DIDELPHIDAE (Opossums)

Virginia Opossum (*Didelphis virginiana*)

ORDER: INSECTIVORA (Insectivores)

Ornate Shrew (*Sorex ornatus*)

ORDER: CHIROPTERA (Bats)

FAMILY: PHYLLOSTOMIDAE (Leaf-nosed Bats)

Southern Long-nosed Bat (*Leptonycteris curasoae*)

FAMILY: VESPERTILIONIDAE (Evening Bats)
Yuma Myotis (*Myotis yumanensis*)
California Myotis (*Myotis californicus*)
Pale Big-eared Bat (*Corynorhinus townsendii pallescens*)
Townsend's Western Big-eared Bat (*Corynorhinus townsendii townsendii*)
Western Pipistrelle (*Pipistrellus hesperus*)
Big Brown Bat (*Eptesicus fuscus*)
Western Red Bat (*Lasiurus borealis*)
Pallid Bat (*Antrozous pallidus*)
FAMILY: MOLOSSIDAE (Free-tailed Bat)
California Mastiff Bat (*Eumops perotis* ssp. *californicus*)
Brazilian Free-tailed Bat (*Tadarida brasiliensis*)
ORDER: LAGOMORPHA (Rabbits, Hares, and Pikas)
FAMILY: LEPORIDAE (Rabbits and Hares)
*Desert Cottontail (*Sylvilagus audubonii*)
*Black-tailed (Hare) Jackrabbit (*Lepus californicus*)
ORDER: RODENTIA (Rodents)
FAMILY: SCIURIDAE (Squirrels, Chipmunks, and Marmots)
*California Ground Squirrel (*Spermophilus beecheyi*)
FAMILY: GEOMYIDAE (Pocket Gophers)
Botta's Pocket Gopher (*Thomomys bottae*)
FAMILY: HETEROMYIDAE (Pocket Mice and Kangaroo Rats)
San Joaquin Pocket Mouse (*Perognathus inornatus*)
Heermann's Kangaroo Rat (*Dipodomys heermani*)
Short-Nosed Kangaroo Rat (*Dipodomys nitratoides brevinasus*)
FAMILY: MURIDAE (Old World Rats and Mice)
Western Harvest Mouse (*Reithrodontomys megalotis*)
Deer Mouse (*Peromyscus maniculatus*)
Norway Rat (*Rattus norvegicus*)
House Mouse (*Mus musculus*)
California Vole (*Microtus californicus*)
Southern Grasshopper Mouse (*Onchomys torridus ramona*)
ORDER: CARNIVORA (Carnivores)
FAMILY: CANIDAE (Foxes, Wolves, and relatives)
Coyote (*Canis latrans*)
Gray Fox (*Urocyon cinereoargenteus*)
San Joaquin Kit Fox (*Vulpes macrotis mutica*)
FAMILY: PROCYONIDAE (Raccoons and relatives)
Raccoon (*Procyon lotor*)
FAMILY: MUSTELIDAE (Weasels, Badgers, and relatives)
Badger (*Taxidea taxus*)
FAMILY: MEPHITIDAE (Skunks)
Striped Skunk (*Mephitis mephitis*)
FAMILY: FELIDAE (Cats)
Bobcat (*Lynx rufus*)
Feral Cat (*Felis domesticus*)

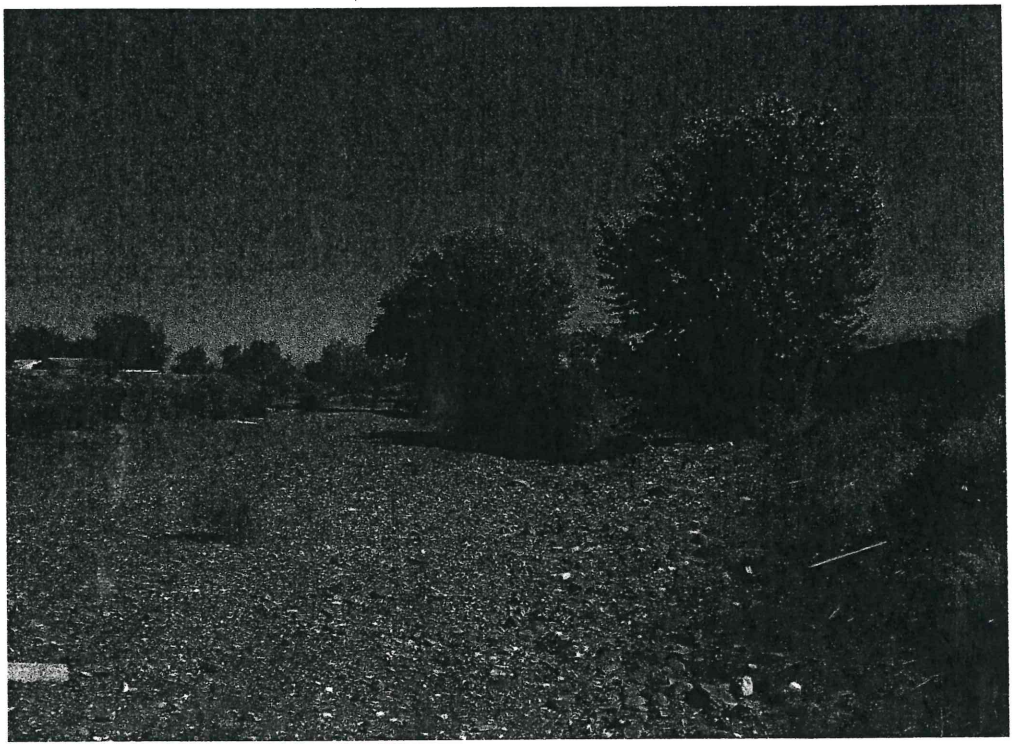
APPENDIX C: SELECTED PHOTOGRAPHS OF THE STUDY AREA

Photo #1. Looking north from the Warthan flood plain over the fallow field.

Photo #2. Looking southeast over the fallow field.

Photo #3. Looking southwest at Warthan Creek bed and bank.

Photo #4. Looking northeast at Warthan Creek bed and bank.



APPENDIX D: SAN JOAQUIN KIT FOX PRE-CONSTRUCTION AVOIDANCE MEASURES

U.S. FISH AND WILDLIFE SERVICE STANDARDIZED RECOMMENDATIONS FOR PROTECTION OF THE SAN JOAQUIN KIT FOX PRIOR TO OR DURING GROUND DISTURBANCE

Prepared by the Sacramento Fish and Wildlife Office
June 1999

INTRODUCTION

The following document includes many of the San Joaquin kit fox (*Vulpes macrotis mutica*) protection measures typically recommended by the U. S. Fish and Wildlife Service (Service), prior to and during ground disturbance activities. However, incorporating relevant sections of these guidelines into the proposed project is not the only action required under the Endangered Species Act of 1973, as amended (Act). *Project applicants should contact the Service in Sacramento to determine the full range of requirements that apply to your project; the address and telephone number are given at the end of this document.* Formal authorization for the project may be required under either section 7 or section 10 of the Act. Implementation of the measures presented in this document may be necessary to avoid violating the provisions of the Act, including the prohibition against "take" (defined as killing, harming, or harassing a listed species, including actions that damage or destroy its habitat). Such protection measures may also be required under the terms of a biological opinion pursuant to section 7 of the Act resulting in incidental take authorization (authorization), or an incidental take permit (permit) pursuant to section 10 of the Act. The specific measures implemented to protect kit fox for any given project shall be determined by the Service based upon the applicant's consultation with the Service.

The purpose of this document is to make information on kit fox protection strategies readily available and to help standardize the methods and definitions currently employed to achieve kit fox protection. The measures outlined in this document are subject to modification or revision at the discretion of the Service.

All surveys, den destructions, and monitoring described in this document must be conducted by a qualified biologist. A qualified biologist (biologist) means any person who has

completed at least four years of university training in wildlife biology or a related science and/or has demonstrated field experience in the identification and life history of the San Joaquin kit fox.

In addition, biologist(s) must be able to identify coyote, red fox, gray fox, and kit fox tracks, and to have seen a kit fox in the wild, at a zoo, or as a museum mount.

SMALL PROJECTS

Small projects are considered to be those projects with small foot prints such as an individual in-fill oil well, communication tower, or bridge repair. These projects must stand alone and not be part of, or in any way connected to larger projects (i.e., bridge repair or improvement to serve a future urban development). The Service recommends that on these small projects, the biologist survey the proposed project boundary and a 200-foot area outside of the project footprint to identify habitat features, and make recommendations on situating the project to minimize or avoid impacts. If habitat features cannot be completely avoided, then preconstruction surveys should be conducted.

Preconstruction/preactivity surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities or any project activity likely to impact the San Joaquin kit fox. Surveys should identify kit fox habitat features on the project site and evaluate use by kit fox and, if possible, and assess the potential impacts to the

kit fox by the proposed activity. The status of all dens should be determined and mapped (see Survey Protocol).

Written results of preconstruction/preactivity surveys must be received by the Service within five days after survey completion and prior to the start of ground disturbance and/or construction activities. If a natal/pupping den is discovered within the project area or within 200-feet of the project boundary, the Service shall be immediately notified. If the preconstruction/preactivity survey reveals an active natal pupping or new information, the project applicant should contact the Service immediately to obtain the necessary take authorization/permit.

If take authorization/permit has already been issued, then the biologist may proceed with den destruction within the project boundary, except natal/pupping dens (active or inactive). Protective exclusion zones can be placed around all known and potential dens which occur outside the project footprint (conversely, the project boundary can be demarcated, see den destruction section).

OTHER PROJECTS

It is likely that all other projects occurring within kit fox habitat will require a take authorization/permit from the Service. This determination would be made by the Service during the early evaluation process (see Survey Protocol). These other projects would include, but are not limited to: linear projects; projects with large footprints such as urban development; and projects which in themselves may be small but have far reaching impacts (i.e., water storage or conveyance facilities that promote urban growth or agriculture, etc.).

The take authorization/permit issued by the Service may incorporate some or all of the protection measures presented in this document. The take authorization/permit may include measures specific to the needs of the project, and those requirements supersede any requirements found in this document.

EXCLUSION ZONES

The configuration of exclusion zones around the kit fox dens should have a radius measured outward from the entrance or cluster of entrances. The following radii are minimums, and if they cannot be followed the Service must be contacted:

Potential den 50 feet

Known den 100 feet

Natal/pupping den Service must be contacted

(occupied and unoccupied)

Atypical den 50 feet

Known den: To ensure protection, the exclusion zone should be demarcated by fencing that encircles each den at the appropriate distance and does not prevent access to the den by kit foxes. Exclusion zone fencing should be maintained until all construction related or operational disturbances have been terminated. At that time, all fencing shall be removed to avoid attracting subsequent attention to the dens.

Potential and Atypical dens: Placement of 4-5 flagged stakes 50 feet from the den entrance(s) will suffice to identify the den location; fencing will not be required, but the exclusion zone must be observed.

Construction and other project activities should be prohibited or greatly restricted within these exclusion zones. Only essential vehicle operation on existing roads and foot traffic should be permitted. Otherwise, all construction, vehicle operation, material storage, or any other type of surface-disturbing activity should be prohibited within the exclusion zones.

DESTRUCTION OF DENS

Disturbance to all San Joaquin kit fox dens should be avoided to the maximum extent possible. Protection provided by kit fox dens for use as shelter, escape, cover, and reproduction is vital to the survival of the species. Limited destruction of kit fox dens may be allowed, if avoidance is not a reasonable alternative, provided the following procedures are observed. The value to kit foxes of potential, known, and natal/pupping dens differ and therefore, each den type needs a different level of protection. **Destruction of any known or natal/pupping kit fox den requires take authorization/permit from the Service.**

Natal/pupping dens: Natal or pupping dens which are occupied will not be destroyed until the pups and adults have vacated and then only after consultation with the Service. Therefore, project activities at some den sites may have to be postponed.

Known Dens: Known dens occurring within the footprint of the activity must be monitored for three days with tracking medium or an infra-red beam camera to determine the current use. If no kit fox activity is observed during this period, the den should be destroyed immediately to preclude subsequent use. If kit fox activity is observed at the den during this period, the den should be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Use of the den can be discouraged during this period by partially plugging its entrances(s) with soil in such a manner that any resident animal can escape easily. Only when the den is determined to be unoccupied may the den be excavated under the direction of the biologist. If the animal is still present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant, for example during the animal's normal foraging activities. The Service encourages hand excavation, but realizes that soil conditions may necessitate the use of excavating equipment. However, extreme caution must be exercised.

Destruction of the den should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter or use the den during the construction period. If at any point during excavation a kit fox is discovered inside the den, the excavation activity shall cease immediately and monitoring of the den as described above should be resumed. Destruction of the den may be completed when in the judgement of the biologist, the animal has escaped from the partially destroyed den.

Potential Dens: If a take authorization/permit has been obtained from the Service, den destruction may proceed without monitoring, unless other restrictions were issued with the take authorization/permit. If no take authorization/permit has been issued, then potential dens should be monitored as if they were known dens. If any den was considered to be a potential den, but is later determined during monitoring or destruction to be currently, or previously used by kit fox (e.g., if kit fox sign is found inside), then destruction shall cease and the Service shall be notified immediately.

CONSTRUCTION AND OPERATIONAL REQUIREMENTS

Habitat subject to permanent and temporary construction disturbances and other types of project-related disturbance should be minimized. Project designs should limit or cluster permanent project features to the smallest area possible while still permitting project goals to be achieved. To minimize temporary disturbances, all project-related vehicle traffic should be restricted to

established roads, construction areas, and other designated areas. These areas should also be included in preconstruction surveys and, to the extent possible, should be established in locations disturbed by previous activities to prevent further impacts.

1. Project-related vehicles should observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. To the extent possible, night-time construction should be minimized. Off-road traffic outside of designated project areas should be prohibited.

2. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the procedures under number 13 of this section must be followed.

3. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipe becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the Service has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity, until the fox has escaped.

4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in closed containers and removed at least once a week from a construction or project site.

5. No firearms shall be allowed on the project site.

6. To prevent harassment, mortality of kit foxes or destruction of dens by dogs or cats, no pets should be permitted on project sites.

7. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control must be conducted, zinc phosphide should be used because of proven lower risk to kit fox.

8. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped individual. The representative will be identified during the employee education program. The representative's name and telephone number shall be provided to the Service.

9. An employee education program should be conducted for any project that has expected impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and agency personnel involved in the project. The program should include the following: a description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the above-mentioned people and anyone else who may enter the project site.

10. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. should be re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the project, but that after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the Service, California Department of Fish and Game (CDFG), and revegetation experts.

11. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the Service should be contacted for advice.

12. Any contractor, employee, or military or agency personnel who inadvertently kills or injures a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFG immediately in the case of a dead, injured or entrapped kit fox. The CDFG contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist.

13. The Sacramento Fish and Wildlife Office and CDFG will be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The Service contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers given below. The CDFG contact is Mr. Ron Schlorff at 1416 9th Street, Sacramento, California 95814, (916) 654-4262.

Any project-related information required by the Service or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at:

Endangered Species Division
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846
(916) 414-6620

"Take" - Section 9 of the Endangered Species Act of 1973, as amended (Act) prohibits the "take" of any federally listed endangered species by any person (an individual, corporation, partnership, trust, association, etc.) subject to the jurisdiction of the United States. As defined in the Act, take means " . . . to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Thus, not only is a listed animal protected from activities such as hunting, but also from actions that damage or destroy its habitat.

"Dens" - San Joaquin kit fox dens may be located in areas of low, moderate, or steep topography. Den characteristics are listed below, however, the specific characteristics of individual dens may vary and occupied dens may lack some or all of these features. Therefore, caution must be exercised in determining the status of any den. Typical dens may include the following: (1) one or more entrances that are approximately 5 to 8 inches in diameter; (2) dirt berms adjacent to the entrances; (3) kit fox tracks, scat, or prey remains in the vicinity of the den; (4) matted vegetation adjacent to the den entrances; and (5) manmade features such as culverts, pipes, and canal banks.

"Known den" - Any existing natural den or manmade structure that is used or has been used at any time in the past by a San Joaquin kit fox. Evidence of use may include historical records, past or current radiotelemetry or spotlighting data, kit fox sign such as tracks, scat, and/or prey remains, or other reasonable proof that a given den is being or has been used by a kit fox. The Service discourages use of the terms "active" and "inactive" when referring to any kit fox den because a great percentage of occupied dens show no evidence of use, and because kit foxes change dens often, with the result that the status of a given den may change frequently and abruptly.

"Potential Den" - Any subterranean hole within the species' range that has entrances of appropriate dimensions for which available evidence is insufficient to conclude that it is being used or has been used by a kit fox. Potential dens shall include the following: (1) any suitable subterranean hole; or (2) any den or burrow of another species (e.g., coyote, badger, red fox, or ground squirrel) that otherwise has appropriate characteristics for kit fox use.

"Natal or Pupping Den" - Any den used by kit foxes to whelp and/or rear their pups. Natal/pupping dens may be larger with more numerous entrances than dens occupied exclusively by adults. These dens typically have more kit fox tracks, scat, and prey remains in the vicinity of the den, and may have a broader apron of matted dirt and/or vegetation at one or more entrances. A natal den,

defined as a den in which kit fox pups are actually whelped but not necessarily reared, is a more restrictive version of the pupping den. In practice, however, it is difficult to distinguish between the two, therefore, for purposes of this definition either term applies.

"Atypical Den" - Any manmade structure which has been or is being occupied by a San Joaquin kit fox. Atypical dens may include pipes, culverts, and diggings beneath concrete slabs and buildings.

APPENDIX C
CULTURAL RESOURCES STUDY

SIERRA VALLEY CULTURAL PLANNING

A CULTURAL RESOURCES SURVEY FOR THE PROPOSED WARTHAN CREEK HOUSING DEVELOPMENT, COALINGA, FRESNO COUNTY, CALIFORNIA

Prepared by:

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Submitted to:

Mr. Hal M. Lore, P.E.
Peters Engineering Group
55 Shaw Avenue, Suite 220
Clovis, CA 93612
(559) 299-1544

23 November 2004

Topographic Quadrangle: Coalinga, Calif., 7.5' (1979)
Area: ~ 130 acres (53 hectares)

(Keywords: *Fresno County, Township 21S, Range 15E, Coalinga, Alcalde, Tache Yokuts, Pleasant Valley, Warthan Creek)*

MANAGEMENT SUMMARY

On November 16, 2004, a cultural resources survey was performed of a ca. 130-acre (53-hectare) parcel located along the eastern banks of Warthan Creek, between Merced and Polk avenues, in the City of Coalinga in western Fresno County, California (Township 21S, Range 15E, Section 4, MDB&M; see Figure 1). This study was performed at the request of Mr. Hal M. Lore, Project Engineer. This cultural resources assessment is necessary in order to obtain necessary permits from the City of Coalinga prior to development of the parcel for residential housing. A cultural resources survey and identification of historic properties within the project area is required pursuant to guidelines set forth in the California Environmental Quality Act (CEQA) to determine the project's potential environmental effects.

No cultural resources were identified as a result of surface inspection of the project study area, thus it is unlikely that the development of the project area will have an effect on important or significant cultural resources. No further cultural resources investigations are therefore recommended.

In the unlikely event that buried archaeological deposits are encountered during project-related activities, work in the immediate vicinity of the discovery should cease until the finds have been evaluated by a qualified archaeologist. Should human remains be encountered within the project area, the County Coroner should be contacted immediately; if the remains are determined to be Native American, then the Coroner shall contact the Native American Heritage Commission

1.0 INTRODUCTION

This report presents the findings of an archaeological survey of approximately 130 acres (53 ha) (Project Study Area) located in the City of Coalinga in southwestern Fresno County, California. The survey area lies in Township 21S, Range 15E, in a portion of Section 4 (MDB&M), as depicted on the USGS Coalinga Calif., 7.5' series topographic quadrangle (1979; see Figure 1).

The archaeological survey was performed at the request of Mr. Hal M. Lore, P.E., Project Engineer., on behalf of First American Commercial Property Group, San Antonio, Texas. Mr. Lore will include the results of this study in an application to the City of Coalinga for project development review. A cultural resources survey and identification of historic properties within the project area is required pursuant to guidelines set forth in the California Environmental Quality Act (CEQA) to determine the project's potential environmental effects.

The author conducted an archaeological survey of the Project Study Area on November 16, 2004. No cultural resources were identified as a result of surface inspection of the project study area.

A brief description of the natural and cultural setting of the project study area follows this introduction. Survey methods and findings are presented in the subsequent section.

2.0 SETTING

The project study area is located in a floodplain along the east banks of Warthan Creek in the western San Joaquin Valley, to the east and north of the Coast Range in south-western Fresno County, California. The parcel is located within a fallow agricultural field. Twentieth century modifications adjacent to the project study area on the north include a horse corral and barn, and a PG&E substation. Merced Avenue bounds the project area on the east; fallow fields are to the south. A power line runs north/south within the eastern portion of the project area. Figure 2 provides a pictorial overview of the project study area.

2.1 Natural Environment

The project study area is located within the floodplains of Warthan Creek, on the low plains of the western San Joaquin Valley. Perennial Warthan Creek flows northeast along the western parcel boundary; the creek was dry at the time of the survey. Native cottonwoods line the banks of Warthan Creek; non-native species present include tobacco tree and tamarisks. The project area has been recently plowed; vegetation within the parcel is limited to sparse non-native grasses. Soil within the parcel is light brown sandy silt. Elevation is approximately 660 ft (201 m) above mean sea level.

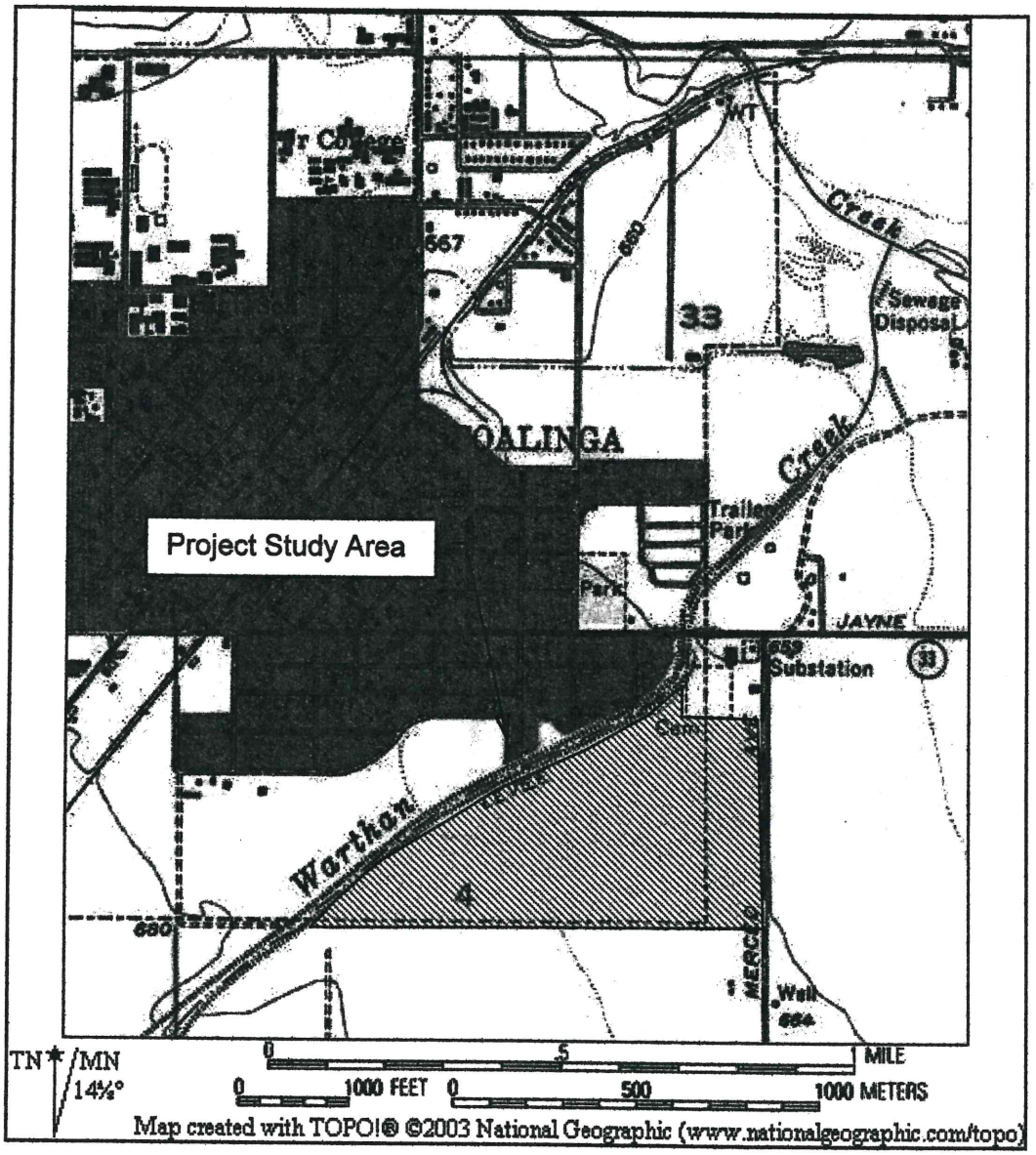

Figure 1. Location of Project Study Area, T21S/R15E, portions of Section 4, Coalinga, Calif., 7.5' USGS topographic quadrangle (1979).

Figure 2. Project Study Area overview, looking east across the northern portion of the parcel to Merced Avenue.

Prior to EuroAmerican intrusion and settlement in the region, the southern San Joaquin Valley was an extensive wetland with contiguous rivers, sloughs, and lakes. Stands of trees -- sycamore, cottonwoods, and willows -- lined the higher elevation stream courses with dense stands of tule rushes in wetland areas. Rivers and lakes yielded fish, mussels, and pond turtles; migratory waterfowl nested in the dense tules. Tule elk, sometimes referred to by early Spanish explorers as wild horses, found ample forage. Smaller mammals and birds, including jackrabbits, ground squirrels, and quail were abundant.

Periodic heavy rainfall often occurred in the area. The following is taken from unpublished recollections of the Pleasant Valley area on file at the R.C. Baker Memorial Museum (reprinted in Morton 1970:12):

> *Up until 1862 Warthan Creek, which flows through the edge of Coalinga, spread out and made a marshy place or cienega. There were tules, wire grass and cottonwoods growing down almost as far as where the town of Huron is located. In high water the creeks flowed across the plains and emptied into Tulare Lake—about half way between Kettleman City and Stratford. 1862 was*

the biggest flood year California has ever known since the white man came. The water cut Warthan Creek down fifteen or twenty feet and made the deep channel in which it now runs, leaving the old Cottonwood groves high above to die for want of water.

2.2 Ethnographic Summary

Prior to EuroAmerican settlement, most of the southern San Joaquin Valley and the bordering foothills of the Sierra Nevada and South Coast Range were inhabited by speakers of Yokutsan languages. Tulare, Buena Vista, and Kern lakes, their connecting sloughs and the lower portions of the Kings, Kaweah, Tule,and Kern rivers, with their maze of waterways and sloughs, formed the core of the Southern Yokuts homeland (Wallace 1978:448). Latta (1999) identifies the *Tache* Yokuts as occupying the north and western shores of Tulare Lake. Concerning the Tachi, Kroeber (1925) writes:

> *The Tachi, Tadji, or Dachi . . . , the northernmost of the three Tulare Lake tribes, appear to have been one of the largest of all Yokuts divisions, and still survive to the number of some dozens. The Spanish frequently referred to the Tache, and a Laguna de Tache land grant survives on our maps. Their country was the tract from northern Tulare Lake and its inlet or outlet, Fish Slough, west to the Mount Diablo chain of the Coast Range, where they bordered the Salinan Indians. Here they wintered at Udjiu [Latta's Poza Chaná], downstream from Coalinga, and at Walna [Latta's Walnau], where the western hills approach the lake [Kroeber 1925:484].*

The Tachi Yokut settlements focused for the most part around the marshy shores and sloughs of Tulare Lake, which they traveled on in tule rafts. This environment offered an exceptionally rich array of foods and thus supported a considerable aboriginal population (Cook 1955; Latta 1999; Wallace 1978:449-450).

The harvesting of wild plant foods was of prime importance in the Yokuts subsistence practices. Acorns were a principle food source, although not near as readily available as on the eastern side of the San Joaquin Valley and adjacent Sierran foothills. Heavy growths of live oak and black oak do occur in the upland areas of the major drainages. Grasses and various shrubs were the main economic foods in the immediate area, although abundant resources were available close at hand to the east adjacent to the large tule swamps and to the west, where deer were and medium-sized mammals could be procured as well as oaks, buckeyes, and junipers. Pritchard (1970:4) suggests that there is reason to believe that sites in the canyon lands of the Coast Range were "areas of retreat when weather conditions in the valley or mountains were adverse. Certainly it would have served as a respite from dense tule fog during winter months and from mosquito hatches in the late spring and early summer. The area also may have served as a centralized access point for the utilization of these diverse ecological zones.

The settlement system of the Yokuts was marked by principal villages on terraced areas adjacent to watercourses. Seasonal disbursement took place for plant collection and preparation. Earle (2002) has suggested that villages within sloughs were constructed on top of large platform mounds, which may have served as defensive strategies or as a reaction to fluctuating lake levels and thus a means of avoiding flooding.

Known Tache Yokut villages and other named places are found, for the most part, in the Tulare Lake Basin. Preston (1981:44) describes the Tachi annual round:

> *...The people wintered in Golon [Huron], Udjiu [also called Poza Chaná], and Walna [near Kettleman City] ... from November through February, ...In May or June, when grass seeds ripened, the Tachi moved eastward to their summer settlements, including [Heinlen] Chi and Waiu [present-day Santa Rosa Rancheria].*

In his Handbook of Yokuts Indians (1999), Latta writes:

> *Since about 1790 there had been no Yokuts Indians along the West Side plains and foothills. They had been stripped from that entire territory . . . and taken to the Spanish Missions on the coast. The Yokuts who were brave enough to remain along the west bank of the San Joaquin River were exterminated in 1833 by an epidemic that swept that entire area [Latta 1999:xix].*

2.3 Historic Period Summary

The Coalinga area was visited in the early 1800s by Spanish and Mexican priests and soldiers seeking sites for future missions and outposts. In the 1840s a Spanish-Mexican family, the Higueras, entered the area and forced out the Native population (Morton 1970:11). Early economic pursuits in the area included sheep and cattle grazing. In 1877 a small community was settled at the mouth of Warthan Canyon and came to be known as Alcalde after the original homesteader of the area, T.T. Barnes, who as often referred to as the "mayor" or "alcalde" of the settlement. Alcalde was located about six miles south of the present-day city of Coalinga.

Early in 1886 a deposit of coal was discovered in the hills about three miles northwest of Coalinga (Morton 1970:16), and in 1888 the Southern Pacific Railroad was extended west from Huron to the community of Alcalde. The 1890s saw the development of the first successful commercial oil wells in the Coalinga area. The growing oil industry on the west side in the Coalinga and Kettlemen Hills area fostered new growth in the area. In 1905 the City of Coalinga was incorporated.

2.4 Record Search Results

Prior to field inspection, a record search was conducted with the Southern San Joaquin Valley Information Center of the California Historical Resources Information System to identify areas previously surveyed and identify known cultural resources present within or in close proximity to the Project area (Attachment 1). No recorded cultural resources have been identified within the surveyed area. There are six recorded cultural resources within one-mile radius of the project study area. The entire project area was surveyed in 1996 by James Kus (FR-8), and nine surveys have been conducted within a one-mile radius of the present study area.

3.0 METHODS AND FINDINGS

On November 16, 2004, the author conducted an archaeological survey of the Project Study Area. Surface visibility within the study area was excellent. The study area was intensively inspected using ca. 15-m transects.

No artifacts or concentrations of prehistoric debris suggesting intensive use or occupation were identified. No plant resources of potential value for Native Americans such as sedge or deer grass, which are of importance in the traditional methods of basketry construction, were observed in the Project Study Area. Due to the extensive disturbance as a result of ground leveling for crop production, and periodic flooding and channelization of adjacent Warthan Creek, archaeological deposits may have been removed or destroyed; fluvial deposition may have buried older living surfaces, obscuring surface evidence of archaeological remains.

No standing structures of possible historic age are present. A diffuse scatter of historic-period glass and ceramic fragments was noted including a single piece of sun-tined glass and two fragments of pottery. These were noted in the southwestern corner of the project area adjacent to Warthan Creek and may be connected with a former structure noted on the 1892 Thompson Atlas of Fresno County situated south of the present project area.

A cemetery was formerly located adjacent to the project study area on the north. This area is now occupied by a horse corral and associated outbuildings, a PG&E substation, and a bowling alley. Little information regarding this former cemetery exists other than its indication on the USGS map. Morton notes that Coalinga had its first cemetery in about 1909 and that Rank Rayforth, who committed suicide while incarcerated in the Coalinga jail, was the first to be buried there (Morton 1970:84). By the 1940s, obituaries in the Coalinga Daily Record indicate burial in the Pleasant Valley Cemetery located at Calaveras and Phelps, several miles east of the project area (Marcussen n.d.). Thus the Warthan Creek cemetery, which is sometimes mistakenly identified as Warthan Canyon Cemetery (located in Priest Valley top the west), must have ceased to be used by the 1940s or perhaps earlier.

Based on the lack of surface evidence of cultural resources within the Project area, it is unlikely that residential development of the project area will have an effect on significant archaeological or other cultural resources. Therefore, no further cultural resource investigation is recommended at this time. In the unlikely event that unanticipated buried archaeological deposits are encountered during Project-related activities, work in the immediate vicinity of the discovery should cease until the finds can be evaluated by a qualified archaeologist. Should human remains be encountered within the Project area, the County Coroner should be contacted immediately; if the remains are determined to be Native American, then the Native American Heritage Commission should be contacted as well.

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APPENDIX D
TRAFFIC STUDY

Traffic Impact Study

Proposed Residential Development

Southwest of the Intersection of Polk Street and Merced Avenue

Coalinga, California

Prepared For:

First American Commercial Property Group
14502 Brook Hollow
San Antonio, Texas 78232

Date:

November 22, 2004

Job No.:

04-069.02

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November 22, 2004

Subject: Traffic Impact Study
Proposed Residential Development
Southwest of the Intersection of Polk Street and Merced Avenue
Coalinga, California

Introduction

This report presents the results of a traffic impact study for a proposed residential development in Coalinga, California. This analysis focuses on the anticipated volume and effect of vehicle traffic resulting from the project.

Project Description

The proposed project includes 351 single-family residential lots located southwest of the intersection of Polk Street and Merced Avenue. The site covers an area of approximately 137.6 gross acres. Site access is expected to be from Merced Avenue and Lucille Avenue on the south side of the site. Opening-day traffic will all be required to access the site from the intersection of Merced and Polk. A future bridge extending Lucille over Warthan Creek is expected to provide an additional access route. However, for purposes of this study it is assumed that the bridge will not be constructed prior to the year 2025. A Site Vicinity Map is shown in Figure 1 and a Site Plan is shown in Figure 2.

Study Area and Time Period

The scope of the traffic impact study was discussed with Caltrans staff prior to beginning the study. This report includes analysis and/or traffic volume determinations at the following intersections as noted:

- Merced Avenue and Polk Street (volumes and analysis)
- Juniper Ridge and Polk Street (volumes)
- 5th and Polk Streets (volumes)
- 3rd and Elm Streets (volumes)
- 5th and Elm Streets (volumes)

The study time periods include the weekday AM and PM peak hours determined between 7:00 and 9:00 AM and between 4:00 and 6:00 PM. The peak hour volumes were determined, and analyses performed as applicable, for the following conditions:

- Existing Conditions,
- Cumulative-Without-Project Conditions,
- Cumulative-With-Project Conditions, and
- Future With Project Conditions (Year 2025).

Lane Configurations and Intersection Control

The existing lane configurations and intersection control are illustrated in Figure 3, Existing Lane Configurations. For purposes of this study, the future configurations will be determined based on the results of the analyses.

Trip Generation

Data provided in the Institute of Transportation Engineers (ITE) *Trip Generation, 7th Edition*, (Code 210, Single-Family Detached Housing) were used to estimate the number of trips anticipated to be generated by the project based on 351 units.

Table 1
Project Trip Generation

Time Period	Trips Entering Site	Trips Exiting Site
Weekday	1,680	1,680
Weekday AM Peak Hour	66	198
Weekday PM Peak Hour	224	131

Pass-by and captured-trip reductions were not applied to the project traffic volumes. A select zone analysis was performed for the project; however, in the opinion of the consultant the select zone analysis directed too much project traffic toward the City of Coalinga. An adjustment was made to distribute the project traffic in the proportion described in Table 2. The assumed project traffic distribution is shown in Figure 4.

Table 2
Project Trip Distribution

Trip Type	AM Peak Hour		PM Peak Hour	
	West of Site	East of Site	West of Site	East of Site
Trips Entering	80%	20%	50%	50%
Trips Exiting	50%	50%	80%	20%

Other Projects

The traffic volumes expected to be generated by other projects assumed to be constructed in the near future in the vicinity of the project site are included in the analyses and are shown in Figures 5 and 6. The other projects considered include the following:

- mental health facility currently under construction east of the site,
- proposed apartments on Juniper Ridge south of Polk,
- proposed hotel and gas station at Juniper Ridge and Polk,
- proposed supermarket near the intersection of Polk and Forest,
- proposed residential development on Phelps Avenue east of Hannah Avenue.

A significant amount of the traffic generated by the residential projects is also expected to be included in the commercial/medical projects. The distribution of the residential traffic volumes presented in Figures 5 and 6 are intended to also accommodate and include the commercial/medical projects.

For the future conditions, approximately 500 residences, 10 acres of apartments (approximately 200 units), and 10 acres of commercial (assumed approximately 110,000-square-foot shopping center) were assumed southeast of Polk and Merced. The traffic volumes generated by this assumed development are shown in Figure 7.

Existing and Future Traffic Volumes

Existing traffic volumes were determined by performing manual turning movement counts at the study intersections between 7:00 and 9:00 AM and between 4:00 and 6:00 PM on a weekday. The existing peak-hour turning movement volumes are presented in Figure 8. The cumulative-without-project traffic volumes (sum of Figures 5, 6, and 8) are shown in Figure 9. Cumulative-with-project traffic volumes are shown in Figure 10. Future traffic volumes were estimated based on an average background traffic growth rate of two percent per year through the year 2025 plus the other projects traffic (Figures 5, 6, and 9). The future traffic volumes without the project are shown in Figure 11. The future traffic volumes with the project are shown in Figure 12.

Analyses

The levels of service at the intersection were determined using the computer program Synchro 6 (Build 612), which is based on the 2000 Highway Capacity Manual procedures for calculating levels of service. Level of service characteristics for both unsignalized and signalized intersections are presented in Tables 3 and 4.

Table 3
Level of Service Characteristics for Unsignalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Little or no delay.	0-10
B	Short traffic delays.	>10-15
C	Average traffic delays.	>15-25
D	Long traffic delays.	>25-35
E	Very long traffic delays.	>35-50
F	Stop-and-go conditions.	>50

Table 4
Level of Service Characteristics for Signalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Uncongested operations; all queues clear in a single cycle.	≤10
B	Very light congestion; an occasional phase is fully utilized.	>10-20
C	Light congestion; occasional queues on approaches.	>20-35
D	Significant congestion on critical approaches, but intersection is functional. Cars required to wait through more than one cycle during short peaks. No long-standing queues formed.	>35-55
E	Severe congestion with some long-standing queues on critical approaches. Traffic queue may block nearby intersection(s) upstream of critical approach(es).	>55-80
F	Total breakdown, stop-and-go conditions.	> 80

Discussion

Caltrans typically requires that an intersection level of service C or better be maintained. The results of the analyses indicate that improvements to the intersection of Polk and Merced will be required for the intersection to operate at acceptable levels of service. Based on cumulative conditions with full-buildout of the project, the intersection will require construction of turn lanes in accordance with Caltrans requirements. The intersection will likely require, at a minimum, a westbound left turn lane, a continuous two-way left-turn lane or acceleration lane on Polk west of Merced, one westbound through lane, one eastbound through lane, and one eastbound right-turn lane. Northbound Merced Avenue will require one left-turn lane and one right-turn lane, with provision for future through lanes if required by the City of Coalinga General Plan.

The results of the analyses based on the assumed year 2025 traffic volumes indicate that, with the recommended intersection configuration, signalization will be required prior to the year 2025 .

The eastbound approach to an existing bridge on Polk Street west of Merced Avenue is constructed with a vertical curve that may result in sight distance issues with signalization at the intersection of Polk and Merced. The distance between the bridge and Merced Avenue is roughly estimated to be 650 feet. A stopping sight distance of approximately 500 feet based on a speed of 55 miles per hour is expected to be required on Polk. This would limit the allowable eastbound queue to a maximum of approximately 150 feet. Therefore, prior to signalization the eastbound sight distance may need to be increased.

Equitable Share Responsibility

Caltrans recommends the following equation to determine a project's equitable share of the cost of improvements required as mitigation of impacts:

$$P = \frac{T}{T_B - T_E}$$

where:

P = The equitable share of the project's traffic impact;
T = The project trips generated during the peak hour of the adjacent State Highway facility;
T_B = The forecasted (future with project) traffic volume on the impacted State highway facility;
T_E = The existing traffic on the State Highway facility plus approved projects traffic (cumulative).

Table 4 presents preliminary equitable share responsibility calculations.

Table 4
Equitable Share Responsibility Calculations – Weekday AM (PM) Peak Hour

Location	Project Traffic	Existing Traffic	Future Traffic	Equitable Share (Percent)
Merced and Polk	264 (356)	336 (589)	1,543 (2,401)	21.9 (19.6)
Juniper Ridge and Polk	112 (138)	427 (623)	1,254 (1,788)	13.5 (11.8)
3rd and Elm	72 (104)	719 (900)	1,163 (1,469)	16.2 (18.3)
5th and Elm	90 (131)	853 (976)	1,947 (2,368)	8.2 (9.4)

Conclusions

Generally-accepted traffic engineering principles and methods were employed to estimate the amount of traffic expected to be generated by the project and to analyze the traffic conditions expected to exist in the future. The conclusion of this limited traffic analysis is that the intersection of Polk Street and Merced Avenue can be mitigated to provide suitable site access for the project in the absence of the planned bridge southwest of the site. Such mitigation will likely include the addition of turn lanes and traffic signals. The actual improvements will be subject to the Caltrans encroachment permit process and will likely incorporate planned future improvements, such as additional through lanes.

Recommended Mitigation Measures

1. At the intersection of Polk and Merced, construct a westbound left-turn lane, a westbound acceleration lane accepting northbound left turns from Merced Avenue, and an eastbound right-turn lane for opening-day conditions. Maintain one-way stop sign control.
2. Contribute an equitable share of future intersection improvements as calculated in Table 4.

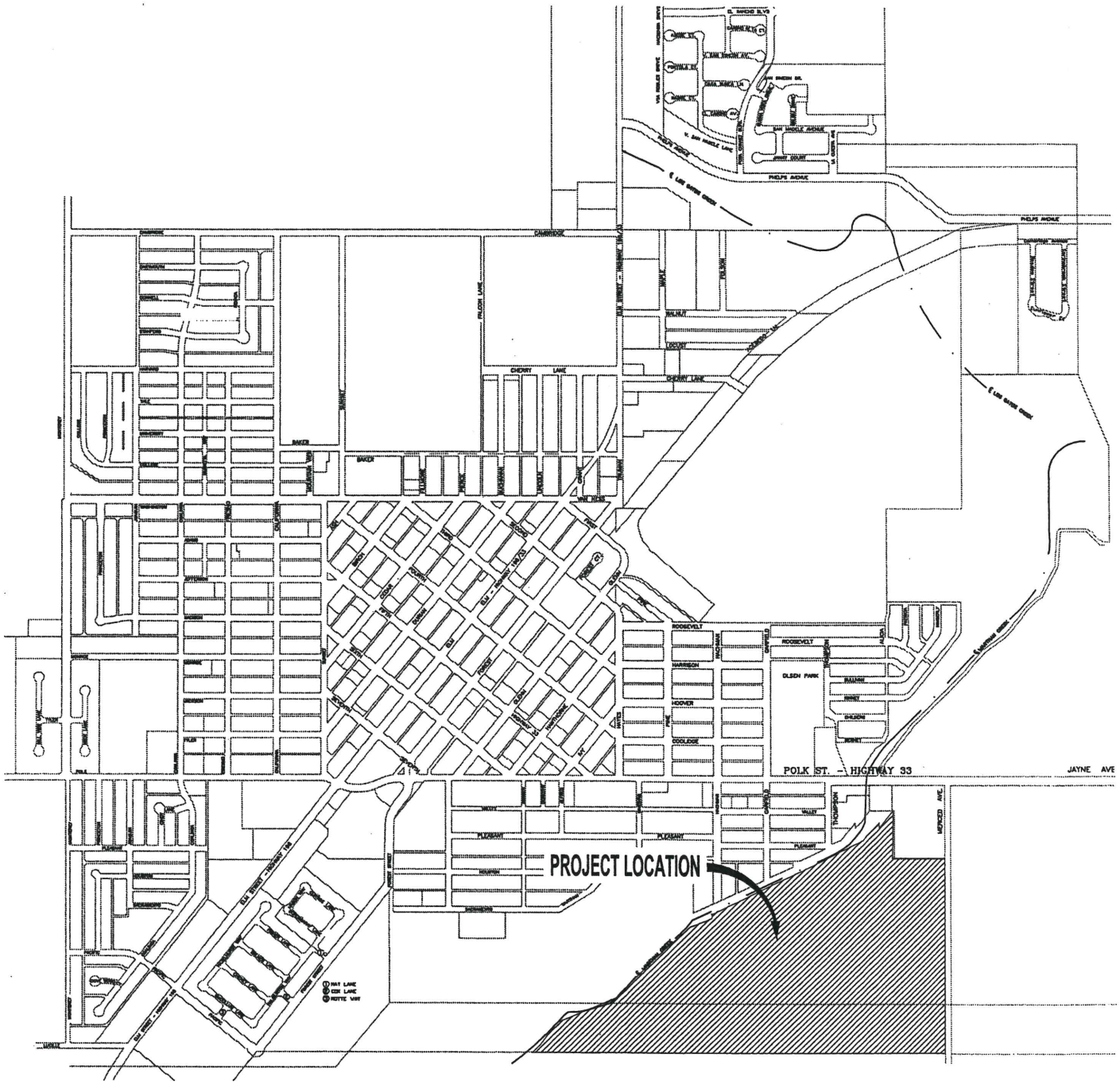
Thank you for the opportunity to perform this traffic impact study. Please feel free to call our office if you have any questions.

PETERS ENGINEERING GROUP

John Rowland, P.E.

Attachments: Figures 1 through 12
Trip Generation Calculations
Intersection Analyses

11-22-04



Site Vicinity Map
Proposed
Residential Development
Coalinga, California

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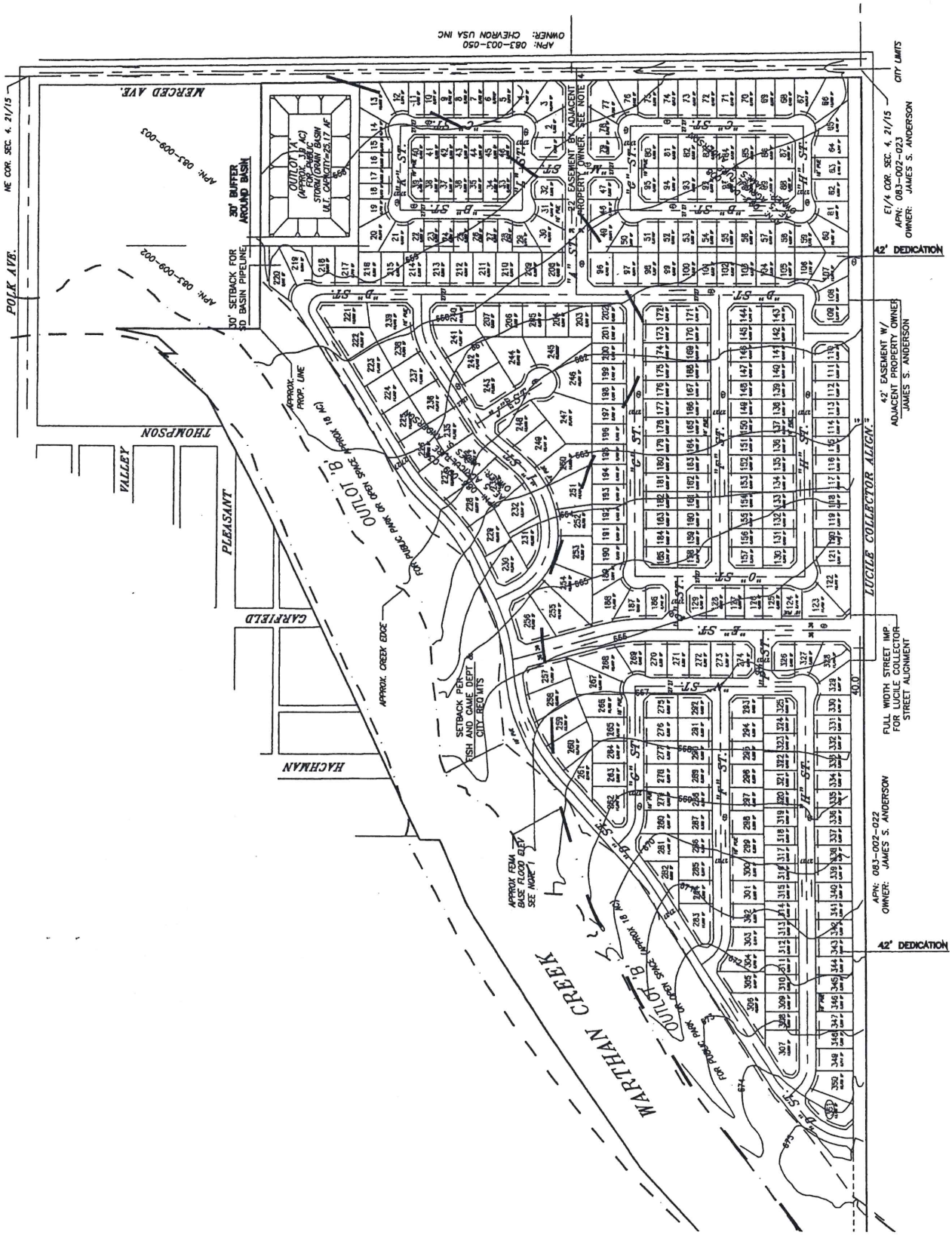

SITE PLAN
Proposed
Residential Development
Coalinga, California

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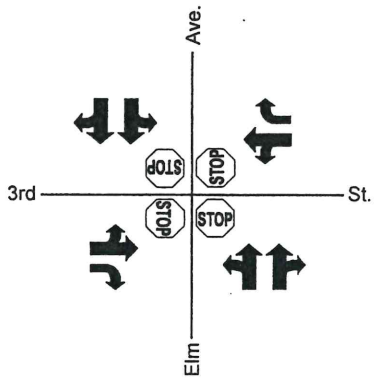

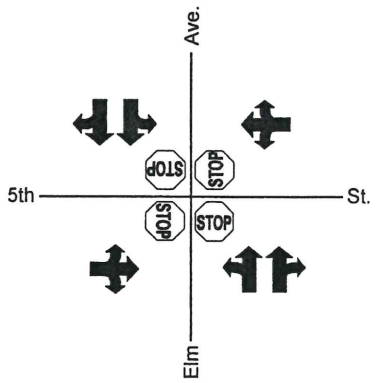

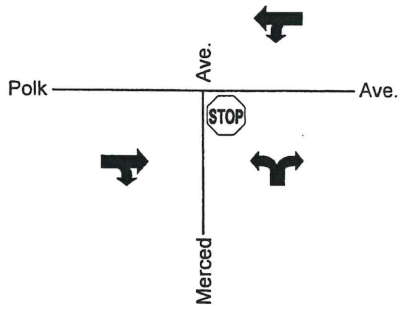

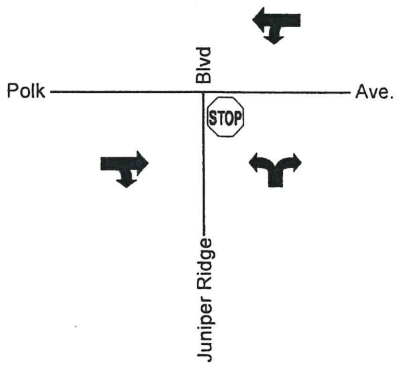

LEGEND

Signalized Intersection

STOP Stop Sign

Direction of Travel

EXISTING LANE CONFIGURATIONS

Proposed
Residential Development
Coalinga, California

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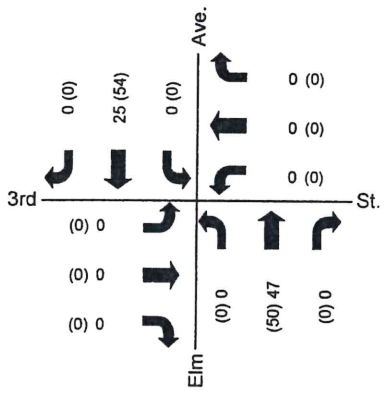
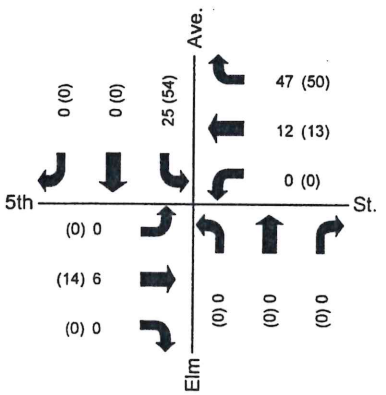
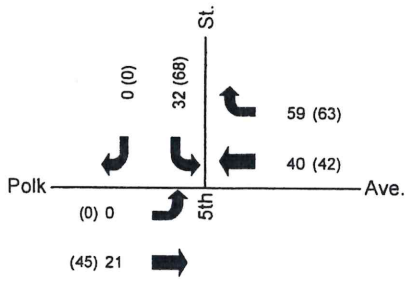
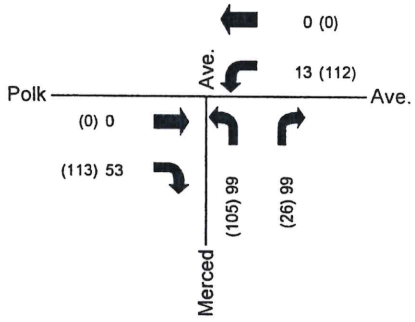
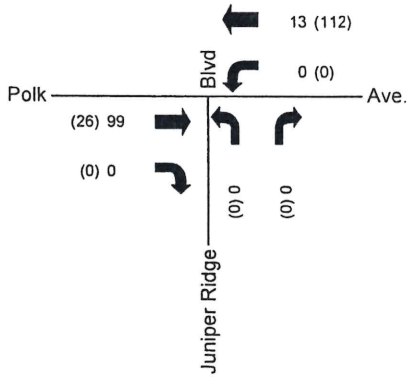










LEGEND

20 - AM Peak Hour Volumes

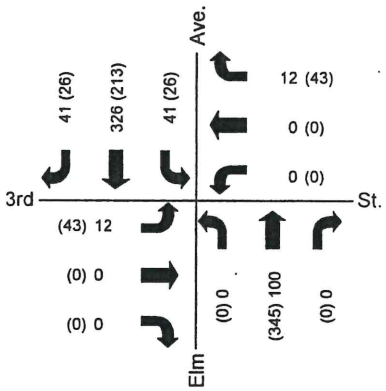
(20) - PM Peak Hour Volumes

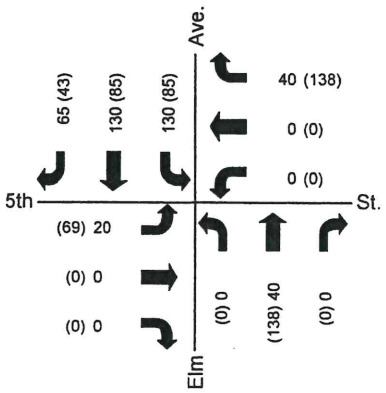
Direction of Travel

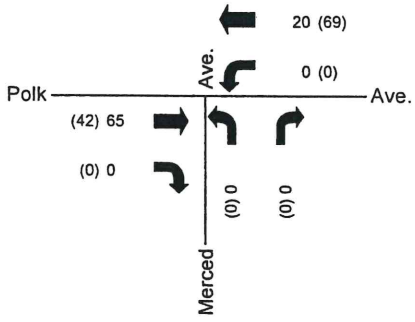
PROJECT TRAFFIC VOLUMES

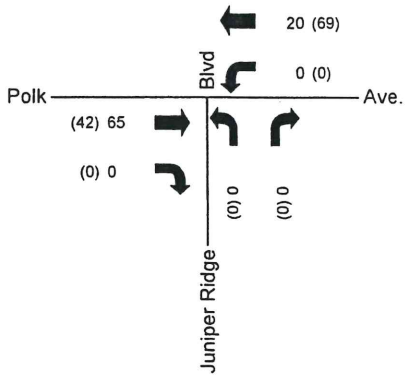
Proposed
Residential Development
Coalinga, California

Not to Scale









LEGEND

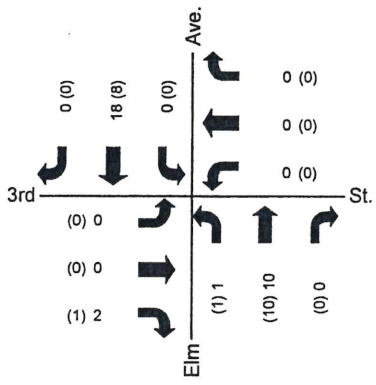
20 - AM Peak Hour Volumes

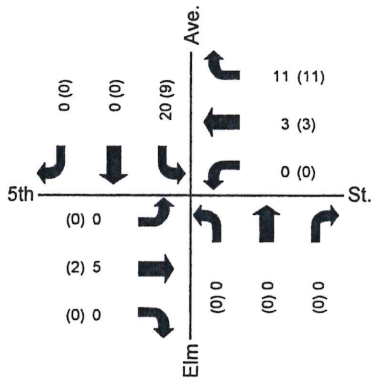
(20) - PM Peak Hour Volumes

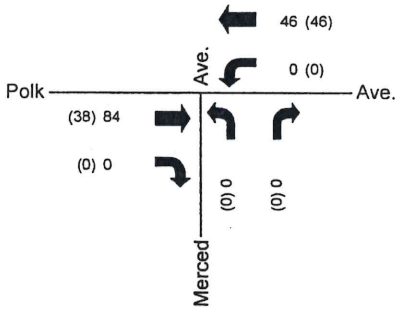
Direction of Travel

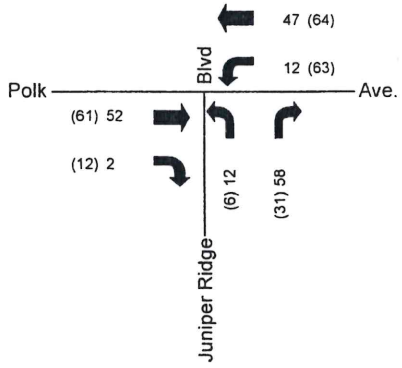
OTHER PROJECT TRAFFIC VOLUMES
PHELPS AVENUE
Proposed
Residential Development
Coalinga, California

Not to Scale









LEGEND

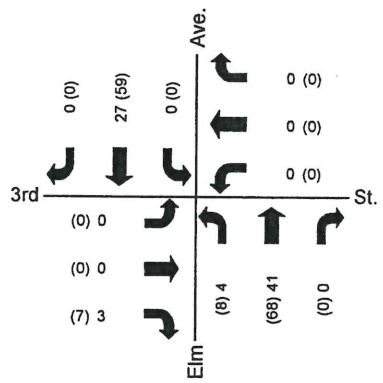
20 - AM Peak Hour Volumes

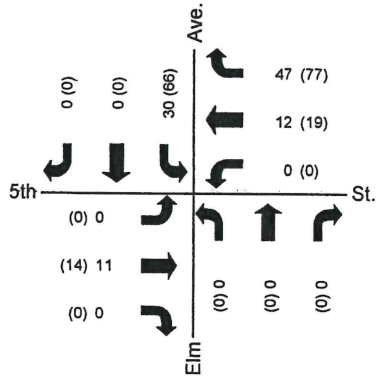
(20) - PM Peak Hour Volumes

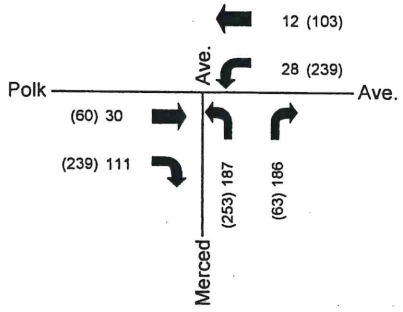
Direction of Travel

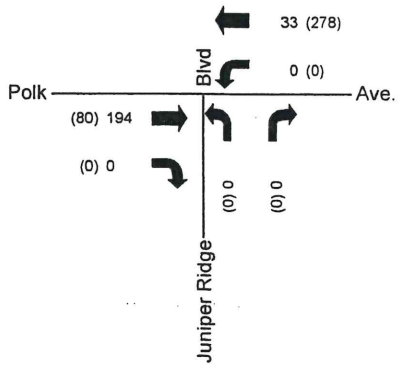
OTHER PROJECT TRAFFIC VOLUMES
JUNIPER RIDGE
Proposed
Residential Development
Coalinga, California

Not to Scale









LEGEND

20 - AM Peak Hour Volumes

(20) - PM Peak Hour Volumes

Direction of Travel

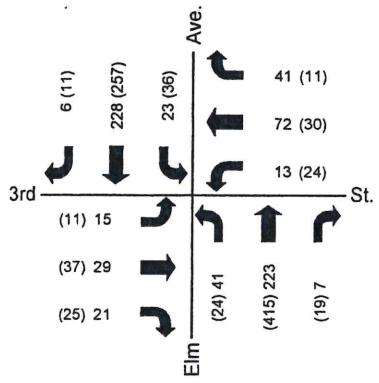
OTHER PROJECT TRAFFIC VOLUMES SOUTH EAST OF POLK AND MERCED

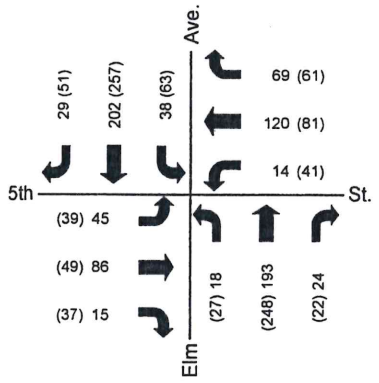
Proposed

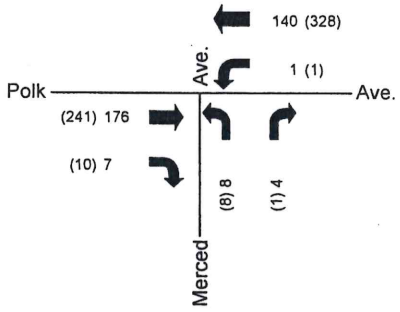
Residential Development

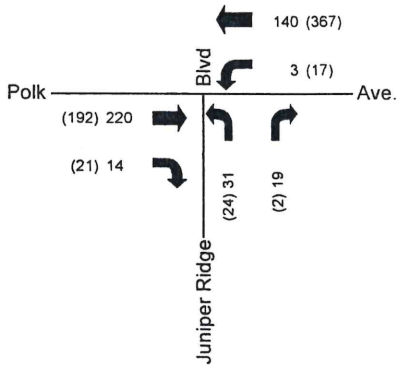
Coalinga, California

Not to Scale









LEGEND

20 - AM Peak Hour Volumes

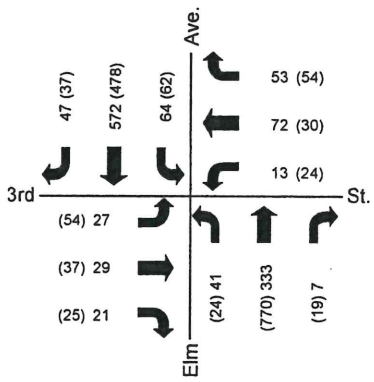
(20) - PM Peak Hour Volumes

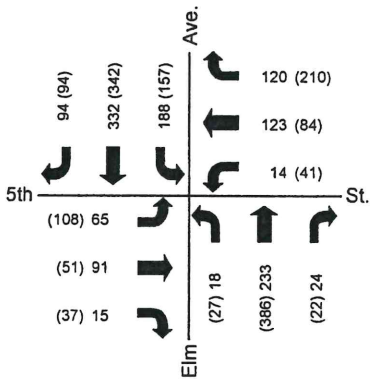
Direction of Travel

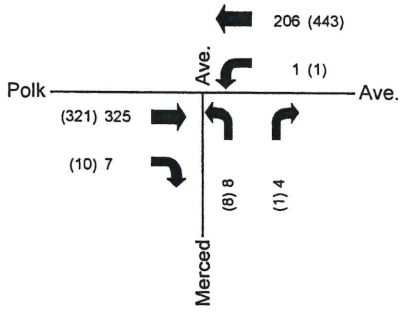
EXISTING TRAFFIC VOLUMES

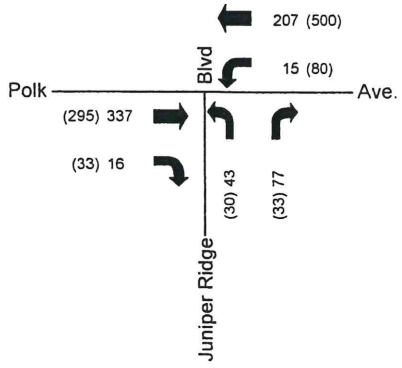
Proposed
Residential Development
Coalinga, California

Not to Scale









LEGEND

20 - AM Peak Hour Volumes

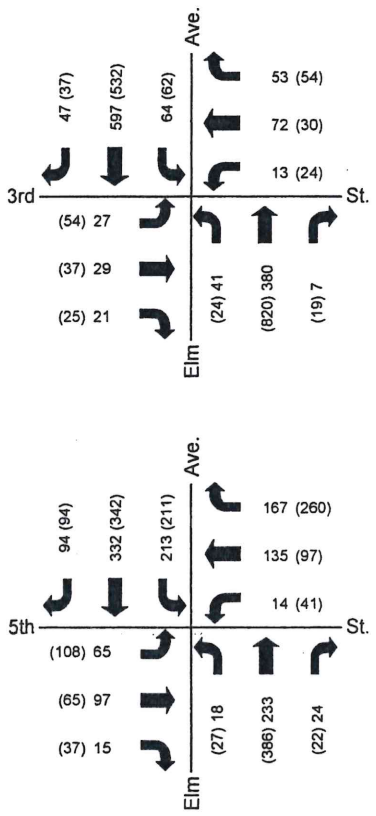
(20) - PM Peak Hour Volumes

Direction of Travel

CUMULATIVE WITHOUT PROJECT TRAFFIC VOLUMES

Proposed
Residential Development
Coalinga, California

Not to Scale



LEGEND

20 - AM Peak Hour Volumes

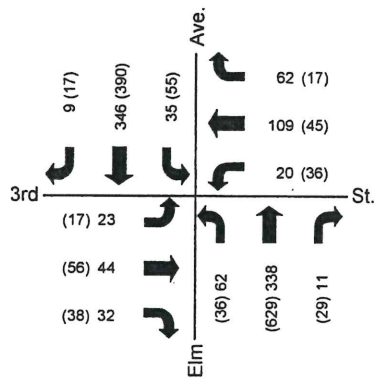
(20) - PM Peak Hour Volumes

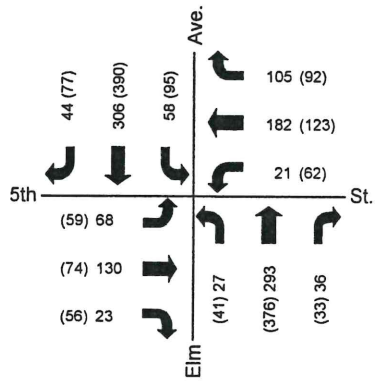
Direction of Travel

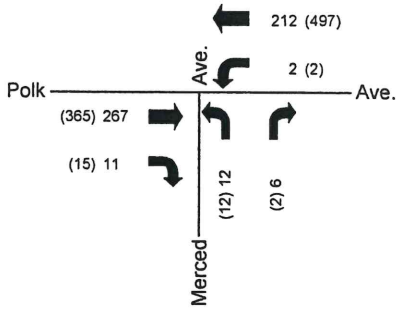
CUMULATIVE WITH PROJECT TRAFFIC VOLUMES

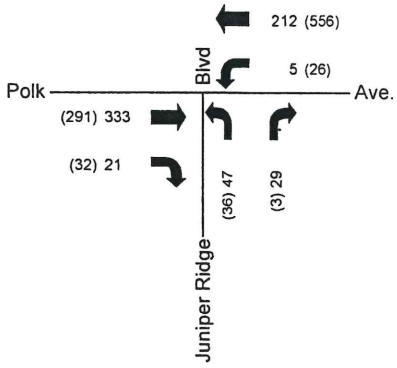
Proposed
Residential Development
Coalinga, California

Not to Scale









LEGEND

20 - AM Peak Hour Volumes

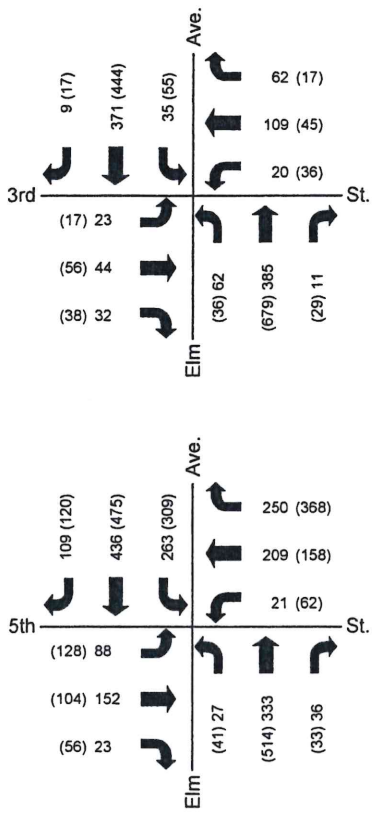
(20) - PM Peak Hour Volumes

Direction of Travel

FUTURE (2025) WITHOUT PROJECT TRAFFIC VOLUMES

Proposed
Residential Development
Coalinga, California

Not to Scale



LEGEND

20 - AM Peak Hour Volumes

(20) - PM Peak Hour Volumes

Direction of Travel

FUTURE (2025) WITH PROJECT TRAFFIC VOLUMES

Proposed
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Not to Scale