Appendix A:
Notice of Preparation and Comment Letters

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

Notice of Preparation

April 22, 2010

To: Reviewing Agencies

Re: City of Visalia General Plan Update
SCH# 2010041078

Attached for your review and comment is the Notice of Preparation (NOP) for the City of Visalia General Plan Update draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Paul Scheibel
City of Visalia
707 West Acequia Avenue
Visalia, CA 93291

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

for Scott Morgan
Acting Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2010041078
Project Title City of Visalia General Plan Update
Lead Agency Visalia, City of

Type NOP Notice of Preparation

Description The General Plan Update provides the community with an opportunity to clarify its vision for future development patterns, transportation systems, economic development opportunities, and sustainable growth. The General Plan will have a horizon year of 2030.

The General Plan Update will likely address the following topics, which will be combined into an integrated Plan:

* Land Use;
* Circulation;
* City Design;
* Open Space, Parks and Recreation;
* Noise;
* Safety;
* Communinity Facilities and Public Services; and
* Conservation, Air Quality and Greenhouse Gas Emissions.

Lead Agency Contact

Name Paul Scheibel
Agency City of Visalia
Phone 559-713-4369 **Fax**
email
Address 707 West Acequia Avenue
City Visalia **State** CA **Zip** 93291

Project Location

County Tulare
City Visalia
Region
Cross Streets Citywide
Lat / Long
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use

Project Issues Landuse; Traffic/Circulation; Other Issues; Recreation/Parks; Noise; Public Services; Air Quality

Reviewing Agencies Resources Agency; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 4; Office of Emergency Management Agency, California; Native American Heritage Commission; California Highway Patrol; Department of Housing and Community Development; Caltrans, District 6; Department of Toxic Substances Control; Regional Water Quality Control Bd., Region 5 (Fresno)

Note: Blanks in data fields result from insufficient information provided by lead agency.

Document Details Report
State Clearinghouse Data Base

Date Received 04/22/2010 *Start of Review* 04/22/2010 *End of Review* 05/24/2010

Note: Blanks in data fields result from insufficient information provided by lead agency.

Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Mike Sotelo
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Gerald R. Zimmerman
- [ ] **Dept. of Conservation**
  Rebecca Salazar
- [ ] **California Energy Commission**
  Eric Knight
- [ ] **Cal Fire**
  Allen Robertson
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [x] **Office of Historic Preservation**
  Wayne Donaldson
- [x] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [x] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou
- [ ] _____
  Conservancy

Fish and Game

- [ ] **Depart. of Fish & Game**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Game Region 1**
  Donald Koch
- [ ] **Fish & Game Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Game Region 2**
  Jeff Drongesen
- [ ] **Fish & Game Region 3**
  Charles Armor
- [x] **Fish & Game Region 4**
  Julie Vance
- [ ] **Fish & Game Region 5**
  Don Chadwick
  Habitat Conservation Program
- [ ] **Fish & Game Region 6**
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M**
  Brad Henderson
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [ ] **Dept. of Public Health**
  Bridgette Binning
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Linda Flack
- [x] **Cal EMA (Emergency Management Agency)**
  Dennis Castrillo
- [ ] **Governor's Office of Planning & Research**
  State Clearinghouse
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Leo Wong
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [ ] **State Lands Commission**
  Marina Brand
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics**
  Sandy Hesnard
- [ ] **Caltrans - Planning**
  Terri Pencovic
- [x] **California Highway Patrol**
  Scott Loetscher
  Office of Special Projects
- [x] **Housing & Community Development**
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Bruce de Terra
- [ ] **Caltrans, District 4**
  Lisa Carboni
- [ ] **Caltrans, District 5**
  David Murray
- [x] **Caltrans, District 6**
  Michael Navarro
- [ ] **Caltrans, District 7**
  Elmer Alvarez
- [ ] **Caltrans, District 8**
  Dan Kopulsky
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Chris Herre

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
  - [ ] Transportation Projects
    Douglas Ito
  - [ ] Industrial Projects
    Mike Tollstrup
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Steven Herrera
  Division of Water Rights
- [x] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

2010041078

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [x] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] Other _____

Last Updated on 03/24/10

NOTICE OF PREPARATION (NOP)
ENVIRONMENTAL IMPACT REPORT (EIR)
CITY OF VISALIA GENERAL PLAN UPDATE

Date: April 19, 2010

To: Responsible Agencies, Interested Parties and Organizations

Subject: **Notice of Preparation of an Environmental Impact Report for the City of Visalia General Plan Update and Scheduling of a Scoping Meeting on Friday, May 7, 2010**

Project Title: City of Visalia General Plan Update

Location: City of Visalia, California

The City of Visalia is preparing a General Plan Update and has determined that a comprehensive Environmental Impact Report (EIR) will be necessary. The City of Visalia requests your input regarding the scope and content of environmental analysis that is relevant to your respective agency's statutory/regulatory responsibilities in order to ascertain potential impacts of the proposed project. The City of Visalia, in compliance with the California Environmental Quality Act (CEQA), will direct the preparation of an EIR for the project. The project description is provided in the attached Notice of Preparation (NOP).

Although specific proposals and revisions for the Visalia General Plan have not yet been determined, we are soliciting your comments. This will allow your input to be taken into consideration during formulation of the environmental effects to be addressed in the EIR. A description of the proposed action, location map, and preliminary identification of the potential environmental effects are contained in the attached materials.

CEQA Guidelines Section 15082(b) mandates each Responsible Agency to respond to an NOP within thirty days (30) after receipt. The review period will extend from April 26, 2010, to May 25, 2010. Your views and comments on how the project may affect the environment are welcomed. Please send your written response, with the name of your agency contact person, to the following address: Paul Scheibel, City of Visalia Community Development Department; 315 E. Acequia Avenue, Visalia, CA 93291.

A Scoping Meeting will be conducted at 9:00 a.m. on Friday, May 7, 2010, at the Visalia City Hall Council Chambers located at 707 W. Acequia Avenue in Visalia. If you have questions regarding this NOP or the Scoping Meeting, you can contact Paul Scheibel at (559) 713-4369.

Paul Scheibel, Planning Services Manager
City of Visalia

4-19-10
Date

NOTICE OF PREPARATION (NOP)
ENVIRONMENTAL IMPACT REPORT (EIR)
CITY OF VISALIA GENERAL PLAN UPDATE

1. PROJECT TITLE:

City of Visalia General Plan Update

2. LEAD AGENCY NAME AND ADDRESS:

City of Visalia
Community Development Department
315 E. Acequia Avenue
Visalia, CA 93291

3. CONTACT PERSON AND PHONE NUMBER:

Paul Scheibel
Planning Services Manager
(559) 713-4369
pscheibel@ci.visalia.ca.us

4. PROJECT LOCATION:

The City of Visalia, located in the central San Joaquin Valley, covers an area of approximately 36 square miles. The City is situated in northwestern Tulare County, north of the City of Tulare and west of the City of Farmersville (Figure 1). The City of Hanford, in Kings County, lies 12 miles to the west. With a 2009 population of 123,670, Visalia is the largest city in Tulare County.

Highway 198 passes east-west through the center of the City, while Highway 99 runs north-south two miles from the western edge of the City. Highway 63 passes north-south through the center of the City. The City is also served by transit, including the Visalia City Coach (VCC) and Tulare County Area Transit (TCAT). Amtrak connects to Visalia via a bus service from the train station in Hanford. Additionally, the City is served by the Visalia Municipal Airport, which is located at the City's western edge, along Highway 99.

The Proposed Planning Area comprises all land within the City limits as well as neighboring unincorporated land, excluding the community of Goshen (Figure 2). The existing City limits include residential, commercial, and industrial developments; as well as public facilities including parks, schools, public utilities, the College of the Sequoias campus; and private institutions like Fresno Pacific University.

5. PROJECT SPONSOR'S NAME AND ADDRESS:

City of Visalia
Community Development Department
315 E. Acequia Avenue
Visalia, CA 93291

6. DESCRIPTION OF PROJECT:

The current City of Visalia General Plan was last comprehensively updated in 1991. Although some of the policies in this document are still relevant, much has changed since its adoption. Since 2000, the City's population increased by 35 percent, while employment increased by 12 percent. While unemployment has risen since the economic downturn of 2008 and 2009, the Tulare County Association of Governments (TCAG) projections that the City will add some 25,000 new jobs by 2030. TCAG also expects population to increase to a projected 207,600 by 2030—an increase of 46 percent over the next 20 years. The General Plan Update provides the community with an opportunity to clarify its vision for future development patterns, transportation systems, economic development opportunities, and sustainable growth. The General Plan will have a horizon year of 2030.

The General Plan Update will likely address the following topics, which will be combined into an integrated Plan:

- Land Use;
- Circulation;
- City Design;
- Open Space, Parks, and Recreation;
- Noise;
- Safety;
- Community Facilities and Public Services; and
- Conservation, Air Quality, and Greenhouse Gas Emissions.

In order to meet the deadlines of California's Department of Housing and Community Development (HCD), the update of the City's Housing Element, another required component of the General Plan, was completed in 2009. Upon completion of the General Plan Update, the two documents will be reviewed for internal consistency.

Work on the General Plan Update is in progress. The scope includes a review of background material and preparation of an initial working paper: *Existing Conditions and Key Issues Report*. This report will contain a description and series of maps documenting existing land uses, public facilities, and environmental conditions within the City of Visalia. Coinciding with the

preparation of the existing conditions paper, initial outreach in the form of stakeholder interviews and community workshops will be held in later spring and summer of 2010. This outreach will continue and also contribute to the environmental analysis for the project.

The next step of the General Plan Update will include development of potential land use and transportation alternatives through direct participation with the community and General Plan Update Review Committee (GPURC). The alternatives will focus on changes at identified locations within the City. An additional community workshop will be held to further identify and refine concepts for the alternatives. The resulting alternative concepts will be presented to the GPURC for further refinement, followed by a discussion of the relative advantages and disadvantages of each with City decision-makers. Following this process, a Preferred Plan will be prepared and reviewed by the community and GPURC prior to presentation to City decision-makers. Based on the Preferred Plan, the General Plan Update will be drafted.

A final community workshop will ensure that the community's needs have been addressed in the proposed Preferred Plan. A series of public hearings will then allow City decision-makers to consider the proposed Plan.

The entire scope of work for the General Plan Update and EIR is attached as Appendix A.

7. EIR

This NOP is a required publication at the outset of the EIR process.

The EIR will provide a programmatic environmental assessment of the potential consequences of the proposed General Plan Update. It will discuss how General Plan policies could potentially affect the environment, identify any significant impacts, and recommend measures to mitigate those impacts. The EIR will also consider the potential environmental impacts of alternatives, and identify an environmentally superior alternative. Subsequent environmental review will be conducted for major development projects, public works and infrastructure improvements to evaluate site-specific issues.

8. SURROUNDING LAND USES AND SETTING:

Visalia's Planning Area boundaries include the entire city limits, Sphere of Influence, and some additional unincorprated land that borders the City (Figure 2). The unincorporated community of Goshen lies to the northwest, and the City of Farmersville lies to the east. Most of the remaining land uses surrounding the City are agricultural in nature. Several creeks, rivers, and canals run through and adjacent to the City, including the St. John's River, which forms the northeast border of the City. Mill, Packwood, and Persian creeks run east-west through the City.

9. OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED:

No other public agency is required to approve the Visalia General Plan Update. However, development under the General Plan may require approval of State, federal and responsible trustee agencies that may rely on this EIR for information relative to their area of expertise and jurisdiction.

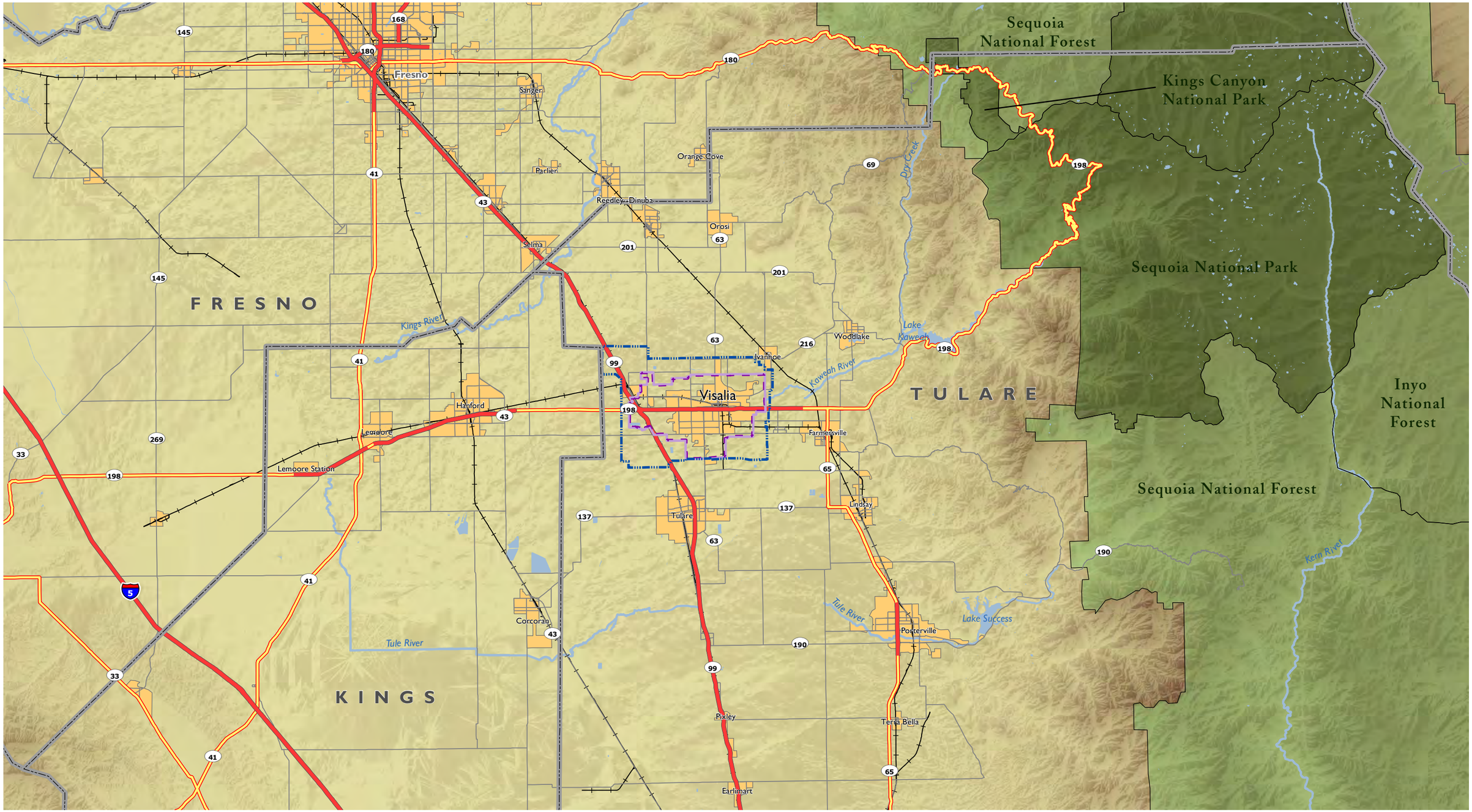
10 POTENTIAL ENVIRONMENTAL IMPACTS TO BE CONSIDERED:

Preliminary topics for the EIR include:

- Land Use (including jobs and housing);
- Aesthetics and Visual Resources;
- Open Space and Recreation;
- Biological Resources;
- Cultural Resources;
- Transportation and Traffic;
- Air Quality;
- Noise and Vibration;
- Geology, Soils, and Seismicity;
- Hydrology and Flooding;
- Public Services and Utilities;
- Energy;
- Climate Change; and
- Hazardous Materials and Toxics.

In addition to the potential environmental effects listed above, the EIR will evaluate potential cumulative effects and potential growth-inducing impacts of the proposed Visalia General Plan Update as well as alternatives to the

proposed General Plan Update. The No Project alternative will evaluate the impacts resulting from continued implementation of existing plans, policies, and regulations which govern the City. As appropriate, other alternatives that would avoid or lessen environmental effects related to the proposed Visalia General Plan Update will be discussed. The draft EIR will also recommend measures to mitigate any significant environmental impacts.



- Study Boundary
- Sphere of Influence
- Urbanized Area
- County Line
- Freeway
- Highway
- Major Road

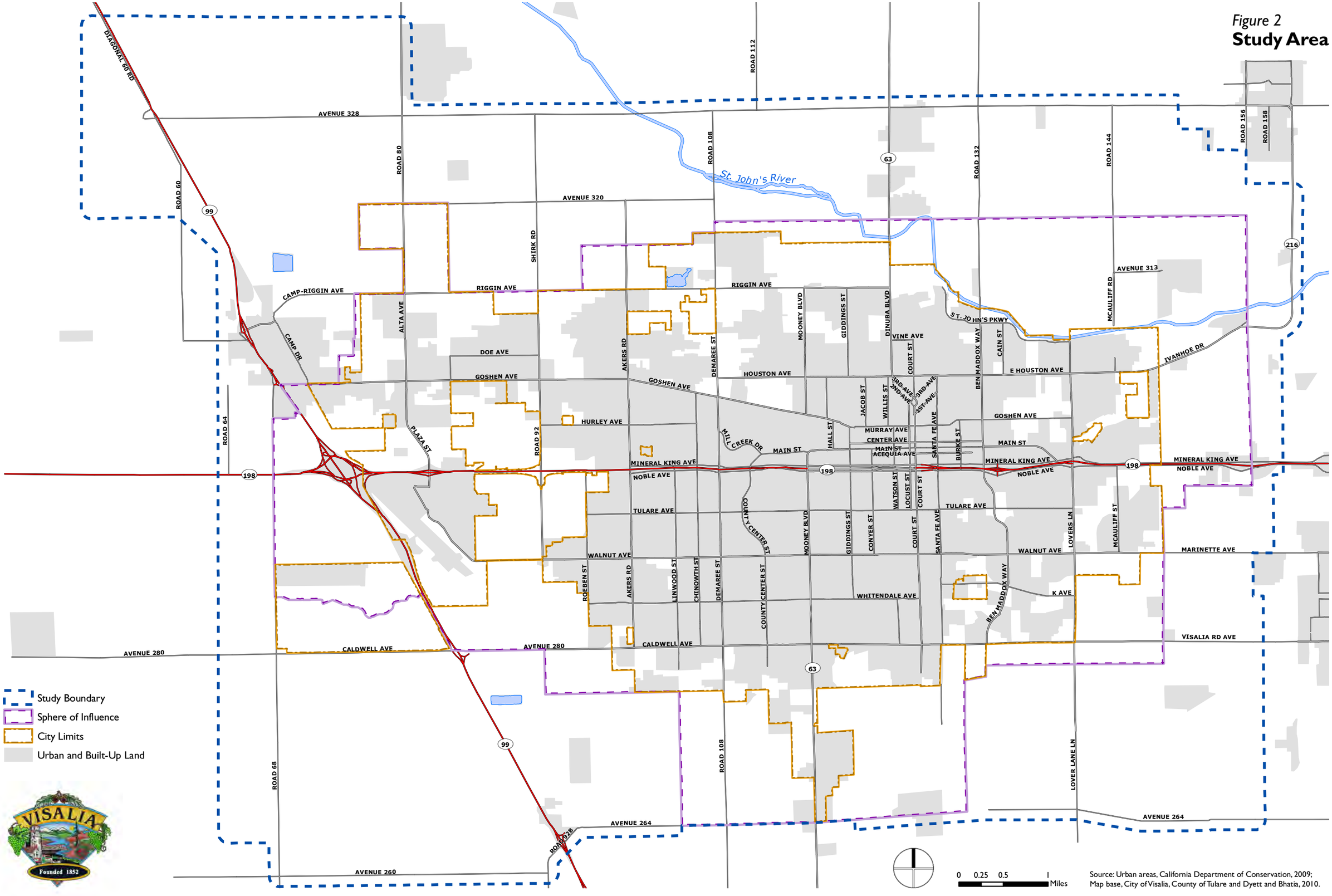
Figure 1:
Regional Setting

Source: Sphere of Influence, City of Visalia, 2010; Digital Elevation Model, United States Geological Survey, 2009; National Forest and Park, United States Geological Survey, 2006; Hydrology, Metropolitan Transportation Commission, 2008; Map base, TeleAtlas North America, Inc., 2008.

0 2.5 5 10 Miles

Figure 2

Study Area



Source: Urban areas, California Department of Conservation, 2009;
Map base, City of Visalia, County of Tulare and Dyett and Bhatia, 2010.

Southern California Gas Company

A Sempra Energy utility®

404 N. Tipton Street
Visalia, CA 93292-6407

April 22, 2010

City of Visalia
Community Development Department
315 East Acequia Avenue
Visalia, California 93291

Attention: Paul Scheibel

Subject: City of Visalia, General Plan Update

We are pleased to inform you that Southern California Gas Company has facilities in the area where the aforementioned project is proposed. Gas service to the project can be provided from existing gas mains located in and around the area. The service would be in accordance with the Company's policies and extension rules on file with the California Public Utilities Commission when the contractual arrangements are made.

This letter is not a contractual commitment to serve the proposed project, but is only provided as an informational service. The availability of natural gas service is based upon conditions of gas supply and regulatory agencies. As a public utility, Southern California Gas Company is under the jurisdiction of the California Public Utilities Commission. Our ability to serve can also be affected by actions of federal regulatory agencies. Should these agencies take any action, which affects gas supply or the conditions under which service is available, gas service will be provided in accordance with the revised conditions.

This letter is also provided without considering any conditions or non-utility laws and regulations (such as environmental regulations), which could affect construction of a main and/or service line extension (i.e., if hazardous wastes were encountered in the process of installing the line). The regulations can only be determined around the time contractual arrangements are made and construction has begun.

Contact the New Business Project Manager for your area, Alan Suhovy @ (559) 739-2238, or visit our web site SCGMapping@SempraUtilities.com for information on current energy efficiency programs, gas equipment, or to find out how to get your line extension project started.

Thank you again for choosing clean, reliable natural gas, your best energy value.

Sincerely,

Louise Brown

Louise Brown
Pipeline Planning Assistant

xc: Ed Aguirre
Alan Suhovy

NOP - 1

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

May 5, 2010

Paul Scheibel
City of Visalia
707 West Acequia Avenue
Visalia, CA 93291

Dear Mr. Scheibel:

The California Energy Commission has received the City of Visalia's Notice of Preparation titled City of Visalia General Plan Update, SCH 2010041078 that was submitted on 4/22/2010 for comments due by 5/24/2010. After careful review, the Energy Commission has found the following:

We would like to assist in reducing the energy usage involved in your project. Please refer to the enclosed Appendix F of the California Environmental Quality Act for how to achieve energy conservation.

In addition, the Energy Commission's *Energy Aware Planning Guide* is also available as a tool to assist in your land use planning. For further information on how to utilize this guide, please visit www.energy.ca.gov/energy_aware_guide/index.html.

Thank you for providing us the opportunity to review/comment on your project. We hope that our comments will be helpful in your environmental review process.

If you have any further questions, please call Gigi Tien at (916) 651-0566.

Sincerely,

Bill Pfanner

BILL PFANNER
Supervisor, Local Energy & Land Use Assistance Unit
Special Projects Office
Fuels and Transportation Division
California Energy Commission
1516 Ninth Street, MS 23
Sacramento, CA 95814

Enclosure

Appendix F
ENERGY CONSERVATION

I. Introduction

The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

(1) decreasing overall per capita energy consumption,
(2) decreasing reliance on natural gas and oil, and
(3) increasing reliance on renewable energy sources.

In order to assure that energy implications are considered in project decisions, the California Environmental Quality Act requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy.

Energy conservation implies that a project's cost effectiveness be reviewed not only in dollars, but also in terms of energy requirements. For many projects, lifetime costs may be determined more by energy efficiency than by initial dollar costs.

II. EIR Contents

Potentially significant energy implications of a project should be considered in an EIR. The following list of energy impact possibilities and potential conservation measures is designed to assist in the preparation of an EIR. In many instances, specific items may not apply or additional items may be needed.

A. Project Description may include the following items:
   1. Energy consuming equipment and processes which will be used during construction, operation, and/or removal of the project. If appropriate, this discussion should consider the energy intensiveness of materials and equipment required for the project.
   2. Total energy requirements of the project by fuel type and end use.
   3. Energy conservation equipment and design features.
   4. Initial and life-cycle energy costs or supplies.
   5. Total estimated daily trips to be generated by the project and the additional energy consumed per trip by mode.

B. Environmental Setting may include existing energy supplies and energy use patterns in the region and locality.

C. Environmental Impacts may include:
   1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
   2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.
   3. The effects of the project on peak and base period demands for electricity and other forms of energy.
   4. The degree to which the project complies with existing energy standards.
   5. The effects of the project on energy resources.
   6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

D. Mitigation Measures may include:
   1. Potential measures to reduce wasteful, inefficient and unnecessary consumption of energy during construction, operation, maintenance and/or removal. The discussion should explain why certain measures were incorporated in the project and why other measures were dismissed.
   2. The potential of siting, orientation, and design to minimize energy consumption, including transportation energy.
   3. The potential for reducing peak energy demand.
   4. Alternate fuels (particularly renewable ones) or energy systems.
   5. Energy conservation which could result from recycling efforts.

E. Alternatives should be compared in terms of overall energy consumption and in terms of reducing wasteful, inefficient and unnecessary consumption of energy.

F. Unavoidable Adverse Effects may include wasteful, inefficient and unnecessary consumption of energy during the project construction, operation, maintenance and/or removal that cannot be feasibly mitigated.

G. Irreversible Commitment of Resources may include a discussion of how the project preempts future energy development or future energy conservation.

H. Short-Term Gains versus Long-Term Impacts can be compared by calculating the energy costs over the lifetime of the project.

I. Growth Inducing Effects may include the estimated energy consumption of growth induced by the project.

ARNOLD SCHWARZENEGGER
GOVERNOR

Cal EMA
CALIFORNIA EMERGENCY MANAGEMENT AGENCY

MATTHEW R. BETTENHAUSEN
SECRETARY

May 5, 2010

Paul Scheibel
City of Visalia
707 West Acequia Avenue
Visalia, CA 93291

RE: Notice of Preparation for a Draft Environmental Impact Report for the City of Visalia's General Plan Update, SCH# 2010041078

Dear Mr. Scheibel:

Thank you for the opportunity to comment on your Notice of Preparation for a Draft Environmental Impact Report (DEIR) for the city's general plan update. In preparing the general plan and accompanying DEIR, the city should examine the sections of state planning law that involve potential hazards the city may face. For your information, I have underlined specific sections of state planning law where identification and analysis of hazards are discussed (see Attachment A).

Prior to the release of the draft general plan or within the DEIR, city staff or your consultants should examine each of the requirements in state planning law and determine if there are hazard issues within the community which the general plan should address. A table in the DEIR (or general plan) which identifies these specific issues and where they are addressed in the general plan would be helpful in demonstrating the city has complied with these requirements. If the DEIR determines that state planning law requirements have not been met, it should recommend that these issues be addressed in the general plan as a mitigation measure.

We note that state planning law includes a requirement for consultations with state agencies in regard to information related to hazards. Cal EMA would be happy to share all available information at our disposal to facilitate the city's ability to comply with state planning and environmental laws.

If you have any questions about these comments, please contact me at (916) 845-8269 or andrew.rush@calema.ca.gov.

Sincerely,

Andrew J. Rush
Associate Environmental Planner

cc: State Clearinghouse

3650 SCHRIEVER AVENUE • MATHER, CA 95655
RECOVERY BRANCH
(916) 845-8200 [OFFICE] • (916) 845-8385 [FAX]

Attachment A
Hazards and State Planning Law Requirements

General Plan Consistency

65300.5. In construing the provisions of this article, the Legislature intends that the general plan and elements and parts thereof comprise an integrated, internally consistent and compatible statement of policies for the adopting agency.

Seven Mandated Elements

65302. The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals. The plan shall include the following elements:

(a) A land use element that designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The location and designation of the extent of the uses of the land for public and private uses shall consider the identification of land and natural resources pursuant to paragraph (3) of subdivision (d). The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify and annually review those areas covered by the plan that are subject to flooding identified by flood plain mapping prepared by the Federal Emergency Management Agency (FEMA) or the Department of Water Resources. The land use element shall also do both of the following:

(1) Designate in a land use category that provides for timber production those parcels of real property zoned for timberland production pursuant to the California Timberland Productivity Act of 1982, Chapter 6.7 (commencing with Section 51100) of Part 1 of Division 1 of Title 5.

(2) Consider the impact of new growth on military readiness activities carried out on military bases, installations, and operating and training areas, when proposing zoning ordinances or designating land uses covered by the general plan for land, or other territory adjacent to military facilities, or underlying designated military aviation routes and airspace.

(A) In determining the impact of new growth on military readiness activities, information provided by military facilities shall be considered. Cities and counties shall address military impacts based on information from the military and other sources.

(B) The following definitions govern this paragraph:

(i) "Military readiness activities" mean all of the following:

(I) Training, support, and operations that prepare the men and women of the military for combat.

(II) Operation, maintenance, and security of any military installation.

(III) Testing of military equipment, vehicles, weapons, and sensors for proper operation or suitability for combat use.

(ii) "Military installation" means a base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the United States Department of Defense as defined in paragraph (1) of subsection (e) of Section 2687 of Title 10 of the United States Code.

(b) A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities, all correlated with the land use element of the plan.

(c) A housing element as provided in Article 10.6 (commencing with Section 65580).

(d) (1) A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. The conservation element shall consider the effect of development within the jurisdiction, as described in the land use element, on natural resources located on public lands, including military installations. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies, including flood management, water conservation, or groundwater agencies that have developed, served, controlled, managed, or conserved water of any type for any purpose in the county or city for which the plan is prepared. Coordination shall include the discussion and evaluation of any water supply and demand information described in Section 65352.5, if that information has been submitted by the water agency to the city or county.

(2) The conservation element may also cover all of the following:

(A) The reclamation of land and waters.

(B) Prevention and control of the pollution of streams and other waters.

(C) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.

(D) Prevention, control, and correction of the erosion of soils, beaches, and shores.

(E) Protection of watersheds.

(F) The location, quantity and quality of the rock, sand and gravel resources.

(3) Upon the next revision of the housing element on or after January 1, 2009, the conservation element shall identify rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management.

(e) An open-space element as provided in Article 10.5 (commencing with Section 65560).

(f) (1) A noise element which shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Care Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

(A) Highways and freeways.

(B) Primary arterials and major local streets.

(C) Passenger and freight on-line railroad operations and ground rapid transit systems.

(D) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.

(E) Local industrial plants, including, but not limited to, railroad classification yards.

(F) Other ground stationary noise sources, including, but not limited to, military installations, identified by local agencies as contributing to the community noise environment.

(2) Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (Ldn). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive.

(3) The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise.

(4) The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

(g) (1) A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction, and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body; flooding; and wild land and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

(2) The safety element, upon the next revision of the housing element on or after January 1, 2009, shall also do the following:

(A) Identify information regarding flood hazards, including, but not limited to, the following:

(i) Flood hazard zones. As used in this subdivision, "flood hazard zone" means an area subject to flooding that is delineated as either a special hazard area or an area of moderate or minimal hazard on an official flood insurance rate map issued by the Federal Emergency Management Agency. The identification of a flood hazard zone does not imply that areas outside the flood hazard zones or uses permitted within flood hazard zones will be free from flooding or flood damage.

(ii) National Flood Insurance Program maps published by FEMA.

(iii) Information about flood hazards that is available from the United States Army Corps of Engineers.

(iv) Designated floodway maps that are available from the Central Valley Flood Protection Board.

(v) Dam failure inundation maps prepared pursuant to Section 8589.5 that are available from the Office of Emergency Services.

(vi) Awareness Floodplain Mapping Program maps and 200-year flood plain maps that are or may be available from, or accepted by, the Department of Water Resources.

(vii) Maps of levee protection zones.

(viii) Areas subject to inundation in the event of the failure of project or nonproject levees or floodwalls.

(ix) Historical data on flooding, including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding.

(x) Existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities.

(xi) Local, state, and federal agencies with responsibility for flood protection, including special districts and local offices of emergency services.

(B) Establish a set of comprehensive goals, policies, and objectives based on the information identified pursuant to subparagraph (A), for the protection of the community from the unreasonable risks of flooding, including, but not limited to:

(i) Avoiding or minimizing the risks of flooding to new development.

(ii) Evaluating whether new development should be located in flood hazard zones, and identifying construction methods or other methods to minimize damage if new development is located in flood hazard zones.

(iii) Maintaining the structural and operational integrity of essential public facilities during flooding.

(iv) Locating, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities or identifying construction methods or other methods to minimize damage if these facilities are located in flood hazard zones.

(v) Establishing cooperative working relationships among public agencies with responsibility for flood protection.

(C) Establish a set of feasible implementation measures designed to carry out the goals, policies, and objectives established pursuant to subparagraph (B).

(3) After the initial revision of the safety element pursuant to paragraph (2), upon each revision of the housing element, the planning agency shall review and, if necessary, revise the safety element to identify new information that was not available during the previous revision of the safety element.

(4) Cities and counties that have flood plain management ordinances that have been approved by FEMA that substantially comply with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision, and shall summarize and incorporate by reference into the safety element the other general plan provisions or the flood plain ordinance, specifically showing how each requirement of this subdivision has been met.

(5) Prior to the periodic review of its general plan and prior to preparing or revising its safety element, each city and county shall consult the California Geological Survey of the Department of Conservation, the Central Valley Flood Protection Board, if the city or county is located within the boundaries of the Sacramento and San Joaquin Drainage District, as set forth in Section 8501 of the Water Code, and the Office of Emergency Services for the purpose of including information known by and available to the department, the office, and the board required by this subdivision.

(6) To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.

Consistency with Airport Land Use Plans

65302.3. (a) The general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the plan adopted or amended pursuant to Section 21675 of the Public Utilities Code.

Review of Safety Element

65302.5. (a) At least 45 days prior to adoption or amendment of the safety element, each county and city shall submit to the Division of Mines and Geology of the Department of Conservation

one copy of a draft of the safety element or amendment and any technical studies used for developing the safety element. The division may review drafts submitted to it to determine whether they incorporate known seismic and other geologic hazard information, and report its findings to the planning agency within 30 days of receipt of the draft of the safety element or amendment pursuant to this subdivision. The legislative body shall consider the division's findings prior to final adoption of the safety element or amendment unless the division's findings are not available within the above prescribed time limits or unless the division has indicated to the city or county that the division will not review the safety element. If the division's findings are not available within those prescribed time limits, the legislative body may take the division's findings into consideration at the time it considers future amendments to the safety element. Each county and city shall provide the division with a copy of its adopted safety element or amendments. The division may review adopted safety elements or amendments and report its findings. All findings made by the division shall be advisory to the planning agency and legislative body.

(1) The draft element of or draft amendment to the safety element of a county or a city's general plan shall be submitted to the State Board of Forestry and Fire Protection and to every local agency that provides fire protection to territory in the city or county at least 90 days prior to either of the following:

(A) The adoption or amendment to the safety element of its general plan for each county that contains state responsibility areas.

(B) The adoption or amendment to the safety element of its general plan for each city or county that contains a very high fire hazard severity zone as defined pursuant to subdivision (b) of Section 51177.

(2) A county that contains state responsibility areas and a city or county that contains a very high fire hazard severity zone as defined pursuant to subdivision (b) of Section 51177, shall submit for review the safety element of its general plan to the State Board of Forestry and Fire Protection and to every local agency that provides fire protection to territory in the city or county in accordance with the following dates as specified, unless the local government submitted the element within five years prior to that date:

(A) Local governments within the regional jurisdiction of the San Diego Association of Governments: December 31, 2010.

(B) Local governments within the regional jurisdiction of the Southern California Association of Governments: December 31, 2011.

(C) Local governments within the regional jurisdiction of the Association of Bay Area Governments: December 31, 2012.

(D) Local governments within the regional jurisdiction of the Council of Fresno County Governments, the Kern County Council of Governments, and the Sacramento Area Council of Governments: June 30, 2013.

(E) Local governments within the regional jurisdiction of the Association of Monterey Bay Area Governments: December 31, 2014.

(F) All other local governments: December 31, 2015.

(3) The State Board of Forestry and Fire Protection shall, and a local agency may, review the draft or an existing safety element and report its written recommendations to the planning agency within 60 days of its receipt of the draft or existing safety element. The State Board of Forestry and Fire Protection and local agency shall review the draft or existing safety element and may

offer written recommendations for changes to the draft or existing safety element regarding both of the following:
(A) Uses of land and policies in state responsibility areas and very high fire hazard severity zones that will protect life, property, and natural resources from unreasonable risks associated with wildland fires.
(B) Methods and strategies for wildland fire risk reduction and prevention within state responsibility areas and very high hazard severity zones.
(b) Prior to the adoption of its draft element or draft amendment, the board of supervisors of the county or the city council of a city shall consider the recommendations made by the State Board of Forestry and Fire Protection and any local agency that provides fire protection to territory in the city or county. If the board of supervisors or city council determines not to accept all or some of the recommendations, if any, made by the State Board of Forestry and Fire Protection or local agency, the board of supervisors or city council shall communicate in writing to the State Board of Forestry and Fire Protection or to the local agency, its reasons for not accepting the recommendations.

Open Space Plans

65560. (a) "Local open-space plan" is the open-space element of a county or city general plan adopted by the board or council, either as the local open-space plan or as the interim local open-space plan adopted pursuant to Section 65563.
(b) "Open-space land" is any parcel or area of land or water that is essentially unimproved and devoted to an open-space use as defined in this section, and that is designated on a local, regional or state open-space plan as any of the following:
(1) Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.
(2) Open space used for the managed production of resources, including but not limited to, forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber; areas required for recharge of groundwater basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.
(3) Open space for outdoor recreation, including but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas which serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.
(4) Open space for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

REPLY TO
ATTENTION OF

May 5, 2010

Regulatory Division SPK-2010-00575

Paul Scheibel
City of Visalia, Community Development Department
315 E. Acequia Avenue
Visalia, California 93291

Dear Mr. Scheibel:

We are responding to your April 19, 2010 request for comments on the City of Visalia General Plan Update Notice of Preparation of an Environmental Impact Report. The report area covered includes Section 32, Township 18 South, Range 25 East, MDB &M Survey, Latitude 36.32618°, Longitude -119.29229°, City of Visalia, Tulare County, California. Your identification number is SPK-2010-00575.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, vernal pools, marshes, wet meadows, and seeps. Project features that result in the discharge of dredged or fill material into waters of the United States will require Department of the Army authorization prior to starting work.

To ascertain the extent of waters on the project site, the applicant should prepare a wetland delineation, in accordance with the "Minimum Standards for Acceptance of Preliminary Wetland Delineations", under "Jurisdiction" on our website at the address below, and submit it to this office for verification. A list of consultants that prepare wetland delineations and permit application documents is also available on our website at the same location.

The range of alternatives considered for this project should include alternatives that avoid impacts to wetlands or other waters of the United States. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

Please refer to identification number SPK-2010-00575 in any correspondence concerning this project. If you have any questions, please contact me at U.S. Army Corps of Engineers, Regulatory Division, 1325 J Street, Rm. 1480, Sacramento, CA 95814, email

NOP-4

Erin.M.Hanlon@usace.army.mil, or telephone 916-557-5250. For more information regarding our program, please visit our website at *www.spk.usace.army.mil/regulatory.html*.

Sincerely,

Erin M. Hanlon

Erin M. Hanlon
Regulatory Project Manager
Sacramento District

3RD MILLENNIUM INVESTMENTS
5 RIVER PARK PLACE EAST, SUITE 102
FRESNO, CALIFORNIA 93720
TELEPHONE 559.434.0334
FACSIMILE 559.434.8615
E-MAIL: Fresno3rdM@aol.com

May 10, 2010

Brandon Smith, Associate Planner
City of Visalia
Community Development Department
315 E. Acequia Avenue
Visalia, CA 93291

RE: Comment to Notice of Preparation,
City of Visalia General Plan Update

Dear Sir:

Over the last couple of decades, I've noticed that cities have looked to grow by expanding their urban development boundaries outward; I suspect that Visalia's General Plan Update will also. For a variety of reasons, our state government has become concerned with this pattern of expansion while cities ignore large undeveloped open areas that exist within current urban development boundaries. For this and other reasons, our state government has recognized the need to pass legislation into law to compel cities to be more efficient in their growth intentions. Four (4) of those laws are listed below and are commonly referred to as:

A. SB 221, Kuehl (Land Use: Water Supplies) enacted in 2001,

B. SB 610, Costa (Water Supply Planning) enacted in 2001,

C. AB 32, Nunez (Air Pollution and Greenhouse Gases) enacted in 2006, and

D. SB 375, Steinberg (Transportation Planning, Travel Demand Models, Sustainable Communities Strategy and Environmental Review) enacted in 2008

We expect that this General Plan process will address Visalia's pattern over the last 10 or 15 years of premature conversion of agricultural land at the urban development boundary fringe while maintaining policies that discourages, even prohibits urban development of large open areas within the current urban development boundary.

The City of Visalia's General Plan elements, as listed on the City's website, are listed below:

"Land use Element" to the General Plan was revised in June, 1996,

"Circulation Element Update" was last updated in April, 2001,

"Housing Element" adopted March, 2010,

"Conservation, Open Space, Recreation and Parks Element" was adopted June, 1989,

"Noise Element" revised November, 1995,

"Safety Element" adopted **34 years ago** in 1975,

"Historic Preservation Element" adopted in September, 1979 (and re-printed in 2000),

"Seismic Safety Element" adopted in 1976

"Scenic Highways Element" adopted in February, 1976.

Many of the City's General Plan elements are clearly out-of-date and should be reviewed and are most certainly in need of amendments, modifications or changes. With substantial change in the environmental baseline and urban infrastructure resulting from the City's population increase of over fifty percent (50%) since the last comprehensive General Plan Update, this comprehensive General Plan Update is now well over-due.

Yours very truly,

RICK TELEGAN, Partner

RT:sw

STATE OF CALIFORNIA Arnold Schwarzenegger, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

May 13, 2010

Paul Scheibel
City of Visalia
707 West Acequia Avenue
Visalia, CA 93291

Re: Notice of Preparation, Draft Environmental Impact Report (DEIR)
City of Visalia 2030 General Plan Update
SCH# 2010041078

Dear Mr. Scheibel:

As the state agency responsible for rail safety within California, the California Public Utilities Commission (CPUC or Commission) recommends that development projects proposed near rail corridors be planned with the safety of these corridors in mind. New developments and improvements to existing facilities may increase vehicular traffic volumes, not only on streets and at intersections, but also at at-grade highway-rail crossings. In addition, projects may increase pedestrian traffic at crossings, and elsewhere along rail corridor rights-of-way. Working with CPUC staff early in project planning will help project proponents, agency staff, and other reviewers to identify potential project impacts and appropriate mitigation measures, and thereby improve the safety of motorists, pedestrians, railroad personnel, and railroad passengers.

The traffic impact study within the traffic/circulation section of the DEIR needs to specifically consider safety issues to at-grade railroad crossings. In addition to the potential impacts of the proposed project itself, the DEIR needs to consider cumulative rail safety-related impacts created by other projects.

In general, the major types of impacts to consider are collisions between trains and vehicles, and between trains and pedestrians. The proposed project has the potential to increase vehicular and pedestrian traffic in the vicinity.

Measures to reduce adverse impacts to rail safety need to be considered in the DEIR. General categories of such measures include:

- Installation of grade separations at crossings, i.e., physically separating roads and railroad track by constructing overpasses or underpasses
- Improvements to warning devices at existing highway-rail crossings
- Installation of additional warning signage
- Improvements to traffic signaling at intersections adjacent to crossings, e.g., traffic preemption

- Installation of median separation to prevent vehicles from driving around railroad crossing gates
- Prohibition of parking within 100 feet of crossings to improve the visibility of warning devices and approaching trains
- Installation of pedestrian-specific warning devices and channelization and sidewalks
- Construction of pull out lanes for buses and vehicles transporting hazardous materials
- Installation of vandal-resistant fencing or walls to limit the access of pedestrians onto the railroad right-of-way
- Elimination of driveways near crossings
- Increased enforcement of traffic laws at crossings
- Rail safety awareness programs to educate the public about the hazards of highway-rail grade crossings

Commission approval is required to modify an existing highway-rail crossing or to construct a new crossing.

Thank you for your consideration of these comments. We look forward to working with the City on this project. If you have any questions in this matter, please contact me at (415) 713-0092 or email at ms2@cpuc.ca.gov.

Sincerely,

Moses Stites

Moses Stites
Rail Corridor Safety Specialist
Consumer Protection and Safety Division
Rail Transit and Crossings Branch
180 Promenade Circle, Suite 115
Sacramento, CA 95834-2939

Appendix B:
Transportation Modeling Results

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour AM Peak Speed Ranges 2030 Alternative A (Alt 1)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	8	0	0	0	8
VDT	17.5	22.5	2057	543	1	1	1512
VDT	22.5	27.5	14808	4652	18	8	10130
VDT	27.5	32.5	103114	51162	475	468	51010
VDT	32.5	37.5	181506	70240	14039	10445	86783
VDT	37.5	42.5	232793	20715	32136	24341	155601
VDT	42.5	47.5	221388	5458	33099	23231	159600
VDT	47.5	52.5	63106	628	10442	8491	43546
VDT	52.5	57.5	26853	3	1821	1438	23591
VDT	57.5	62.5	74083	0	17309	650	56125
VDT	62.5	67.5	163380	0	31233	444	131703
VDT	67.5	70	74135	0	3125	223	70787
TOTALS			**1,157,231**	**153,401**	**143,698**	**69,740**	**790,396**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour AM Peak Speed Ranges 2030 Alternative A (Alt 1)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	3828	1073	2	2	2751
VDT	22.5	27.5	21239	5071	21	11	16136
VDT	27.5	32.5	131626	49220	441	420	81545
VDT	32.5	37.5	273621	127778	9316	8609	127917
VDT	37.5	42.5	410490	96122	45032	51875	217462
VDT	42.5	47.5	398644	31674	53065	38323	275583
VDT	47.5	52.5	312231	4064	51267	41495	215405
VDT	52.5	57.5	87283	97	10481	8770	67936
VDT	57.5	62.5	49997	0	4861	3049	42086
VDT	62.5	67.5	51341	0	4723	1984	44633
VDT	67.5	70	29129	0	3535	538	25055
TOTALS			**1,769,429**	**315,099**	**182,744**	**155,076**	**1,116,509**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected OFF PEAK Speed Ranges 2030 Alternative A (Alt 1)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	1	1	0	0	0
VDT	17.5	22.5	14033	4098	7	7	9922
VDT	22.5	27.5	75121	18540	51	54	56475
VDT	27.5	32.5	448446	172104	1470	1390	273482
VDT	32.5	37.5	894190	428129	26126	26762	413173
VDT	37.5	42.5	1299060	345617	156655	163856	632931
VDT	42.5	47.5	1160121	121837	112655	119642	805986
VDT	47.5	52.5	1078553	12699	167229	163672	734954
VDT	52.5	57.5	347812	58	41603	40060	266092
VDT	57.5	62.5	174981	0	9816	12314	152851
VDT	62.5	67.5	159885	0	11553	11974	136358
VDT	67.5	70	53073	0	4154	4215	44704
TOTALS			**5,705,276**	**1,103,083**	**531,319**	**543,946**	**3,526,928**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour PM Peak Speed Ranges 2030 Alternative A (Alt 1)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	138	0	0	0	138
VDT	12.5	17.5	576	3	0	0	573
VDT	17.5	22.5	6728	1734	1	2	4991
VDT	22.5	27.5	53204	28979	53	40	24133
VDT	27.5	32.5	209985	121235	4086	4311	80352
VDT	32.5	37.5	235247	50694	26676	32365	125513
VDT	37.5	42.5	298174	11789	32352	38496	215538
VDT	42.5	47.5	223071	2450	29049	30019	161553
VDT	47.5	52.5	91706	225	3165	29234	59082
VDT	52.5	57.5	169588	0	1100	13538	154949
VDT	57.5	62.5	82992	0	1667	8562	72764
VDT	62.5	67.5	161996	0	1113	4940	155944
VDT	67.5	70	55885	0	622	4533	50729
TOTALS			**1,589,290**	**217,109**	**99,884**	**166,040**	**1,106,259**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour PM Peak Speed Ranges 2030 Alternative A (Alt 1)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	1	1	0	0	0
VDT	17.5	22.5	5937	1511	2	3	4420
VDT	22.5	27.5	32574	8248	26	27	24273
VDT	27.5	32.5	213960	90394	917	762	121888
VDT	32.5	37.5	401963	190126	17477	20072	174287
VDT	37.5	42.5	529157	102227	59983	67510	299437
VDT	42.5	47.5	530885	24338	50303	81513	374731
VDT	47.5	52.5	316191	2160	48816	49949	215265
VDT	52.5	57.5	73750	5	8410	4615	60721
VDT	57.5	62.5	57648	0	3730	4581	49337
VDT	62.5	67.5	80796	0	2156	6729	71910
VDT	67.5	70	44815	0	857	3914	40044
TOTALS			**2,287,677**	**419,010**	**192,677**	**239,675**	**1,436,313**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour AM Peak Speed Ranges 2030 - ALT C

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	28	0	0	0	28
VDT	17.5	22.5	2327	793	13	2	1518
VDT	22.5	27.5	19205	8369	337	22	10476
VDT	27.5	32.5	144253	84633	6964	827	51828
VDT	32.5	37.5	206203	67618	28378	13457	96750
VDT	37.5	42.5	257198	15449	44842	24934	171972
VDT	42.5	47.5	205735	3045	30133	20576	151981
VDT	47.5	52.5	58889	405	9694	6825	41966
VDT	52.5	57.5	27748	0	1975	1223	24549
VDT	57.5	62.5	106142	0	34921	834	70388
VDT	62.5	67.5	179715	0	29480	552	149683
VDT	67.5	70	40514	0	6114	298	34101
TOTALS			**1,247,957**	**180,312**	**192,851**	**69,550**	**805,240**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour AM Peak Speed Ranges 2030 - ALT C

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	4167	1373	14	6	2775
VDT	22.5	27.5	22051	5725	62	34	16230
VDT	27.5	32.5	144256	60392	1018	588	82258
VDT	32.5	37.5	327240	166024	19146	11878	130193
VDT	37.5	42.5	448525	105630	61130	52766	229000
VDT	42.5	47.5	433308	27558	73541	40830	291380
VDT	47.5	52.5	318539	1896	52351	38656	225636
VDT	52.5	57.5	82798	22	11291	8106	63378
VDT	57.5	62.5	50045	0	6291	3426	40328
VDT	62.5	67.5	51536	0	5941	2264	43331
VDT	67.5	70	30880	0	4451	605	25824
TOTALS			**1,913,345**	**368,620**	**235,236**	**159,159**	**1,150,333**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected OFF Peak Speed Ranges 2030 - ALT C

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	1	1	0	0	0
VDT	17.5	22.5	15277	5187	30	34	10026
VDT	22.5	27.5	77985	20989	162	168	56666
VDT	27.5	32.5	490856	209814	2440	2443	276158
VDT	32.5	37.5	1045184	541322	41092	42405	420366
VDT	37.5	42.5	1437196	385070	184669	194543	672914
VDT	42.5	47.5	1227210	110524	139249	146782	830654
VDT	47.5	52.5	1143029	8117	172768	165529	796614
VDT	52.5	57.5	343341	0	42107	40951	260283
VDT	57.5	62.5	173383	0	11995	15154	146234
VDT	62.5	67.5	159530	0	13507	14233	131791
VDT	67.5	70	53287	0	5469	4995	42822
TOTALS			**6,166,279**	**1,281,024**	**613,488**	**627,237**	**3,644,528**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour PM Peak Speed Ranges 2030 - ALT C

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	133	0	0	0	133
VDT	12.5	17.5	660	42	0	0	618
VDT	17.5	22.5	11901	6679	22	9	5191
VDT	22.5	27.5	117600	89493	791	2185	25132
VDT	27.5	32.5	230423	124292	7559	15909	82663
VDT	32.5	37.5	246245	28214	34463	42805	140764
VDT	37.5	42.5	321851	4714	34687	47289	235161
VDT	42.5	47.5	197176	1100	20650	23816	151610
VDT	47.5	52.5	110210	24	2736	40670	66781
VDT	52.5	57.5	150496	0	1518	8287	140691
VDT	57.5	62.5	91045	0	1860	12998	76187
VDT	62.5	67.5	180742	0	1516	11298	167929
VDT	67.5	70	211225	0	766	7227	203232
TOTALS			**1,869,707**	**254,558**	**106,568**	**212,493**	**1,296,092**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour PM Peak Speed Ranges 2030 - ALT C

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	6463	1955	10	15	4483
VDT	22.5	27.5	35138	10430	62	72	24574
VDT	27.5	32.5	255561	128885	1396	1627	123653
VDT	32.5	37.5	486514	242040	26204	40262	178008
VDT	37.5	42.5	540586	88573	59135	78793	314085
VDT	42.5	47.5	565771	16828	57484	95319	396140
VDT	47.5	52.5	320331	1280	45216	51508	222328
VDT	52.5	57.5	67171	0	8647	3743	54781
VDT	57.5	62.5	60927	0	4760	6164	50003
VDT	62.5	67.5	79242	0	2339	8431	68472
VDT	67.5	70	49229	0	977	4457	43795
TOTALS			**2,466,934**	**489,990**	**206,230**	**290,392**	**1,480,321**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour AM Peak Speed Ranges for 2012 (Existing)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	1561	356	1	1	1204
VDT	22.5	27.5	10127	2662	2	2	7462
VDT	27.5	32.5	60673	23032	103	108	37430
VDT	32.5	37.5	97141	36918	3019	3135	54070
VDT	37.5	42.5	174865	23970	16030	20568	114296
VDT	42.5	47.5	137302	8244	15924	17972	95163
VDT	47.5	52.5	71980	1218	10662	12165	47935
VDT	52.5	57.5	25891	6	2662	2909	20314
VDT	57.5	62.5	17283	0	1454	1159	14669
VDT	62.5	67.5	15136	0	912	428	13796
VDT	67.5	70	9130	0	566	224	8340
TOTALS			**621089**	**96406**	**51335**	**58671**	**414679**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour AM Peak Speed Ranges for 2012 (Existing)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	3208	720	1	1	2485
VDT	22.5	27.5	17874	3743	4	3	14123
VDT	27.5	32.5	103751	37954	145	155	65498
VDT	32.5	37.5	171769	66521	3732	4138	97377
VDT	37.5	42.5	305492	56236	26562	36326	186368
VDT	42.5	47.5	285089	25017	30991	35673	193408
VDT	47.5	52.5	174415	5456	24006	31118	113836
VDT	52.5	57.5	73995	83	9805	11184	52923
VDT	57.5	62.5	39285	0	3100	3526	32659
VDT	62.5	67.5	32561	0	3225	1849	27487
VDT	67.5	70	13096	0	635	465	11996
TOTALS			**1220535**	**195730**	**102206**	**124438**	**798160**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected Off Peak Speed Ranges for 2012 (Existing)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	2	2	0	0	0
VDT	17.5	22.5	11469	2623	4	6	8836
VDT	22.5	27.5	62101	13456	13	13	48620
VDT	27.5	32.5	350299	128475	475	578	220771
VDT	32.5	37.5	553789	218570	12652	12022	310545
VDT	37.5	42.5	950875	192341	96896	100152	561486
VDT	42.5	47.5	899205	89817	101934	107987	599468
VDT	47.5	52.5	588696	19945	91943	92713	384095
VDT	52.5	57.5	233534	498	35416	34595	163025
VDT	57.5	62.5	130951	0	9902	11413	109636
VDT	62.5	67.5	108721	0	7113	8770	92838
VDT	67.5	70	38593	0	1615	1564	35414
TOTALS			**3928235**	**665727**	**357963**	**369813**	**2534734**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour PM Peak Speed Ranges for 2012 (Existing)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	13	4	0	0	9
VDT	17.5	22.5	2558	706	1	1	1850
VDT	22.5	27.5	20374	8489	3	3	11879
VDT	27.5	32.5	97978	48496	566	357	48559
VDT	32.5	37.5	131687	51218	8886	7336	64246
VDT	37.5	42.5	201045	19806	25035	25415	130790
VDT	42.5	47.5	140399	5039	24382	19415	91563
VDT	47.5	52.5	67492	965	11080	11887	43560
VDT	52.5	57.5	25651	6	2944	3019	19682
VDT	57.5	62.5	18707	0	1206	1946	15555
VDT	62.5	67.5	20461	0	585	1046	18829
VDT	67.5	70	10272	0	391	440	9442
TOTALS			**736637**	**134729**	**75079**	**70865**	**455964**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour PM Peak Speed Ranges for 2012 (Existing)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	1	1	0	0	0
VDT	17.5	22.5	4263	1015	2	2	3244
VDT	22.5	27.5	23905	6224	5	5	17671
VDT	27.5	32.5	139333	58560	260	295	80219
VDT	32.5	37.5	214797	91615	6472	6370	110340
VDT	37.5	42.5	379643	71482	45814	43075	219272
VDT	42.5	47.5	315791	26439	39512	38375	211466
VDT	47.5	52.5	185510	5688	34823	36369	108630
VDT	52.5	57.5	73075	177	11486	9537	51875
VDT	57.5	62.5	44540	0	3992	4009	36539
VDT	62.5	67.5	36898	0	2493	3644	30761
VDT	67.5	70	19073	0	501	683	17889
TOTALS			**1436829**	**261201**	**145360**	**142364**	**887906**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour AM Peak Speed Ranges 2030 No Project

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	57	57	0	0	0
VDT	17.5	22.5	3688	2187	8	2	1491
VDT	22.5	27.5	27981	17324	96	190	10372
VDT	27.5	32.5	142745	84168	1945	2840	53792
VDT	32.5	37.5	171111	58157	18071	13652	81231
VDT	37.5	42.5	234541	18766	27833	22377	165565
VDT	42.5	47.5	215557	4922	33443	28217	148975
VDT	47.5	52.5	79463	551	10280	8847	59785
VDT	52.5	57.5	17835	0	1374	1378	15082
VDT	57.5	62.5	23554	0	2422	479	20653
VDT	62.5	67.5	32693	0	2888	679	29126
VDT	67.5	70	28874	0	1264	369	27241
TOTALS			**978,099**	**186,132**	**99,624**	**79,030**	**613,313**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour AM Peak Speed Ranges 2030 No Project

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	4207	1195	10	6	2995
VDT	22.5	27.5	23538	5963	46	28	17500
VDT	27.5	32.5	159916	70786	773	788	87569
VDT	32.5	37.5	330964	164609	15031	14656	136667
VDT	37.5	42.5	431429	101252	47915	49934	232327
VDT	42.5	47.5	399154	27804	47817	43882	279651
VDT	47.5	52.5	288859	4264	47679	45772	191144
VDT	52.5	57.5	98178	14	12546	9911	75707
VDT	57.5	62.5	49908	0	4804	3966	41138
VDT	62.5	67.5	39172	0	3121	1814	34237
VDT	67.5	70	18656	0	2550	842	15264
TOTALS			**1,843,981**	**375,887**	**182,292**	**171,599**	**1,114,199**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected OFF PEAK Speed Ranges 2030 No Project

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	1	1	0	0	0
VDT	17.5	22.5	14965	4224	26	30	10684
VDT	22.5	27.5	81698	20906	123	130	60539
VDT	27.5	32.5	499256	202652	2180	2199	292225
VDT	32.5	37.5	1037468	517933	40221	39107	440207
VDT	37.5	42.5	1416244	378509	158548	169747	709440
VDT	42.5	47.5	1213118	129300	121003	127173	835643
VDT	47.5	52.5	1019708	17649	167838	162852	671368
VDT	52.5	57.5	341336	4	40740	40117	260474
VDT	57.5	62.5	167154	0	11785	14003	141366
VDT	62.5	67.5	129503	0	8394	9355	111755
VDT	67.5	70	46884	0	4576	3893	38414
TOTALS			**5,967,335**	**1,271,178**	**555,434**	**568,606**	**3,572,115**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour PM Peak Speed Ranges 2030 No Project

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	46	40	0	0	5
VDT	12.5	17.5	2717	2397	0	0	319
VDT	17.5	22.5	30362	25886	145	31	4300
VDT	22.5	27.5	121391	90911	2824	1194	26462
VDT	27.5	32.5	210667	100926	7904	12554	89283
VDT	32.5	37.5	230170	31066	32360	31080	135664
VDT	37.5	42.5	307878	8181	34833	38810	226054
VDT	42.5	47.5	206486	1273	23142	30192	151879
VDT	47.5	52.5	42528	13	2404	5969	34141
VDT	52.5	57.5	94718	0	735	27566	66417
VDT	57.5	62.5	123052	0	1348	9740	111964
VDT	62.5	67.5	119943	0	4500	9248	106194
VDT	67.5	70	85288	0	8238	3744	73306
TOTALS			**1,575,246**	**260,693**	**118,433**	**170,128**	**1,025,988**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour PM Peak Speed Ranges 2030 No Project

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	5943	1781	9	14	4139
VDT	22.5	27.5	41458	15038	57	68	26295
VDT	27.5	32.5	270439	134464	2979	1546	131450
VDT	32.5	37.5	475583	230448	29895	31728	183512
VDT	37.5	42.5	514024	87022	48917	61894	316191
VDT	42.5	47.5	524045	26188	61557	77984	358316
VDT	47.5	52.5	325572	2149	46731	52066	224627
VDT	52.5	57.5	92243	0	9800	8700	73744
VDT	57.5	62.5	41794	0	3290	2867	35637
VDT	62.5	67.5	59204	0	2159	5125	51919
VDT	67.5	70	40774	0	1393	3195	36185
TOTALS			**2,391,079**	**497,090**	**206,787**	**245,187**	**1,442,015**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour AM Peak Speed Ranges 2030 - PREFFERRED ALTERNATIVE

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	48	0	0	0	48
VDT	17.5	22.5	2279	648	8	3	1620
VDT	22.5	27.5	17140	5711	35	19	11375
VDT	27.5	32.5	109658	54983	995	891	52789
VDT	32.5	37.5	208132	75790	23717	11777	96848
VDT	37.5	42.5	241084	20511	40807	20425	159341
VDT	42.5	47.5	219447	5441	36831	21847	155328
VDT	47.5	52.5	61987	531	10457	9109	41891
VDT	52.5	57.5	34932	2	2401	1698	30830
VDT	57.5	62.5	115829	0	39501	1005	75322
VDT	62.5	67.5	177375	0	28035	619	148721
VDT	67.5	70	32400	0	2246	270	29885
TOTALS			**1,220,311**	**163,617**	**185,033**	**67,663**	**803,998**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour AM Peak Speed Ranges 2030 - PREFFERRED ALTERNATIVE

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	3967	1055	16	8	2888
VDT	22.5	27.5	21719	4945	41	20	16713
VDT	27.5	32.5	135790	49854	633	468	84834
VDT	32.5	37.5	291924	132133	15572	10787	133433
VDT	37.5	42.5	436934	106006	51553	46532	232842
VDT	42.5	47.5	424274	34185	72256	35320	282513
VDT	47.5	52.5	312850	3447	56329	39758	213317
VDT	52.5	57.5	81717	68	10598	9508	61543
VDT	57.5	62.5	53625	0	7889	4011	41725
VDT	62.5	67.5	56600	0	6605	2879	47116
VDT	67.5	70	26663	0	4527	636	21499
TOTALS			**1,846,063**	**331,693**	**226,019**	**149,927**	**1,138,423**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected Off Peak Speed Ranges 2030 - PREFFERRED ALTERNATIVE

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	1	1	0	0	0
VDT	17.5	22.5	14520	4040	40	44	10395
VDT	22.5	27.5	76166	17556	90	99	58420
VDT	27.5	32.5	450001	161746	1647	1708	284899
VDT	32.5	37.5	923600	421216	34949	37532	429903
VDT	37.5	42.5	1373824	374743	153076	165443	680562
VDT	42.5	47.5	1188553	130223	115662	129435	813233
VDT	47.5	52.5	1091393	12023	171909	172702	734760
VDT	52.5	57.5	358152	35	47261	46509	264348
VDT	57.5	62.5	177484	0	12833	16598	148052
VDT	62.5	67.5	164274	0	16350	16989	130935
VDT	67.5	70	53171	0	5033	5175	42963
TOTALS			**5,871,139**	**1,121,583**	**558,850**	**592,234**	**3,598,470**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour PM Peak Speed Ranges 2030 - PREFFERRED ALTERNATIVE

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	9	0	0	0	9
VDT	12.5	17.5	775	16	0	0	759
VDT	17.5	22.5	8824	3294	15	11	5504
VDT	22.5	27.5	71822	43699	372	542	27209
VDT	27.5	32.5	215950	116807	6338	7940	84866
VDT	32.5	37.5	249935	49294	25389	36846	138407
VDT	37.5	42.5	306256	11567	29259	45242	220189
VDT	42.5	47.5	215227	1966	29243	25526	158492
VDT	47.5	52.5	132281	180	3579	42851	85671
VDT	52.5	57.5	144886	0	1589	10251	133047
VDT	57.5	62.5	101076	0	2703	11084	87289
VDT	62.5	67.5	167071	0	1427	8899	156744
VDT	67.5	70	196204	0	827	5649	189728
TOTALS			**1,810,316**	**226,823**	**100,741**	**194,841**	**1,287,914**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

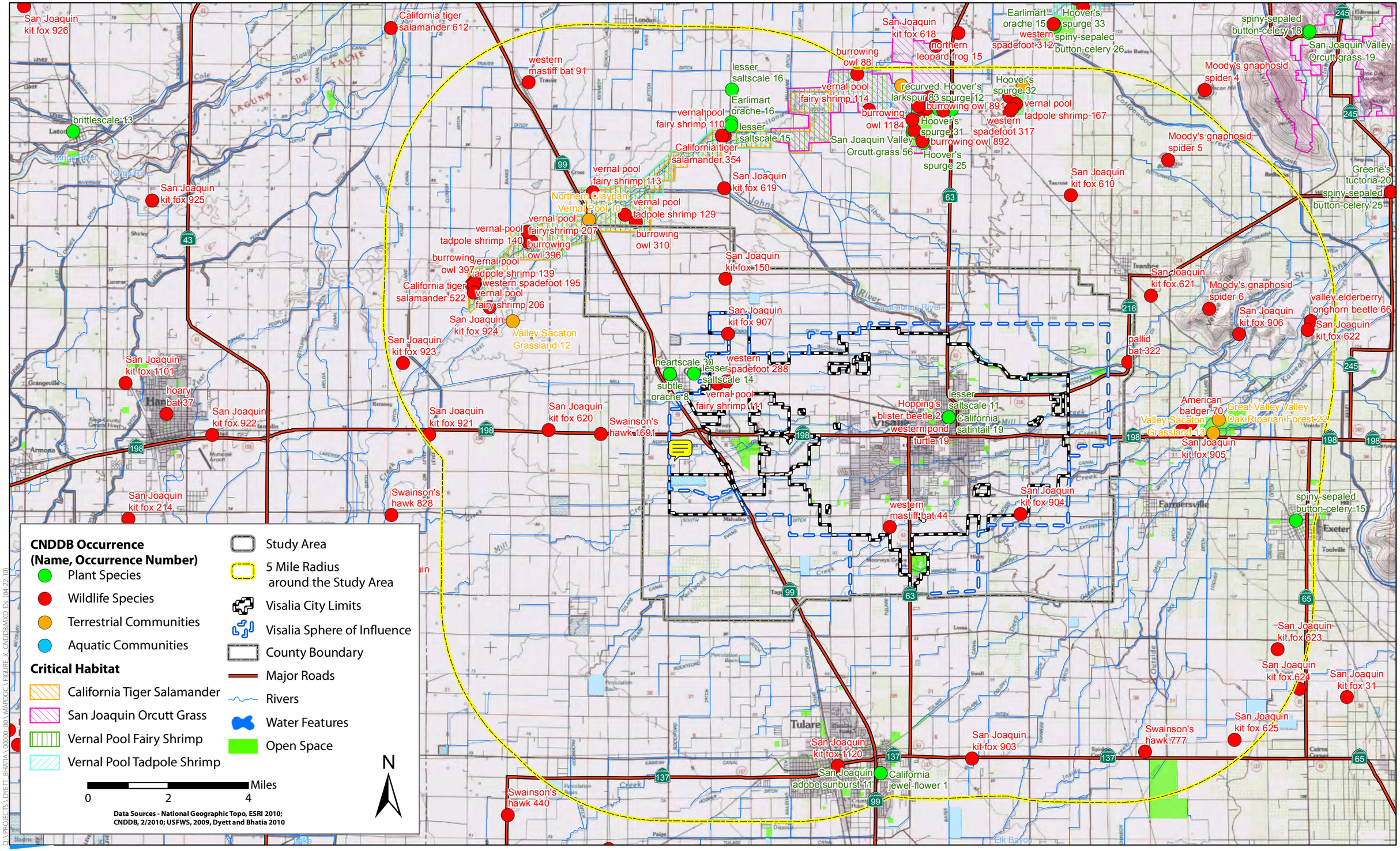
City of Visalia - Projected P-Hour AM Peak Speed Ranges 2030 - PREFFERRED ALTERNATIVE

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	11	0	0	0	10
VDT	17.5	22.5	6173	1459	15	20	4679
VDT	22.5	27.5	34139	8416	40	51	25632
VDT	27.5	32.5	220264	89393	1013	1012	128845
VDT	32.5	37.5	433323	197890	23094	28876	183463
VDT	37.5	42.5	558652	114585	51867	69496	322703
VDT	42.5	47.5	547859	23227	48065	95262	381305
VDT	47.5	52.5	307123	1707	49831	48831	206754
VDT	52.5	57.5	71825	4	10485	4187	57149
VDT	57.5	62.5	65388	0	5660	7068	52660
VDT	62.5	67.5	78365	0	3065	8727	66573
VDT	67.5	70	63384	0	1012	4713	57658
TOTALS			**2,386,506**	**436,681**	**194,147**	**268,243**	**1,487,431**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

Appendix C:
Biological Resources Data



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ICF INTERNATIONAL

CNDDB Occurrences Near Visalia

Table 1. Special Satus Wildlife Species with the Potential to Occur within the Visalia General Plan Study Area

Scientific Name COMMON NAME	Federal Status	State Status	Geographic distribution	Habitat requirements	Potential to Occur in the General Plan Area
Invertebrates					
Branchinecta conservario CONSERVANCY FAIRY SHRIMP	FE	--	Disjunct occurrences in Solano, Merced, Tehama, Ventura, Butte, and Glenn Counties	Large, deep vernal pools in annual grasslands	No known occurrences within Plan area. Plan area is outside of species distribution.
Branchinecta lynchi VERNAL POOL FAIRY SHRIMP	FT	--	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County	Found in vernal pools, particularly small, clear-water sandstone depression pools and grassy swale, earth slump, or basalt-flow depression pools.	Known occurrence in the Plan area on a parcel of undeveloped parcel NE of Rd 76 and W. Goshen Ave. near town of Goshen. Potential to occur in parcels containing vernal pools and in ponded areas in the Plan area.
Desmocerus californicus dimorphus VALLEY ELDERBERRY LONGHORN BEETLE	FT	--	Streamside habitats below 3,000 feet throughout the Central Valley	Elderberry shrubs with stem diameters of at least 1 inch. Species always found close to host plant. Larvae may remain in stems for up to 2 years.	No known occurrences within Plan area. Potential to occur in the Plan area in riparian woodlands along streams where elderberry shrubs are present.
Lepidurus packardi VERNAL POOL TADPOLE SHRIMP	FE	--	Throughout the Central Valley from Shasta County south toTulare County	Vernal pools , seasonal wetlands, and ephemeral stock ponds	No known occurrences within Plan area. Potential to occur in parcels containing vernal pools and in ponded areas
Amphibians					
Ambystoma californiense CALIFORNIA TIGER SALAMANDER	FT	ST	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County	Annual grasslands and grassy understory of valley-foothill hardwood habitats (i.e., oak-savannah). Require vernal pools or other seasonal water sources for breeding. Require mammal burrows or other underground refuges.	No known occurrences within Plan area. Known occurrences and federal Critical Habitat occurs northwest of Plan area. Plan area does not contain seasonal pools that inundate for suitable duration.
Spea hammondii WESTERN SPADEFOOT	--	CSC	Sierra Nevada foothills, Central Valley, Coast Ranges, coastal counties in southern California	Grassland and valley-foothill hardwood woodlands, vernal pools or seasonal wetlands are essential for egg laying.	Known occurrence in the Plan area on a parcel of undeveloped parcel NE of Rd 76 and W. Goshen Ave. near town of Goshen. Potential to occur in parcels containing vernal pools and in ponded areas in the Plan area.
Reptiles					
Actinemys marmorata WESTERN POND TURTLE	--	CSC	Occurs from the Oregon border of Del Norte and Siskiyou Counties south along coast to San Francisco Bay, inland through Sacramento Valley, and on western slope of Sierra Nevada	Ponds, marshes, rivers, streams, irrigation ditches, vernal pools. Needs basking sites such as partially submerged logs or rocks, and suitable upland habit (sandy banks or grassy open fields) for egg laying.	One occurrence in the Plan area from the 1870s. No recent occurrences in Plan area. Potential to occur in streams and ponded areas in the Plan area.
Gambelia sila BLUNT-NOSED LEOPARD LIZARD	FE	SE/FP	Occurs in scattered parcels of undeveloped and fallow lands on the Central Valley floor, Carrizo Plain, Cuyama Valley, and in the foothills of the Coast Range	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seek cover in mammal burrows, under shrubs or structures such as fence posts; they do not excavate their own burrows.	No known occurrences within Plan area. Plan area is outside of species distribution.
Phrynosoma coronatum frontale COAST (CALIFORNIA) HORNED LIZARD	--	CSC	Sacramento Valley, including foothills, south to southern California. Coast Ranges south of Sonoma County. Below 4,000 feet in northern California	Sandy loam areas and on alkali flats. Dietary specialists dependent on ants, as well as beetles and other seasonally abundant insects. Forage on the ground in open areas, usually between shrubs and often near an ant nest. Utilize small mammal burrows or burrow under surface objects during periods of extended inactivity or hibernation.	No known occurrences within Plan area. Potential to occur in annual grassland habitats within the Plan area.
Thamnophis gigas GIANT GARTER SNAKE	FT	ST	Central Valley from vicinity of Burrel in Fresno County north to near Chico in Butte County. Has been extirpated from areas south of Fresno	Sloughs, canals, low-gradient streams, and freshwater marsh habitats where there is a prey base of small fish and amphibians. Also found in irrigation ditches and rice fields. Requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter	No known occurrences within Plan area. Plan area is outside of species distribution.
Birds					
Agelaius tricolor TRICOLORED BLACKBIRD	--	CSC	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	Almost endemic to California; permanent resident and migrant. Highly colonial species, most numerous in Central Valley and vicinity. Nests next to open water typically in freshwater marsh habitat where there is extensive emergent or riparian vegetation. Increasing percentage of breeding colonies has been reported in grain fields. Forages in grasslands, wetland habitats, and some agricultural areas.	No known occurrences within Plan area. Potential to nest in ponded areas and parcels containing grain fields win the Plan area.
Ammodramus savannarum GRASSHOPPER SPARROW	--	CSC	Summer resident and breeder in foothills and lowlands west of the Cascade-Sierra Nevada crest	Occurs in California primarily as a summer (breeding) resident. At least partly migratory. Ecological requirements vary substantially from region to region within its wide range. In general, prefer short to middle-height, moderately open grasslands with scattered shrubs. Ground nester.	No known occurrences within Plan area. Potential to occur in areas containing annual grassland habitat.
Aquila chrysaetos GOLDEN EAGLE	--	FP	Foothills and mountains throughout California. Uncommon non-breeding visitor to lowlands such as the Central Valley	Nests on cliff edges or large trees in open areas. Needs open terrain for hunting: grasslands, deserts, savannahs, and early successional stages of forest and shrub habitats.	No known occurrences within Plan area. No potential to nest in the Plan area but may forage in areas that contain annual grasslands.
Athene cunicularia WESTERN BURROWING OWL	--	CSC	Lowlands throughout California, including Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along South Coast	Year round resident throughout much of California range. Migrants from other parts of western North America may augment resident populations in winter. Found in open, dry, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Uses small burrows for nesting and roosting.	No known occurrences within Plan area. Potential to nest within the Plan area where ground squirrel burrows and other man-made burrows are present.
Buteo swainsoni SWAINSON'S HAWK	--	ST	Lower Sacramento and San Joaquin Valleys, Klamath Basin, and Butte Valley. Highest nesting densities occur near Davis and Woodland in Yolo County	Breeds in California, few residents remain in winter. Found in open country such as grassland, shrubland, and agricultural areas. Nests in riparian areas and oak woodlands as well as isolated and roadside trees close to grassland or agricultural foraging habitat.	No known occurrences within Plan area. Potential to nest in large trees in the Plan area and forage in grassland and agricultural fields within the Plan area.
Cirus cyaneus NORTHERN HARRIER	--	CSC	Occurs throughout lowland California. Has been recorded in fall at high elevations	Occurs year round within breeding range in California and may potentially winter in areas statewide. Breeds and forages in variety of open (treeless) habitats such as marshes, meadows, pastures, prairies, weedy borders of lakes, rivers, and streams, grasslands, some croplands, sagebrush flats, and desert sinks. Constructs nests on ground in open field or meadow in shrubby vegetation, usually near wet areas.	No known occurrences within Plan area.
Elanus leucurus WHITE TAILED KITE	--	FP	Lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills to western San Diego County at Mexico border	Found year round within California range in grasslands, agricultural fields, oak woodlands, savannah, and riparian habitats in rural and urban areas. They are often found along tree-lined river valleys with adjacent open areas. Nests in trees.	No known occurrences within Plan area. Potential to nest in large trees in the Plan area and forage in grassland and agricultural fields within the Plan area.
Gymnogyps californianus CALIFORNIA CONDOR	FE	SE/FP	Permanent resident of the semi-arid, rugged mountain ranges surrounding southern San Joaquin Valley.	Nests in caves, crevices, behind rock slabs, or on large ledges on high sandstone cliffs.	No known occurrences within Plan area. No potential to nest in the Plan area and unlikely to forage in the Plan area because of the rarity of the species.

Table 1. Special Satus Wildlife Species with the Potential to Occur within the Visalia General Plan Study Area

Scientific Name COMMON NAME	Federal Status	State Status	Geographic distribution	Habitat requirements	Potential to Occur in the General Plan Area
Haliaeetus leucocephalus BALD EAGLE	Delisted	SE/FP	Nests in Siskiyou, Modoc, Trinity, Shasta, Lassen, Plumas, Butte, Tehama, Lake, and Mendocino Counties and in Lake Tahoe Basin. Reintroduced into central coast. Winter range includes rest of California, except southeastern deserts, very high altitudes in Sierra Nevada, and east of Sierra Nevada south of Mono County	Mainly found in mountainous habitats near reservoirs, lakes and rivers and builds nests in the upper canopy of large coniferous trees. Most nest within 1 mile of water.	No known occurrences within Plan area. No large lakes or reservoirs in Plan area that would attract species.
Lanius ludovicianus LOGGERHEAD SHRIKE	--	CSC	Resident and winter visitor in lowlands and foothills throughout California. Rare on coastal slope north of Mendocino County, occurring only in winter	Year round throughout most of California range; some breeding populations may be migratory. Wintering individuals augment resident populations and occupy areas where none breed. Breeds and forages in open habitats interspersed with shrubs and small trees, including disturbed habitats. Nests placed in trees.	No known occurrences within Plan area. Likely to occur in grassland habitats in the Plan area.
Mammals					
Antrozous pallidus PALLID BAT	--	CSC	Occurs throughout California except the high Sierra Nevada from Shasta County to Kern County and the northwest coast; primarily at lower and mid-elevations	Occurs throughout California; species forages in open areas of grasslands, shrublands, woodlands, and forests from sea level up through 6,560 feet; roosts in caves, rock crevices, mines, hollow trees, buildings, and bridges.	No known occurrences within Plan area. Potential to occur in riparian woodland habitat in the Plan area.
Dipodomys nitratoides exilis FRESNO KANGAROO RAT	FE	SE	Historically occurred in Merced, Madera, and Fresno Counties. Last known occurrence was at Alkali Sink Ecological Reserve in western Fresno County	Occupies sandy alkaline soils in chenopod scrub and annual grassland communities on the Valley floor.	No known occurrences within Plan area. Species is thought to be extinct.
Dipodomys nitratoides nitratoides TIPTON KANGAROO RAT	FE	SE	Occurs in the Tulare Lake basin of the southern San Joaquin Valley	Inhabits saltbush scrub and alkali sink scrub communities in the This species needs soft friable soils which escape seasonal flooding. Digs burrows in elevated soil mounds at bases of shrubs.	No known occurrences within Plan area. Unlikely to occur within the Plan area because of the lack of alkali scrub habitat
Eumops perotis californicus WESTERN MASTIFF BAT	--	CSC	Occurs in southeastern San Joaquin Valley and Coastal Range south of Monterey County and throughout southern California	Roosts in crevices in cliff faces, high buildings, and tunnels; forages in arid, semi arid habitat-coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral.	Known occurrence along Packwood Creek in southern portion of Plan area. Potential to occur in riparian woodland habitat in the Plan area.
Taxidea taxus AMERICAN BADGER	--	CSC	Found throughout most of California except in the northern North Coast area. Suitable habitat is characterized by herbaceous, shrub, and open stages of most habitats with dry, friable soils	Occurs throughout California in grasslands, savannas, and mountain meadows near timberline; require friable soils, and relatively open, uncultivated ground; requires suitable prey base of burrowing rodents such as gophers, ground squirrels, marmots, and kangaroo rats.	No known occurrences within Plan area. Likely to occur in grassland habitats in the Plan area.
Vulpes macrotis mutica SAN JOAQUIN KIT FOX	FE	ST	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Occurs in the San Joaquin Valley in annual grassland or grassy open stages with scattered shrubby vegetation; requires loose-textured sandy soils for burrowing; requires suitable prey base of small rodents, including kangaroo rats or California ground squirrels.	2 Known occurrences from the 1970's in Plan area. Several occurrences, mainly from 1970s and 1980s but one from 2003 in areas surrounding Plan area. May occur in grassland habitats in the Plan area.

Notes

Federal Status

FE – Endangered
FT – Threatened
Delisted

State Status

SE – Endangered
ST – Threatened
CSC – California Species of Special Concern designated by the California Department of Fish and Game.
FP – Fully Protected Species designated by the California Department of Fish and Game.

Table 2. Special Satus Plant Species with the Potential to Occur within the Visalia General Plan Study Area

Scientific Name	Common Name	Legal Status Federal/State/CNPS	Geographic Distribution	Habitat Requirements	Blooming Period
Atriplex cordulata	Heartscale	–/–/1B.2	Western Central Valley and valleys of adjacent foothills	Saline or alkaline area in chenopod scrub, meadows and seeps, sandy soils in valley and foothill grassland; below 375 meters	Apr-Oct
Atriplex depressa	Brittlescale	–/–/1B.2	Western and eastern Central Valley and adjacent foothills on west side of Central Valley	Alkaline clay soils in chenopod scrub, playas, valley and foothill grasslands; below 320 meters	Apr-Oct
Atriplex erecticaulis	Earlimart orache	–/–/1B.2	San Joaquin Valley in Kings, Kern and Tulare Counties	Valley and foothill grassland; 40-100 meters	Aug-Sep
Atriplex minuscula	Lesser saltscale	–/–/1B.1	Sacramento and San Joaquin Valley, Butte County and from Merced County to Kern County	Sandy alkaline soils in chenopod scrub, playas, valley and foothill grassland; 15-200 meters	May-Oct
Atriplex persistens	Vernal pool smallscale (or persistent-fruited saltscale)	–/–/1B.2	Central Valley, from Glenn to Tulare County	Dry beds of vernal pools on alkaline soils; 10-115 meters	Jun-Oct
Atriplex subtilis	Subtle orache	–/–/1B.2	Central Valley, especially San Joaquin Valley with occurrences in Butte, Fresno, Kings, Kern, Madera, Merced, and Tulare Counties	Alkali scalds and alkali grasslands, often near vernal pools; 40-100 meters	Jun-Aug(Oct)
Caulanthus californicus	California jewel-flower	E/E/1B.1	Historically common in western San Joaquin Valley and interior foothills, currently known from scattered locations in Fresno, Kern, Santa Barbara, and San Luis Obispo Counties	Sandy soils in valley and foothill grassland, chenopod scrub, and pinyon-juniper woodland; 61-1000 meters	Feb-May
Chamaesyce hooveri	Hoover's spurge	T/–/1B.2	Central Valley from Butte County to Tulare County	Below the high-water mark of large northern hardpan and volcanic vernal pools; 25-250 meters	Jul-Sep(Oct)
Delphinium recurvatum	Recurved larkspur	–/–/1B.2	Central Valley from Colusa* to Kern Counties	Alkaline soils in valley and foothill grassland, saltbush scrub, cismontane woodland; 3-750 meters	Mar-Jun
Eryngium spinosepalum	Spiny-sepaled button-celery	–/–/1B.2	Eastern San Joaquin Valley and Sierra Nevada Foothills in Fresno, Madera, Merced, Stanislaus, Tulare, and Tuolumne Counties	Valley and foothill grassland, vernal pools; 80-255 meters	Apr-May
Imperata brevifolia	California satintail	–/–/2.1	Butte, Fresno, Imperial, Inyo, Kern, Lake*, Los Angeles, Orange, RiversIde, San Bernardino, Tehama, Tulare, Ventura Counties; Arizona, Baja California-Mexico, New Mexico*, Nevada, Texas, Utah	Mesic sites in chaparral, coastal scrub, Mojave desert scrub, meadows often alkali, riparian scrub; 0-500 meters	Sep-May
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	T/E/1B.1	Scattered locations along east edge of the San Joaquin Valley and adjacent foothills, from Stanislaus County to Tulare County	Vernal pools; 10-755 meters	Apr-Sep
Pseudobahia peirsonii	San Joaquin adobe sunburst	T/E/1B.1	Fresno, Kern, and Tulare Counties	Cismontane woodland, valley and foothill grassland, on adobe clay soils; 90-800 meters	Mar-Apr

Notes

Federal Status

FE – Endangered
FT – Threatened
Delisted

State Status

SE – Endangered
ST – Threatened
CSC – California Species of Special Concern designated by the California Department of Fish and Game.
FP – Fully Protected Species designated by the California Department of Fish and Game.

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Landscape
Visalia General Plan Update. Quads: Visalia, Boshen, Traver, Monson, Ivanhoe, Exeter, Cairns Corner, Tulare, Paige

	Scientific Name	Common Name	Element Code	Federal Status	State Status	Global Rank	State Rank	CNPS	CDFG
1	Ambystoma californiense	California tiger salamander	AAAAA01180	Threatened		G2G3	S2S3		SC
2	Andrena macswaini		IIHYM35040			G1G3	S1S3		
3	Athene cunicularia	burrowing owl	ABNSB10010			G4	S2		SC
4	Atriplex cordulata	heartscale	PDCHE040B0			G2?	S2.2?	1B.2	
5	Atriplex erecticaulis	Earlimart orache	PDCHE042V0			G2	S2.2	1B.2	
6	Atriplex minuscula	lesser saltscale	PDCHE042M0			G1	S1.1	1B.1	
7	Atriplex persistens	vernal pool smallscale	PDCHE042P0			G2	S2.2	1B.2	
8	Atriplex subtilis	subtle orache	PDCHE042T0			G2	S2.2	1B.2	
9	Branchinecta lynchi	vernal pool fairy shrimp	ICBRA03030	Threatened		G3	S2S3		
10	Buteo swainsoni	Swainson's hawk	ABNKC19070		Threatened	G5	S2		
11	Caulanthus californicus	California jewel-flower	PDBRA31010	Endangered	Endangered	G1	S1.1	1B.1	
12	Chamaesyce hooveri	Hoover's spurge	PDEUP0D150	Threatened		G2	S2.1	1B.2	
13	Delphinium recurvatum	recurved larkspur	PDRAN0B1J0			G2	S2.2	1B.2	
14	Desmocerus californicus dimorphus	valley elderberry longhorn beetle	IICOL48011	Threatened		G3T2	S2		
15	Dipodomys nitratoides nitratoides	Tipton kangaroo rat	AMAFD03152	Endangered	Endangered	G3T1	S1		
16	Emys (=Clemmys) marmorata	western pond turtle	ARAAD02030			G3G4	S3		SC
17	Eryngium spinosepalum	spiny-sepaled button-celery	PDAPI0Z0Y0			G2	S2.2	1B.2	
18	Eumops perotis californicus	western mastiff bat	AMACD02011			G5T4	S3?		SC
19	Gambelia sila	blunt-nosed leopard lizard	ARACF07010	Endangered	Endangered	G1	S1		
20	Great Valley Valley Oak Riparian Forest	Great Valley Valley Oak Riparian Forest	CTT61430CA			G1	S1.1		
21	Lepidurus packardi	vernal pool tadpole shrimp	ICBRA10010	Endangered		G3	S2S3		
22	Lytta hoppingi	Hopping's blister beetle	IICOL4C010			G1G2	S1S2		
23	Northern Claypan Vernal Pool	Northern Claypan Vernal Pool	CTT44120CA			G1	S1.1		
24	Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	CTT44110CA			G3	S3.1		
25	Orcuttia inaequalis	San Joaquin Valley orcutt grass	PMPOA4G060	Threatened	Endangered	G2	S2.1	1B.1	
26	Pseudobahia peirsonii	San Joaquin adobe sunburst	PDAST7P030	Threatened	Endangered	G2	S2.1	1B.1	
27	Spea (=Scaphiopus) hammondii	western spadefoot	AAABF01030			G3	S3		SC
28	Talanites moodyae		ILARA98020			G1G2	S1S2		
29	Taxidea taxus	American badger	AMAJF04010			G5	S4		SC
30	Valley Sacaton Grassland	Valley Sacaton Grassland	CTT42120CA			G1	S1.1		
31	Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2T3	S2S3		

Actinemys marmorata

western pond turtle

Element Code: ARAAD02030

Status
Federal: None
State: None

NDDB Element Ranks
Global: G3G4
State: S3

Other Lists
CDFG Status: SC

Habitat Associations
General: A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS & IRRIGATION DITCHES WITH AQUATIC VEGETATION BELOW 6000 F
Micro: NEED BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYIN

Occurrence No. 19 **Map Index:** 24419 **EO Index:** 8143
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1879-XX-XX
Site: 1879-XX-XX
Record Last Updated: 1996-02-22

Quad Summary: Visalia (3611933/334D)
County Summary: Tulare

Lat/Long: 36.33377° / -119.29640°
UTM: Zone-11 N4023417 E293889
Radius: 1 mile
Elevation: 325 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 18S
Range: 25E
Section: 29 **Qtr:** XX
Meridian: M

Location: VISALIA.
General: HISTORICAL RECORD. OBSERVATION BY LOCKINGTON IN 1879.
Owner/Manager: CITY OF VISALIA, PVT

Ambystoma californiense

California tiger salamander

Element Code: AAAAA01180

Status	NDDB Element Ranks	Other Lists
Federal: Threatened	**Global:** G2G3	**CDFG Status:** SC
State: unknown code...	**State:** S2S3	

Habitat Associations

General: CENTRAL VALLEY DPS FEDERALLY LISTED AS THREATENED. SANTA BARBARA & SONOMA COUNTIES DPS FEDERALLY LISTED AS ENDANGERED.

Micro: NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS & VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING

Occurrence No. 15 **Map Index:** 15626 **EO Index:** 408

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1995-04-05
Site: 1995-04-05
Record Last Updated: 1997-12-22

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.48738º / -119.23674º
UTM: Zone-11 N4040334 E299640
Area: 25.6 acres
Elevation: 345 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 16S
Range: 25E
Section: 34 **Qtr:** SE
Meridian: M

Location: 0.6 MILES WEST OF ROAD 153; JUST NORTH OF AVENUE 384 (HWY 201).

Location Detail: YETTEM VERNAL POOLS ON STONE CORRAL ECOLOGICAL RESERVE.

Ecological: BIOLOGICAL RESERVE; DEGRADED VERNAL POOLS IN VALLEY GRASSLAND, LEWIS CLAY LOAM SOIL. HABITAT INFO TAKEN FROM PDEUP0D150.013. SCAPHIOPUS HAMMONDI ALSO OBSERVED HERE. 2007 AERIAL PHOTO SHOWS ENCROACHING AG OUTSIDE THE ECO RESERVE BOUNDARIES.

Threat: POSSIBLY EXCESS FLOODING BY IRRIGATION RUNOFF; CATTLE GRAZING UNTIL 1992.

General: 4/5/1995-UNKNOWN NUMBERS OF LARVAE OBS BY B. TRAYLER & R. KOKX. 1/5 & 4/5/1992-LARVAL SALAMANDERS CAUGHT BY R. HANSEN; 1986-J. BRODE, UNKNOWN IF ANY OBSERVED; 3/XX/1973-J. BRODE FIELD NOTES #190. SHAFFER SITE 126, 1991.

Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 354 **Map Index:** 32736 **EO Index:** 17489

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-02-22
Site: 1992-02-22
Record Last Updated: 2009-05-26

Quad Summary: Traver (3611944/334B)
County Summary: Tulare

Lat/Long: 36.43500º / -119.39832º
UTM: Zone-11 N4034871 E285019
Radius: 80 meters
Elevation: 285 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 17S
Range: 24E
Section: 20 **Qtr:** SW
Meridian: M

Location: ESE OF TRAVER; NEAR TULARE COUNTY LANDFILL; 0.4 KM NW OF ROAD 80 X COTTONWOOD CREEK.

Location Detail: HARRELL PROPERTY.

Ecological: POOL ABOUT LEVEL, JUST NORTHWEST OF LARGEST VERNAL POOL ON SITE. 2007 AREIAL PHOTO SHOWS NARROW BAND OF NATURAL HABITAT SURROUNDED BY AGRICULTURE.

Threat: GRAZING AND PROPOSED LAND CONVERSION.

General: SPECIES OBSERVED AT SITE BY R. HANSEN; BRANCHINECTA LYNCHI ALSO OBSERVED NEAR SITE.

Owner/Manager: PVT-HARRELL

Ambystoma californiense

California tiger salamander

Element Code: AAAAA01180

Status
Federal: Threatened
State: unknown code...

NDDB Element Ranks
Global: G2G3
State: S2S3

Other Lists
CDFG Status: SC

Habitat Associations
General: CENTRAL VALLEY DPS FEDERALLY LISTED AS THREATENED. SANTA BARBARA & SONOMA COUNTIES DPS FEDERALLY LISTED AS ENDANGERED.
Micro: NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS & VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING

Occurrence No. 355 **Map Index:** 32739 **EO Index:** 7033
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2002-03-19
Site: 2002-03-19
Record Last Updated: 2002-06-05

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.43531º / -119.30919º
UTM: Zone-11 N4034710 E293011
Area: 117.9 acres **Mapping Precision**SPECIFIC
Elevation: 315 ft **Symbol Type:**POLYGON

Township: 17S
Range: 25E
Section: 19 **Qtr:** SW
Meridian: M

Location: STONE CORRAL ECOLOGICAL RESERVE, 0.8 MILE SSE OF SEQUOIA FIELD, 0.35 MILE N OF 12TH AVENUE, 0.8 MILE EAST OF ROAD 112

Ecological: HABITAT VARIES FROM LARGE, STEEP-SIDED POOLS TO SMALLER, SHALLOW-SIDED POOLS. UPPER SECTION IS A VERNAL POOL COMPLEX, SURROUNDED BY NON-NATIVE GRASSLAND AND AGRICULTURE. OTHER SPECIES OBS: SPADEFOOT TOAD, VP TADPOLE SHRIMP.

Threat: THREATENED BY AGRICULTURAL CONVERSION, DEVELOPMENT, AND GRAZING.

General: CTS OBSERVED ON 22 FEB AND 12 APR 1992. 4 JUVENILES OBSERVED MAR 2000. 2 JUVENILES OBSERVED ON 19 MAR 2002. 2007 AERIAL PHOTO SHOWS ENCROACHING AG OUTSIDE THE ECO RESERVE BOUNDARIES.

Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 356 **Map Index:** 32754 **EO Index:** 22622
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1993-02-23
Site: 1993-02-23
Record Last Updated: 1996-01-29

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44909º / -119.30564º
UTM: Zone-11 N4036231 E293366
Radius: 80 meters **Mapping Precision**SPECIFIC
Elevation: 317 ft **Symbol Type:**POINT

Township: 17S
Range: 25E
Section: 18 **Qtr:** SW
Meridian: M

Location: EAST OF SEQUOIA FIELD, 0.6 MILES SOUTH OF ELKHORN AVENUE, 0.6 MILES WEST OF HIGHWAY 63 (DINUBA BLVD).

Location Detail: WAS HETTICK PROPERTY, NOW PART OF STONE CORRAL ER

Ecological: SMALL TRIANGULAR SHAPED POOL, 11 INCHES DEEP, 65 DEGREES FAHRENHEIT, PH 7.3, CLEAR TEA-COLORED WATER WITH LOTS OF EMERGENT VEGETATION AND FILAMENTOUS ALGAE. 2007 AERIAL PHOTO SHOWS ENCROACHING AG OUTSIDE THE ECO RESERVE BOUNDARIES.

Threat: CURRENT LAND USE: LIVESTOCK GRAZING; THREAT INCLUDES: LAND CONVERSION.

General: A. CALIFORNIENSE, BRANCHINECTA LYNCHI AND TADPOLE SHRIMP (LEPIDURUS COUESII) OBSERVED BY G. KIRKPATRICK.

Owner/Manager: DFG-STONE CORRAL ER

Ambystoma californiense

California tiger salamander

Element Code: AAAAA01180

Status
Federal: Threatened
State: unknown code...

NDDB Element Ranks
Global: G2G3
State: S2S3

Other Lists
CDFG Status: SC

Habitat Associations
General: CENTRAL VALLEY DPS FEDERALLY LISTED AS THREATENED. SANTA BARBARA & SONOMA COUNTIES DPS FEDERALLY LISTED AS ENDANGERED.
Micro: NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS & VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING

Occurrence No. 357 **Map Index:** 32755 **EO Index:** 7030

Dates Last Seen
Element: 2005-03-25
Site: 2005-03-25
Record Last Updated: 2005-03-29

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44419° / -119.30821°
UTM: Zone-11 N4035693 E293122
Area: 1.2 acres
Elevation: 314 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 17S
Range: 25E
Section: 18
Meridian: M
Qtr: SW

Location: STONE CORRAL ECOLOGICAL RESERVE, SE OF SEQUOIA FIELD, 6 MILES NW OF IVANHOE

Ecological: LARGE, SHALLOW ALKALI PLAYA TYPE POOL; VERY HIGH TURBIDITY AND NO EMERGENT VEGETATION. POOL IS ~50 METERS IN DIAMETER. 2007 AERIAL PHOTO SHOWS ENCROACHING AG OUTSIDE THE ECO RESERVE BOUNDARIES.

Threat: POSSIBLE THREAT OF OVER-GRAZING. THIS POOL RECENTLY (2005) FENCED.

General: LARVAE OBSERVED ON 23 FEB 1993. 1 LARVA OBSERVED ON 25 MAR 2005.

Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 358 **Map Index:** 32756 **EO Index:** 1334

Dates Last Seen
Element: 1993-02-23
Site: 1993-02-23
Record Last Updated: 1996-01-29

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44520° / -119.30651°
UTM: Zone-11 N4035802 E293277
Radius: 80 meters
Elevation: 315 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 17S
Range: 25E
Section: 18
Meridian: M
Qtr: SW

Location: SOUTHEAST OF SEQUOIA FIELD; 1.2 KM EAST OF SEQUOIA HOME.

Location Detail: WAS HETTICK PROPERTY, NOW PART OF STONE CORRAL ER.

Ecological: LARGE, L-SHAPED, SHALLOW, ALKALI PLAYA TYPE POOL; VERY HIGH TURBIDITY; NO EMERGENT VEGETATION. 2007 AERIAL PHOTO SHOWS ENCROACHING AG OUTSIDE THE ECO RESERVE BOUNDARIES.

Threat: CURRENT LAND USE: LIVESTOCK GRAZING; THREATS INCLUDE: LAND CONVERSION.

General: LARVAE OBSERVED BY G. KIRKPATRICK.

Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 829 **Map Index:** 60482 **EO Index:** 60518

Dates Last Seen
Element: 2005-02-15
Site: 2005-02-15
Record Last Updated: 2005-03-10

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.48830° / -119.24053°
UTM: Zone-11 N4040444 E299303
Radius: 80 meters
Elevation: 347 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 16S
Range: 25E
Section: 34
Meridian: M
Qtr: SE

Location: 0.55 MILE EAST OF BUTTON DITCH AND 0.15 MILE NORTH OF HIGHWAY 201, STONE CORRAL ECOLOGIAL RESERVE, NW OF SEVILLE

Location Detail: N. YETTEM PARCEL

Ecological: HABITAT CONSISTS OF ANNUAL GRASSLAND WITH VERNAL POOLS AND MOUNDS WITH BURROWS ABOVE THE WATER LEVEL. SURROUNDING AREA IS GRAZED, BUT NO CATTLE USE THIS PARCEL. 2007 AERIAL PHOTO SHOWS ENCROACHING AG OUTSIDE THE ECO RESERVE BOUNDARIES.

General: 1 ADULT OBSERVED ON 15 FEB 2005.

Owner/Manager: DFG-STONE CORRAL ER

Andrena macswaini

An andrenid bee

Element Code: IIHYM35040

Status
Federal: None
State: None

NDDB Element Ranks
Global: G1G3
State: S1S3

Other Lists
CDFG Status:

Habitat Associations
General: THIS BEE IS OLIGOLECTIC ON MORNING-OPENING, YELLOW-FLOWERED SPP OF CAMISSONIA.
Micro: NESTS IN DEEP, SANDY SOIL; THE ONLY SPECIES IN THE SUBGENUS DIANDRENA WITH AGGREGATED NESTS ASSOCIATED WITH DEPRESSIONS.

Occurrence No. 7 **Map Index:** 59406 **EO Index:** 59442
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 19XX-XX-XX
Site: 19XX-XX-XX
Record Last Updated: 2005-01-18

Quad Summary: Tulare (3611923/311A)
County Summary: Tulare

Lat/Long: 36.15559º / -119.32731º
UTM: Zone-11 N4003716 E290639
Radius: 2/5 mile
Elevation: 270 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 20S
Range: 24E
Section: 25 **Qtr:** XX
Meridian: M

Location: TULARE AIRPARK.
Location Detail: MAPPED AT TULARE MUNICIPAL AIRPORT.
Ecological: THIS BEE IS OLIGOLECTIC ON MORNING-OPENING, YELLOW-FLOWERED SPP OF CAMISSONIA & SHOWS A PREFERENCE FOR DEEP, SANDY SOIL FOR ITS BURROWS. IT IS THE ONLY KNOWN SP. IN THE SUBGENUS DIANDRENA WITH NESTS AGGREGATED & ASSOC. WITH DEPRESSIONS.
General: NO ADDITONAL COLLECTING INFORMATION GIVEN.
Owner/Manager: UNKNOWN

Antrozous pallidus

pallid bat

Element Code: AMACC10010

Status
Federal: None
State: None

NDDB Element Ranks
Global: G5
State: S3

Other Lists
CDFG Status: SC

Habitat Associations
General: DESERTS, GRASSLANDS, SHRUBLANDS, WOODLANDS & FORESTS. MOST COMMON IN OPEN, DRY HABITATS WITH ROCKY AREAS FOR ROOSTING.
Micro: ROOSTS MUST PROTECT BATS FROM HIGH TEMPERATURES. VERY SENSITIVE TO DISTURBANCE OF ROOSTING SITES.

Occurrence No. 322 **Map Index:** 68317 **EO Index:** 68476
Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2004-08-10
Site: 2004-08-10
Record Last Updated: 2007-03-05

Quad Summary: Exeter (3611932/333C)
County Summary: Tulare

Lat/Long: 36.35364º / -119.21612º
UTM: Zone-11 N4025454 E301146
Radius: 1/10 mile
Elevation: 368 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 18S
Range: 25E
Section: 24 **Qtr:** N
Meridian: M

Location: ABOUT 2.4MI SOUTH OF IVANHOE, AT BRIDGE CROSSING OVER ST. JOHN'S RIVER.
Location Detail: THIS IS A NEW BRIDGE THAT INCLUDED MITIGATION ROOST HABITAT FOR BATS USING THE OLD BRIDGE. THIS IS A SUCCESSFUL BRIDGE MITIGATION ROOSE DESIGN AND IMPLMENTATION.
Ecological: RIPARIAN CORRIDOR, SURROUNDED BY AGRICULTURAL.
Threat: VANDALISM.
General: MATERNITY COLONY SITE. 15 ADULTS AND 15 JUVENILES OBSERVED ON 10 AUG 2004.
Owner/Manager: CALTRANS

Athene cunicularia

burrowing owl

Element Code: ABNSB10010

Status
Federal: None
State: None

NDDB Element Ranks
Global: G4
State: S2

Other Lists
CDFG Status: SC

Habitat Associations
General: OPEN, DRY ANNUAL OR PERENIAL GRASSLANDS, DESERTS & SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.
Micro: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Occurrence No. 88 **Map Index:** 17088 **EO Index:** 12089

Dates Last Seen
Element: 1990-06-26
Site: 1990-06-26
Record Last Updated: 1990-11-08

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.45758° / -119.33785°
UTM: Zone-11 N4037243 E290501
Radius: 80 meters
Elevation: 300 ft

Mapping PrecisionSPECIFIC
Symbol Type:POINT

Township: 17S
Range: 24E
Section: 14 **Qtr:** NE
Meridian: M

Location: SOUTH SIDE OF ELKHORN AVE (AVE 368), ONE MI WEST OF ROAD 112, APPROXIMATELY 9 MI NNW OF VISALIA.

Location Detail: BURROW IS LOCATED ON THE COTTONWOOD CREEK FLOODPLAIN.

Ecological: HABITAT IS NATIVE AND NON-NATIVE GRASSLAND CONTAINING VERNAL POOLS.

Threat: SURROUNDED BY DAIRIES, THE HABITAT IS OVERGRAZED. THREAT OF CONVERSION TO ROW CROPS.

General: EVEN IN POOR RAINFALL YEARS, SOME WATER ACCUMULATES IN VERNAL POOLS. THE SURROUNDING AREA RECEIVES HIGH WATERFOWL AND SHOREBIRD USE WHEN WATER IS PRESENT.

Owner/Manager: UNKNOWN

Occurrence No. 310 **Map Index:** 40396 **EO Index:** 35403

Dates Last Seen
Element: 1998-04-10
Site: 1998-04-10
Record Last Updated: 1998-12-16

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Traver (3611944/334B)
County Summary: Tulare

Lat/Long: 36.40371° / -119.43657°
UTM: Zone-11 N4031485 E281502
Area:
Elevation: 280 ft

Mapping PrecisionNON-SPECIFIC
Symbol Type:POLYGON

Township: 17S
Range: 23E
Section: 99 **Qtr:** SE
Meridian: X

Location: SOUTH OF CROSS CREEK, 0.75 MILE NE OF HWY 99, 4.5 MILES SE OF TRAVER.

Ecological: HABITAT CONSISTS OF NON-NATIVE ANNUAL GRASSLAND WITH VERNAL POOLS. LEPIDURUS PACKARDI ALSO OCCURS IN THE VICINITY. AGRICULTURE TO SOUTH AND EAST.

Threat: THREATENED BY AGRICULTURAL CONVERSION.

General: UNKNOWN NUMBER OF OWLS OBSERVED ON 10 APRIL 1998.

Owner/Manager: PVT

Occurrence No. 396 **Map Index:** 44977 **EO Index:** 44977

Dates Last Seen
Element: 2000-02-XX
Site: 2000-02-XX
Record Last Updated: 2001-02-28

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Traver (3611944/334B)
County Summary: Kings

Lat/Long: 36.39997° / -119.48511°
UTM: Zone-11 N4031181 E277138
Radius: 80 meters
Elevation: 266 ft

Mapping PrecisionSPECIFIC
Symbol Type:POINT

Township: 18S
Range: 23E
Section: 99 **Qtr:** NW
Meridian: X

Location: BETWEEN CROSS CREEK AND SETTLERS DITCH, 12 MILES NW OF VISIALIA

Ecological: HABITAT CONSISTS OF NON-NATIVE ANNUAL GRASSLAND WITH VERNAL POOLS; SURROUNDED BY GRASSLAND TO THE NORTH AND EAST, FARMLAND TO THE SOUTH AND WEST.

Threat: POSSIBLE THREAT OF DEVELOPMENT ON SURROUNDING FARMLAND.

General: 2 ADULTS OBSERVED AT THE BURROW SITE DURING FEB 2000.

Owner/Manager: PVT

Athene cunicularia

burrowing owl

Element Code: ABNSB10010

Status
Federal: None
State: None

NDDB Element Ranks
Global: G4
State: S2

Other Lists
CDFG Status: SC

Habitat Associations
General: OPEN, DRY ANNUAL OR PERENIAL GRASSLANDS, DESERTS & SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.
Micro: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Occurrence No. 891 **Map Index:** 69122 **EO Index:** 69899
Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2007-10-03
Site: 2007-10-03
Record Last Updated: 2008-07-10

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44607° / -119.31056°
UTM: Zone-11 N4035907 E292917
Area: 9.0 acres
Elevation: 305 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 17S
Range: 25E
Section: 18 **Qtr:** SW
Meridian: M

Location: SE OF SEQUOIA FIELD, ABOUT 1.2 MILES SW OF HWY 63 AND ELKHORN AVE JUNCTION.

Location Detail: MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY SOURCE.

Ecological: CALIFORNIA ANNUAL GRASSLAND SERIES & NORTHERN CLAYPAN VERNAL POOL SERIES. DOMINANTS ARE BROMUS HORDEACEUS, B. DIANDRUS, LOLIUM SPECIES, ERODIIUM BOTRYS, E. CICUTARIUM.

General: 2 ACTIVE BURROWS AND 2 ADULTS (1 AT EACH BURROW) OBSERVED ON 1 MAR 2006. 2 ACTIVE BURROWS AND 2 ADULTS (1 AT EACH BURROW) OBSERVED ON 3 OCT 2007.

Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 892 **Map Index:** 69127 **EO Index:** 69904
Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2006-02-15
Site: 2006-02-15
Record Last Updated: 2007-05-01

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.43334° / -119.30864°
UTM: Zone-11 N4034490 E293054
Area: 29.0 acres
Elevation: 300 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 17S
Range: 25E
Section: 19 **Qtr:** SW
Meridian: M

Location: SSE OF SEQUOIA FIELD, ABOUT 0.8 MILES WNW OF HWY 63 AND 12TH AVE JUNCTION.

Location Detail: MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY SOURCE. MAPPED AS THREE POLYGONS, MOSTLY IN N1/2 OF SW1/4 SEC 19.

Ecological: CALIFORNIA ANNUAL GRASSLAND SERIES & NORTHERN CLAYPAN VERNAL POOL SERIES. DOMINANTS ARE BROMUS HORDEACEUS, B. DIANDRUS, LOLIUM SPECIES, ERODIIUM BOTRYS, E. CICUTARIUM.

General: 6 ACTIVE BURROWS AND 6 ADULTS (1 AT EACH BURROW) OBSERVED ON 15 FEB 2006.

Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 893 **Map Index:** 69133 **EO Index:** 69905
Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2006-02-09
Site: 2006-02-09
Record Last Updated: 2007-05-01

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.48177° / -119.23683°
UTM: Zone-11 N4039712 E299617
Area: 8.0 acres
Elevation: 343 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 17S
Range: 25E
Section: 02 **Qtr:** NW
Meridian: M

Location: WEST OF SEVILLE, 0.8 MILES ESE OF ST. MARIES CHURCH, JUST SOUTH OF SONTAG DITCH.

Location Detail: MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY SOURCE.

Ecological: CALIFORNIA ANNUAL GRASSLAND SERIES & NORTHERN CLAYPAN VERNAL POOL SERIES. DOMINANTS ARE BROMUS HORDEACEUS, B. DIANDRUS, LOLIUM SPECIES, ERODIIUM BOTRYS, E. CICUTARIUM.

General: 2 BURROWS AND 2 ADULTS OBSERVED ON 9 FEB 2006.

Owner/Manager: DFG-STONE CORRAL ER

Athene cunicularia

burrowing owl

Element Code: ABNSB10010

Status
Federal: None
State: None

NDDB Element Ranks
Global: G4
State: S2

Other Lists
CDFG Status: SC

Habitat Associations
General: OPEN, DRY ANNUAL OR PERENIAL GRASSLANDS, DESERTS & SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.
Micro: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Occurrence No. 1183 **Map Index:** 71674 **EO Index:** 72574
Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2007-10-03
Site: 2007-10-03
Record Last Updated: 2008-07-10

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44451° / -119.29938°
UTM: Zone-11 N4035710 E293915
Radius: 80 meters
Elevation:
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 17S
Range: 25E
Section: 18 **Qtr:** XX
Meridian: M

Location: 0.93 MI SSW OF THE INTERSECTION OF ELKHORN AVE & DINUBA BLVD. STONE CORRAL ECOLOGICAL RESERVE.
Location Detail: SURROUNDING AREAS ARE USED AS A TURKEY FARM, A DAIRY, AN AIRPORT AND FOR CATTLE RANCHING & AGRICULTURE.
Ecological: CA ANNUAL GRASSLAND SERIES & NORTHERN CLAYPAN VERNAL POOLS SERIES. DOMINANTS INCLUDE BROMUS HORDEACEUS, BROMUS DIANDRUS, LOLIUM SPECIES, ERODIIUM BOTRYS, ERODIIUM CICUTARIUM.
General: 1 BUOW WAS OBSERVED AT A BURROW SITE ON 3 OCT 2007.
Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 1184 **Map Index:** 71686 **EO Index:** 72586
Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2007-10-03
Site: 2007-10-03
Record Last Updated: 2008-07-11

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44105° / -119.31317°
UTM: Zone-11 N4035356 E292669
Radius: 80 meters
Elevation: 315 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 17S
Range: 25E
Section: 19 **Qtr:** XX
Meridian: M

Location: SE OF SEQUOIA FIELD, ABOUT 1.54 MILES SW OF THE INTERSECTION OF HWY 63 & ELKHORN AVE. STONE CORRAL ECOLOGICAL RESERVE.
Location Detail: SURROUNDING AREAS ARE A TURKEY FARM, A DAIRY, AN AIRPORT AND USED FOR CATTLE RANCHING & AGRICULTURE.
Ecological: CA ANNUAL GRASSLAND SERIES & NORTHERN CLAYPAN VERNAL POOLS SERIES. DOMINANTS INCLUDE BROMUS HORDEACEUS, BROMUS DIANDRUS, LOLIUM SPECIES, ERODIIUM BOTRYS, ERODIIUM CICUTARIUM
General: 1 BUOW WAS OBSERVED AT A BURROW SITE ON 3 OCT 2007.
Owner/Manager: DFG-STONE CORRAL ER

Atriplex cordulata

heartscale

Element Code: PDCHE040B0

Status
Federal: None
State: None

NDDB Element Ranks
Global: G2?
State: S2.2?

Other Lists
CNPS List: 1B.2

Habitat Associations
General: CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND, MEADOWS.
Micro: ALKALINE FLATS AND SCALDS IN THE CENTRAL VALLEY, SANDY SOILS. 1-150(600)M.

Occurrence No. 30 **Map Index:** 25124 **EO Index:** 3244
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1938-09-05
Site: 1938-05-09
Record Last Updated: 2009-11-02

Quad Summary: Goshen (3611934/334C)
County Summary: Tulare

Lat/Long: 36.34893º / -119.42124º
UTM: Zone-11 N4025373 E282725
Radius: 1 mile
Elevation: 285 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 18S
Range: 23E
Section: 24 **Qtr:** XX
Meridian: M

Location: NEAR GOSHEN.

Threat: RESIDENTIAL AND COMMERCIAL DEVELOPMENT SURROUNDS; MAY NOT BE SUITABLE HABITAT REMAINING (SEE ATRIPLEX SUBTILIS EO 8).

General: ONLY SOURCE OF INFO IS 1938 COLLECTION BY EASTWOOD & HOWELL. AREA SHOULD BE FIELD CHECKED FOR THE PRESENCE OF SUITABLE HABITAT. ID OF SPECIMEN SHOULD ALSO BE CHECKED; PRESTON (2009) HAS NOT FOUND THIS POPULATION, POSSIBLY A. ERECTICAULIS.

Owner/Manager: UNKNOWN

Atriplex erecticaulis

Earlimart orache

Element Code: PDCHE042V0

Status
Federal: None
State: None

NDDB Element Ranks
Global: G2
State: S2.2

Other Lists
CNPS List: 1B.2

Habitat Associations
General: VALLEY AND FOOTHILL GRASSLAND.
Micro: 40-100M.

Occurrence No. 15 **Map Index:** 37052 **EO Index:** 47220

Dates Last Seen
Element: 2000-09-22
Site: 2000-09-22
Record Last Updated: 2002-02-25

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.47550° / -119.24978°
UTM: Zone-11 N4039043 E298441
Radius: 80 meters
Elevation: 335 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 17S
Range: 25E
Section: 03 **Qtr:** SE
Meridian: M

Location: 0.8 MILES SOUTH OF YETTEM.

Location Detail: ON EAST SIDE OF ROAD 144, NE 1/4 OF SE 1/4 SEC 3.

Ecological: IN ALKALI GRASSLAND, AT MARGIN OF ALKALI VERNAL POOLS; WITH DISTICHLIS SPICATA, HELIOTROPIUM CURASSAVICUM, AND CENTROMADIA PUNGENS; NON-NATIVES: LOLIUM MULTIFLORUM, POLYPOGON MONSPELIENSIS.

Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 16 **Map Index:** 47221 **EO Index:** 47221

Dates Last Seen
Element: 2002-09-12
Site: 2002-09-12
Record Last Updated: 2006-10-04

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Traver (3611944/334B)
County Summary: Tulare

Lat/Long: 36.43975° / -119.39421°
UTM: Zone-11 N4035389 E285400
Area: 13.0 acres
Elevation: 285 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 17S
Range: 24E
Section: 20 **Qtr:** NE
Meridian: M

Location: 7 MILES NORTH OF GOSHEN ON EAST SIDE OF ROAD 80, N OF COTTONWOOD CREEK.

Location Detail: FROM 0.0 TO 0.5 MILES SOUTH OF AVENUE 360.

Ecological: IN DRAINAGE CHANNEL; DISTURBED AREAS IN ALKALI GRASSLAND WITH SUAEDA MOQUINII, DISTICHLIS SPICATA, CRESSA TRUXILLENSIS, CENTROMADIA PUNGENS, HELIOTROPIUM CURASSAVICUM, FRANKENIA SALINA, A. SERENANA, CYNODON DACTYLON & ANNUAL GRASSES.

Threat: WIDENING OF ROAD 80.

General: 1000'S OF PLANTS ESTIMATED IN 2000. 100'S OF PLANTS OBSERVED IN 2002; FEWER PLANTS PROBABLY DUE TO DROUGHT YEAR. ALKALI GRASSLAND IN THE VICINITY OF COTTONWOOD CREEK IS LIKELY SEED SOURCE. THE RARE A. MINUSCULA OBSERVED HERE IN 2000.

Owner/Manager: UNKNOWN

Occurrence No. 20 **Map Index:** 56674 **EO Index:** 66427

Dates Last Seen
Element: 1999-08-17
Site: 1999-08-17
Record Last Updated: 2006-11-14

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Cairns Corner (3611922/310B)
County Summary: Tulare

Lat/Long: 36.14902° / -119.23658°
UTM: Zone-11 N4002795 E298786
Area: 215.1 acres
Elevation: 305 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 20S
Range: 25E
Section: 35 **Qtr:** NW
Meridian: M

Location: TULARE COUNTY LANDFILL PROPERTY.

Ecological: IN SWALES AND MARGINS OF SLICKSPOTS IN ANNUAL GRASSLAND, WITH SUAEDA MOQUINII AND HEMIZONIA PUNGENS. OTHER RARE SPECIES INCLUDE A. SUBTILIS AND A. MINISCULA.

Threat: PROPOSED LANDFILL EXPANSION.

General: UNKNOWN NUMBER OF PLANTS OBSERVED IN 1999 DURING SURVEY FOR A. SUBTILIS.

Owner/Manager: TUL COUNTY

Atriplex minuscula

lesser saltscale

Element Code: PDCHE042M0

Status
Federal: None
State: None

NDDB Element Ranks
Global: G1
State: S1.1

Other Lists
CNPS List: 1B.1

Habitat Associations
General: CHENOPOD SCRUB, PLAYAS, VALLEY AND FOOTHILL GRASSLAND.
Micro: IN ALKALI SINK AND GRASSLAND IN SANDY, ALKALINE SOILS. 20-100M.

Occurrence No. 11 **Map Index:** 24419 **EO Index:** 56693

Dates Last Seen
Element: 1881-10-01
Site: 1881-10-01
Record Last Updated: 2004-09-08

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Visalia (3611933/334D)
County Summary: Tulare

Lat/Long: 36.33377° / -119.29640°
UTM: Zone-11 N4023417 E293889
Radius: 1 mile
Elevation: 325 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 18S
Range: 25E
Section: 29 **Qtr:** XX
Meridian: M

Location: VISALIA.

General: ORIGINAL LABEL ON SPECIMEN WAS A. DEPRESSA; SORTED TO A. MINUSCULA BY D. TAYLOR AND R. PRESTON.

Owner/Manager: CITY OF VISALIA, PVT

Occurrence No. 14 **Map Index:** 56415 **EO Index:** 56431

Dates Last Seen
Element: 2002-09-12
Site: 2002-09-12
Record Last Updated: 2006-11-17

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Goshen (3611934/334C)
County Summary: Tulare

Lat/Long: 36.34909° / -119.41036°
UTM: Zone-11 N4025366 E283702
Radius: 80 meters
Elevation: 290 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 18S
Range: 24E
Section: 19 **Qtr:** NE
Meridian: M

Location: GOSHEN, IN FIELD ON NORTH SIDE OF AVE 308, 0.4 MILE WEST OF ROAD 76.

Location Detail: MAPPED WITHIN THE SW 1/4 OF THE NE 1/4 OF SECTION 19.

Ecological: ALKALI GRASSLAND, WITH CENTROMADIA PUNGENS, SUAEDA MOQUINII, BASSIA HYSSOPIFOLIA, CUSCUTA CALIFORNICA, AND ANNUAL GRASSES.

Threat: FIELD DISKED SOMETIME IN PREVIOUS YEAR. NEW HOUSING DEVELOPMENT ADJACENT TO SITE.

General: 25 PLANTS SEEN IN 2002. COLLECTION BY EASTWOOD & HOWELL IN 1938 "NEAR JOSHEN" (ASSUMED TO BE GOSHEN) ALSO ATTRIBUTED TO THIS OCCURRENCE.

Owner/Manager: UNKNOWN

Occurrence No. 15 **Map Index:** 56417 **EO Index:** 56433

Dates Last Seen
Element: 2002-09-12
Site: 2002-09-12
Record Last Updated: 2006-11-16

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Traver (3611944/334B)
County Summary: Tulare

Lat/Long: 36.43866° / -119.39420°
UTM: Zone-11 N4035269 E285399
Area: 4.2 acres
Elevation: 285 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 17S
Range: 24E
Section: 20 **Qtr:** NE
Meridian: M

Location: 7 MILES NORTH OF GOSHEN, ALONG EAST SIDE OF ROAD 80, NORTH OF COTTONWOOD CREEK.

Location Detail: MAPPED WITHIN THE SW 1/4 OF THE NE 1/4 OF SECTION 20.

Ecological: ROADSIDE DRAINAGE.

Threat: PROPOSED ROAD WIDENING.

General: UNKNOWN NUMBER OF PLANTS IN 2000. IN 2002, PRESTON SAW 3 SMALL PATCHES OF A. MINUSCULA, EACH ABOUT 900 SQUARE FEET IN AREA. 1995 STUTZ COLLECTION FROM "5 MILES N OF GOSHEN" ALSO ATTRIBUTED TO THIS OCCURRENCE.

Owner/Manager: UNKNOWN

Atriplex minuscula

lesser saltscale

Element Code: PDCHE042M0

Status
Federal: None
State: None

NDDB Element Ranks
Global: G1
State: S1.1

Other Lists
CNPS List: 1B.1

Habitat Associations
General: CHENOPOD SCRUB, PLAYAS, VALLEY AND FOOTHILL GRASSLAND.
Micro: IN ALKALI SINK AND GRASSLAND IN SANDY, ALKALINE SOILS. 20-100M.

Occurrence No. 16 **Map Index:** 56419 **EO Index:** 56435
Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2000-07-10
Site: 2000-07-10
Record Last Updated: 2004-08-18

Quad Summary: Traver (3611944/334B)
County Summary: Tulare

Lat/Long: 36.45164° / -119.39394°
UTM: Zone-11 N4036708 E285458
Area: 58.5 acres
Elevation: 290 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 17S
Range: 24E
Section: 17 **Qtr:** E
Meridian: M

Location: ALONG ROAD 80 BETWEEN BANKS DITCH AND BUTTON DITCH, SOUTH OF DINUBA AND NORTH OF VISALIA.

Location Detail: MAPPED AT THE CENTER OF SECTION 17.

Ecological: ANNUAL GRASSLAND COMMUNITY WITH LOLIUM MULTIFLOURM, HORDEUM MARINUM SSP. GUSSONEANUM, HELIOTROPUM CURVASUM, CRESSA TRUXELLIENSIS, AND DISTICHLIS SPICATA. ALSO WITH CAPSELLA BURSA-PASTORIS, XANTHIUM STRUMARIUM, AND RUMEX

Threat: ROAD WIDENING.

General: 200 PLANTS SEEN IN 2000. THE RARE ATRIPLEX CORDULATA OR A. ERECTICAULIS MAY ALSO OCCUR AT THIS SITE. NEEDS REVISIT.

Owner/Manager: UNKNOWN

Occurrence No. 32 **Map Index:** 56674 **EO Index:** 56694
Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1999-08-17
Site: 1999-08-17
Record Last Updated: 2004-09-08

Quad Summary: Cairns Corner (3611922/310B)
County Summary: Tulare

Lat/Long: 36.14902° / -119.23658°
UTM: Zone-11 N4002795 E298786
Area: 215.1 acres
Elevation: 305 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 20S
Range: 25E
Section: 35 **Qtr:** NW
Meridian: M

Location: TULARE COUNTY LANDFILL PROPERTY, BOTH SIDES OF BLISS ROAD ABOUT 0.5 TO 1 MILE NORTH OF STRATHMORE ROAD.

Location Detail: MAPPED WITHIN THE NW 1/4 AND THE SW 1/4 OF THE NE 1/4 OF SECTION 35.

Ecological: IN SWALES AND MARGINS OF SLICKSPOTS IN ANNUAL GRASSLAND, WITH SUAEDA MOSQUINII AND HEMIZONIA PUNGENS.

Threat: PROPOSED LANDFILL EXPANSION.

General: INTERMIXED WITH THE RARE ATRIPLEX SUBTILIS AND A. ERECTICAULIS IN 1999. UNKNOWN NUMBER OF PLANTS SEEN.

Owner/Manager: TUL COUNTY

Atriplex persistens

vernal pool smallscale

Element Code: PDCHE042P0

Status
Federal: None
State: None

NDDB Element Ranks
Global: G2
State: S2.2

Other Lists
CNPS List: 1B.2

Habitat Associations
General: VERNAL POOLS.
Micro: ALKALINE VERNAL POOLS. 10-115M.

Occurrence No. 26 **Map Index:** 54533 **EO Index:** 54533

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2000-09-22
Site: 2000-09-22
Record Last Updated: 2004-03-03

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.48642º / -119.23665º
UTM: Zone-11 N4040228 E299645
Area: 11.9 acres
Elevation: 345 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 16S
Range: 25E
Section: 34 **Qtr:** 3E
Meridian: M

Location: ALONG NORTH SIDE OF SR 201, BETWEEN ST MARIES CHURCH AND SEVILLE.

Location Detail: IN A SERIES OF VERNAL POOLS IN THE FIELD NORTH OF SR 201 (AVE 384), ALONG THE SOUTHERN END OF THE SOUTHEAST 1/4 OF SECTION 34.

Ecological: ALKALI VERNAL POOLS WITH ELEOCHARIS MACROSTACHYA, DISTICHLIS SPICATA, CRYPSIS SCHOENOIDES, POLYPOGON MONSPELIENSIS, HORDEUM MARINIUM, PLAGIOBOTHRYS SP.

General: UNKNOWN NUMBER OF PLANTS OBSERVED IN 2000.

Owner/Manager: DFG

Atriplex subtilis

subtle orache

Element Code: PDCHE042T0

Status
Federal: None
State: None

NDDB Element Ranks
Global: G2
State: S2.2

Other Lists
CNPS List: 1B.2

Habitat Associations
General: VALLEY AND FOOTHILL GRASSLAND.
Micro: LITTLE INFO AVAILABLE. MADRONO VOL. 44 NO.2 ONLY SOURCE CURRENTLY. 40-100M.

Occurrence No. 8 **Map Index:** 25124 **EO Index:** 33912

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1905-09-01
Site: 2002-09-12
Record Last Updated: 2004-08-30

Quad Summary: Goshen (3611934/334C)
County Summary: Tulare

Lat/Long: 36.34893º / -119.42124º
UTM: Zone-11 N4025373 E282725
Radius: 1 mile
Elevation: 285 ft

Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT

Township: 18S
Range: 23E
Section: 24 **Qtr:** XX
Meridian: M

Location: GOSHEN; ABOUT RAILROAD STATION.

Threat: SURROUNDING LAND USE RESIDENTIAL OR COMMERCIAL. LITTLE SUITABLE HABITAT REMAINS HERE.

General: ORIGINAL LABEL BY BRANDEGEE WAS ATRIPLEX _____, THEN TO A. DEPRESSA BY PCS AND A. PARISHII BY HMA (?), THEN SORTED TO A. MINUSCULA BY D.TAYLOR. LISTED AS A. SUBTILIS BY STUTZ AND CHU (IN MADRONO - STU97A01). PLANTS NOT SEEN IN 2002.

Owner/Manager: UNKNOWN

Occurrence No. 25 **Map Index:** 56674 **EO Index:** 56690

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1999-08-17
Site: 1999-08-17
Record Last Updated: 2004-09-08

Quad Summary: Cairns Corner (3611922/310B)
County Summary: Tulare

Lat/Long: 36.14902º / -119.23658º
UTM: Zone-11 N4002795 E298786
Area: 215.1 acres
Elevation: 305 ft

Mapping PrecisionSPECIFIC
Symbol Type:POLYGON

Township: 20S
Range: 25E
Section: 35 **Qtr:** NW
Meridian: M

Location: TULARE COUNTY LANDFILL PROPERTY, BOTH SIDES OF BLISS ROAD ABOUT 0.5 TO 1 MILE NORTH OF STRATHMORE ROAD.

Location Detail: MAPPED WITHIN THE NW 1/4 AND THE SW 1/4 OF THE NE 1/4 OF SECTION 35.

Ecological: IN SWALES AND MARGINS OF SLICKSPOTS IN ANNUAL GRASSLAND, WITH SUAEDA MOSQUINII AND HEMIZONIA PUNGENS.

Threat: PROPOSED LANDFILL EXPANSION.

General: 1000'S OF INDIVIDUALS OBSERVED IN 1999. INTERMIXED WITH THE RARE ATRIPLEX MINUSCULA AND A. ERECTICAULIS.

Owner/Manager: TUL COUNTY

Branchinecta lynchi

vernal pool fairy shrimp — **Element Code:** ICBRA03030

Status	NDDB Element Ranks	Other Lists
Federal: Threatened	**Global:** G3	**CDFG Status:**
State: None	**State:** S2S3	

Habitat Associations

General: ENDEMIC TO THE GRASSLANDS OF THE CENTRAL VALLEY, CENTRAL COAST MTNS, AND SOUTH COAST MTNS, IN ASTATIC RAIN-FILLED POOLS.

Micro: INHABIT SMALL, CLEAR-WATER SANDSTONE-DEPRESSION POOLS AND GRASSED SWALE, EARTH SLUMP, OR BASALT-FLOW DEPRESSION POOLS.

Occurrence No. 109 **Map Index:** 15626 **EO Index:** 411

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1993-01-09
Site: 1993-01-09
Record Last Updated: 1997-12-22

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.48738º / -119.23674º
UTM: Zone-11 N4040334 E299640
Area: 25.6 acres
Elevation: 345 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 16S
Range: 25E
Section: 34 **Qtr:** SE
Meridian: M

Location: STONE CORRAL ECOLOGICAL RESERVE; WNW OF SEVILLE; APPROX. 1.0 KM WNW OF STATE ROUTE 201 X AT & SF RR.

Location Detail: YETTEM VERNAL POOLS; VERNAL "LAKE" ON THE WEST END OF RESERVE.

Ecological: NATIVE TOPOGRAPHY; EXTREMELY LONG-LIVED POOL, WET INTO JUNE. DEGRADED VERNAL POOLS IN VALLEY GRASSLAND, LEWIS CLAY LOAM SOILS. INFO TAKEN FROM PDEUP0D150.013.

Threat: EXCESS FLOODING BY IRRIGATION RUNOFF, GRAZING UNTIL 1992; CURRENT LAND USE: ECOLOGICAL RESERVE.

General: 1/9/1993-B. LYNCHI OBSERVED IN SEVERAL POOLS BY G. KIRKPATRICK; 2/22/1992-1 MALE (~19MM) AND 1 FEMALE OBSERVED BY R. HANSEN AND K. KIRKPATRICK; SPECIES MOST LIKELY B. LYNCHI, HOWEVER, AT LEAST 2 BRANCHINECTA SPECIES EXIST AT THIS SITE.

Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 110 **Map Index:** 32735 **EO Index:** 17486

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-02-22
Site: 1992-02-22
Record Last Updated: 1995-12-15

Quad Summary: Traver (3611944/334B)
County Summary: Tulare

Lat/Long: 36.43500º / -119.39716º
UTM: Zone-11 N4034868 E285123
Radius: 80 meters
Elevation: 285 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 17S
Range: 24E
Section: 20 **Qtr:** SW
Meridian: M

Location: ESE OF TRAVER; 0.4 KM NW OF ROAD 80 X COTTONWOOD CREEK.

Location Detail: HARRELL PROPERTY.

Ecological: NATURAL POOL (SALTGRASS); 12 INCHES DEEP AT GREATEST DEPTH, PH=6.5;

Threat: GRAZING (IN MIDST OF PRIME DAIRY DEVELOPMENT AREA); DEVELOPMENT (PROPOSAL FOR MODEL AIRCRAFT FIELD AS OF 1992).

General: 1 FEMALE (APPROX. 16MM IN LENGTH) OBSERVED BY R. HANSEN AND K. KIRKPATRICK; AMBYSTOMA CALIFORNIENSE OBSERVED NEAR SITE.

Owner/Manager: PVT-HARRELL

Occurrence No. 111 **Map Index:** 32737 **EO Index:** 17096

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-02-22
Site: 1992-02-22
Record Last Updated: 1996-01-30

Quad Summary: Goshen (3611934/334C)
County Summary: Tulare

Lat/Long: 36.34544º / -119.39978º
UTM: Zone-11 N4024937 E284641
Radius: 80 meters
Elevation: 290 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 18S
Range: 24E
Section: 20 **Qtr:** SW
Meridian: M

Location: ESE OF GOSHEN; 0.6 KM NW OF ROAD J32 X ROAD J19; DIRECTLY NORTH OF EAGLE SNACKS SITE.

Location Detail: JACUZZZI PROPERTY.

Ecological: NATIVE TOPOGRAPHY IN VACANT LOT; POOL IS 9 INCHES DEEP; PH=6; FENCELINE OF LOT WAS DISKED; SURVEY MARKERS PRESENT.

Threat: PROPOSED LAND CONVERSION; HISTORIC GRAZING.

General: 1 MALE OBSERVED BY R. HANSEN AND K. KIRKPATRICK.

Owner/Manager: PVT

Branchinecta lynchi

vernal pool fairy shrimp **Element Code:** ICBRA03030

Status
Federal: Threatened
State: None

NDDB Element Ranks
Global: G3
State: S2S3

Other Lists
CDFG Status:

Habitat Associations
General: ENDEMIC TO THE GRASSLANDS OF THE CENTRAL VALLEY, CENTRAL COAST MTNS, AND SOUTH COAST MTNS, IN ASTATIC RAIN-FILLED POOLS.
Micro: INHABIT SMALL, CLEAR-WATER SANDSTONE-DEPRESSION POOLS AND GRASSED SWALE, EARTH SLUMP, OR BASALT-FLOW DEPRESSION POOLS.

Occurrence No. 113 **Map Index:** 32752 **EO Index:** 18594
Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1993-01-09
Site: 1993-01-09
Record Last Updated: 1996-01-29

Quad Summary: Traver (3611944/334B)
County Summary: Tulare

Lat/Long: 36.41425° / -119.45597°
UTM: Zone-11 N4032699 E279792
Area: 14.6 acres
Elevation: 270 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 17S
Range: 23E
Section: 35 **Qtr:** NW
Meridian: M

Location: SSE OF TRAVER; APPROX. 1.0 KM N OF HIGHWAY 99 X CROSS CREEK.
Ecological: POOL A: SLIGHT TURBIDITY, 10 X 30M. POOL B: SLIGHT TURBIDITY, 10 X 50M. POOL C: VERY TURBID, 10 X 50M. ALL POOLS 54 DEGREES FAHRENHEIT.
Threat: CURRENT LAND USE: CATTLE GRAZING; THREATS INCLUDE DEVELOPMENT OR HABITAT CONVERSION.
General: B. LYNCHI OBSERVED BY G. AND K. KIRKPATRICK, AND R. HANSEN.
Owner/Manager: PVT

Occurrence No. 114 **Map Index:** 32753 **EO Index:** 17094
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1993-02-23
Site: 1993-02-23
Record Last Updated: 1996-01-29

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44454° / -119.33262°
UTM: Zone-11 N4035785 E290935
Radius: 80 meters
Elevation: 305 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 17S
Range: 24E
Section: 14 **Qtr:** SE
Meridian: M

Location: WEST OF SEQUOIA FIELD; APPROX. 0.6 MILE WEST OF ROAD 112, JUST NORTH OF AVENUE 360.
Ecological: SMALL GRASS-BOTTOMED POOL APPROX. 5 X 10 METERS OVAL, 12 INCHES DEEP; MIMA TOPOGRAPHY IN PASTURE BUT FEW POOLS.
Threat: CURRENT LAND USE: HORSE PASTURE, THREATS INCLUDE: LAND CONVERSION.
General: B. LYNCHI OBSERVED BY G. KIRKPATRICK; SPECIMENS POSSESSED UNUSUAL EYESTALKS-ALL DARK INCLUDING STALK.
Owner/Manager: PVT-MACDONALD

Occurrence No. 115 **Map Index:** 32754 **EO Index:** 17093
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1993-02-23
Site: 1993-02-23
Record Last Updated: 1996-01-29

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44909° / -119.30564°
UTM: Zone-11 N4036231 E293366
Radius: 80 meters
Elevation: 317 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 17S
Range: 25E
Section: 18 **Qtr:** SW
Meridian: M

Location: EAST OF SEQUOIA FIELD, 0.6 MILES SOUTH OF ELKHORN AVENUE, 0.6 MILES WEST OF HIGHWAY 63 (DINUBA BLVD).
Location Detail: HETTICK PROPERTY.
Ecological: SMALL TRIANGULAR SHAPED POOL, 11 INCHES DEEP, 65 DEGREES FAHRENHEIT, PH 7.3, CLEAR TEA-COLORED WATER WITH LOTS OF EMERGENT VEGETATION AND FILAMENTOUS ALGAE.
Threat: CURRENT LAND USE: LIVESTOCK GRAZING; THREAT INCLUDES: LAND CONVERSION.
General: B. LYNCHI, TADPOLE SHRIMP (LEPIDURUS COUESII) AND AMBYSTOMA CALIFORNIENSE OBSERVED BY G. KIRKPATRICK.
Owner/Manager: PVT-HETTICK

Branchinecta lynchi

vernal pool fairy shrimp — **Element Code:** ICBRA03030

Status	NDDB Element Ranks	Other Lists
Federal: Threatened	**Global:** G3	**CDFG Status:**
State: None	**State:** S2S3	

Habitat Associations

General: ENDEMIC TO THE GRASSLANDS OF THE CENTRAL VALLEY, CENTRAL COAST MTNS, AND SOUTH COAST MTNS, IN ASTATIC RAIN-FILLED POOLS.

Micro: INHABIT SMALL, CLEAR-WATER SANDSTONE-DEPRESSION POOLS AND GRASSED SWALE, EARTH SLUMP, OR BASALT-FLOW DEPRESSION POOLS.

Occurrence No. 116 **Map Index:** 32757 **EO Index:** 844

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1993-01-09
Site: 1993-01-09
Record Last Updated: 1996-02-28

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.48494º / -119.23989º
UTM: Zone-11 N4040070 E299352
Area: 10.3 acres
Elevation: 343 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 17S
Range: 25E
Section: 02 **Qtr:** NW
Meridian: M

Location: WEST OF SEVILLE; 1.0 KM ESE OF ST. MARIES CHURCH, BETWEEN HIGHWAY 201 AND SONTAG DITCH.

Location Detail: MENDONCA PROPERTY; POOL A: 50 METERS N OF WOODEN UTILITY POLE; POOL B: 100 METERS NORTHEAST OF 2ND METAL SCE TOWER SOUTH OF AVENUE 384.

Ecological: POOL A: 4 X 4 METERS, 4 INCHES DEEP, NO TURBIDITY. POOL B: 15 X 30 METERS, 6 INCHES DEEP, NO TURBIDITY; ERYNGIUM SPINOSEPALUM PRESENT.

Threat: CURRENT LAND USES: CATTLE GRAZING; THREAT INCLUDES: LAND CONVERSION.

General: B. LYNCHI OBSERVED BY G. KIRKPATRICK.

Owner/Manager: PVT

Occurrence No. 207 **Map Index:** 41571 **EO Index:** 41571

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1999-03-04
Site: 1999-03-04
Record Last Updated: 1999-09-08

Quad Summary: Traver (3611944/334B)
County Summary: Kings

Lat/Long: 36.39624º / -119.48463º
UTM: Zone-11 N4030766 E277171
Radius: 80 meters
Elevation: 265 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 18S
Range: 23E
Section: 04 **Qtr:** N
Meridian: X

Location: 0.2 MILE NORTH OF CROSS CREEK AND 1.65 WSW OF WHERE IT CROSSES HIGHWAY 99, 4 MILES SOUTH OF TRAVER.

Location Detail: VERNAL POOL(S) IN AREA "A". CURRENT LAND USE IS CATTLE GRAZING

Ecological: VERNAL POOLS IN NON-NATIVE GRASSLAND

Threat: CONVERSION TO FARMLAND

General: 100'S OBSERVED IN COMBINATION OF THIS AND ONE IN AREA "B". COLLECTION DEPOSITED AT CAS.

Owner/Manager: PVT

Occurrence No. 292 **Map Index:** 45196 **EO Index:** 45196

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2001-03-24
Site: 2001-03-24
Record Last Updated: 2001-04-19

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44400º / -119.26978º
UTM: Zone-11 N4035590 E296566
Radius: 80 meters
Elevation: 330 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 17S
Range: 25E
Section: 16 **Qtr:** SW
Meridian: M

Location: 0.6 MILE WEST OF THE INTERSECTION OF AVENUE 360 AND ROAD 140, 9 MILES NORTH OF VISALIA

Ecological: HABITAT CONSISTS OF VERNAL POOLS SURROUNDED BY GRAZED NON-NATIVE GRASSLAND; SURROUNDED BY AGRICULTURAL FIELDS.

Threat: THREATENED BY CONVERSION TO ORCHARDS.

General: 1000'S OF ADULTS OBSERVED ON 24 MAR 2001; 20 COLLECTED AND DEPOSITED AT CAS.

Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk — **Element Code:** ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 440 **Map Index:** 22037 **EO Index:** 8313

Dates Last Seen
Element: 1990-XX-XX
Site: 1990-XX-XX

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Record Last Updated: 1999-12-01

Quad Summary: Paige (3611924/311B)
County Summary: Tulare

Lat/Long: 36.18939º / -119.49256º
UTM: Zone-11 N4007834 E275868
Radius: 1/5 mile
Elevation: 240 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 20S
Range: 23E
Section: 16 **Qtr:** NW
Meridian: M

Location: EAST SIDE OF HWY 137, 0.6 MILE NORTH OF PAIGE ROAD, 3 MILES NE OF WAUKENA

Location Detail: NEST TREE IS LOCATED JUST NORTH OF THE DRIVEWAY TO THE SOUSA DAIRY. SWHA'S OBSERVED (INCLUDING ONE DEAD ADULT) SOUTH OF THIS NEST SITE IN 1999, BUT NO NESTING WAS OBSERVED.

Ecological: NEST TREE IS ONE OF TWO EUCALYPTUS TREES JUST EAST OF THE ROADWAY; SURROUNDING HABITAT CONSISTS ALMOST ENTIRELY OF ROW CROPS AND DAIRIES.

General: BIRDS NESTED HERE ANNUALLY FROM 1982-1990; NESTING SUCCESS UNKNOWN.

Owner/Manager: PVT

Occurrence No. 706 **Map Index:** 40126 **EO Index:** 35128

Dates Last Seen
Element: 1998-07-31
Site: 1998-07-31

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Record Last Updated: 1998-11-09

Quad Summary: Tulare (3611923/311A)
County Summary: Tulare

Lat/Long: 36.15346º / -119.31679º
UTM: Zone-11 N4003456 E291581
Radius: 80 meters
Elevation: 275 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 20S
Range: 24E
Section: 25 **Qtr:** SE
Meridian: M

Location: ELK BAYOU, JUST NORTH OF HOSFIELD ROAD, 0.5 MILE EAST OF TULARE MUNICIPAL AIRPORT.

Location Detail: BIRDS FORAGE IN ALFALFA FIELDS AND ROOST IN THE VICINITY OF THIS PRESUMED NEST SITE.

Ecological: HABITAT CONSISTS OF VALLEY OAK RIPARIAN FOREST, DOMINATED BY FREMONT COTTONWOOD.

Threat: THREATS INCLUDE LIMITED RURAL DEVELOPMENT AND AGRICULTURE (CONVERSION).

General: PAIR OBSERVED ON 31 JUL 1998 AND PRESUMED NESTING.

Owner/Manager: TUL COUNTY, PVT

Occurrence No. 777 **Map Index:** 41944 **EO Index:** 41944

Dates Last Seen
Element: 2000-05-21
Site: 2000-05-21

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Record Last Updated: 2000-07-28

Quad Summary: Cairns Corner (3611922/310B)
County Summary: Tulare

Lat/Long: 36.21310º / -119.20828º
UTM: Zone-11 N4009845 E301494
Radius: 80 meters
Elevation: 320 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 20S
Range: 25E
Section: 01 **Qtr:** SW
Meridian: M

Location: ALONG OUTSIDE CREEK, 0.5 MILE WNW OF THE INTERSECTION OF FARMERSVILLE ROAD AND HIGHWAY 137, 12 MILES SOUTH OF VISALIA.

Location Detail: NEST WAS LOCATED IN THE NE SIDE OF AN OAK, ON THE NORTH SIDE OF OUTSIDE CREEK/CANAL.

Ecological: NEST TREE IS AN OAK; SURROUNDED BY GRAINFIELDS IN ALL DIRECTIONS, WITH SOME AG FURTHER NORTH AND ORCHARDS FURTHER SOUTH.

General: 1 LIGHT/1 DARK ADULT OBSERVED NESTING ON 22 APR 1999. 1 LIGHT/1 DARK ADULT AND 2 NESTLINGS OBSERVED IN THE NEST ON 21 MAY 2000.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 792 **Map Index:** 42284 **EO Index:** 42284

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1994-06-27
Site: 1994-06-27
Record Last Updated: 2000-01-27

Quad Summary: Paige (3611924/311B)
County Summary: Tulare

Lat/Long: 36.17734º / -119.44760º
UTM: Zone-11 N4006394 E279878
Radius: 1/10 mile
Elevation: 245 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 20S
Range: 23E
Section: 23 **Qtr:** NE
Meridian: M

Location: 0.5 MILE WEST OF COUNTY ROAD 60 (BUENA VISTA AVENUE) AND SOUTH OF PAIGE ROAD, 5 MILES SW OF TULARE

Location Detail: NEST TREE IS LOCATED BEHIND SOME RANCH BUILDINGS.

Ecological: NEST TREE IS A LARGE EUCALYPTUS.

General: DFG SWHA #TU006. 2 ADULTS OBSERVED AT THE NEST ON 27 JUN 1994.

Owner/Manager: PVT

Occurrence No. 793 **Map Index:** 42285 **EO Index:** 42285

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2000-06-20
Site: 2000-06-20
Record Last Updated: 2000-08-17

Quad Summary: Paige (3611924/311B)
County Summary: Tulare

Lat/Long: 36.15634º / -119.49261º
UTM: Zone-11 N4004168 E275769
Radius: 80 meters
Elevation: 230 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 20S
Range: 23E
Section: 28 **Qtr:** SW
Meridian: M

Location: EAST SIDE OF HIGHWAY 137, 1.75 MILES SOUTH OF PAIGE AVENUE, 8 MILES SW OF TULARE.

Location Detail: SITE IS LOCATED AT THE ENTRANCE TO THE MACHADO DAIRY. SOUTHERNMOST OF THE 3 EUCALYPTUS TREES WAS THE NEST TREE IN 1994. SECOND TREE NORTH OF THE ENTRANCE WAS THE NEST TREE IN 2000.

Ecological: NEST TREE IS A EUCALYPTUS; SURROUNDED BY DAIRIES AND AGRICULTURE.

General: DFG SWHA #TU008. 2 ADULTS/2 JUVENILES OBSERVED AT THE NEST ON 14 JUL 1994. 2 ADULTS (NO NEST) OBSERVED IN 1999. 2 ADULTS (1 DARK/1 LIGHT), 1 SOARING/1 STANDING IN NEST, OBSERVED, 22 MAY 2000. 2 ADULTS/1 NESTLING OBSERVED, 20 JUN 2000.

Owner/Manager: PVT

Occurrence No. 794 **Map Index:** 42286 **EO Index:** 42286

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1994-06-21
Site: 1994-06-21
Record Last Updated: 2000-01-27

Quad Summary: Tulare (3611923/311A)
County Summary: Tulare

Lat/Long: 36.16829º / -119.34239º
UTM: Zone-11 N4005156 E289317
Radius: 1/10 mile
Elevation: 270 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 20S
Range: 24E
Section: 23 **Qtr:** SW
Meridian: M

Location: WEST OF I STREET, 1 MILE SOUTH OF PAIGE AVENUE, 2 MILES SOUTH OF TULARE.

Location Detail: NEST TREE IS LOCATED 50M SOUTH OF BATES SLOUGH.

Ecological: NEST TREE IS A LARGE VALLEY OAK.

General: DFG SWHA #TU005. 2 ADULTS AND 1 JUVENILE OBSERVED AT THE NEST ON 21 JUN 1994.

Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk

Element Code: ABNKC19070

Status
Federal: None
State: Threatened

NDDB Element Ranks
Global: G5
State: S2

Other Lists
CDFG Status:

Habitat Associations
General: BREEDS IN GRASSLANDS WITH WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH
Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 795 **Map Index:** 42287 **EO Index:** 42287

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1994-06-13
Site: 1994-06-13
Record Last Updated: 2000-01-27

Quad Summary: Paige (3611924/311B)
County Summary: Tulare

Lat/Long: 36.12685° / -119.46025°
UTM: Zone-11 N4000821 E278598
Radius: 1/10 mile
Elevation: 230 ft

Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT

Township: 21S
Range: 23E
Section: 02 **Qtr:** SW
Meridian: M

Location: ALONG BATES SLOUGH, 0.3 MILE NORTH OF ROAD 184 (OCTOL AVENUE), 7 MILES SW OF TULARE.

Ecological: NEST TREE IS A MEDIUM-SIZED VALLEY OAK.

General: DFG SWHA #TU007. 2 ADULTS AND 1 JUVENILE OBSERVED AT THE NEST ON 13 JUN 1994.

Owner/Manager: PVT

Occurrence No. 1691 **Map Index:** 69651 **EO Index:** 70431

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2007-07-13
Site: 2007-07-13
Record Last Updated: 2007-07-19

Quad Summary: Goshen (3611934/334C)
County Summary: Tulare

Lat/Long: 36.32726° / -119.45187°
UTM: Zone-11 N4023038 E279914
Radius: 80 meters
Elevation: 260 ft

Mapping PrecisionSPECIFIC
Symbol Type:POINT

Township: 18S
Range: 23E
Section: 35 **Qtr:** NW
Meridian: M

Location: SOUTH SIDE OF STATE ROUTE 198, 0.2 MILE WEST OF ROAD 56, 8 MILES WEST OF VISALIA.

Location Detail: NEST TREE IS LOCATED WITHIN THE CALTRANS RIGHT-OF-WAY FOR STATE ROUTE 198.

Ecological: NEST TREE IS A BLACK WALNUT; SURROUNDED BY AGRICULTURAL FIELDS PLANTED WITH ALFALFA, BARLEY, AND WALNUT TREES.

General: ON 13 JUL 2007, 2 JUVENILES WERE OBSERVED ON AND NEAR THE NEST TREE, WHILE THE TWO ADULTS SOARED OVERHEAD.

Owner/Manager: CALTRANS

Caulanthus californicus

California jewel-flower

Element Code: PDBRA31010

Status
Federal: Endangered
State: Endangered

NDDB Element Ranks
Global: G1
State: S1.1

Other Lists
CNPS List: 1B.1

Habitat Associations
General: CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND, PINYON-JUNIPER WOODLAND.
Micro: HISTORICAL FROM VARIOUS VALLEY HABITATS IN BOTH THE CENTRAL VALLEY AND CARRIZO PLAIN. 65-900M.

Occurrence No. 1 **Map Index:** 22864 **EO Index:** 63227
Occ Rank: None
Origin: Natural/Native occurrence
Presence: Extirpated
Trend: Unknown

Dates Last Seen
Element: 1932-03-10
Site: 1986-XX-XX
Record Last Updated: 2005-11-09

Quad Summary: Tulare (3611923/311A)
County Summary: Tulare

Lat/Long: 36.20509º / -119.32639º
UTM: Zone-11 N4009205 E290854
Radius: 1 mile
Elevation: 290 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 20S
Range: 24E
Section: 11 **Qtr:** XX
Meridian: M

Location: TULARE.

Threat: EXTIRPATED BY INTENSIVE AGRICULTURE AND URBAN GROWTH.

General: THIS WAS TYPE LOCALITY BASED ON COLLECTION OF A.E. BUSH FROM AROUND 1880. SEARCHED IN 1986 BY TAYLOR; SPECIES NOT FOUND. EXTIRPATED. GENERAL AREA NO LONGER SUPPORTS HABITAT FOR THE SPECIES DUE TO INTENSIVE AGRICULTURE, URBAN GROWTH.

Owner/Manager: PVT

Chamaesyce hooveri

Hoover's spurge — **Element Code:** PDEUP0D150

Status
Federal: Threatened
State: None

NDDB Element Ranks
Global: G2
State: S2.1

Other Lists
CNPS List: 1B.2

Habitat Associations
General: VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND.
Micro: VERNAL POOLS ON VOLCANIC MUDFLOW OR CLAY SUBSTRATE. 25-130M.

Occurrence No. 12 **Map Index:** 15561 **EO Index:** 18740

Dates Last Seen
Element: 1941-07-26
Site: 1986-06-24
Record Last Updated: 1997-10-06

Occ Rank: None
Origin: Natural/Native occurrence
Presence: Extirpated
Trend: Unknown

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44470° / -119.29555°
UTM: Zone-11 N4035723 E294259
Area:
Elevation: 327 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POLYGON
Township: 17S
Range: 25E
Section: 17 **Qtr:** NE
Meridian: M

Location: DRIED-UP "HOG WALLOW" ALONG DINUBA BLVD, 8 MILES NORTH OF VISALIA CITY LIMITS.
Location Detail: MAPPED ALONG DINUBA BLVD AT MILEAGE GIVEN; EXACT LOCATION UNKNOWN.
Ecological: VERNAL POOL.
Threat: ENTIRE AREA NOW ORCHARDS OR HOMES.
General: SP SEEN IN 1941. NO PLANTS SEEN IN 1986; HABITAT ELIMINATED, SITE EXTIRPATED.
Owner/Manager: PVT

Occurrence No. 13 **Map Index:** 15626 **EO Index:** 407

Dates Last Seen
Element: 1995-07-20
Site: 1995-07-20
Record Last Updated: 2008-06-27

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.48738° / -119.23674°
UTM: Zone-11 N4040334 E299640
Area: 25.6 acres
Elevation: 345 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 16S
Range: 25E
Section: 34 **Qtr:** SE
Meridian: M

Location: EAST OF SCE POWER LINE ALONG THE NORTH SIDE OF HIGHWAY 201, ABOUT 0.75 MILE WEST OF SEVILLE.
Location Detail: THIS MAY REPRESENT THE TYPE LOCALITY. VAGUE HOOVER COLLECTION FROM "YETTEM" ATTRIBUTED HERE.
Ecological: DEGRADED ALKALINE VERNAL POOLS IN VALLEY GRASSLAND, LEWIS CLAY LOAM SOIL. WITH ERYNGIUM SPINOSEPALUM, LILAEA SCILLOIDES, POLYPOGON MONSPELIENSIS, ELEOCHARIS MACROSTACHYA, CHAMAESYCE OCELLATA, ALOPECURUS SACCATUS, ALLOCARYA STIPITATA, ETC.
Threat: EXCESSIVE GRAZING, TRAMPLING, ENCROACHING AGRICULTURE, AND AGRICULTURAL RUNNOFF. POWER LINES THROUGH WESTERNMOST POOL.
General: 50 PLANTS SEEN IN 1981, 1100+ IN 1986 IN 3 POOLS. ABOUT 500 SEEN IN 1995. COMPLEX DRAINAGE PATTERNS AT THIS SITE.
Owner/Manager: DFG-STONE CORRAL ER

Chamaesyce hooveri

Hoover's spurge

Element Code: PDEUP0D150

Status
Federal: Threatened
State: None

NDDB Element Ranks
Global: G2
State: S2.1

Other Lists
CNPS List: 1B.2

Habitat Associations
General: VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND.
Micro: VERNAL POOLS ON VOLCANIC MUDFLOW OR CLAY SUBSTRATE. 25-130M.

Occurrence No. 25 **Map Index:** 31586 **EO Index:** 2447

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Stable

Dates Last Seen
Element: 1992-XX-XX
Site: 1992-XX-XX
Record Last Updated: 2008-06-27

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.43275º / -119.30821º
UTM: Zone-11 N4034424 E293092
Area: 10.0 acres
Elevation: 320 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 17S
Range: 25E
Section: 19 **Qtr:** SW
Meridian: M

Location: NORTH OF VISALIA, ABOUT 1 MILE SOUTHEAST OF SEQUOIA AIRFIELD.

Location Detail: APPROX. 0.7 MILE WEST OF DINUBA BLVD AND 0.2-0.35 MI NORTH OF 12TH AVENUE NORTH. 0.2-0.4 MILE SSW OF WINDMILL.

Ecological: VERNAL POOLS SURROUNDED BY ANNUAL GRASSLAND. ASSOCIATED WITH EREMOCARPUS, POLYPOGON, SIDA, HORDEUM GENICULATUM, ERYNGIUM SPINOSEPALUM, DISTICHLIS SPICATA, LILAEA SCILLOIDES, HEMIZONIA PUNGENS, AND ANTHOXANTHUM ODORATUM.

Threat: CATTLE GRAZING IN WINTER PASTURE AND POTENTIAL CONVERSION TO IRRIGATED AGRICULTURE.

General: MORE THAN 10,000 PLANTS OBSERVED IN 1986, SEVERAL THOUSAND IN 1992 UNDER THE CURRENT GRAZING REGIME THIS POPULATION IS LARGE AND PROBABLY STABLE.

Owner/Manager: PVT

Occurrence No. 31 **Map Index:** 37047 **EO Index:** 32044

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1997-06-19
Site: 1997-06-19
Record Last Updated: 2008-06-26

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.43626º / -119.31297º
UTM: Zone-11 N4034824 E292674
Area: 8.0 acres
Elevation: 315 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 17S
Range: 25E
Section: 19 **Qtr:** SW
Meridian: M

Location: SSE OF SEQUOIA FIELD (AIRPORT), ABOUT 1 MI EAST OF DINUBA BLVD (HWY 63) AND 0.5 MI NORTH OF 12TH AVE, NORTH OF VISALIA.

Location Detail: TWO COLONIES; ONE WITHIN THE NW 1/4 SW 1/4 SECTION 19, THE SECOND IS WITHIN THE SW 1/4 NW 1/4 SECTION 19.

Ecological: SHALLOW POOL WITH AN AREA OF APPROXIMATELY 350 SQ. METERS.

Threat: MODERATE GRAZING AT THIS SITE. COULD BE THREATENED BY CONVERSION TO IRRIGATED AGRICULTURE.

General: ABOUT 50 PLANTS IN 1992. AT LEAST PART OF SITE WITHIN DFG STONE CORRAL ECOLOGICAL RESERVE. UNKNOWN NUMBER OF PLANTS SEEN IN 1997. MORE INFORMATION NEEDED.

Owner/Manager: PVT, DFG-STONE CORRAL ER

Chamaesyce hooveri

Hoover's spurge

Element Code: PDEUP0D150

Status
Federal: Threatened
State: None

NDDB Element Ranks
Global: G2
State: S2.1

Other Lists
CNPS List: 1B.2

Habitat Associations
General: VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND.
Micro: VERNAL POOLS ON VOLCANIC MUDFLOW OR CLAY SUBSTRATE. 25-130M.

Occurrence No. 32 **Map Index:** 37051 **EO Index:** 32048

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-06-30
Site: 1992-06-30
Record Last Updated: 1997-10-06

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44720º / -119.26744º
UTM: Zone-11 N4035941 E296785
Radius: 80 meters
Elevation: 335 ft

Mapping PrecisionSPECIFIC
Symbol Type:POINT

Township: 17S
Range: 25E
Section: 16 **Qtr:** SE
Meridian: M

Location: 1.4 MI NNW OF TAURUSA SCHOOL, 0.5 MI W OF TAURUSA RD (ROAD 140), 0.7 MI S OF ELKHORN AVE (AVE 368).
Location Detail: NW 1/4 OF SE 1/4 OF SECTION 16.
Ecological: IN 3 POOLS WITH ERYNGIUM, XANTHIUM SPINOSUM, EREMOCARPUS, TRICHOSTEMMA, CRYPSIS, MARSILEA, & PSILOCARPHUS.
Threat: LAND CONVERSION AND EXCESS IRRIGATION RUNOFF THREATEN.
General: AT LEAST 800 PLANTS IN 1992.
Owner/Manager: PVT

Occurrence No. 33 **Map Index:** 37052 **EO Index:** 32049

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-06-14
Site: 1992-06-14
Record Last Updated: 2008-06-23

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.47550º / -119.24978º
UTM: Zone-11 N4039043 E298441
Radius: 80 meters
Elevation: 335 ft

Mapping PrecisionSPECIFIC
Symbol Type:POINT

Township: 17S
Range: 25E
Section: 03 **Qtr:** SE
Meridian: M

Location: 1 MILE SE OF YETTEM, 0.25 MI N OF AVE 376, JUST E OF ROAD 144. 0.7 MI S OF SAINT MARIES CHURCH.
Location Detail: JUST OPPOSITE SOUTH ENTRANCE OF JACOBI DAIRY.
Ecological: ASSOCIATED WITH CRYPSIS AND AMARANTH.
Threat: LAND NEARBY AND POSSIBLY THIS SITE (?) WAS DISKED AND DRY FARMED IN 1980 OR 1981. LAND USED FOR CATTLE GRAZING.
General: APPROX. 350 PLANTS IN 1992.
Owner/Manager: DFG-STONE CORRAL ER, PVT

Delphinium recurvatum

recurved larkspur

Element Code: PDRAN0B1J0

Status
Federal: None
State: None

NDDB Element Ranks
Global: G2
State: S2.2

Other Lists
CNPS List: 1B.2

Habitat Associations
General: CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND, CISMONTANE WOODLAND.
Micro: ON ALKALINE SOILS; OFTEN IN VALLEY SALTBUSH OR VALLEY CHENOPOD SCRUB. 3-685M.

Occurrence No. 82 **Map Index:** 56674 **EO Index:** 58418

Dates Last Seen
Element: 1998-03-25
Site: 1998-03-25
Record Last Updated: 2004-12-09

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Cairns Corner (3611922/310B)
County Summary: Tulare

Lat/Long: 36.14902º / -119.23658º
UTM: Zone-11 N4002795 E298786
Area: 215.1 acres
Elevation: 305 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 20S
Range: 25E
Section: 35 **Qtr:** NW
Meridian: M

Location: TULARE COUNTY LANDFILL PROPERTY, BOTH SIDES OF BLISS ROAD ABOUT 0.5 TO 1 MILE NORTH OF STRATHMORE ROAD.
Location Detail: MAPPED WITHIN THE NW 1/4 OF SEC 35 AND THE SW 1/4 OF THE NE 1/4 OF SEC 35.
Ecological: IN SWALES AND MARGINS OF SLICKSPOTS IN ANNUAL GRASSLAND, WITH SUAEDA MOSQUINII AND HEMIZONIA PUNGENS.
Threat: SITE IS APPROVED FOR LANDFILL EXPANSION
General: 500+ PLANTS SEEN IN 1998.
Owner/Manager: TUL COUNTY

Occurrence No. 83 **Map Index:** 58384 **EO Index:** 58420

Dates Last Seen
Element: 1998-04-08
Site: 1998-04-08
Record Last Updated: 2004-12-08

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44495º / -119.30123º
UTM: Zone-11 N4035763 E293750
Radius: 1/10 mile
Elevation: 270 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 17S
Range: 25E
Section: 18 **Qtr:** SE
Meridian: M

Location: ABOUT 13 KM NORTH OF VISALIA, NEAR SEQUOIA FIELD (AIRFIELD), STONE CORRAL FISH AND GAME ECOLOGICAL RESERVE.
Location Detail: MAPPED WITHIN THE SW 1/4 OF THE SE 1/4 OF SECTION 18.
Ecological: GROWING IN ALKALINE SOIL IN AN ANNUAL GRASSLAND. ASSOCIATES: AMSINCKIA MENZIESII VAR. INTERMEDIA, AVENA BARBATA, BROMUS SPP., DELPHINIUM HANSENII SSP. EWANIANUM, DICHELOSTEMMA CAPITATUM, HEMIZONIA PUNGENS, HORDEUM DEPRESSUM, ET AL.
General: COLLECTED HERE BY YORK IN 1998. MATERIAL FOR GENETIC STUDIES COLLECTED FOR J. KOONTZ.
Owner/Manager: DFG-STONE CORRAL ER

Desmocerus californicus dimorphus

valley elderberry longhorn beetle

Element Code: IICOL48011

Status
Federal: Threatened
State: None

NDDB Element Ranks
Global: G3T2
State: S2

Other Lists
CDFG Status:

Habitat Associations
General: OCCURS ONLY IN THE CENTRAL VALLEY OF CALIFORNIA, IN ASSOCIATION WITH BLUE ELDERBERRY (SAMBUCUS MEXICANA).
Micro: PREFERS TO LAY EGGS IN ELDERBERRRIES 2-8 INCHES IN DIAMETER; SOME PREFERENCE SHOWN FOR "STRESSED" ELDERBERRIES.

Occurrence No. 66 **Map Index:** 33011 **EO Index:** 18290

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1991-04-30
Site: 1991-04-30
Record Last Updated: 1998-08-11

Quad Summary: Exeter (3611932/333C)
County Summary: Tulare

Lat/Long: 36.36870º / -119.13452º
UTM: Zone-11 N4026959 E308506
Radius: 80 meters
Elevation: 405 ft

Mapping PrecisionSPECIFIC
Symbol Type:POINT

Township: 18S
Range: 26E
Section: 14 **Qtr:** NW
Meridian: M

Location: LANE SLOUGH (NORTH BANK), TRIBUTARY TO KAWEAH RIVER, JUST EAST OF EXETER BLVD (HWY 65), ABOUT 5 MILES NORTH OF EXETER.
Location Detail: REPORT ON: TAXONOMY; DISTRIBUTION; LIFE HISTORY; HABITAT; FIELD TECHNIQUES & OBSERVATIONS; BEETLE RECOVERY.
Ecological: 3 LARGE CLUMPS OF SAMBUCUS MEXICANA; SURROUNDING HABITAT CONSISTS OF OPEN, GRAZED GRASSLAND, WITH SOME AGRICULTURE.
Threat: THREATENED BY NORMAL ROAD MAINTENANCE ACTIVITIES.
General: THE 3 LARGE CLUMPS OF SAMBUCUS MEXICANA HAD MANY EXIT HOLES, AND A DEAD ADULT MALE WAS FOUND IN ONE HOLE.
Owner/Manager: UNKNOWN

Dipodomys nitratoides nitratoides

Tipton kangaroo rat

Element Code: AMAFD03152

Status
Federal: Endangered
State: Endangered

NDDB Element Ranks
Global: G3T1
State: S1

Other Lists
CDFG Status:

Habitat Associations
General: SALTBRUSH SCRUB AND SINK SCRUB COMMUNITIES IN THE TULARE LAKE BASIN OF THE SOUTHERN SAN JOAQUIN VALLEY.
Micro: NEEDS SOFT FRIABLE SOILS WHICH ESCAPE SEASONAL FLOODING. DIGS BURROWS IN ELEVATED SOIL MOUNDS AT BASES OF SHRUBS.

Occurrence No. 101 **Map Index:** 65358 **EO Index:** 65437

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1943-10-25
Site: 1943-10-25
Record Last Updated: 2006-07-24

Quad Summary: Woodville (3611912/310C), Cairns Corner (3611922/310B)
County Summary: Tulare

Lat/Long: 36.12399º / -119.22034º
UTM: Zone-11 N3999984 E300183
Radius: 1 mile
Elevation: 320 ft

Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT

Township: 21S
Range: 25E
Section: 01 **Qtr:** XX
Meridian: M

Location: 7 MI NE OF TIPTON.

Location Detail: HISTORICAL MUSEUM RECORD; EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS ABOUT 2.43 AIR MI NNW OF WOODVILLE, JUST SOUTHWEST OF INTERSECTION OF BLISS LANE AND STRATHMORE RD.

General: 1 FEMALE SPECIMEN COLLECTED ON 25 OCT 1943 AT "7 MI NE OF TIPTON" BY SETH B. BENSON AND DONALD T. TAPPE. MVZ #101160.

Owner/Manager: UNKNOWN

Eryngium spinosepalum

spiny-sepaled button-celery

Element Code: PDAPI0Z0Y0

Status
Federal: None
State: None

NDDB Element Ranks
Global: G2
State: S2.2

Other Lists
CNPS List: 1B.2

Habitat Associations
General: VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND.
Micro: SOME SITES ON CLAY SOIL OF GRANITIC ORIGIN; VERNAL POOLS, WITHIN GRASSLAND. 100-420M.

Occurrence No. 15 **Map Index:** 25085 **EO Index:** 6121

Occ Rank: None
Origin: Natural/Native occurrence
Presence: Possibly Extirpated
Trend: Unknown

Dates Last Seen
Element: 1905-07-23
Site: 1992-06-18
Record Last Updated: 1994-02-25

Quad Summary: Rocky Hill (3611931/333D), Exeter (3611932/333C)
County Summary: Tulare

Lat/Long: 36.29677° / -119.14109°
UTM: Zone-11 N4018992 E307740
Radius: 1 mile
Elevation: 390 ft

Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT

Township: 19S
Range: 26E
Section: XX **Qtr:** XX
Meridian: M

Location: EXETER.

Location Detail: MAPPED IN VICINITY OF EXETER. COLLECTION MAY HAVE BEEN MADE SEVERAL MILES TO THE EAST WHERE ERYNGIUM HAS BEEN OBSERVED RECENTLY.

Threat: CONVERSION TO URBAN AND AGRICULTURAL USES HAS PROBABLY ELIMINATED HABITAT IN THIS AREA FOR ERYNGIUM.

General: TYPE COLLECTION MADE HERE IN 1905 BY K. BRANDEGEE (SN JEPS).

Owner/Manager: UNKNOWN

Occurrence No. 17 **Map Index:** 25083 **EO Index:** 6179

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1981-XX-XX
Site: 1981-XX-XX
Record Last Updated: 1994-02-25

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.48596° / -119.23675°
UTM: Zone-11 N4040176 E299636
Radius: 1/5 mile
Elevation: 350 ft

Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT

Township: 16S
Range: 25E
Section: 34 **Qtr:** SE
Meridian: M

Location: 0.5 KM (0.3 MI) WEST OF SEVILLE.

Location Detail: ALONG BOTH SIDES OF DODGE AVE (HWY 201) AND EAST OF THE POWER LINES. THE ERYNGIUM IS THICK ON THE UNGRAZED SOUTH SIDE OF THE ROAD, NEARLY ABSENT ON THE NORTH SIDE.

Ecological: VERNAL POOLS WITH CHAMAESYCE HOOVERI AND POSSIBLY ORCUTTIA INAEQUALIS.

Threat: NORTH SIDE OF ROAD GRAZED; BOTH SIDES OF ROAD LIKELY TO BE DEVELOPED SOON.

General: SPECIFIC INFORMATION FOR THIS POPULATION NOT REPORTED. NEEDS CURRENT FIELDWORK INCLUDING UPDATE ON WHETHER OR NOT THE SITE HAS BEEN DEVELOPED SINCE LAST REPORTED OBSERVATION IN 1981.

Owner/Manager: PVT

Occurrence No. 18 **Map Index:** 25084 **EO Index:** 6178

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-06-18
Site: 1992-06-18
Record Last Updated: 1994-01-24

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.47332° / -119.13522°
UTM: Zone-11 N4038568 E308700
Area: 36.8 acres
Elevation: 510 ft

Mapping PrecisionSPECIFIC
Symbol Type:POLYGON

Township: 17S
Range: 26E
Section: 02 **Qtr:** SW
Meridian: M

Location: 1 KM (0.5 MI) EAST OF MUD SPRING GAP, NORTH SIDE OF HIGHWAY 201.

Location Detail: NORTH OF HWY 201 ALONG EITHER SIDE OF ROAD 197. WITHIN THE SW 1/4 OF THE SW 1/4 OF SECTION 2 AND THE SE 1/4 OF THE SE 1/4 OF SECTION 3.

Ecological: VERNALLY MOIST SWALE AND DRIED BED OF VERNAL POOL DOMINATED BY LOLIUM PERENNE SSP. MULTIFLORUM AND HORDEUM GENICULATUM.

Threat: CONVERSION TO INTENSIVE AGRICULTURE OR RURAL RESIDENTIAL THREATEN. POPULATION EAST OF ROAD 197 RECENTLY DEVELOPED.

General: LOCALLY ABUNDANT IN 1992. THIS IS THE SAME SITE AS SHEIKH AND CONSTANCE #529 UC, 23-09-1971, "1/2 MILE WEST OF ELDERWOOD".

Eryngium spinosepalum

spiny-sepaled button-celery

Element Code: PDAPI0Z0Y0

Status
Federal: None
State: None

NDDB Element Ranks
Global: G2
State: S2.2

Other Lists
CNPS List: 1B.2

Habitat Associations
General: VERNAL POOLS, VALLEY AND FOOTHILL GRASSLAND.
Micro: SOME SITES ON CLAY SOIL OF GRANITIC ORIGIN; VERNAL POOLS, WITHIN GRASSLAND. 100-420M.

Owner/Manager: PVT

Occurrence No. 23 **Map Index:** 40384 **EO Index:** 35391

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1995-07-20
Site: 1995-07-20
Record Last Updated: 1998-12-14

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.48670º / -119.23609º
UTM: Zone-11 N4040257 E299696
Area: 10.9 acres **Mapping Precision:** SPECIFIC
Elevation: 350 ft **Symbol Type:** POLYGON

Township: 16S
Range: 25E
Section: 34 **Qtr:** SE
Meridian: M

Location: STONE CORRAL ECOLOGICAL RESERVE, ABOUT 0.7 MILE WEST OF SEVILLE ALONG HIGHWAY 201, NORTH OF VISALIA.
Location Detail: MAPPED IN TWO VERNAL POOLS ALONG THE NORTH SIDE OF HIGHWAY 201 WITHIN THE S 1/2 SE 1/4 SECTION 34. POWERLINES CROSS WESTERNMOST POOL.
Ecological: ALKALINE VERNAL POOLS WITH CRYPSIS SCHOENOIDES AND THE RARE CHAMAESYCE HOOVERI.
Threat: ALTERATION OF HYDROLOGIC REGIME, INCLUDING RUNOFF FROM AGRICULTURAL FIELDS, MAY EFFECT THE POOLS.
General: 1000'S OF PLANTS OBSERVED IN 1995.
Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 26 **Map Index:** 50749 **EO Index:** 50749

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2000-09-22
Site: 2000-09-22
Record Last Updated: 2003-03-26

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.47470º / -119.24949º
UTM: Zone-11 N4038954 E298465
Radius: 80 meters **Mapping Precision:** SPECIFIC
Elevation: 335 ft **Symbol Type:** POINT

Township: 17S
Range: 25E
Section: 03 **Qtr:** SE
Meridian: M

Location: 0.8 MILE SOUTH OF YETTEM, ON EAST SIDE OF ROAD 144, 0.5 MILE NORTH OF COTTONWOOD CREEK, NNW OF IVANHOE.
Location Detail: MAPPED WITHIN THE NW 1/4 OF THE SE 1/4 OF SECTION 3.
Ecological: ON ANNUAL GRASSLAND ISLANDS IN MIDDLE OF LARGE ALKALI VERNAL POOL.
General: 30+ PLANTS OBSERVED IN 2000 BY PRESTON. THE RARE ATRIPLEX ERECTICAULIS OCCURS NEARBY.
Owner/Manager: DFG

Eumops perotis californicus

western mastiff bat — **Element Code:** AMACD02011

Status
Federal: None
State: None

NDDB Element Ranks
Global: G5T4
State: S3?

Other Lists
CDFG Status: SC

Habitat Associations
General: MANY OPEN, SEMI-ARID TO ARID HABITATS, INCLUDING CONIFER & DECIDUOUS WOODLANDS, COASTAL SCRUB, GRASSLANDS, CHAPARRAL ETC
Micro: ROOSTS IN CREVICES IN CLIFF FACES, HIGH BUILDINGS, TREES & TUNNELS.

Occurrence No. 44 **Map Index:** 61242 **EO Index:** 61278

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2002-09-16
Site: 2002-09-16
Record Last Updated: 2005-05-06

Quad Summary: Visalia (3611933/334D)
County Summary: Tulare

Lat/Long: 36.29393º / -119.32266º
UTM: Zone-11 N4019054 E291425
Radius: 80 meters
Elevation: 300 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 19S
Range: 24E
Section: 12 **Qtr:** N
Meridian: M

Location: ALONG NORTHERN BEND OF PACKWOOD CREEK ABOUT 0.5 MILES WEST OF MOONEY BLVD.

Ecological: OAK RIPARIAN ALONG CREEK, ADJACENT TO CULTIVATED FARMLAND TO THE SOUTH & RESIDENTIAL, COMMERCIAL & INDUSTRIAL DEVELOPMENTS TO THE NORTH.

Threat: CONVERSION OF FARMLAND TO DEVELOPMENT.

General: ONE HEARD AND DETECTED (USING ANABAT) FLYING OVERHEAD DURING ACOUSTIC AND NIGHT-VISION SURVEYS.

Owner/Manager: PVT

Occurrence No. 91 **Map Index:** 66331 **EO Index:** 66424

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1899-03-01
Site: 1899-03-01
Record Last Updated: 2006-09-26

Quad Summary: Traver (3611944/334B)
County Summary: Tulare

Lat/Long: 36.45403º / -119.48506º
UTM: Zone-11 N4037179 E277297
Radius: 3/5 mile
Elevation:
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 17S
Range: 23E
Section: 16 **Qtr:** XX
Meridian: M

Location: TRAVER.

Location Detail: EXACT LOCATION UNKNOWN. MAPPED IN THE GENERAL VICINITY OF TRAVER.

General: 1 FEMALE SPECIMEN COLLECTED BY C.H.B. WRIGHT ON 1 MAR 1899, CAS #17445.

Owner/Manager: UNKNOWN

Gambelia sila

blunt-nosed leopard lizard

Element Code: ARACF07010

Status
Federal: Endangered
State: Endangered

NDDB Element Ranks
Global: G1
State: S1

Other Lists
CDFG Status:

Habitat Associations
General: RESIDENT OF SPARSELY VEGETATED ALKALI AND DESERT SCRUB HABITATS, IN AREAS OF LOW TOPOGRAPHIC RELIEF.
Micro: SEEKS COVER IN MAMMAL BURROWS, UNDER SHRUBS OR STRUCTURES SUCH AS FENCE POSTS; THEY DO NOT EXCAVATE THEIR OWN BURROWS.

Occurrence No. 189 **Map Index:** 15263 **EO Index:** 27743
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1974-XX-XX
Site: 1974-XX-XX
Record Last Updated: 1989-08-10

Quad Summary: Corcoran (3611915/312D), Waukena (3611925/312A), Taylor Weir (3611914/311C), Paige (3611924/311B)
County Summary: Tulare

Lat/Long: 36.13217° / -119.49234°
UTM: Zone-11 N4001485 E275725
Radius: 1 mile
Elevation: 225 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 21S
Range: 23E
Section: 04 **Qtr:** XX
Meridian: M

Location: 0.25 MI S OF WAUKENA RD.

Owner/Manager: UNKNOWN

Great Valley Valley Oak Riparian Forest

Element Code: CTT61430CA

Status
Federal: None
State: None

NDDB Element Ranks
Global: G1
State: S1.1

Other Lists

Habitat Associations
General:
Micro:

Occurrence No. 22 **Map Index:** 15697 **EO Index:** 15609

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1985-12-30
Site: 1985-12-30
Record Last Updated: 1998-07-23

Quad Summary: Exeter (3611932/333C)
County Summary: Tulare

Lat/Long: 36.33307° / -119.17561°
UTM: Zone-11 N4023088 E304730
Area: 168.4 acres
Elevation: 320 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 18S
Range: 26E
Section: 29 **Qtr:** S
Meridian: M

Location: ABOUT 2 MI NW OF EXETER, N OF HWY 198. (FORMERLY KAWEAH OAKS PRESERVE).

Ecological: VALLEY OAKS IN BOTTOMLANDS NEAR STREAM CHANNELS W/SALIX GOODDINGII, SALIX SP, FRAXINUS, PLATANUS, POPULUS, ALNUS, CEPHALANTHUS, VITIS, RUBUS URSINUS, RUBUS SP. EXCLOSURES PROTECT OAKS FROM GRAZING, GOOD REPROD W/HUNDREDS OF SEEDLINGS.

General: THIS WAS OCC #022 OF CTT63410CA. FORMERLY TNC KAWEAH OAKS PRESERVE; TRANSFERRED TO LAND TRUST ON 12/97.

Owner/Manager: FOUR CREEKS LAND TRUST

Imperata brevifolia

California satintail

Element Code: PMPOA3D020

Status
Federal: None
State: None

NDDB Element Ranks
Global: G2
State: S2.1

Other Lists
CNPS List: 2.1

Habitat Associations
General: COASTAL SCRUB, CHAPARRAL, RIPARIAN SCRUB, MOJAVEAN SCRUB, MEADOWS AND SEEPS (ALKALI).
Micro: MESIC SITES, ALKALI SEEPS, RIPARIAN AREAS. 0-500M.

Occurrence No. 19 **Map Index:** 24419 **EO Index:** 69849
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1895-08-19
Site: 1895-08-19
Record Last Updated: 2007-04-25

Quad Summary: Visalia (3611933/334D)
County Summary: Tulare

Lat/Long: 36.33377° / -119.29640°
UTM: Zone-11 N4023417 E293889
Radius: 1 mile
Elevation: 325 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 18S
Range: 25E
Section: 29 **Qtr:** XX
Meridian: M

Location: VISALIA.
Location Detail: EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AS A BEST GUESS IN VISALIA.
General: ONLY SOURCES OF INFORMATION FOR THIS OCCURRENCE IS AN ANONYMOUS 1881 COLLECTION (POSSIBLY BY CONGDON?), AN 1881 CONGDON COLLECTION, AND AN 1895 DUDLEY COLLECTION. NEEDS FIELDWORK.
Owner/Manager: CITY OF VISALIA, PVT

Lepidurus packardi

vernal pool tadpole shrimp — **Element Code:** ICBRA10010

Status	NDDB Element Ranks	Other Lists
Federal: Endangered	**Global:** G3	**CDFG Status:**
State: None	**State:** S2S3	

Habitat Associations

General: INHABITS VERNAL POOLS AND SWALES IN THE SACRAMENTO VALLEY CONTAINING CLEAR TO HIGHLY TURBID WATER.

Micro: POOLS COMMONLY FOUND IN GRASS BOTTOMED SWALES OF UNPLOWED GRASSLANDS. SOME POOLS ARE MUD-BOTTOMED & HIGHLY TURBID.

Occurrence No. 57 **Map Index:** 15626 **EO Index:** 409

Dates Last Seen
Element: 1995-03-XX
Site: 1995-03-XX
Record Last Updated: 1997-12-22

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.48738º / -119.23674º
UTM: Zone-11 N4040334 E299640
Area: 25.6 acres
Elevation: 345 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 16S
Range: 25E
Section: 34 **Qtr:** SE
Meridian: M

Location: 0.6 MILES WEST OF ROAD 153 JUST NORTH OF AVENUE 384 (HWY 201).

Location Detail: YETTUM VERNAL POOLS ON STONE CORRAL ECOLOGICAL RESERVE.

Ecological: BIOLOGICAL RESERVE; DEGRADED VERNAL POOLS IN NON-NATIVE GRASSLAND, LEWIS CLAY LOAM SOIL. HABITAT INFO TAKEN FROM PDEUP0D150.013.

Threat: POSSIBLY EXCESS FLOODING BY IRRIGATION RUNOF; CATTLE GRAZING UNTIL 1992.

General: 3/XX/1995-UNKNOWN NUMBER OF LARVAL SHRIMP SAMPLED AND OBSERVED BY J. KING, AND REPORTED BY B. TRAYLER; AMBYSTOMA CALIFORNIENSE OBSERVED ALSO.

Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 129 **Map Index:** 40395 **EO Index:** 35402

Dates Last Seen
Element: 1998-04-10
Site: 1998-04-10
Record Last Updated: 1998-12-16

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Traver (3611944/334B)
County Summary: Tulare

Lat/Long: 36.40620º / -119.44165º
UTM: Zone-11 N4031773 E281054
Radius: 1/10 mile
Elevation: 280 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 17S
Range: 23E
Section: 99 **Qtr:** SE
Meridian: X

Location: SOUTH OF CROSS CREEK, 0.75 MILE NE OF HWY 99, 4.5 MILES SE OF TRAVER.

Ecological: HABITAT CONSISTS OF NON-NATIVE ANNUAL GRASSLAND WITH VERNAL POOLS. BURROWING OWL OBSERVED IN THE VICINITY. AGRICULTURE TO SOUTH AND EAST.

Threat: THREATENED BY AGRICULTURAL CONVERSION.

General: 100'S OF TADPOLE SHRIMP OBSERVED ON 10 APRIL 1998.

Owner/Manager: PVT

Occurrence No. 140 **Map Index:** 41572 **EO Index:** 41572

Dates Last Seen
Element: 1999-03-04
Site: 1999-03-04
Record Last Updated: 1999-09-08

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Traver (3611944/334B)
County Summary: Kings

Lat/Long: 36.39668º / -119.48353º
UTM: Zone-11 N4030812 E277271
Radius: 80 meters
Elevation: 265 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 18S
Range: 23E
Section: 04 **Qtr:** NE
Meridian: X

Location: 0.2 MILE NORTH OF CROSS CREEK AND 1.6 WSW OF WHERE IT CROSSES HIGHWAY 99, 4 MILES SOUTH OF TRAVER.

Location Detail: VERNAL POOL(S) IN AREA "A". CURRENT LAND USE IS CATTLE GRAZING

Ecological: VERNAL POOLS IN NON-NATIVE GRASSLAND

Threat: CONVERSION TO FARMLAND

General: 100'S OBSERVED IN COMBINATION OF THIS AND ONE IN AREA "B". COLLECTION DEPOSITED AT CAS.

Owner/Manager: PVT

Lepidurus packardi

vernal pool tadpole shrimp — **Element Code:** ICBRA10010

Status
Federal: Endangered
State: None

NDDB Element Ranks
Global: G3
State: S2S3

Other Lists
CDFG Status:

Habitat Associations
General: INHABITS VERNAL POOLS AND SWALES IN THE SACRAMENTO VALLEY CONTAINING CLEAR TO HIGHLY TURBID WATER.
Micro: POOLS COMMONLY FOUND IN GRASS BOTTOMED SWALES OF UNPLOWED GRASSLANDS. SOME POOLS ARE MUD-BOTTOMED & HIGHLY TURBID.

Occurrence No. 163 **Map Index:** 45197 **EO Index:** 45197
Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2001-03-24
Site: 2001-03-24
Record Last Updated: 2001-04-19

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44950º / -119.26992º
UTM: Zone-11 N4036201 E296568
Radius: 80 meters **Mapping Precision**SPECIFIC
Elevation: 330 ft **Symbol Type:**POINT

Township: 17S
Range: 25E
Section: 16 **Qtr:** SW
Meridian: M

Location: 0.6 MILE NW OF THE INTERSECTION OF AVENUE 360 AND ROAD 140, 9 MILES NORTH OF VISALIA

Ecological: HABITAT CONSISTS OF VERNAL POOLS SURROUNDED BY GRAZED NON-NATIVE GRASSLAND; SURROUNDED BY AGRICULTURAL FIELDS.

Threat: THREATENED BY CONVERSION TO ORCHARDS.

General: 1000'S OF ADULTS OBSERVED ON 24 MAR 2001; 10 COLLECTED AND DEPOSITED AT CAS.

Owner/Manager: PVT

Occurrence No. 167 **Map Index:** 47873 **EO Index:** 47873
Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2002-02-14
Site: 2002-02-14
Record Last Updated: 2002-05-07

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44680º / -119.26682º
UTM: Zone-11 N4035895 E296839
Radius: 80 meters **Mapping Precision**SPECIFIC
Elevation: 300 ft **Symbol Type:**POINT

Township: 17S
Range: 25E
Section: 16 **Qtr:** SW
Meridian: M

Location: 0.9 MILE SE OF THE INTERSECTION OF ELKHORN AVENUE AND BANKS DITCH, 4.5 MILES NW OF IVANHOE

Ecological: HABITAT CONSISTS OF A TURBID, CLAY-BOTTOM VERNAL POOL (OVAL, ~600 SQUARE METERS IN SIZE AT TIME OF SURVEY) IN ROLLING, NON-NATIVE GRASSLAND, WITH HUMMOCKS AND SWALES. SITE WAS HISTORICALLY GRAZED. WATER TEMP = 61-DEGREES F

Threat: POSSIBLE THREAT OF AGRICULTURAL CONVERSION (SITE IS SURROUNDED BY ORANGE ORCHARDS AND OTHER AG).

General: 2 ADULTS OBSERVED ON 14 FEB 2002.

Owner/Manager: DFG-STONE CORRAL ER

Lithobates pipiens

northern leopard frog — **Element Code:** AAABH01170

Status
Federal: None
State: None

NDDB Element Ranks
Global: G5
State: S2

Other Lists
CDFG Status: SC

Habitat Associations
General: NATIVE RANGE IS EAST OF SIERRA NEVADA-CASCADE CREST. NEAR PERMANENT OR SEMI-PERMANENT WATER IN A VARIETY OF HABITATS.
Micro: HIGHLY AQUATIC SPECIES. SHORELINE COVER, SUBMERGED AND EMERGENT AQUATIC VEGETATION ARE IMPORTANT HABITAT CHARACTERISTICS

Occurrence No. 15 **Map Index:** 73723 **EO Index:** 74694

Occ Rank: Unknown
Origin: Transplant Outside of Native Hab./Range
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1961-10-04
Site: 1961-10-04
Record Last Updated: 2009-02-27

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.47226° / -119.29261°
UTM: Zone-11 N4038775 E294594
Radius: 1 mile
Elevation: 330 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 17S
Range: 25E
Section: 05 **Qtr:** XX
Meridian: M

Location: HWY 63, 1 MI SOUTH OF HWY 201, 2 MI SW OF YETTEM.
Location Detail: LOCATION GIVEN AS "2 MI SW OF YETTEM". MAPPED ACCORDING TO COORDINATES PROVIDED.
General: 5 INDIVIDUALS (MVZ #72630-34) COLLECTED ON 4 OCT 1961 BY H. BASEY. TRANSPLANT OUTSIDE OF NATIVE RANGE.
Owner/Manager: UNKNOWN

Occurrence No. 16 **Map Index:** 73724 **EO Index:** 74695

Occ Rank: Unknown
Origin: Transplant Outside of Native Hab./Range
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1961-10-04
Site: 1961-10-04
Record Last Updated: 2009-02-27

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.48871° / -119.25980°
UTM: Zone-11 N4040530 E297578
Radius: 2/5 mile
Elevation: 345 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 16S
Range: 25E
Section: 33 **Qtr:** XX
Meridian: M

Location: 0.2 MI NORTH OF YETTEM.
Location Detail: LOCATION GIVEN AS "0.2 MI N OF YETTEM". MAPPED ACCORDING TO COORDINATES PROVIDED BY MVZ.
General: 6 INDIVIDUALS (MVZ #72635-40) COLLECTED ON 4 OCT 1961 BY H. BASEY. TRANSPLANT OUTSIDE OF NATIVE RANGE.
Owner/Manager: UNKNOWN

Lytta hoppingi

Hopping's blister beetle

Element Code: IICOL4C010

Status
Federal: None
State: None

NDDB Element Ranks
Global: G1G2
State: S1S2

Other Lists
CDFG Status:

Habitat Associations
General: INHABITS THE FOOTHILLS AT THE SOUTHERN END OF THE CENTRAL VALLEY.
Micro:

Occurrence No. 2 **Map Index:** 24419 **EO Index:** 8142

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 19XX-06-17
Site: 19XX-06-17

Record Last Updated: 2006-03-29

Quad Summary: Visalia (3611933/334D)
County Summary: Tulare

Lat/Long: 36.33377° / -119.29640°
UTM: Zone-11 N4023417 E293889
Radius: 1 mile
Elevation: 325 ft

Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT

Township: 18S
Range: 25E
Section: 29 **Qtr:** XX
Meridian: M

Location: VISALIA.

Threat: SITE MAY BE THREATENED BY AGRICULTURE AND/OR DEVELOPMENT.

General: UNKNOWN NUMBER OF INDIVIDUALS FOUND IN MARCH AND ON JUNE 17 OF UNKNOWN YEAR (OBSERVER UNKNOWN). RECORED REPORTED BY SELANDER. A HISTORICAL SPECIMEN COLLECTED 23 MAR 1935 IS DEPOSITED IN THE UC DAVIS BOHART MUSEUM OF ENTOMOLOGY.

Owner/Manager: CITY OF VISALIA, PVT

Northern Claypan Vernal Pool

Element Code: CTT44120CA

Status
Federal: None
State: None

NDDB Element Ranks
Global: G1
State: S1.1

Other Lists

Habitat Associations
General:
Micro:

Occurrence No. 10 **Map Index:** 15328 **EO Index:** 26434

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1983-XX-XX
Site: 1983-XX-XX
Record Last Updated: 1998-07-15

Quad Summary: Traver (3611944/334B)
County Summary: Tulare

Lat/Long: 36.40439º / -119.45762º
UTM: Zone-11 N4031608 E279616
Radius: 1 mile
Elevation: 270 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 17S
Range: 23E
Section: 34 **Qtr:** SE
Meridian: M

Location: CROSS CRK VERNAL POOLS. NR HWY 99 & ALONG CROSS CR 4 MI N OF GOSHEN. BOTH SIDES HWY.

Location Detail: CATTLE GRAZING SITE. IRRIGATED BARLEY SURROUNDS.

Ecological: ANASTMOSING POOLS ON CR FLOOD PLAIN. PROFUSE DOWNINGIA BELLA, LASTHENIA FREMONTII. GRASSLAND OF HORDEUM DEPRESSUM & DISTICHLIS. ELYMUS ALONG EPHEMERAL WATER WAYS (1980).

General: UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Owner/Manager: UNKNOWN

Northern Hardpan Vernal Pool

Element Code: CTT44110CA

Status
Federal: None
State: None

NDDB Element Ranks
Global: G3
State: S3.1

Other Lists

Habitat Associations
General:
Micro:

Occurrence No. 72 **Map Index:** 15629 **EO Index:** 26877

Dates Last Seen
Element: 1986-04-XX
Site: 1986-04-XX
Record Last Updated: 1998-07-15

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Stokes Mtn. (3611952/355C), Ivanhoe (3611942/333B), Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.48577° / -119.23651°
UTM: Zone-11 N4040155 E299656
Radius: 1 mile
Elevation: 345 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 16S
Range: 25E
Section: 34 **Qtr:** SE
Meridian: M

Location: SEVILLE VERNAL POOLS. JCT RD 384 & 152. BOTH SIDES OF RD 384.

Ecological: POOLS W/ MODERATE SPP DIVERSITY. 2 RARE PLANT SPP. ALSO HERE. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threat: AREA NEVER PLOWED, DEGRADED BY CATTLE GRAZING N OF ROAD. ENCROACHING AG ALSO A THREAT.

General: D. HAMON CITES THIS AS LARGEST ACREAGE NON-ALKALINE POOLS IN AREA. RICH IN ARCHEOLOGICAL FEATURES.

Owner/Manager: PVT

Occurrence No. 73 **Map Index:** 15600 **EO Index:** 26880

Dates Last Seen
Element: 1980-04-18
Site: 1980-04-18
Record Last Updated: 1998-07-15

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.45327° / -119.26372°
UTM: Zone-11 N4036606 E297134
Radius: 1/5 mile
Elevation: 330 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 17S
Range: 25E
Section: 16 **Qtr:** XX
Meridian: M

Location: N FROM VISALIA ON HWY 63, E ON RD 368 (ELKHORN AVE) 1.7 MI AT JCT W/ RD 140.

Ecological: UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Owner/Manager: PVT

Occurrence No. 74 **Map Index:** 15533 **EO Index:** 26878

Dates Last Seen
Element: 1980-04-18
Site: 1980-04-18
Record Last Updated: 1998-07-15

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.45355° / -119.31816°
UTM: Zone-11 N4036753 E292255
Radius: 1/5 mile
Elevation: 315 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 17S
Range: 24E
Section: 13 **Qtr:** NE
Meridian: M

Location: SEQUOIA FIELD, N OF VISALIA ON HWY 63; 1 MI W ON RD 368 (ELKHORN AVE). VIC AIRPORT.

Location Detail: A FEW VERNAL POOLS IN ANNUAL GRASSLAND. APPROX 40 ACRES.

Ecological: UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

General: LAND POSTED BY TULARE CO SHERIFFS DEPT.

Owner/Manager: UNKNOWN

Orcuttia inaequalis

San Joaquin Valley Orcutt grass

Element Code: PMPOA4G060

Status
Federal: Threatened
State: Endangered

NDDB Element Ranks
Global: G2
State: S2.1

Other Lists
CNPS List: 1B.1

Habitat Associations
General: VERNAL POOLS.
Micro: 30-755M.

Occurrence No. 19 **Map Index:** 15734 **EO Index:** 22389

Occ Rank: None
Origin: Natural/Native occurrence
Presence: Possibly Extirpated
Trend: Unknown

Dates Last Seen
Element: 1983-06-13
Site: 1986-05-23
Record Last Updated: 1995-07-13

Quad Summary: Ivanhoe (3611942/333B), Woodlake (3611941/333A)
County Summary: Tulare

Lat/Long: 36.47272º / -119.13567º
UTM: Zone-11 N4038502 E308659
Radius: 1 mile
Elevation: 515 ft

Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT

Township: 17S
Range: 26E
Section: 03 **Qtr:** SE
Meridian: M

Location: 5 MI NW OF WOODLAKE.

Threat: N SIDE OF ROAD IN DRY PASTURE (1986) & CONTAINS MANY SMALL VERNAL POOLS. MARGINAL HABITAT FOR O. INAEQUALIS; NONE SEEN.

General: STEBBINS REPORTS POP. WAS BARELY PERSISTING IN 1983. STONE & CLIFTON SURVEYED AREA IN 1986: MUCH OF AREA IS NOW IN AG. ONE LARGE DEPRESSION IN A BARLEY FIELD 0.8 MI W OF ELDERWOOD ON THE S SIDE OF THE HWY HAS BEEN PLOWED REPEATEDLY.

Owner/Manager: UNKNOWN

Occurrence No. 56 **Map Index:** 40390 **EO Index:** 35397

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1997-06-19
Site: 1997-06-19
Record Last Updated: 1998-12-15

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.43742º / -119.31285º
UTM: Zone-11 N4034952 E292688
Radius: 80 meters
Elevation: 315 ft

Mapping PrecisionSPECIFIC
Symbol Type:POINT

Township: 17S
Range: 25E
Section: 19 **Qtr:** NW
Meridian: M

Location: SSE OF SEQUOIA FIELD (AIRPORT), ABOUT 1 MI EAST OF DINUBA BLVD (HWY 63) AND 0.6 MI NORTH OF 12TH AVE, NORTH OF VISALIA.

Location Detail: STONE CORRAL ECOLOGICAL RESERVE. MAPPED WITHIN THE SW 1/4 NW 1/4 SECTION 19.

Ecological: VERNAL POOL WITH CHAMAESYCE HOOVERI, CRYPSIS, DISTICHLIS SPICATA, DOWNINGIA CUSPIDATA, HORDEUM DEPRESSUM, LILAEA SCILLOIDES, AND POLYPOGON MONSPELIENSIS. ADJACENT UPLAND DOMINATED BY ANNUAL GRASSES; POOL IS MOSTLY FREE OF EXOTIC PLANTS.

General: 250 PLANTS OBSERVED IN 1997. LONG-TERM VIABILITY QUESTIONED DUE TO SMALL SIZE OF PRESERVE.

Owner/Manager: DFG-STONE CORRAL ER

Pseudobahia peirsonii

San Joaquin adobe sunburst

Element Code: PDAST7P030

Status
Federal: Threatened
State: Endangered

NDDB Element Ranks
Global: G2
State: S2.1

Other Lists
CNPS List: 1B.1

Habitat Associations
General: VALLEY AND FOOTHILL GRASSLAND, CISMONTANE WOODLAND.
Micro: GRASSY VALLEY FLOORS AND ROLLING FOOTHILLS IN HEAVY CLAY SOIL. 85-800M.

Occurrence No. 11 **Map Index:** 22864 **EO Index:** 12603

Occ Rank: None
Origin: Natural/Native occurrence
Presence: Extirpated
Trend: Unknown

Dates Last Seen
Element: 1897-04-XX
Site: 1990-XX-XX
Record Last Updated: 1993-03-22

Quad Summary: Tulare (3611923/311A)
County Summary: Tulare

Lat/Long: 36.20509º / -119.32639º
UTM: Zone-11 N4009205 E290854
Radius: 1 mile
Elevation: 290 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT

Township: 20S
Range: 24E
Section: 11 **Qtr:** XX
Meridian: M

Location: TULARE.

Threat: RUDERAL AND AGRICULTURE LANDS DOMINATE THE LANDSCAPE IN VICINITY OF TULARE.

General: ONLY SOURCE OF LOCATION INFORMATION IS COLLECTION BY DAVY SN APRIL 1897 (UC). STEBBINS SUGGESTS THAT BASED UPON SOIL CONDITIONS AND HISTORIC DATE OF COLLECTION IT IS POSSIBLE THAT ACTUAL LOCATION MAY BE FURTHER EAST NEAR PORTERVILLE.

Owner/Manager: PVT

Spea hammondii

western spadefoot — **Element Code:** AAABF02020

Status
Federal: None
State: None

NDDB Element Ranks
Global: G3
State: S3

Other Lists
CDFG Status: SC

Habitat Associations
General: OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.
Micro: VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Occurrence No. 110 **Map Index:** 15626 **EO Index:** 410
Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1995-04-05
Site: 1995-04-05
Record Last Updated: 1997-12-22

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.48738° / -119.23674°
UTM: Zone-11 N4040334 E299640
Area: 25.6 acres
Elevation: 345 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 16S
Range: 25E
Section: 34 **Qtr:** SE
Meridian: M

Location: 0.6 MILES WEST OF ROAD 153 JUST NORTH OF AVENUE 384 (HWY 201).
Location Detail: YETTUM VERNAL POOLS ON STONE CORRAL ECOLOGICAL RESERVE.
Ecological: BIOLOGICAL RESERVE; DEGRADED VERNAL POOLS IN NON-NATIVE GRASSLAND; LEWIS CLAY LOAM SOIL. HABITAT INFO TAKEN FROM PDEUP0D150.013.
Threat: POSSIBLY EXCESS FLOODING BY IRRIGATION RUNOFF; CATTLE GRAZING UNTIL 1992.
General: 4/5/1995-FROG LARVAE OBSERVED BY B. TRAYLER AND D. POODRY; AMBYSTOMA CALIFORNIENSE ALSO PRESENT.
Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 181 **Map Index:** 43826 **EO Index:** 43826
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2000-03-17
Site: 2000-03-17
Record Last Updated: 2000-09-20

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.43721° / -119.31223°
UTM: Zone-11 N4034928 E292743
Radius: 80 meters
Elevation: 315 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 17S
Range: 25E
Section: 19 **Qtr:** NW
Meridian: M

Location: STONE CORRAL ECOLOGICAL RESERVE, 0.6 SOUTH OF SEQUOIA FIELD (AIRPORT), 1.8 MILES WNW OF PERAL.
Location Detail: SURROUNDING LAND USE IS AGRICULTURE
Ecological: VERNAL POOL COMPLEX, UNGRAZED
General: 2 TADPOLES OBSERVED, MARCH 2000.
Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 288 **Map Index:** 55262 **EO Index:** 55262
Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2004-04-19
Site: 2004-04-19
Record Last Updated: 2004-04-26

Quad Summary: Goshen (3611934/334C)
County Summary: Tulare

Lat/Long: 36.34626° / -119.39580°
UTM: Zone-11 N4025020 E285001
Radius: 80 meters
Elevation: 290 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 18S
Range: 24E
Section: 20 **Qtr:** SW
Meridian: M

Location: 0.3 MILE NNW OF THE INTERSECTION OF ROAD J32 AND ROAD J19, SE OF GOSHEN
Ecological: HABITAT CONSISTS OF VERNAL POOLS, WITH TYPICAL VERNAL POOL PLANTS, SURROUNDED BY NON-NATIVE ANNUAL GRASSLAND DOMINATED BY TARWEED, WILD RYE, RIP-GUT BROME, FIDDLENECK, AND STINGING NETTLE. OVERALL TOPOGRAPHY FLAT.
Threat: THREATENED BY FUTURE DEVELOPMENT.
General: 12 JUVENILES OBSERVED ON 19 APR 2004.
Owner/Manager: PVT-JACUZZI PROPERTY

Spea hammondii

western spadefoot — **Element Code:** AAABF02020

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G3	**CDFG Status:** SC
State: None	**State:** S3	

Habitat Associations

General: OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.

Micro: VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.

Occurrence No. 311 **Map Index:** 32755 **EO Index:** 60761

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2005-03-25
Site: 2005-03-25
Record Last Updated: 2005-03-29

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44419º / -119.30821º
UTM: Zone-11 N4035693 E293122
Area: 1.2 acres
Elevation: 314 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 17S
Range: 25E
Section: 18 **Qtr:** SW
Meridian: M

Location: STONE CORRAL ECOLOGICAL RESERVE, SE OF SEQUOIA FIELD, 6 MILES NW OF IVANHOE

Ecological: LARGE, SHALLOW ALKALI PLAYA TYPE POOL; VERY HIGH TURBIDITY AND NO EMERGENT VEGETATION. POOL IS ~50 METERS IN DIAMETER.

Threat: POSSIBLE THREAT OF OVER-GRAZING. THIS POOL RECENTLY (2005) FENCED.

General: 2 LARGE TADPOLES NETTED ON 25 MAR 2005.

Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 312 **Map Index:** 60726 **EO Index:** 60762

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2005-03-25
Site: 2005-03-25
Record Last Updated: 2005-03-29

Quad Summary: Ivanhoe (3611942/333B), Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.47572º / -119.25018º
UTM: Zone-11 N4039068 E298406
Radius: 80 meters
Elevation: 335 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 17S
Range: 25E
Section: 03 **Qtr:** XX
Meridian: M

Location: 0.7 MILE SOUTH OF THE HIGHWAY 201/BUTTON DITCH (RD) JUNCTION, STONE CORRAL ECOLOGICAL RESERVE, 6 MILES NORTH OF IVANHOE

General: 1 TADPOLE NETTED ON 25 MAR 2005.

Owner/Manager: DFG-STONE CORRAL ER

Occurrence No. 317 **Map Index:** 61111 **EO Index:** 61147

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2005-04-20
Site: 2005-04-20
Record Last Updated: 2005-04-25

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.44524º / -119.26854º
UTM: Zone-11 N4035725 E296681
Radius: 80 meters
Elevation: 325 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 17S
Range: 25E
Section: 16 **Qtr:** SW
Meridian: M

Location: STONE CORRAL ECOLOGICAL RESERVE, NORTH OF VISALIA

Ecological: HABITAT CONSISTS OF A TEMPORARY POOL WITHIN NON-NATIVE GRASSLAND; SURROUNDED BY OLIVE AND ORANGE ORCHARDS AND AN UNKNOWN CROP. CATTLE WILL BE PLACED ON THIS SITE AT THE END OF APRIL 2005.

General: 1 METAMORPH FOUND DURING A DIPNET SURVEY ON 20 APR 2005.

Owner/Manager: DFG-STONE CORRAL ER

Talanites moodyae

Moody's gnaphosid spider

Element Code: ILARA98020

Status
Federal: None
State: None

NDDB Element Ranks
Global: G1G2
State: S1S2

Other Lists
CDFG Status:

Habitat Associations
General: SERPENTINE ENDEMIC.
Micro:

Occurrence No. 4 **Map Index:** 59132 **EO Index:** 59168

Dates Last Seen
Element: 1992-02-05
Site: 1992-02-05
Record Last Updated: 2005-01-05

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.45214° / -119.18211°
UTM: Zone-11 N4036312 E304445
Radius: 2/5 mile
Elevation: 500 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 17S
Range: 26E
Section: 17 **Qtr:** XX
Meridian: M

Location: BACON HILL, JUST EAST OF RAYO.
General: ONE MALE COLLECTED BY M.J. MOODY, FROM CAS.
Owner/Manager: UNKNOWN

Occurrence No. 5 **Map Index:** 59133 **EO Index:** 59169

Dates Last Seen
Element: 1993-12-02
Site: 1993-12-02
Record Last Updated: 2005-01-05

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.42665° / -119.19853°
UTM: Zone-11 N4033518 E302909
Area:
Elevation: 400 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POLYGON
Township: 17S
Range: 26E
Section: 30 **Qtr:** XX
Meridian: M

Location: TWIN BUTTES.
General: ONE JUVENILE COLLECTED BY W.H. TYSON FROM CALIF DEPT FOOD & AG ON 2 DEC 1993.
Owner/Manager: UNKNOWN

Occurrence No. 6 **Map Index:** 59134 **EO Index:** 59170

Dates Last Seen
Element: 1991-03-12
Site: 1991-03-12
Record Last Updated: 2005-01-06

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Quad Summary: Ivanhoe (3611942/333B), Exeter (3611932/333C)
County Summary: Tulare

Lat/Long: 36.37297° / -119.18000°
UTM: Zone-11 N4027524 E304436
Area: 1,620.6 acres
Elevation: 700 ft
Mapping PrecisionSPECIFIC
Symbol Type:POLYGON
Township: 18S
Range: 26E
Section: 08 **Qtr:** XX
Meridian: M

Location: VENICE HILLS.
Ecological: FOUND UNDER ROCKS.
General: I JUVENILE COLLECTED BY W.H. TYSON FROM CALIF DEPT OF FOOD & AG ON 12 MAR 1991.
Owner/Manager: UNKNOWN

Taxidea taxus

American badger

Element Code: AMAJF04010

Status
Federal: None
State: None

NDDB Element Ranks
Global: G5
State: S4

Other Lists
CDFG Status: SC

Habitat Associations
General: MOST ABUNDANT IN DRIER OPEN STAGES OF MOST SHRUB, FOREST, AND HERBACEOUS HABITATS, WITH FRIABLE SOILS.
Micro: NEEDS SUFFICIENT FOOD, FRIABLE SOILS & OPEN, UNCULTIVATED GROUND. PREYS ON BURROWING RODENTS. DIGS BURROWS.

Occurrence No. 70 **Map Index:** 56584 **EO Index:** 56600

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1994-10-28
Site: 1994-10-28

Record Last Updated: 2004-09-01

Quad Summary: Exeter (3611932/333C)
County Summary: Tulare

Lat/Long: 36.33164° / -119.18832°
UTM: Zone-11 N4022956 E303586
Radius: 1/10 mile
Elevation: 370 ft

Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT

Township: 18S
Range: 26E
Section: 29 **Qtr:** SW
Meridian: M

Location: 1/3 MILE NORTH OF HIGHWAY 198 AND A 1/4 MILE WEST OF KAWEAH OAKS PRESERVE, 3.5 MILES NW OF EXETER.

Ecological: HABITAT CONSISTS OF PASTURE AND FALLOW FIELD. SCATTERED HOMES ON LARGE PARCELS IN AREA. WALNUT ORCHARDS LOCATED TO THE NORTH AND WEST.

Threat: AGRICULTURAL CULTIVATION, DEVELOPMENT.

General: 1 INDIVIDUAL OBSERVED ON 28 OCT 1994. SMALL POPULATION LIKELY TO SURVIVE. AREA SUPPORTS A LARGE CALIFORNIA GROUND SQUIRREL POPULATION AND GOPHERS/VOLES.

Owner/Manager: PVT

Valley Sacaton Grassland

Element Code: CTT42120CA

Status
Federal: None
State: None

NDDB Element Ranks
Global: G1
State: S1.1

Other Lists

Habitat Associations
General:
Micro:

Occurrence No. 12 **Map Index:** 15270 **EO Index:** 8665

Occ Rank: Poor
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Decreasing

Dates Last Seen
Element: 1985-03-12
Site: 1985-03-12
Record Last Updated: 1998-07-14

Quad Summary: Remnoy (3611935/335D), Goshen (3611934/334C), Burris Park (3611945/335A), Traver (3611944/334B)
County Summary: Tulare, Kings

Lat/Long: 36.36772º / -119.49151º
UTM: Zone-11 N4027618 E276472
Radius: 1 mile
Elevation: 260 ft

Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT

Township: 18S
Range: 23E
Section: 16 **Qtr:** NW
Meridian: M

Location: CROSS CREEK N OF HWY 198, ABOUT 3 MI W OF HWY 99 VIA AVE 328 & DIRT RD CONNECTING TO 320.

Ecological: HEAVILY GRAZED W/ VERY FEW SPOROBOLUS & SOME DEGRADED VERNAL POOLS, DISTICHLIS, HORDEUM, ERODIUM, ELYMUS DOM. LOW DIVERSITY, LOW NATIVE COVER. POOLS W/ MYOSURUS, LASTHENIA GLABRATA, JUNCUS, LEPIDIUM, PLAGIOBOTHRYS.

Threat: GRAZING HAS DISTURBED THIS SITE.

General: THIS WAS OCC #012 OF CTT42120CA.

Owner/Manager: PVT

Occurrence No. 13 **Map Index:** 15699 **EO Index:** 8664

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1985-11-30
Site: 1985-11-30
Record Last Updated: 1998-07-14

Quad Summary: Exeter (3611932/333C)
County Summary: Tulare

Lat/Long: 36.32828º / -119.17817º
UTM: Zone-11 N4022562 E304489
Radius: 1 mile
Elevation: 370 ft

Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT

Township: 18S
Range: 26E
Section: 29 **Qtr:** SE
Meridian: M

Location: IN EXCLOSURES IN NE PORTION, S PORTION & W PART NEAR DEEP CREEK OF FORMER KAWEAH OAKS PRESERVE.

Ecological: SPOROBOLUS AIROIDES. ELYMUS SP, HORDEUM DEPRESSUM, DISTICHLIS AMONG INTRODUCED ANNUALS. MORE ALKALINE AREAS W/ ANEMOPSIS. HIGH WATER TABLE IN PARTS W/JUNCUS & CAREX. IN AREAS EXCLUDED FROM GRAZING.

General: ANNUAL PHOTOMONITORING. THIS WAS OCC #013 OF CTT42120CA. FORMER TNC KAWEAH OAKS PRESERVE; TRANSFERRED TO LAND TRUST ON 12/97.

Owner/Manager: FOUR CREEKS LAND TRUST

Vulpes macrotis mutica

San Joaquin kit fox — **Element Code:** AMAJA03041

Status	NDDB Element Ranks	Other Lists
Federal: Endangered	**Global:** G4T2T3	**CDFG Status:**
State: Threatened	**State:** S2S3	

Habitat Associations

General: ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.

Micro: NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.

Occurrence No. 150 **Map Index:** 55307 **EO Index:** 55307

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 2003-08-08
Site: 2003-08-08
Record Last Updated: 2004-05-03

Quad Summary: Traver (3611944/334B)
County Summary: Tulare

Lat/Long: 36.38330º / -119.39653º
UTM: Zone-11 N4029131 E285037
Radius: 1/5 mile
Elevation: 300 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 18S
Range: 24E
Section: 08 **Qtr:** SE
Meridian: M

Location: NORTHEAST OF GOSHEN, 600 FT SW OF THE INTERSECTION OF J19 (AKA ROAD 80) & J34 (AKA AVE 328).

Location Detail: UTM COORDINATES AND MAP DO NOT INDICATE THE SAME LOCATION. USED THE MAP TO PLOT THE SIGHTING. ALSO LOCATION CONFIRMED BY E-MAIL

Ecological: IRRIGATED ALFALFA, BURROWING OWLS WERE IN THE AREA.

Threat: DOGS & COYOTES

General: 2003: 08/08/2003 ONE ADULT SIGHTED FORAGING IN FRESHLY CUT ALFALFA FIELD AT 22:30, ABOUT 600 FEET SW OF THE INTERSECTION.

Owner/Manager: UNKNOWN

Occurrence No. 610 **Map Index:** 67367 **EO Index:** 67535

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1988-07-25
Site: 1988-07-25
Record Last Updated: 2006-12-12

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.41390º / -119.24220º
UTM: Zone-11 N4032194 E298961
Radius: 80 meters
Elevation: 345 ft
Mapping PrecisionSPECIFIC
Symbol Type:POINT
Township: 17S
Range: 25E
Section: 26 **Qtr:** XX
Meridian: M

Location: NW OF IVANHOE, INTERSECTION OF AVE 344 AND ROAD 148.

Location Detail: SOURCE GIVES LOCATION AS "NE OF IVANHOE" BUT MAPPED NW OF IVANHOE ACCORDING TO THE REST OF THE DESCRIPTION AND T-R-S INFO GIVEN.

Ecological: IRRIGATED PASTURE, SURROUNDED BY CITRUS ORCHARDS.

General: 1 ADULT FEMALE LIVE TRAPPED ON RANCH AND RELEASED AT KAWEAH OAKS PRESERVE ON 25 JUL 1988.

Owner/Manager: PVT

Occurrence No. 618 **Map Index:** 67377 **EO Index:** 67545

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1972-XX-XX
Site: 1972-XX-XX
Record Last Updated: 2007-01-17

Quad Summary: Monson (3611943/334A)
County Summary: Tulare

Lat/Long: 36.46782º / -119.30265º
UTM: Zone-11 N4038303 E293682
Radius: 2/5 mile
Elevation: 320 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 17S
Range: 25E
Section: 07 **Qtr:** XX
Meridian: M

Location: ABOUT 2.5MI SE OF MONSON, W OF DINUBA BLVD.

General: KIT FOX OBSERVATION(S) IN 1972. SIGHTING AT DEN SOMETIME FROM 1972 THROUGH JUL 1975.

Owner/Manager: UNKNOWN

Vulpes macrotis mutica

San Joaquin kit fox — **Element Code:** AMAJA03041

Status
Federal: Endangered
State: Threatened

NDDB Element Ranks
Global: G4T2T3
State: S2S3

Other Lists
CDFG Status:

Habitat Associations
General: ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.
Micro: NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.

Occurrence No. 619 **Map Index:** 67378 **EO Index:** 67546

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1971-XX-XX
Site: 1971-XX-XX
Record Last Updated: 2007-01-17

Quad Summary: Traver (3611944/334B)
County Summary: Tulare

Lat/Long: 36.41594º / -119.39717º
UTM: Zone-11 N4032754 E285070
Radius: 1/5 mile
Elevation: 290 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 17S
Range: 24E
Section: 29 **Qtr:** XX
Meridian: M

Location: ABOUT 4.7MI NNE OF GOSHEN, JUST N OF ST. JOHNS RIVER.

General: KIT FOX OBSERVATION(S) IN 1971. SIGHTING, ROAD KILL OR DEN PRIOR TO 1972.

Owner/Manager: UNKNOWN

Occurrence No. 620 **Map Index:** 67379 **EO Index:** 67547

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1973-XX-XX
Site: 1973-XX-XX
Record Last Updated: 2006-12-13

Quad Summary: Goshen (3611934/334C)
County Summary: Tulare, Kings

Lat/Long: 36.32851º / -119.47521º
UTM: Zone-11 N4023230 E277822
Radius: 1/5 mile
Elevation: 270 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 18S
Range: 23E
Section: 27 **Qtr:** XX
Meridian: M

Location: INTERSECTION OF HWY 198 AND TULARE/KINGS COUNTY LINE.

General: KIT FOX OBSERVATION(S) IN 1973.

Owner/Manager: UNKNOWN

Occurrence No. 621 **Map Index:** 67380 **EO Index:** 67549

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1988-XX-XX
Site: 1988-XX-XX
Record Last Updated: 2007-08-23

Quad Summary: Ivanhoe (3611942/333B)
County Summary: Tulare

Lat/Long: 36.37782º / -119.20609º
UTM: Zone-11 N4028116 E302107
Radius: 1/5 mile
Elevation: 370 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 18S
Range: 26E
Section: 07 **Qtr:** XX
Meridian: M

Location: ABOUT 1MI SE OF IVANHOE.

Location Detail: 1988 TRAPPING GIVES LOCATION ONLY AS "IVANHOE"

General: KIT FOX OBSERVATION(S) IN 1973. DEN OBSERVED SOMETIME FROM 1972 THROUGH JUL 1975. ONE TRAPPED BY GAIL PRESLEY IN THIS AREA IN 1988.

Owner/Manager: UNKNOWN

Vulpes macrotis mutica

San Joaquin kit fox — **Element Code:** AMAJA03041

Status
Federal: Endangered
State: Threatened

NDDB Element Ranks
Global: G4T2T3
State: S2S3

Other Lists
CDFG Status:

Habitat Associations
General: ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.
Micro: NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.

Occurrence No. 622 **Map Index:** 67382 **EO Index:** 67550

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-17

Quad Summary: Exeter (3611932/333C)
County Summary: Tulare

Lat/Long: 36.36545º / -119.13605º
UTM: Zone-11 N4026602 E308361
Radius: 2/5 mile
Elevation: 400 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 18S
Range: 26E
Section: 15 **Qtr:** XX
Meridian: M

Location: ABOUT 4MI SW OF WOODLAKE, JUST N OF KAWEAH RIVER.

General: KIT FOX OBSERVATION(S) IN 1973. DEN OBSERVED SOMETIME FROM 1972 THROUGH JUL 1975.

Owner/Manager: UNKNOWN

Occurrence No. 623 **Map Index:** 67383 **EO Index:** 67551

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-17

Quad Summary: Exeter (3611932/333C), Cairns Corner (3611922/310B)
County Summary: Tulare

Lat/Long: 36.25021º / -119.14925º
UTM: Zone-11 N4013844 E306892
Radius: 2/5 mile
Elevation: 350 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 19S
Range: 26E
Section: 27 **Qtr:** XX
Meridian: M

Location: ABOUT 4.5MI NW OF LINDSAY, SE OF INTERSECTION OF BELMONT AVE AND SYCAMORE AVE (AVE 256).

General: KIT FOX OBSERVATION(S) IN 1973. DEN OBSERVED SOMETIME FROM 1972 THROUGH JUL 1975.

Owner/Manager: UNKNOWN

Occurrence No. 624 **Map Index:** 67384 **EO Index:** 67552

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-17

Quad Summary: Cairns Corner (3611922/310B)
County Summary: Tulare

Lat/Long: 36.23600º / -119.13944º
UTM: Zone-11 N4012248 E307739
Radius: 2/5 mile
Elevation: 340 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 19S
Range: 26E
Section: 34 **Qtr:** XX
Meridian: M

Location: ABOUT 3.6MI NW OF LINDSAY, NW OF INTERSECTIN OF ACACIA AND CAIRNS AVE.

General: KIT FOX OBSERVATION(S) IN 1973. OBSERVATION SOMETIME FROM 1972 THROUGH JUL 1975.

Owner/Manager: UNKNOWN

Vulpes macrotis mutica

San Joaquin kit fox — **Element Code:** AMAJA03041

Status	NDDB Element Ranks	Other Lists
Federal: Endangered	**Global:** G4T2T3	**CDFG Status:**
State: Threatened	**State:** S2S3	

Habitat Associations

General: ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.

Micro: NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.

Occurrence No. 625 **Map Index:** 67385 **EO Index:** 67553

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-23

Quad Summary: Cairns Corner (3611922/310B)
County Summary: Tulare

Lat/Long: 36.21748° / -119.16833°
UTM: Zone-11 N4010250 E305097
Area:
Elevation: 323 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POLYGON
Township: 20S
Range: 26E
Section: 04 **Qtr:** XX
Meridian: M

Location: ABOUT 4.9MI WNW OF LINDSAY, 1.2MI W OF INTERSECTION OF HWY 137 AND BELMONT RD.

General: KIT FOX OBSERVATION(S) IN 1972. SIGHTING AT DEN FROM 1972 THROUGH JUL 1975.

Owner/Manager: UNKNOWN

Occurrence No. 626 **Map Index:** 67386 **EO Index:** 67554

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-17

Quad Summary: Cairns Corner (3611922/310B)
County Summary: Tulare

Lat/Long: 36.13544° / -119.23227°
UTM: Zone-11 N4001279 E299138
Radius: 1/5 mile
Elevation: 310 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 21S
Range: 25E
Section: 01 **Qtr:** XX
Meridian: M

Location: ABOUT 3.4MI NW OF WOODVILLE, S OF INTERSECTION OF STRATHMORE RD (AVE 192) AND BLISS LANE (RD 152).

General: KIT FOX OBSERVATION(S) IN 1973. ROAD KILL FROM 1972 THROUGH JUL 1975.

Owner/Manager: UNKNOWN

Occurrence No. 627 **Map Index:** 67387 **EO Index:** 67555

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1973-XX-XX
Site: 1973-XX-XX
Record Last Updated: 2007-01-17

Quad Summary: Tulare (3611923/311A), Cairns Corner (3611922/310B), Woodville (3611912/310C), Tipton (3611913/311D)
County Summary: Tulare

Lat/Long: 36.11984° / -119.25002°
UTM: Zone-11 N3999585 E297501
Radius: 2/5 mile
Elevation: 300 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 21S
Range: 25E
Section: 11 **Qtr:** XX
Meridian: M

Location: ABOUT 3.3MI NW OF WOODVILLE, S OF INTERSECTION OF AVE 184 & ROAD 144.

General: SIGHTING, ROAD KILL OR DEN PRIOR TO 1972. KIT FOX OBSERVATION(S) IN 1973.

Owner/Manager: UNKNOWN

Vulpes macrotis mutica

San Joaquin kit fox — **Element Code:** AMAJA03041

Status
Federal: Endangered
State: Threatened

NDDB Element Ranks
Global: G4T2T3
State: S2S3

Other Lists
CDFG Status:

Habitat Associations
General: ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.
Micro: NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.

Occurrence No. 630 **Map Index:** 67392 **EO Index:** 67562

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-23

Quad Summary: Paige (3611924/311B), Taylor Weir (3611914/311C)
County Summary: Tulare

Lat/Long: 36.12012º / -119.38552º
UTM: Zone-11 N3999907 E285305
Radius: 2/5 mile
Elevation: 250 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 21S
Range: 24E
Section: 09 **Qtr:** XX
Meridian: M

Location: ABOUT 6.4MI SSW OF TULARE, SE OF INTERSECTION OF OCTOL AVE (AVE 184) AND ELK BAYOU AVE (ROAD 80).
Threat: TRAFFIC.
General: ROAD KILL OBSERVED IN 1973. ROAD KILL SOMETIME FROM 1972 THROUGH JUL 1975.
Owner/Manager: UNKNOWN

Occurrence No. 902 **Map Index:** 67779 **EO Index:** 67931

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-17

Quad Summary: Tulare (3611923/311A)
County Summary: Tulare

Lat/Long: 36.16755º / -119.26018º
UTM: Zone-11 N4004900 E296710
Radius: 2/5 mile
Elevation: 300 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 20S
Range: 25E
Section: 21 **Qtr:** XX
Meridian: M

Location: ALONG OAKDALE AVE. ABOUT 5.6MI SE OF TULARE, 1 ROAD MI N OF INTERSECTION OF HOSFIELD RD AND OAKDALE AVE.
General: ROAD KILL SOMETIME FROM 1972 THROUGH JUL 1975.
Owner/Manager: UNKNOWN

Occurrence No. 903 **Map Index:** 67780 **EO Index:** 67932

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-17

Quad Summary: Tulare (3611923/311A)
County Summary: Tulare

Lat/Long: 36.21049º / -119.28560º
UTM: Zone-11 N4009717 E294536
Radius: 2/5 mile
Elevation: 300 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 20S
Range: 25E
Section: 08 **Qtr:** XX
Meridian: M

Location: ALONG LINDSAY HWY, ABOUT 3.4MI E OF TULARE, NEAR INTERSECTION OF TULARE LINDSAY HWY AND BATES SLOUGH.
General: ROAD KILL SOMETIME FROM 1972 THROUGH JUL 1975.
Owner/Manager: UNKNOWN

Vulpes macrotis mutica

San Joaquin kit fox — **Element Code:** AMAJA03041

Status	NDDB Element Ranks	Other Lists
Federal: Endangered	**Global:** G4T2T3	**CDFG Status:**
State: Threatened	**State:** S2S3	

Habitat Associations

General: ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.

Micro: NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.

Occurrence No. 904 **Map Index:** 67781 **EO Index:** 67933

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-17

Quad Summary: Visalia (3611933/334D)
County Summary: Tulare

Lat/Long: 36.29880º / -119.26426º
UTM: Zone-11 N4019469 E296683
Radius: 2/5 mile
Elevation: 340 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 19S
Range: 25E
Section: 04 **Qtr:** XX
Meridian: M

Location: ABOUT 3MI SE OF VISALIA, JUST W OF INTERSECTION OF OAKDALE AVE AND CAMERON CREEK.

General: ROAD KILL FROM 1972 THROUGH JUL 1975.

Owner/Manager: UNKNOWN

Occurrence No. 905 **Map Index:** 67782 **EO Index:** 67934

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-17

Quad Summary: Exeter (3611932/333C)
County Summary: Tulare

Lat/Long: 36.32912º / -119.19232º
UTM: Zone-11 N4022685 E303220
Radius: 2/5 mile
Elevation: 370 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 18S
Range: 26E
Section: 30 **Qtr:** XX
Meridian: M

Location: ABOUT 5.5 ROAD MI E OF VISALIA ON HWY 198, JUST E OF INTERSECTION WITH 9TH AVE.

General: ROAD KILL SOMETIME FROM 1972 THROUGH JUL 1975.

Owner/Manager: UNKNOWN

Occurrence No. 906 **Map Index:** 67783 **EO Index:** 67935

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-17

Quad Summary: Exeter (3611932/333C)
County Summary: Tulare

Lat/Long: 36.36396º / -119.16661º
UTM: Zone-11 N4026498 E305615
Area:
Elevation: 720 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POLYGON
Township: 18S
Range: 26E
Section: 16 **Qtr:** XX
Meridian: M

Location: ABOUT 3.3MI ESE OF IVANHOE, VENICE HILLS.

General: SIGHTING AND DEAD FOX OTHER THAN ROAD KILL SOMETIME FROM 1972 THROUGH JUL 1975.

Owner/Manager: UNKNOWN

Vulpes macrotis mutica

San Joaquin kit fox — **Element Code:** AMAJA03041

Status	NDDB Element Ranks	Other Lists
Federal: Endangered	**Global:** G4T2T3	**CDFG Status:**
State: Threatened	**State:** S2S3	

Habitat Associations

General: ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.

Micro: NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.

Occurrence No. 907 **Map Index:** 67784 **EO Index:** 67936

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-17

Quad Summary: Goshen (3611934/334C)
County Summary: Tulare

Lat/Long: 36.36357º / -119.39525º
UTM: Zone-11 N4026939 E285097
Radius: 2/5 mile
Elevation: 300 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 18S
Range: 24E
Section: 17 **Qtr:** XX
Meridian: M

Location: ABOUT 1.7MI NE OF GOSHEN, NEAR INTERSECTION OF ALLISON RD AND MODOC DITCH.

General: SIGHTING SOMETIME FROM 1972 THROUGH JUL 1975.

Owner/Manager: UNKNOWN

Occurrence No. 924 **Map Index:** 67807 **EO Index:** 67957

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1975-07-XX
Site: 1975-07-XX
Record Last Updated: 2007-01-17

Quad Summary: Traver (3611944/334B), Goshen (3611934/334C), Remnoy (3611935/335D), Burris Park (3611945/335A)
County Summary: Kings

Lat/Long: 36.37274º / -119.50189º
UTM: Zone-11 N4028199 E275554
Radius: 2/5 mile
Elevation: 260 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POINT
Township: 18S
Range: 23E
Section: 08 **Qtr:** XX
Meridian: M

Location: ABOUT 8.3MI ENE OF HANFORD & 4.7 MI NW OF GOSHEN, NEAR EAST BRANCH CROSS CREEK.

General: SIGHTING FROM 1972 THROUGH JUL 1975.

Owner/Manager: UNKNOWN

Occurrence No. 1120 **Map Index:** 69809 **EO Index:** 70631

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1992-XX-XX
Site: 1992-XX-XX
Record Last Updated: 2007-08-27

Quad Summary: Tulare (3611923/311A)
County Summary: Tulare

Lat/Long: 36.20774º / -119.34541º
UTM: Zone-11 N4009540 E289151
Area:
Elevation: 275 ft
Mapping PrecisionNON-SPECIFIC
Symbol Type:POLYGON
Township: 20S
Range: 24E
Section: 11 **Qtr:** XX
Meridian: M

Location: IN THE VICINITY OF TULARE.

General: A KIT FOX POPULATION WAS NOTED AS BEING PRESENT IN THE VICINITY OF TULARE BY GAIL PRESLEY (DFG).

Owner/Manager: UNKNOWN

California Department of Fish and Game
Natural Diversity Database
CNDDB Wide Tabular Report
Visalia, Tulare, Paige, Ivanhoe, Exeter, Cairns Corner, Monson, Traver, and Goshen 7.5-minute USGS quadrangles

Name (Scientific/Common)	CNDDB Ranks	Other Lists	Listing Status	Total EO's	Element Occ Ranks						Population Status		Presence		
					A	B	C	D	X	U	Historic >20 yr	Recent <=20 yr	Pres. Extant	Poss. Extirp.	Extirp.
Actinemys marmorata western pond turtle	G3G4 S3	CDFG: SC	Fed: None Cal: None	1097 S:1	0	0	0	0	0	1	1	0	1	0	0
Ambystoma californiense California tiger salamander	G2G3 S2S3	CDFG: SC	Fed: Threatened Cal: unknown	1041 S:7	0	2	2	0	0	3	0	7	7	0	0
Andrena macswaini An andrenid bee	G1G3 S1S3	CDFG:	Fed: None Cal: None	7 S:1	0	0	0	0	0	1	1	0	1	0	0
Antrozous pallidus pallid bat	G5 S3	CDFG: SC	Fed: None Cal: None	398 S:1	1	0	0	0	0	0	0	1	1	0	0
Athene cunicularia burrowing owl	G4 S2	CDFG: SC	Fed: None Cal: None	1225 S:8	4	3	1	0	0	0	1	7	8	0	0
Atriplex cordulata heartscale	G2? S2.2?	CNPS: 1B.2	Fed: None Cal: None	59 S:1	0	0	0	0	0	1	1	0	1	0	0
Atriplex erecticaulis Earlimart orache	G2 S2.2	CNPS: 1B.2	Fed: None Cal: None	20 S:3	1	0	1	0	0	1	0	3	3	0	0
Atriplex minuscula lesser saltscale	G1 S1.1	CNPS: 1B.1	Fed: None Cal: None	27 S:5	1	1	2	0	0	1	1	4	5	0	0
Atriplex persistens vernal pool smallscale	G2 S2.2	CNPS: 1B.2	Fed: None Cal: None	33 S:1	1	0	0	0	0	0	0	1	1	0	0
Atriplex subtilis subtle orache	G2 S2.2	CNPS: 1B.2	Fed: None Cal: None	24 S:2	1	0	0	0	0	1	1	1	2	0	0
Branchinecta lynchi vernal pool fairy shrimp	G3 S2S3	CDFG:	Fed: Threatened Cal: None	600 S:9	1	2	2	0	0	4	0	9	9	0	0
Buteo swainsoni Swainson's hawk	G5 S2	CDFG:	Fed: None Cal: Threatened	1677 S:8	0	2	2	0	0	4	1	7	8	0	0
Caulanthus californicus California jewel-flower	G1 S1.1	CNPS: 1B.1	Fed: Endangered Cal: Endangered	63 S:1	0	0	0	0	1	0	1	0	0	0	1
Chamaesyce hooveri Hoover's spurge	G2 S2.1	CNPS: 1B.2	Fed: Threatened Cal: None	29 S:6	0	2	1	0	1	2	1	5	5	0	1
Delphinium recurvatum recurved larkspur	G2 S2.2	CNPS: 1B.2	Fed: None Cal: None	79 S:2	1	0	0	0	0	1	0	2	2	0	0

Name (Scientific/Common)	CNDDB Ranks	Other Lists	Listing Status	Total EO's	Element Occ Ranks A	B	C	D	X	U	Population Status Historic >20 yr	Recent <=20 yr	Presence Pres. Extant	Poss. Extirp.	Extirp.
Desmocerus californicus dimorphus valley elderberry longhorn beetle	G3T2 S2	CDFG:	Fed: Threatened Cal: None	201 S:1	0	0	1	0	0	0	0	1	1	0	0
Dipodomys nitratoides nitratoides Tipton kangaroo rat	G3T1 S1	CDFG:	Fed: Endangered Cal: Endangered	75 S:1	0	0	0	0	0	1	1	0	1	0	0
Eryngium spinosepalum spiny-sepaled button-celery	G2 S2.2	CNPS: 1B.2	Fed: None Cal: None	60 S:5	1	1	0	0	1	2	2	3	4	1	0
Eumops perotis californicus western mastiff bat	G5T4 S3?	CDFG: SC	Fed: None Cal: None	293 S:2	0	1	0	0	0	1	1	1	2	0	0
Gambelia sila blunt-nosed leopard lizard	G1 S1	CDFG:	Fed: Endangered Cal: Endangered	301 S:1	0	0	0	0	0	1	1	0	1	0	0
Great Valley Valley Oak Riparian Forest	G1 S1.1		Fed: None Cal: None	33 S:1	0	1	0	0	0	0	1	0	1	0	0
Imperata brevifolia California satintail	G2 S2.1	CNPS: 2.1	Fed: None Cal: None	27 S:1	0	0	0	0	0	1	1	0	1	0	0
Lepidurus packardi vernal pool tadpole shrimp	G3 S2S3	CDFG:	Fed: Endangered Cal: None	249 S:5	0	2	3	0	0	0	0	5	5	0	0
Lithobates pipiens northern leopard frog	G5 S2	CDFG: SC	Fed: None Cal: None	22 S:2	0	0	0	0	0	2	2	0	2	0	0
Lytta hoppingi Hopping's blister beetle	G1G2 S1S2	CDFG:	Fed: None Cal: None	5 S:1	0	0	0	0	0	1	1	0	1	0	0
Northern Claypan Vernal Pool	G1 S1.1		Fed: None Cal: None	21 S:1	0	0	0	0	0	1	1	0	1	0	0
Northern Hardpan Vernal Pool	G3 S3.1		Fed: None Cal: None	126 S:3	0	0	0	0	0	3	3	0	3	0	0
Orcuttia inaequalis San Joaquin Valley Orcutt grass	G2 S2.1	CNPS: 1B.1	Fed: Threatened Cal: Endangered	47 S:2	0	0	1	0	1	0	1	1	1	1	0
Pseudobahia peirsonii San Joaquin adobe sunburst	G2 S2.1	CNPS: 1B.1	Fed: Threatened Cal: Endangered	43 S:1	0	0	0	0	1	0	1	0	0	0	1
Spea hammondii western spadefoot	G3 S3	CDFG: SC	Fed: None Cal: None	406 S:6	0	5	0	0	0	1	0	6	6	0	0

California Department of Fish and Game
Natural Diversity Database
CNDDB Wide Tabular Report
Visalia, Tulare, Paige, Ivanhoe, Exeter, Cairns Corner, Monson, Traver, and Goshen 7.5-minute USGS quadrangles

Name (Scientific/Common)	CNDDB Ranks	Other Lists	Listing Status	Total EO's	Element Occ Ranks						Population Status		Presence		
					A	B	C	D	X	U	Historic >20 yr	Recent <=20 yr	Pres. Extant	Poss. Extirp.	Extirp.
Talanites moodyae Moody's gnaphosid spider	G1G2 S1S2	CDFG:	Fed: None Cal: None	6 S:3	0	0	0	0	0	3	0	3	3	0	0
Taxidea taxus American badger	G5 S4	CDFG: SC	Fed: None Cal: None	442 S:1	0	0	1	0	0	0	0	1	1	0	0
Valley Sacaton Grassland	G1 S1.1		Fed: None Cal: None	9 S:2	0	0	0	1	0	1	2	0	2	0	0
Vulpes macrotis mutica San Joaquin kit fox	G4T2T3 S2S3	CDFG:	Fed: Endangered Cal: Threatened	950 S:21	0	0	1	0	0	20	19	2	21	0	0

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 100426014756

Database Last Updated: December 1, 2009

Quad Lists

Listed Species

Invertebrates

Branchinecta conservatio
- Conservancy fairy shrimp (E)

Branchinecta lynchi
- Critical habitat, vernal pool fairy shrimp (X)
- vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
- valley elderberry longhorn beetle (T)

Lepidurus packardi
- Critical habitat, vernal pool tadpole shrimp (X)
- vernal pool tadpole shrimp (E)

Fish

Hypomesus transpacificus
- delta smelt (T)

Amphibians

Ambystoma californiense
- California tiger salamander, central population (T)
- Critical habitat, CA tiger salamander, central population (X)

Rana aurora draytonii
- California red-legged frog (T)

Reptiles

Gambelia (=Crotaphytus) sila
- blunt-nosed leopard lizard (E)

Thamnophis gigas
- giant garter snake (T)

Birds

Gymnogyps californianus
- California condor (E)

Mammals

Dipodomys nitratoides exilis
- Fresno kangaroo rat (E)

Dipodomys nitratoides nitratoides
- Tipton kangaroo rat (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Caulanthus californicus
California jewelflower (E)

Chamaesyce hooveri
Critical habitat, Hoover's spurge (X)
Hoover's spurge (T)

Orcuttia inaequalis
Critical habitat, San Joaquin Valley Orcutt grass (X)
San Joaquin Valley Orcutt grass (T)

Pseudobahia peirsonii
San Joaquin adobe sunburst (T)

Quads Containing Listed, Proposed or Candidate Species:

CAIRNS CORNER (310B)
TULARE (311A)
PAIGE (311B)
IVANHOE (333B)
EXETER (333C)
MONSON (334A)
TRAVER (334B)
GOSHEN (334C)
VISALIA (334D)

County Lists

No county species lists requested.

Key:

(E) *Endangered* - Listed as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and

indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be July 25, 2010.

Appendix D:
Transportation Impact Analysis

VEHICLE MILES TRAVELED (VMT) BY ALTERNATIVE

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour AM Peak Speed Ranges for 2012 (Existing)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	1561	356	1	1	1204
VDT	22.5	27.5	10127	2662	2	2	7462
VDT	27.5	32.5	60673	23032	103	108	37430
VDT	32.5	37.5	97141	36918	3019	3135	54070
VDT	37.5	42.5	174865	23970	16030	20568	114296
VDT	42.5	47.5	137302	8244	15924	17972	95163
VDT	47.5	52.5	71980	1218	10662	12165	47935
VDT	52.5	57.5	25891	6	2662	2909	20314
VDT	57.5	62.5	17283	0	1454	1159	14669
VDT	62.5	67.5	15136	0	912	428	13796
VDT	67.5	70	9130	0	566	224	8340
TOTALS			**621089**	**96406**	**51335**	**58671**	**414679**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour AM Peak Speed Ranges for 2012 (Existing)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	3208	720	1	1	2485
VDT	22.5	27.5	17874	3743	4	3	14123
VDT	27.5	32.5	103751	37954	145	155	65498
VDT	32.5	37.5	171769	66521	3732	4138	97377
VDT	37.5	42.5	305492	56236	26562	36326	186368
VDT	42.5	47.5	285089	25017	30991	35673	193408
VDT	47.5	52.5	174415	5456	24006	31118	113836
VDT	52.5	57.5	73995	83	9805	11184	52923
VDT	57.5	62.5	39285	0	3100	3526	32659
VDT	62.5	67.5	32561	0	3225	1849	27487
VDT	67.5	70	13096	0	635	465	11996
TOTALS			**1220535**	**195730**	**102206**	**124438**	**798160**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected Off Peak Speed Ranges for 2012 (Existing)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	2	2	0	0	0
VDT	17.5	22.5	11469	2623	4	6	8836
VDT	22.5	27.5	62101	13456	13	13	48620
VDT	27.5	32.5	350299	128475	475	578	220771
VDT	32.5	37.5	553789	218570	12652	12022	310545
VDT	37.5	42.5	950875	192341	96896	100152	561486
VDT	42.5	47.5	899205	89817	101934	107987	599468
VDT	47.5	52.5	588696	19945	91943	92713	384095
VDT	52.5	57.5	233534	498	35416	34595	163025
VDT	57.5	62.5	130951	0	9902	11413	109636
VDT	62.5	67.5	108721	0	7113	8770	92838
VDT	67.5	70	38593	0	1615	1564	35414
TOTALS			**3928235**	**665727**	**357963**	**369813**	**2534734**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour PM Peak Speed Ranges for 2012 (Existing)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	13	4	0	0	9
VDT	17.5	22.5	2558	706	1	1	1850
VDT	22.5	27.5	20374	8489	3	3	11879
VDT	27.5	32.5	97978	48496	566	357	48559
VDT	32.5	37.5	131687	51218	8886	7336	64246
VDT	37.5	42.5	201045	19806	25035	25415	130790
VDT	42.5	47.5	140399	5039	24382	19415	91563
VDT	47.5	52.5	67492	965	11080	11887	43560
VDT	52.5	57.5	25651	6	2944	3019	19682
VDT	57.5	62.5	18707	0	1206	1946	15555
VDT	62.5	67.5	20461	0	585	1046	18829
VDT	67.5	70	10272	0	391	440	9442
TOTALS			**736637**	**134729**	**75079**	**70865**	**455964**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour PM Peak Speed Ranges for 2012 (Existing)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	1	1	0	0	0
VDT	17.5	22.5	4263	1015	2	2	3244
VDT	22.5	27.5	23905	6224	5	5	17671
VDT	27.5	32.5	139333	58560	260	295	80219
VDT	32.5	37.5	214797	91615	6472	6370	110340
VDT	37.5	42.5	379643	71482	45814	43075	219272
VDT	42.5	47.5	315791	26439	39512	38375	211466
VDT	47.5	52.5	185510	5688	34823	36369	108630
VDT	52.5	57.5	73075	177	11486	9537	51875
VDT	57.5	62.5	44540	0	3992	4009	36539
VDT	62.5	67.5	36898	0	2493	3644	30761
VDT	67.5	70	19073	0	501	683	17889
TOTALS			**1436829**	**261201**	**145360**	**142364**	**887906**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour AM Peak Speed Ranges 2030 Alternative A (Alt 1)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	8	0	0	0	8
VDT	17.5	22.5	2057	543	1	1	1512
VDT	22.5	27.5	14808	4652	18	8	10130
VDT	27.5	32.5	103114	51162	475	468	51010
VDT	32.5	37.5	181506	70240	14039	10445	86783
VDT	37.5	42.5	232793	20715	32136	24341	155601
VDT	42.5	47.5	221388	5458	33099	23231	159600
VDT	47.5	52.5	63106	628	10442	8491	43546
VDT	52.5	57.5	26853	3	1821	1438	23591
VDT	57.5	62.5	74083	0	17309	650	56125
VDT	62.5	67.5	163380	0	31233	444	131703
VDT	67.5	70	74135	0	3125	223	70787
TOTALS			**1,157,231**	**153,401**	**143,698**	**69,740**	**790,396**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour AM Peak Speed Ranges 2030 Alternative A (Alt 1)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	3828	1073	2	2	2751
VDT	22.5	27.5	21239	5071	21	11	16136
VDT	27.5	32.5	131626	49220	441	420	81545
VDT	32.5	37.5	273621	127778	9316	8609	127917
VDT	37.5	42.5	410490	96122	45032	51875	217462
VDT	42.5	47.5	398644	31674	53065	38323	275583
VDT	47.5	52.5	312231	4064	51267	41495	215405
VDT	52.5	57.5	87283	97	10481	8770	67936
VDT	57.5	62.5	49997	0	4861	3049	42086
VDT	62.5	67.5	51341	0	4723	1984	44633
VDT	67.5	70	29129	0	3535	538	25055
TOTALS			**1,769,429**	**315,099**	**182,744**	**155,076**	**1,116,509**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected OFF PEAK Speed Ranges 2030 Alternative A (Alt 1)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	1	1	0	0	0
VDT	17.5	22.5	14033	4098	7	7	9922
VDT	22.5	27.5	75121	18540	51	54	56475
VDT	27.5	32.5	448446	172104	1470	1390	273482
VDT	32.5	37.5	894190	428129	26126	26762	413173
VDT	37.5	42.5	1299060	345617	156655	163856	632931
VDT	42.5	47.5	1160121	121837	112655	119642	805986
VDT	47.5	52.5	1078553	12699	167229	163672	734954
VDT	52.5	57.5	347812	58	41603	40060	266092
VDT	57.5	62.5	174981	0	9816	12314	152851
VDT	62.5	67.5	159885	0	11553	11974	136358
VDT	67.5	70	53073	0	4154	4215	44704
TOTALS			**5,705,276**	**1,103,083**	**531,319**	**543,946**	**3,526,928**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour PM Peak Speed Ranges 2030 Alternative A (Alt 1)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	138	0	0	0	138
VDT	12.5	17.5	576	3	0	0	573
VDT	17.5	22.5	6728	1734	1	2	4991
VDT	22.5	27.5	53204	28979	53	40	24133
VDT	27.5	32.5	209985	121235	4086	4311	80352
VDT	32.5	37.5	235247	50694	26676	32365	125513
VDT	37.5	42.5	298174	11789	32352	38496	215538
VDT	42.5	47.5	223071	2450	29049	30019	161553
VDT	47.5	52.5	91706	225	3165	29234	59082
VDT	52.5	57.5	169588	0	1100	13538	154949
VDT	57.5	62.5	82992	0	1667	8562	72764
VDT	62.5	67.5	161996	0	1113	4940	155944
VDT	67.5	70	55885	0	622	4533	50729
TOTALS			**1,589,290**	**217,109**	**99,884**	**166,040**	**1,106,259**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour PM Peak Speed Ranges 2030 Alternative A (Alt 1)

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	1	1	0	0	0
VDT	17.5	22.5	5937	1511	2	3	4420
VDT	22.5	27.5	32574	8248	26	27	24273
VDT	27.5	32.5	213960	90394	917	762	121888
VDT	32.5	37.5	401963	190126	17477	20072	174287
VDT	37.5	42.5	529157	102227	59983	67510	299437
VDT	42.5	47.5	530885	24338	50303	81513	374731
VDT	47.5	52.5	316191	2160	48816	49949	215265
VDT	52.5	57.5	73750	5	8410	4615	60721
VDT	57.5	62.5	57648	0	3730	4581	49337
VDT	62.5	67.5	80796	0	2156	6729	71910
VDT	67.5	70	44815	0	857	3914	40044
TOTALS			**2,287,677**	**419,010**	**192,677**	**239,675**	**1,436,313**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour AM Peak Speed Ranges 2030 - ALT C

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	28	0	0	0	28
VDT	17.5	22.5	2327	793	13	2	1518
VDT	22.5	27.5	19205	8369	337	22	10476
VDT	27.5	32.5	144253	84633	6964	827	51828
VDT	32.5	37.5	206203	67618	28378	13457	96750
VDT	37.5	42.5	257198	15449	44842	24934	171972
VDT	42.5	47.5	205735	3045	30133	20576	151981
VDT	47.5	52.5	58889	405	9694	6825	41966
VDT	52.5	57.5	27748	0	1975	1223	24549
VDT	57.5	62.5	106142	0	34921	834	70388
VDT	62.5	67.5	179715	0	29480	552	149683
VDT	67.5	70	40514	0	6114	298	34101
TOTALS			**1,247,957**	**180,312**	**192,851**	**69,550**	**805,240**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour AM Peak Speed Ranges 2030 - ALT C

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	4167	1373	14	6	2775
VDT	22.5	27.5	22051	5725	62	34	16230
VDT	27.5	32.5	144256	60392	1018	588	82258
VDT	32.5	37.5	327240	166024	19146	11878	130193
VDT	37.5	42.5	448525	105630	61130	52766	229000
VDT	42.5	47.5	433308	27558	73541	40830	291380
VDT	47.5	52.5	318539	1896	52351	38656	225636
VDT	52.5	57.5	82798	22	11291	8106	63378
VDT	57.5	62.5	50045	0	6291	3426	40328
VDT	62.5	67.5	51536	0	5941	2264	43331
VDT	67.5	70	30880	0	4451	605	25824
TOTALS			**1,913,345**	**368,620**	**235,236**	**159,159**	**1,150,333**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected OFF Peak Speed Ranges 2030 - ALT C

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	1	1	0	0	0
VDT	17.5	22.5	15277	5187	30	34	10026
VDT	22.5	27.5	77985	20989	162	168	56666
VDT	27.5	32.5	490856	209814	2440	2443	276158
VDT	32.5	37.5	1045184	541322	41092	42405	420366
VDT	37.5	42.5	1437196	385070	184669	194543	672914
VDT	42.5	47.5	1227210	110524	139249	146782	830654
VDT	47.5	52.5	1143029	8117	172768	165529	796614
VDT	52.5	57.5	343341	0	42107	40951	260283
VDT	57.5	62.5	173383	0	11995	15154	146234
VDT	62.5	67.5	159530	0	13507	14233	131791
VDT	67.5	70	53287	0	5469	4995	42822
TOTALS			**6,166,279**	**1,281,024**	**613,488**	**627,237**	**3,644,528**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour PM Peak Speed Ranges 2030 - ALT C

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	133	0	0	0	133
VDT	12.5	17.5	660	42	0	0	618
VDT	17.5	22.5	11901	6679	22	9	5191
VDT	22.5	27.5	117600	89493	791	2185	25132
VDT	27.5	32.5	230423	124292	7559	15909	82663
VDT	32.5	37.5	246245	28214	34463	42805	140764
VDT	37.5	42.5	321851	4714	34687	47289	235161
VDT	42.5	47.5	197176	1100	20650	23816	151610
VDT	47.5	52.5	110210	24	2736	40670	66781
VDT	52.5	57.5	150496	0	1518	8287	140691
VDT	57.5	62.5	91045	0	1860	12998	76187
VDT	62.5	67.5	180742	0	1516	11298	167929
VDT	67.5	70	211225	0	766	7227	203232
TOTALS			**1,869,707**	**254,558**	**106,568**	**212,493**	**1,296,092**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour PM Peak Speed Ranges 2030 - ALT C

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	6463	1955	10	15	4483
VDT	22.5	27.5	35138	10430	62	72	24574
VDT	27.5	32.5	255561	128885	1396	1627	123653
VDT	32.5	37.5	486514	242040	26204	40262	178008
VDT	37.5	42.5	540586	88573	59135	78793	314085
VDT	42.5	47.5	565771	16828	57484	95319	396140
VDT	47.5	52.5	320331	1280	45216	51508	222328
VDT	52.5	57.5	67171	0	8647	3743	54781
VDT	57.5	62.5	60927	0	4760	6164	50003
VDT	62.5	67.5	79242	0	2339	8431	68472
VDT	67.5	70	49229	0	977	4457	43795
TOTALS			**2,466,934**	**489,990**	**206,230**	**290,392**	**1,480,321**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour AM Peak Speed Ranges 2030 No Project

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	57	57	0	0	0
VDT	17.5	22.5	3688	2187	8	2	1491
VDT	22.5	27.5	27981	17324	96	190	10372
VDT	27.5	32.5	142745	84168	1945	2840	53792
VDT	32.5	37.5	171111	58157	18071	13652	81231
VDT	37.5	42.5	234541	18766	27833	22377	165565
VDT	42.5	47.5	215557	4922	33443	28217	148975
VDT	47.5	52.5	79463	551	10280	8847	59785
VDT	52.5	57.5	17835	0	1374	1378	15082
VDT	57.5	62.5	23554	0	2422	479	20653
VDT	62.5	67.5	32693	0	2888	679	29126
VDT	67.5	70	28874	0	1264	369	27241
TOTALS			**978,099**	**186,132**	**99,624**	**79,030**	**613,313**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour AM Peak Speed Ranges 2030 No Project

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	4207	1195	10	6	2995
VDT	22.5	27.5	23538	5963	46	28	17500
VDT	27.5	32.5	159916	70786	773	788	87569
VDT	32.5	37.5	330964	164609	15031	14656	136667
VDT	37.5	42.5	431429	101252	47915	49934	232327
VDT	42.5	47.5	399154	27804	47817	43882	279651
VDT	47.5	52.5	288859	4264	47679	45772	191144
VDT	52.5	57.5	98178	14	12546	9911	75707
VDT	57.5	62.5	49908	0	4804	3966	41138
VDT	62.5	67.5	39172	0	3121	1814	34237
VDT	67.5	70	18656	0	2550	842	15264
TOTALS			**1,843,981**	**375,887**	**182,292**	**171,599**	**1,114,199**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected OFF PEAK Speed Ranges 2030 No Project

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	1	1	0	0	0
VDT	17.5	22.5	14965	4224	26	30	10684
VDT	22.5	27.5	81698	20906	123	130	60539
VDT	27.5	32.5	499256	202652	2180	2199	292225
VDT	32.5	37.5	1037468	517933	40221	39107	440207
VDT	37.5	42.5	1416244	378509	158548	169747	709440
VDT	42.5	47.5	1213118	129300	121003	127173	835643
VDT	47.5	52.5	1019708	17649	167838	162852	671368
VDT	52.5	57.5	341336	4	40740	40117	260474
VDT	57.5	62.5	167154	0	11785	14003	141366
VDT	62.5	67.5	129503	0	8394	9355	111755
VDT	67.5	70	46884	0	4576	3893	38414
TOTALS			**5,967,335**	**1,271,178**	**555,434**	**568,606**	**3,572,115**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour PM Peak Speed Ranges 2030 No Project

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	46	40	0	0	5
VDT	12.5	17.5	2717	2397	0	0	319
VDT	17.5	22.5	30362	25886	145	31	4300
VDT	22.5	27.5	121391	90911	2824	1194	26462
VDT	27.5	32.5	210667	100926	7904	12554	89283
VDT	32.5	37.5	230170	31066	32360	31080	135664
VDT	37.5	42.5	307878	8181	34833	38810	226054
VDT	42.5	47.5	206486	1273	23142	30192	151879
VDT	47.5	52.5	42528	13	2404	5969	34141
VDT	52.5	57.5	94718	0	735	27566	66417
VDT	57.5	62.5	123052	0	1348	9740	111964
VDT	62.5	67.5	119943	0	4500	9248	106194
VDT	67.5	70	85288	0	8238	3744	73306
TOTALS			**1,575,246**	**260,693**	**118,433**	**170,128**	**1,025,988**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour PM Peak Speed Ranges 2030 No Project

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	5943	1781	9	14	4139
VDT	22.5	27.5	41458	15038	57	68	26295
VDT	27.5	32.5	270439	134464	2979	1546	131450
VDT	32.5	37.5	475583	230448	29895	31728	183512
VDT	37.5	42.5	514024	87022	48917	61894	316191
VDT	42.5	47.5	524045	26188	61557	77984	358316
VDT	47.5	52.5	325572	2149	46731	52066	224627
VDT	52.5	57.5	92243	0	9800	8700	73744
VDT	57.5	62.5	41794	0	3290	2867	35637
VDT	62.5	67.5	59204	0	2159	5125	51919
VDT	67.5	70	40774	0	1393	3195	36185
TOTALS			**2,391,079**	**497,090**	**206,787**	**245,187**	**1,442,015**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour AM Peak Speed Ranges 2030 - PREFFERRED ALTERNATIVE

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	48	0	0	0	48
VDT	17.5	22.5	2279	648	8	3	1620
VDT	22.5	27.5	17140	5711	35	19	11375
VDT	27.5	32.5	109658	54983	995	891	52789
VDT	32.5	37.5	208132	75790	23717	11777	96848
VDT	37.5	42.5	241084	20511	40807	20425	159341
VDT	42.5	47.5	219447	5441	36831	21847	155328
VDT	47.5	52.5	61987	531	10457	9109	41891
VDT	52.5	57.5	34932	2	2401	1698	30830
VDT	57.5	62.5	115829	0	39501	1005	75322
VDT	62.5	67.5	177375	0	28035	619	148721
VDT	67.5	70	32400	0	2246	270	29885
TOTALS			**1,220,311**	**163,617**	**185,033**	**67,663**	**803,998**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 3-Hour AM Peak Speed Ranges 2030 - PREFFERRED ALTERNATIVE

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	0	0	0	0	0
VDT	17.5	22.5	3967	1055	16	8	2888
VDT	22.5	27.5	21719	4945	41	20	16713
VDT	27.5	32.5	135790	49854	633	468	84834
VDT	32.5	37.5	291924	132133	15572	10787	133433
VDT	37.5	42.5	436934	106006	51553	46532	232842
VDT	42.5	47.5	424274	34185	72256	35320	282513
VDT	47.5	52.5	312850	3447	56329	39758	213317
VDT	52.5	57.5	81717	68	10598	9508	61543
VDT	57.5	62.5	53625	0	7889	4011	41725
VDT	62.5	67.5	56600	0	6605	2879	47116
VDT	67.5	70	26663	0	4527	636	21499
TOTALS			**1,846,063**	**331,693**	**226,019**	**149,927**	**1,138,423**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected Off Peak Speed Ranges 2030 - PREFFERRED ALTERNATIVE

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	1	1	0	0	0
VDT	17.5	22.5	14520	4040	40	44	10395
VDT	22.5	27.5	76166	17556	90	99	58420
VDT	27.5	32.5	450001	161746	1647	1708	284899
VDT	32.5	37.5	923600	421216	34949	37532	429903
VDT	37.5	42.5	1373824	374743	153076	165443	680562
VDT	42.5	47.5	1188553	130223	115662	129435	813233
VDT	47.5	52.5	1091393	12023	171909	172702	734760
VDT	52.5	57.5	358152	35	47261	46509	264348
VDT	57.5	62.5	177484	0	12833	16598	148052
VDT	62.5	67.5	164274	0	16350	16989	130935
VDT	67.5	70	53171	0	5033	5175	42963
TOTALS			**5,871,139**	**1,121,583**	**558,850**	**592,234**	**3,598,470**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected 1-Hour PM Peak Speed Ranges 2030 - PREFFERRED ALTERNATIVE

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	9	0	0	0	9
VDT	12.5	17.5	775	16	0	0	759
VDT	17.5	22.5	8824	3294	15	11	5504
VDT	22.5	27.5	71822	43699	372	542	27209
VDT	27.5	32.5	215950	116807	6338	7940	84866
VDT	32.5	37.5	249935	49294	25389	36846	138407
VDT	37.5	42.5	306256	11567	29259	45242	220189
VDT	42.5	47.5	215227	1966	29243	25526	158492
VDT	47.5	52.5	132281	180	3579	42851	85671
VDT	52.5	57.5	144886	0	1589	10251	133047
VDT	57.5	62.5	101076	0	2703	11084	87289
VDT	62.5	67.5	167071	0	1427	8899	156744
VDT	67.5	70	196204	0	827	5649	189728
TOTALS			**1,810,316**	**226,823**	**100,741**	**194,841**	**1,287,914**

TRIP TYPE:	
XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

TULARE COUNTY ASSOCIATION OF GOVERNMENTS

City of Visalia - Projected P-Hour AM Peak Speed Ranges 2030 - PREFFERRED ALTERNATIVE

RANGE:	0	70	TOTAL	II	IX	XI	XX
VDT	0	7.5	0	0	0	0	0
VDT	7.5	12.5	0	0	0	0	0
VDT	12.5	17.5	11	0	0	0	10
VDT	17.5	22.5	6173	1459	15	20	4679
VDT	22.5	27.5	34139	8416	40	51	25632
VDT	27.5	32.5	220264	89393	1013	1012	128845
VDT	32.5	37.5	433323	197890	23094	28876	183463
VDT	37.5	42.5	558652	114585	51867	69496	322703
VDT	42.5	47.5	547859	23227	48065	95262	381305
VDT	47.5	52.5	307123	1707	49831	48831	206754
VDT	52.5	57.5	71825	4	10485	4187	57149
VDT	57.5	62.5	65388	0	5660	7068	52660
VDT	62.5	67.5	78365	0	3065	8727	66573
VDT	67.5	70	63384	0	1012	4713	57658
TOTALS			**2,386,506**	**436,681**	**194,147**	**268,243**	**1,487,431**

TRIP TYPE:

XX	External to External
XI	Externalto Internal
IX	Internal to External
II	Internal to Internal

PROPOSED GENERAL PLAN AM/PM LEVEL OF SERVICE

Intersection	
Intersection Delay, s/veh	44.1
Intersection LOS	E

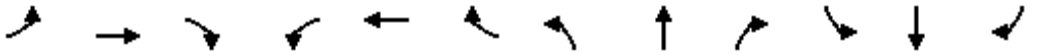
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	17	175	75	167	422	40	104	130	50	30	234	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	190	82	182	459	43	113	141	54	33	254	30
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	23.4	68.7	26.4	27.3
HCM LOS	C	F	D	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	37%	6%	27%	10%
Vol Thru, %	46%	66%	67%	80%
Vol Right, %	18%	28%	6%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	284	267	629	292
LT Vol	130	175	422	234
Through Vol	50	75	40	28
RT Vol	104	17	167	30
Lane Flow Rate	309	290	684	317
Geometry Grp	1	1	1	1
Degree of Util (X)	0.681	0.63	1	0.697
Departure Headway (Hd)	7.939	7.818	7.513	7.904
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	454	459	492	457
Service Time	6.009	5.901	5.513	5.971
HCM Lane V/C Ratio	0.681	0.632	1.39	0.694
HCM Control Delay	26.4	23.4	68.7	27.3
HCM Lane LOS	D	C	F	D
HCM 95th-tile Q	5	4.3	13.4	5.3

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	238	68	339	556	59	38	465	144	65	648	182
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	1	2	2	1	1	2	0	1	2	0
Cap, veh/h	83	690	293	490	1045	444	56	1015	314	91	1096	308
Arrive On Green	0.05	0.19	0.19	0.14	0.28	0.28	0.03	0.37	0.37	0.05	0.39	0.39
Sat Flow, veh/h	1774	3725	1583	3442	3725	1583	1774	2732	845	1774	2799	787
Grp Volume(v), veh/h	65	259	74	368	604	64	41	343	319	71	468	434
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1863	1714	1774	1863	1724
Q Serve(g_s), s	2.5	4.1	2.7	7.0	9.5	2.1	1.6	9.7	9.8	2.7	13.9	13.9
Cycle Q Clear(g_c), s	2.5	4.1	2.7	7.0	9.5	2.1	1.6	9.7	9.8	2.7	13.9	13.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.49	1.00		0.46
Lane Grp Cap(c), veh/h	83	690	293	490	1045	444	56	692	637	91	729	675
V/C Ratio(X)	0.78	0.38	0.25	0.75	0.58	0.14	0.73	0.50	0.50	0.78	0.64	0.64
Avail Cap(c_a), veh/h	234	1482	630	758	1810	769	104	872	802	234	1009	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	24.3	23.7	28.1	21.0	18.4	32.7	16.5	16.5	31.9	16.9	16.9
Incr Delay (d2), s/veh	14.6	0.3	0.4	2.4	0.5	0.1	16.4	0.6	0.6	13.2	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.4	1.9	1.1	3.1	4.4	0.8	0.9	4.3	4.0	1.5	6.2	5.7
Lane Grp Delay (d), s/veh	46.8	24.6	24.2	30.4	21.6	18.5	49.1	17.0	17.1	45.2	17.8	17.9
Lane Grp LOS	D	C	C	C	C	B	D	B	B	D	B	B
Approach Vol, veh/h		398			1036			703			973	
Approach Delay, s/veh		28.2			24.5			19.0			19.8	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	7.2	17.1		13.7	23.6		6.2	29.8		7.5	31.2	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	9.0	27.1		15.0	33.1		4.0	31.9		9.0	36.9	
Max Q Clear Time (g_c+I1), s	4.5	6.1		9.0	11.5		3.6	11.8		4.7	15.9	
Green Ext Time (p_c), s	0.0	6.5		0.7	6.5		0.0	10.5		0.0	10.7	

Intersection Summary			
HCM 2010 Ctrl Delay		22.3	
HCM 2010 LOS		C	

Notes

Intersection	
Intersection Delay, s/veh	395.4

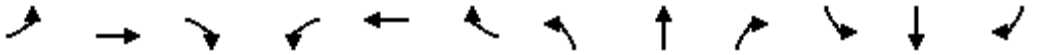
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	32	1078	109	70	1040	14	64	18	67	21	26	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	1172	118	76	1130	15	70	20	73	23	28	42

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1146	0	0	1290	0	0	2627	2599	1231	2637	2650	1138
Stage 1	-	-	-	-	-	-	1301	1301	-	1290	1290	-
Stage 2	-	-	-	-	-	-	1326	1298	-	1347	1360	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	610	-	-	538	-	-	# 16	25	216	# 16	# 23	245
Stage 1	-	-	-	-	-	-	198	231	-	201	234	-
Stage 2	-	-	-	-	-	-	192	232	-	186	216	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	610	-	-	538	-	-	-	20	216	# 1	# 19	245
Mov Capacity-2 Maneuver	-	-	-	-	-	-	-	20	-	# 1	# 19	-
Stage 1	-	-	-	-	-	-	187	218	-	189	201	-
Stage 2	-	-	-	-	-	-	117	199	-	106	204	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.8	+	$ 11837.1
HCM LOS			-	F

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	+	610	-	-	538	-	-	4
HCM Lane V/C Ratio	+	0.057	-	-	0.141	-	-	23.37
HCM Control Delay (s)	+	11.258	-	-	12.791	-	$	11837.1
HCM Lane LOS	+	B			B			F
HCM 95th %tile Q(veh)	+	0.181	-	-	0.49	-	-	13.737

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	270	446	321	153	533	43	170	463	112	50	692	170
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Cap, veh/h	336	1199	509	205	924	393	263	1208	513	118	1051	447
Arrive On Green	0.19	0.32	0.32	0.12	0.25	0.25	0.08	0.32	0.32	0.03	0.28	0.28
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	293	485	349	166	579	47	185	503	122	54	752	185
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	13.4	8.5	16.0	7.6	11.5	1.9	4.4	8.8	4.7	1.3	15.1	7.9
Cycle Q Clear(g_c), s	13.4	8.5	16.0	7.6	11.5	1.9	4.4	8.8	4.7	1.3	15.1	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	336	1199	509	205	924	393	263	1208	513	118	1051	447
V/C Ratio(X)	0.87	0.40	0.69	0.81	0.63	0.12	0.70	0.42	0.24	0.46	0.72	0.41
Avail Cap(c_a), veh/h	447	1359	578	375	1207	513	322	1346	572	202	1216	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	22.0	24.6	35.9	27.9	24.3	37.6	22.0	20.6	39.5	26.9	24.3
Incr Delay (d2), s/veh	13.6	0.2	2.9	7.3	0.7	0.1	5.2	0.2	0.2	2.8	1.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	7.2	3.9	6.6	3.8	5.4	0.7	2.1	4.0	1.8	0.6	7.1	3.1
Lane Grp Delay (d), s/veh	46.4	22.3	27.5	43.3	28.6	24.4	42.8	22.2	20.9	42.2	28.6	24.9
Lane Grp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1127			792			810			991	
Approach Delay, s/veh		30.1			31.4			26.7			28.7	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	19.8	31.3		13.7	25.2		10.4	31.5		6.9	28.0	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	21.0	30.4		17.6	27.0		7.8	30.1		4.9	27.2	
Max Q Clear Time (g_c+I1), s	15.4	18.0		9.6	13.5		6.4	10.8		3.3	17.1	
Green Ext Time (p_c), s	0.4	6.8		0.3	7.1		0.1	9.8		0.0	6.4	
Intersection Summary												
HCM 2010 Ctrl Delay			29.3									
HCM 2010 LOS			C									
Notes												

Intersection	
Intersection Delay, s/veh	18.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	14	190	71	45	222	46	178	38	107	110	62	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	207	77	49	241	50	193	41	116	120	67	42
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	17.5	19.9	20.6	15.7
HCM LOS	C	C	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	55%	5%	14%	52%
Vol Thru, %	12%	69%	71%	29%
Vol Right, %	33%	26%	15%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	323	275	313	211
LT Vol	38	190	222	62
Through Vol	107	71	46	39
RT Vol	178	14	45	110
Lane Flow Rate	351	299	340	229
Geometry Grp	1	1	1	1
Degree of Util (X)	0.638	0.547	0.62	0.449
Departure Headway (Hd)	6.646	6.7	6.672	7.045
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	548	541	544	514
Service Time	4.646	4.7	4.672	5.045
HCM Lane V/C Ratio	0.641	0.553	0.625	0.446
HCM Control Delay	20.6	17.5	19.9	15.7
HCM Lane LOS	C	C	C	C
HCM 95th-tile Q	4.5	3.3	4.2	2.3

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	49	300	119	170	217	85	67	432	141	134	481	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Cap, veh/h	67	620	264	225	951	404	94	1386	589	182	1571	668
Arrive On Green	0.04	0.17	0.17	0.13	0.26	0.26	0.05	0.37	0.37	0.10	0.42	0.42
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	53	326	129	185	236	92	73	470	153	146	523	88
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.2	5.8	5.4	7.4	3.7	3.4	3.0	6.6	4.9	5.9	6.9	2.5
Cycle Q Clear(g_c), s	2.2	5.8	5.4	7.4	3.7	3.4	3.0	6.6	4.9	5.9	6.9	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	67	620	264	225	951	404	94	1386	589	182	1571	668
V/C Ratio(X)	0.79	0.53	0.49	0.82	0.25	0.23	0.78	0.34	0.26	0.80	0.33	0.13
Avail Cap(c_a), veh/h	167	1375	585	252	1554	660	155	1386	589	204	1571	668
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	27.8	27.7	31.1	21.6	21.5	34.2	16.5	16.0	32.1	14.2	12.9
Incr Delay (d2), s/veh	18.5	0.7	1.4	17.7	0.1	0.3	13.0	0.7	1.1	18.5	0.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.3	2.7	2.2	4.3	1.7	1.3	1.7	3.0	2.0	3.5	3.1	1.0
Lane Grp Delay (d), s/veh	53.4	28.5	29.1	48.9	21.8	21.8	47.3	17.2	17.0	50.6	14.8	13.4
Lane Grp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		508			513			696			757	
Approach Delay, s/veh		31.3			31.6			20.3			21.5	
Approach LOS		C			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.8	16.7		13.3	23.2		7.9	31.7		11.5	35.3	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	6.9	27.0		10.4	30.5		6.4	27.2		8.4	29.2	
Max Q Clear Time (g_c+I1), s	4.2	7.8		9.4	5.7		5.0	8.6		7.9	8.9	
Green Ext Time (p_c), s	0.0	4.3		0.0	4.7		0.0	7.4		0.0	7.7	

Intersection Summary		
HCM 2010 Ctrl Delay		25.3
HCM 2010 LOS		C

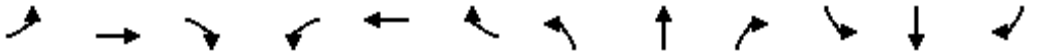
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	21	99	274	541	61	80	98	609	250	123	1098	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	1	2	2	0	1	2	1	1	2	0
Cap, veh/h	34	352	299	650	669	568	134	1332	566	166	1337	37
Arrive On Green	0.02	0.19	0.19	0.19	0.36	0.36	0.08	0.36	0.36	0.09	0.37	0.37
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3725	1583	1774	3608	100
Grp Volume(v), veh/h	23	108	298	588	66	87	107	662	272	134	616	610
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1863	1583	1774	1863	1845
Q Serve(g_s), s	1.3	5.0	14.9	16.6	2.3	3.7	5.9	13.8	13.2	7.4	30.9	30.9
Cycle Q Clear(g_c), s	1.3	5.0	14.9	16.6	2.3	3.7	5.9	13.8	13.2	7.4	30.9	30.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	34	352	299	650	669	568	134	1332	566	166	690	684
V/C Ratio(X)	0.69	0.31	1.00	0.90	0.10	0.15	0.80	0.50	0.48	0.81	0.89	0.89
Avail Cap(c_a), veh/h	102	506	430	665	759	645	136	1332	566	282	735	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	34.7	25.5	39.4	21.2	21.6	45.2	24.9	24.8	44.2	29.4	29.4
Incr Delay (d2), s/veh	21.9	0.5	36.4	15.7	0.1	0.1	27.7	0.3	0.6	9.0	12.7	12.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	2.4	8.8	8.7	1.1	1.5	3.7	6.4	5.2	3.8	16.6	16.5
Lane Grp Delay (d), s/veh	70.3	35.2	61.9	55.1	21.2	21.7	72.9	25.2	25.4	53.1	42.1	42.3
Lane Grp LOS	E	D	E	E	C	C	E	C	C	D	D	D
Approach Vol, veh/h		429			741			1041			1360	
Approach Delay, s/veh		55.6			48.2			30.2			43.3	
Approach LOS		E			D			C			D	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.9	23.3		22.8	40.2		12.0	40.0		13.3	41.3	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.5	4.5		4.0	4.5	
Max Green Setting (Gmax), s	5.7	27.0		19.2	40.5		7.6	31.0		15.8	39.2	
Max Q Clear Time (g_c+I1), s	3.3	16.9		18.6	5.7		7.9	15.8		9.4	32.9	
Green Ext Time (p_c), s	0.0	1.9		0.2	2.7		0.0	5.2		0.2	3.9	

Intersection Summary			
HCM 2010 Ctrl Delay		42.0	
HCM 2010 LOS		D	

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	244	185	188	285	64	50	305	103	102	681	38
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3
Lanes	1	2	0	1	2	1	1	2	0	1	2	1
Cap, veh/h	62	466	341	251	1266	538	69	733	243	142	1172	498
Arrive On Green	0.03	0.23	0.23	0.14	0.34	0.34	0.04	0.27	0.27	0.08	0.31	0.31
Sat Flow, veh/h	1774	2002	1465	1774	3725	1583	1774	2680	889	1774	3725	1583
Grp Volume(v), veh/h	45	246	220	204	310	70	54	229	215	111	740	41
Grp Sat Flow(s),veh/h/ln	1774	1863	1604	1774	1863	1583	1774	1863	1706	1774	1863	1583
Q Serve(g_s), s	1.6	7.3	7.6	7.0	3.7	1.9	1.9	6.4	6.6	3.8	10.6	1.1
Cycle Q Clear(g_c), s	1.6	7.3	7.6	7.0	3.7	1.9	1.9	6.4	6.6	3.8	10.6	1.1
Prop In Lane	1.00		0.91	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	62	434	374	251	1266	538	69	509	466	142	1172	498
V/C Ratio(X)	0.73	0.57	0.59	0.81	0.24	0.13	0.78	0.45	0.46	0.78	0.63	0.08
Avail Cap(c_a), veh/h	184	805	693	324	1901	808	199	823	753	199	1645	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	21.2	21.3	26.0	14.9	14.3	29.8	18.8	18.9	28.2	18.3	15.1
Incr Delay (d2), s/veh	15.2	1.2	1.5	11.5	0.1	0.1	17.2	0.6	0.7	12.3	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.9	3.4	3.0	3.8	1.7	0.7	1.1	2.9	2.7	2.2	4.6	0.4
Lane Grp Delay (d), s/veh	45.1	22.3	22.8	37.6	15.0	14.4	46.9	19.4	19.6	40.5	18.9	15.1
Lane Grp LOS	D	C	C	D	B	B	D	B	B	D	B	B
Approach Vol, veh/h		511			584			498			892	
Approach Delay, s/veh		24.5			22.8			22.5			21.4	
Approach LOS		C			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.2	19.1		12.8	25.7		6.4	21.6		9.0	24.2	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	6.5	27.0		11.4	31.9		7.0	27.6		7.0	27.6	
Max Q Clear Time (g_c+I1), s	3.6	9.6		9.0	5.7		3.9	8.6		5.8	12.6	
Green Ext Time (p_c), s	0.0	4.9		0.1	5.7		0.0	8.0		0.0	7.0	

Intersection Summary		
HCM 2010 Ctrl Delay		22.6
HCM 2010 LOS		C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	194	90	57	64	219	69	126	369	27	78	594	437
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Cap, veh/h	252	229	145	89	355	302	130	1483	630	108	1437	611
Arrive On Green	0.07	0.21	0.21	0.05	0.19	0.19	0.07	0.40	0.40	0.06	0.39	0.39
Sat Flow, veh/h	3442	1068	676	1774	1863	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	211	0	160	70	238	75	137	401	29	85	646	475
Grp Sat Flow(s),veh/h/ln	1721	0	1744	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	3.7	0.0	4.9	2.4	7.3	2.5	4.5	4.5	0.7	2.9	7.9	16.2
Cycle Q Clear(g_c), s	3.7	0.0	4.9	2.4	7.3	2.5	4.5	4.5	0.7	2.9	7.9	16.2
Prop In Lane	1.00		0.39	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	0	373	89	355	302	130	1483	630	108	1437	611
V/C Ratio(X)	0.84	0.00	0.43	0.79	0.67	0.25	1.05	0.27	0.05	0.78	0.45	0.78
Avail Cap(c_a), veh/h	252	0	767	130	819	696	130	1638	696	130	1638	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	0.0	20.9	28.9	23.1	21.1	28.5	12.5	11.3	28.4	14.0	16.5
Incr Delay (d2), s/veh	21.1	0.0	0.8	17.8	2.2	0.4	94.0	0.1	0.0	22.4	0.2	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.3	0.0	2.1	1.5	3.5	1.0	5.3	1.9	0.2	1.9	3.4	6.6
Lane Grp Delay (d), s/veh	49.2	0.0	21.7	46.7	25.2	21.5	122.5	12.6	11.4	50.9	14.2	21.5
Lane Grp LOS	D		C	D	C	C	F	B	B	D	B	C
Approach Vol, veh/h		371			383			567			1206	
Approach Delay, s/veh		37.3			28.4			39.1			19.7	
Approach LOS		D			C			D			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	8.5	17.6		7.1	16.2		8.5	28.9		7.8	28.2	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	4.5	27.0		4.5	27.0		4.5	27.0		4.5	27.0	
Max Q Clear Time (g_c+I1), s	5.7	6.9		4.4	9.3		6.5	6.5		4.9	18.2	
Green Ext Time (p_c), s	0.0	2.5		0.0	2.4		0.0	9.5		0.0	5.5	

Intersection Summary			
HCM 2010 Ctrl Delay		27.9	
HCM 2010 LOS		C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	14	11	67	18	34	32	1117	107	42	1038	30
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	33	74	62	93	147	125	45	1288	1095	58	1302	1107
Arrive On Green	0.02	0.04	0.04	0.05	0.08	0.08	0.03	0.69	0.69	0.03	0.70	0.70
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	22	15	12	73	20	37	35	1214	116	46	1128	33
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.2	0.7	0.6	3.9	1.0	2.1	1.9	55.0	1.2	2.5	44.0	0.6
Cycle Q Clear(g_c), s	1.2	0.7	0.6	3.9	1.0	2.1	1.9	55.0	1.2	2.5	44.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	33	74	62	93	147	125	45	1288	1095	58	1302	1107
V/C Ratio(X)	0.67	0.20	0.19	0.78	0.14	0.30	0.78	0.94	0.11	0.79	0.87	0.03
Avail Cap(c_a), veh/h	84	528	449	93	538	457	84	1301	1106	84	1302	1107
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	44.3	34.3	44.6	40.9	41.4	46.1	13.0	1.3	45.7	10.9	4.4
Incr Delay (d2), s/veh	21.0	1.4	1.5	34.2	0.4	1.3	24.3	13.5	0.0	26.3	6.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.7	0.4	0.3	2.7	0.5	0.9	1.2	27.1	0.7	1.5	19.6	0.2
Lane Grp Delay (d), s/veh	67.4	45.6	35.8	78.8	41.3	42.7	70.5	26.5	1.4	72.0	17.4	4.4
Lane Grp LOS	E	D	D	E	D	D	E	C	A	E	B	A
Approach Vol, veh/h		49			130			1365			1207	
Approach Delay, s/veh		53.0			62.8			25.5			19.1	
Approach LOS		D			E			C			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.8	8.3		9.5	12.0		6.4	70.3		7.1	71.1	
Change Period (Y+Rc), s	4.0	4.5		4.5	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	4.5	27.0		5.0	27.5		4.5	66.5		4.5	66.5	
Max Q Clear Time (g_c+I1), s	3.2	2.7		5.9	4.1		3.9	57.0		4.5	46.0	
Green Ext Time (p_c), s	0.0	0.1		0.0	0.4		0.0	8.8		0.0	18.2	

Intersection Summary												
HCM 2010 Ctrl Delay			24.9									
HCM 2010 LOS			C									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	20	113	89	49	56	424	904	75	110	871	89
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Cap, veh/h	249	214	182	316	98	112	504	1928	819	154	1192	507
Arrive On Green	0.04	0.11	0.11	0.05	0.12	0.12	0.28	0.52	0.52	0.09	0.32	0.32
Sat Flow, veh/h	1774	1863	1583	1774	791	911	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	65	22	123	97	0	114	461	983	82	120	947	97
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1702	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.4	0.8	5.7	3.6	0.0	4.8	19.2	13.2	2.0	5.1	17.7	3.4
Cycle Q Clear(g_c), s	2.4	0.8	5.7	3.6	0.0	4.8	19.2	13.2	2.0	5.1	17.7	3.4
Prop In Lane	1.00		1.00	1.00		0.54	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	214	182	316	0	210	504	1928	819	154	1192	507
V/C Ratio(X)	0.26	0.10	0.68	0.31	0.00	0.54	0.91	0.51	0.10	0.78	0.79	0.19
Avail Cap(c_a), veh/h	264	657	559	316	0	601	566	1928	819	308	1319	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	30.3	32.5	27.5	0.0	31.5	26.5	12.1	9.4	34.2	23.7	18.9
Incr Delay (d2), s/veh	0.6	0.2	4.3	0.5	0.0	2.2	18.3	0.2	0.1	8.2	3.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.1	0.4	2.4	1.6	0.0	2.2	10.8	5.5	0.7	2.6	8.5	1.3
Lane Grp Delay (d), s/veh	28.8	30.5	36.9	28.1	0.0	33.7	44.8	12.3	9.4	42.5	26.9	19.0
Lane Grp LOS	C	C	D	C		C	D	B	A	D	C	B
Approach Vol, veh/h		210			211			1526			1164	
Approach Delay, s/veh		33.7			31.1			22.0			27.8	
Approach LOS		C			C			C			C	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	7.8	13.3		8.5	14.0		25.8	44.1		10.6	29.0	
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	4.0	27.0		4.0	27.0		24.4	38.2		13.3	27.1	
Max Q Clear Time (g_c+I1), s	4.4	7.7		5.6	6.8		21.2	15.2		7.1	19.7	
Green Ext Time (p_c), s	0.0	1.1		0.0	1.1		0.5	15.7		0.1	4.7	
Intersection Summary												
HCM 2010 Ctrl Delay			25.6									
HCM 2010 LOS			C									
Notes												

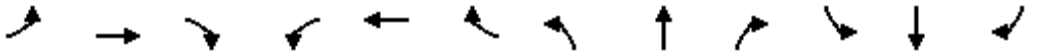
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	785	164	595	162	739	0	0	985	156
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				186.3	186.3	186.3	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				2	1	1	1	2	0	0	2	1
Cap, veh/h				1316	691	587	191	1917	0	0	1314	558
Arrive On Green				0.37	0.37	0.37	0.11	0.51	0.00	0.00	0.35	0.35
Sat Flow, veh/h				3548	1863	1583	1774	3725	0	0	3725	1583
Grp Volume(v), veh/h				853	178	647	176	803	0	0	1071	170
Grp Sat Flow(s),veh/h/ln				1774	1863	1583	1774	1863	0	0	1863	1583
Q Serve(g_s), s				14.8	4.9	27.5	7.3	9.9	0.0	0.0	19.4	5.8
Cycle Q Clear(g_c), s				14.8	4.9	27.5	7.3	9.9	0.0	0.0	19.4	5.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1316	691	587	191	1917	0	0	1314	558
V/C Ratio(X)				0.65	0.26	1.10	0.92	0.42	0.00	0.00	0.82	0.30
Avail Cap(c_a), veh/h				1316	691	587	191	1959	0	0	1357	577
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.3	16.2	23.3	32.8	11.1	0.0	0.0	21.8	17.4
Incr Delay (d2), s/veh				1.1	0.2	68.1	43.0	0.1	0.0	0.0	3.9	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				6.4	2.2	21.4	5.5	4.1	0.0	0.0	9.2	2.2
Lane Grp Delay (d), s/veh				20.4	16.4	91.4	75.7	11.3	0.0	0.0	25.7	17.7
Lane Grp LOS				C	B	F	E	B			C	B
Approach Vol, veh/h					1678			979			1241	
Approach Delay, s/veh					47.4			22.9			24.6	
Approach LOS					D			C			C	

Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					31.5		12.0	42.6			30.6	
Change Period (Y+Rc), s					4.0		4.0	4.5			4.5	
Max Green Setting (Gmax), s					27.5		8.0	39.0			27.0	
Max Q Clear Time (g_c+I1), s					29.5		9.3	11.9			21.4	
Green Ext Time (p_c), s					0.0		0.0	17.1			4.8	

Intersection Summary		
HCM 2010 Ctrl Delay	34.0	
HCM 2010 LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	161	113	219	0	0	0	0	779	728	433	1342	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3				0.0	186.3	186.3	186.3	186.3	0.0
Lanes	1	2	1				0	2	1	1	2	0
Cap, veh/h	321	675	287				0	1500	638	510	2737	0
Arrive On Green	0.18	0.18	0.18				0.00	0.40	0.40	0.29	0.73	0.00
Sat Flow, veh/h	1774	3725	1583				0	3725	1583	1774	3725	0
Grp Volume(v), veh/h	175	123	238				0	847	791	471	1459	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583				0	1863	1583	1774	1863	0
Q Serve(g_s), s	9.0	2.8	14.6				0.0	17.7	40.6	26.0	17.2	0.0
Cycle Q Clear(g_c), s	9.0	2.8	14.6				0.0	17.7	40.6	26.0	17.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	321	675	287				0	1500	638	510	2737	0
V/C Ratio(X)	0.54	0.18	0.83				0.00	0.56	1.24	0.92	0.53	0.00
Avail Cap(c_a), veh/h	484	1016	432				0	1500	638	517	2737	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.5	35.0	39.8				0.0	23.3	30.1	34.9	5.8	0.0
Incr Delay (d2), s/veh	1.4	0.1	8.2				0.0	0.5	121.3	22.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.2	1.3	6.5				0.0	8.2	37.4	14.7	6.6	0.0
Lane Grp Delay (d), s/veh	39.0	35.1	48.0				0.0	23.8	151.5	57.2	6.0	0.0
Lane Grp LOS	D	D	D					C	F	E	A	
Approach Vol, veh/h		536						1638			1930	
Approach Delay, s/veh		42.1						85.4			18.5	
Approach LOS		D						F			B	

Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		22.3						45.1		33.5	78.6	
Change Period (Y+Rc), s		4.0						4.5		4.5	4.5	
Max Green Setting (Gmax), s		27.5						40.6		29.4	74.0	
Max Q Clear Time (g_c+I1), s		16.6						42.6		28.0	19.2	
Green Ext Time (p_c), s		1.6						0.0		1.0	21.5	

Intersection Summary		
HCM 2010 Ctrl Delay		48.3
HCM 2010 LOS		D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	181	27	46	55	41	128	164	1210	127	348	1081	174
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3	190.0	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	0	1	1	0	2	0	1	2	1	2	2	1
Cap, veh/h	274	40	279	182	137	279	217	2001	851	470	2055	873
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.12	0.54	0.54	0.14	0.55	0.55
Sat Flow, veh/h	1556	229	1583	1035	776	1583	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	226	0	50	105	0	139	178	1315	138	378	1175	189
Grp Sat Flow(s),veh/h/ln	1785	0	1583	1811	0	1583	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	9.9	0.0	2.2	4.2	0.0	6.6	8.1	21.0	3.7	8.9	17.2	5.1
Cycle Q Clear(g_c), s	9.9	0.0	2.2	4.2	0.0	6.6	8.1	21.0	3.7	8.9	17.2	5.1
Prop In Lane	0.87		1.00	0.57		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	314	0	279	319	0	279	217	2001	851	470	2055	873
V/C Ratio(X)	0.72	0.00	0.18	0.33	0.00	0.50	0.82	0.66	0.16	0.80	0.57	0.22
Avail Cap(c_a), veh/h	590	0	523	599	0	523	311	2199	934	596	2190	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	0.0	29.2	30.0	0.0	31.0	35.6	13.8	9.8	34.8	12.2	9.5
Incr Delay (d2), s/veh	3.1	0.0	0.3	0.6	0.0	1.4	11.1	0.6	0.1	6.3	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	4.7	0.0	0.9	1.9	0.0	2.7	4.3	9.1	1.4	4.2	7.4	1.9
Lane Grp Delay (d), s/veh	35.4	0.0	29.5	30.6	0.0	32.3	46.7	14.4	9.8	41.1	12.5	9.6
Lane Grp LOS	D		C	C		C	D	B	A	D	B	A
Approach Vol, veh/h		276			244			1631			1742	
Approach Delay, s/veh		34.3			31.6			17.5			18.4	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		18.6			18.6		14.2	49.2		15.4	50.4	
Change Period (Y+Rc), s		4.0			4.0		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s		27.5			27.5		14.6	49.1		14.4	48.9	
Max Q Clear Time (g_c+I1), s		11.9			8.6		10.1	23.0		10.9	19.2	
Green Ext Time (p_c), s		2.7			2.9		0.2	21.7		0.5	24.2	

Intersection Summary		
HCM 2010 Ctrl Delay		20.0
HCM 2010 LOS		C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	25	267	19	0	0	0	19	165	79	17	99	22
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	2	1				0	1	0	0	1	0
Cap, veh/h	68	774	359				201	411	186	220	489	99
Arrive On Green	0.23	0.23	0.23				0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	301	3409	1583				59	1159	524	91	1380	280
Grp Volume(v), veh/h	166	151	21				286	0	0	150	0	0
Grp Sat Flow(s),veh/h/ln	1848	1863	1583				1742	0	0	1751	0	0
Q Serve(g_s), s	1.6	1.5	0.2				0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.6	1.5	0.2				2.7	0.0	0.0	1.3	0.0	0.0
Prop In Lane	0.16		1.00				0.07		0.30	0.12		0.16
Lane Grp Cap(c), veh/h	419	423	359				797	0	0	809	0	0
V/C Ratio(X)	0.39	0.36	0.06				0.36	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	3049	3074	2613				3809	0	0	3764	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.1	7.0	6.5				5.3	0.0	0.0	4.9	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.5	0.1				0.3	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	0.5	0.1				0.7	0.0	0.0	0.3	0.0	0.0
Lane Grp Delay (d), s/veh	7.7	7.5	6.6				5.6	0.0	0.0	5.0	0.0	0.0
Lane Grp LOS	A	A	A				A			A		
Approach Vol, veh/h		338						286			150	
Approach Delay, s/veh		7.5						5.6			5.0	
Approach LOS		A						A			A	

Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		9.4						12.1			12.1	
Change Period (Y+Rc), s		4.5						4.5			4.5	
Max Green Setting (Gmax), s		35.5						45.5			45.5	
Max Q Clear Time (g_c+I1), s		3.6						4.7			3.3	
Green Ext Time (p_c), s		2.0						3.0			3.0	

Intersection Summary												
HCM 2010 Ctrl Delay			6.3									
HCM 2010 LOS			A									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	501	1254	131	0	0	0	0	267	81	52	105	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0				0.0	186.3	190.0	190.0	186.3	0.0
Lanes	0	3	0				0	1	0	0	2	0
Cap, veh/h	751	2045	215				0	424	129	227	535	0
Arrive On Green	0.55	0.55	0.55				0.00	0.31	0.31	0.31	0.31	0.00
Sat Flow, veh/h	1359	3703	389				0	1373	417	387	1732	0
Grp Volume(v), veh/h	720	676	655				0	0	378	61	110	0
Grp Sat Flow(s),veh/h/ln	1795	1863	1794				0	0	1789	424	1695	0
Q Serve(g_s), s	19.4	16.5	16.7				0.0	0.0	12.0	3.3	3.1	0.0
Cycle Q Clear(g_c), s	19.4	16.5	16.7				0.0	0.0	12.0	15.3	3.1	0.0
Prop In Lane	0.76		0.22				0.00		0.23	0.94		0.00
Lane Grp Cap(c), veh/h	991	1029	991				0	0	552	239	523	0
V/C Ratio(X)	0.73	0.66	0.66				0.00	0.00	0.68	0.25	0.21	0.00
Avail Cap(c_a), veh/h	1150	1193	1149				0	0	815	390	772	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.8	10.2	10.2				0.0	0.0	19.6	25.5	16.6	0.0
Incr Delay (d2), s/veh	2.0	1.1	1.1				0.0	0.0	1.5	0.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	8.1	7.1	6.9				0.0	0.0	5.3	0.9	1.3	0.0
Lane Grp Delay (d), s/veh	12.8	11.3	11.4				0.0	0.0	21.1	26.0	16.8	0.0
Lane Grp LOS	B	B	B						C	C	B	
Approach Vol, veh/h		2050						378			171	
Approach Delay, s/veh		11.8						21.1			20.1	
Approach LOS		B						C			C	

Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		40.3						24.5			24.5	
Change Period (Y+Rc), s		4.5						4.5			4.5	
Max Green Setting (Gmax), s		41.5						29.5			29.5	
Max Q Clear Time (g_c+I1), s		21.4						14.0			17.3	
Green Ext Time (p_c), s		14.4						3.0			2.7	

Intersection Summary		
HCM 2010 Ctrl Delay		13.7
HCM 2010 LOS		B

Notes

Intersection	
Intersection Delay, s/veh	41.9
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	54	207	57	76	451	45	221	98	116	50	81	69
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	225	62	83	490	49	240	107	126	54	88	75
Number of Lanes	1	1	0	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	24.4	64.1	34.5	22.3
HCM LOS	C	F	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	69%	0%	100%	0%	100%	0%	25%
Vol Thru, %	31%	0%	0%	78%	0%	91%	41%
Vol Right, %	0%	100%	0%	22%	0%	9%	34%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	319	116	54	264	76	496	200
LT Vol	98	0	0	207	0	451	81
Through Vol	0	116	0	57	0	45	69
RT Vol	221	0	54	0	76	0	50
Lane Flow Rate	347	126	59	287	83	539	217
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.834	0.266	0.147	0.669	0.201	1	0.543
Departure Headway (Hd)	8.654	7.608	9.041	8.387	8.74	8.155	8.991
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	420	473	397	430	410	447	402
Service Time	6.396	5.351	6.792	6.138	6.508	5.923	7.046
HCM Lane V/C Ratio	0.826	0.266	0.149	0.667	0.202	1.206	0.54
HCM Control Delay	42.3	13.1	13.4	26.6	13.7	71.8	22.3
HCM Lane LOS	E	B	B	D	B	F	C
HCM 95th-tile Q	7.9	1.1	0.5	4.8	0.7	12.8	3.1

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	66.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	21	85	34	95	152	325	36	251	144	366	145	94
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	92	37	103	165	353	39	273	157	398	158	102
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	18.7	69.9	70.5	71.5
HCM LOS	C	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	15%	17%	60%
Vol Thru, %	58%	61%	27%	24%
Vol Right, %	33%	24%	57%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	431	140	572	605
LT Vol	251	85	152	145
Through Vol	144	34	325	94
RT Vol	36	21	95	366
Lane Flow Rate	468	152	622	658
Geometry Grp	1	1	1	1
Degree of Util (X)	1	0.399	1	1
Departure Headway (Hd)	7.815	9.451	7.761	8.097
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	464	380	473	454
Service Time	5.885	7.516	5.761	6.097
HCM Lane V/C Ratio	1.009	0.4	1.315	1.449
HCM Control Delay	70.5	18.7	69.9	71.5
HCM Lane LOS	F	C	F	F
HCM 95th-tile Q	13.1	1.9	13.2	12.9

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	71	362	94	72	405	99	71	634	108	119	623	97
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Cap, veh/h	260	692	588	291	692	588	352	1532	260	343	1555	241
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	856	1863	1583	899	1863	1583	688	3106	527	673	3151	488
Grp Volume(v), veh/h	77	393	102	78	440	108	77	413	393	129	400	382
Grp Sat Flow(s),veh/h/ln	856	1863	1583	899	1863	1583	688	1863	1770	673	1863	1777
Q Serve(g_s), s	5.4	11.2	2.9	5.0	13.0	3.1	5.4	9.6	9.6	10.3	9.2	9.3
Cycle Q Clear(g_c), s	18.4	11.2	2.9	16.2	13.0	3.1	14.7	9.6	9.6	19.9	9.2	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		0.27
Lane Grp Cap(c), veh/h	260	692	588	291	692	588	352	919	873	343	919	877
V/C Ratio(X)	0.30	0.57	0.17	0.27	0.64	0.18	0.22	0.45	0.45	0.38	0.44	0.44
Avail Cap(c_a), veh/h	323	830	705	357	830	705	439	1154	1096	428	1154	1101
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	16.7	14.1	23.2	17.2	14.1	15.6	11.0	11.0	17.5	10.9	10.9
Incr Delay (d2), s/veh	0.6	0.7	0.1	0.5	1.2	0.1	0.3	0.3	0.4	0.7	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.2	4.9	1.1	1.1	5.7	1.1	0.9	4.0	3.8	1.7	3.9	3.7
Lane Grp Delay (d), s/veh	25.4	17.4	14.2	23.6	18.4	14.3	15.9	11.3	11.4	18.2	11.2	11.2
Lane Grp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		572			626			883			911	
Approach Delay, s/veh		17.9			18.4			11.8			12.2	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		29.3			29.3			37.4			37.4	
Change Period (Y+Rc), s		4.5			4.5			4.5			4.5	
Max Green Setting (Gmax), s		29.7			29.7			41.3			41.3	
Max Q Clear Time (g_c+I1), s		20.4			18.2			16.7			21.9	
Green Ext Time (p_c), s		4.4			5.0			12.6			11.0	

Intersection Summary												
HCM 2010 Ctrl Delay			14.5									
HCM 2010 LOS			B									

Notes

Intersection	
Intersection Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	16	502	24	15	276	21	39	13	21	17	8	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	546	26	16	300	23	42	14	23	18	9	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	323	0	0	572	0	0	947	948	559	956	951	311
Stage 1	-	-	-	-	-	-	593	593	-	344	344	-
Stage 2	-	-	-	-	-	-	354	355	-	612	607	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	1237	-	-	1001	-	-	241	261	529	238	260	729
Stage 1	-	-	-	-	-	-	492	493	-	671	637	-
Stage 2	-	-	-	-	-	-	663	630	-	480	486	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	1237	-	-	1001	-	-	226	253	529	213	252	729
Mov Capacity-2 Maneuver	-	-	-	-	-	-	226	253	-	213	252	-
Stage 1	-	-	-	-	-	-	485	486	-	662	627	-
Stage 2	-	-	-	-	-	-	633	620	-	440	479	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.4	23.1	19.7
HCM LOS			C	C

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	277	1237	-	-	1001	-	-	284
HCM Lane V/C Ratio	0.286	0.014	-	-	0.016	-	-	0.138
HCM Control Delay (s)	23.1	7.952	-	-	8.656	-	-	19.7
HCM Lane LOS	C	A			A			C
HCM 95th %tile Q(veh)	1.151	0.043	-	-	0.05	-	-	0.472

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	18.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	37	74	29	44	115	158	48	399	51	61	356	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	80	32	48	125	172	52	434	55	66	387	28
Number of Lanes	0	1	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	14.6	22.4	18.7	17.7
HCM LOS	B	C	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	19%	0%	26%	14%	26%	0%
Vol Thru, %	81%	80%	53%	36%	74%	87%
Vol Right, %	0%	20%	21%	50%	0%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	248	251	140	317	239	204
LT Vol	200	200	74	115	178	178
Through Vol	0	51	29	158	0	26
RT Vol	48	0	37	44	61	0
Lane Flow Rate	269	272	152	345	260	222
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.556	0.544	0.328	0.659	0.545	0.452
Departure Headway (Hd)	7.444	7.197	7.76	6.88	7.558	7.335
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	482	498	461	524	475	490
Service Time	5.218	4.971	5.847	4.942	5.332	5.109
HCM Lane V/C Ratio	0.558	0.546	0.33	0.658	0.547	0.453
HCM Control Delay	19.2	18.3	14.6	22.4	19.1	16.1
HCM Lane LOS	C	C	B	C	C	C
HCM 95th-tile Q	3.3	3.2	1.4	4.8	3.2	2.3

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	29	26	78	44	63	28	687	61	38	806	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	76	96	84	107	86	121	49	1428	126	62	1559	39
Arrive On Green	0.04	0.11	0.11	0.06	0.12	0.12	0.03	0.42	0.42	0.04	0.43	0.43
Sat Flow, veh/h	1774	918	803	1774	699	990	1774	3375	298	1774	3619	91
Grp Volume(v), veh/h	54	0	60	85	0	116	30	412	401	41	451	447
Grp Sat Flow(s),veh/h/ln	1774	0	1721	1774	0	1688	1774	1863	1810	1774	1863	1847
Q Serve(g_s), s	1.4	0.0	1.5	2.3	0.0	3.1	0.8	7.8	7.8	1.1	8.7	8.7
Cycle Q Clear(g_c), s	1.4	0.0	1.5	2.3	0.0	3.1	0.8	7.8	7.8	1.1	8.7	8.7
Prop In Lane	1.00		0.47	1.00		0.59	1.00		0.16	1.00		0.05
Lane Grp Cap(c), veh/h	76	0	181	107	0	207	49	788	766	62	802	796
V/C Ratio(X)	0.71	0.00	0.33	0.79	0.00	0.56	0.62	0.52	0.52	0.66	0.56	0.56
Avail Cap(c_a), veh/h	148	0	972	148	0	953	148	1052	1022	148	1052	1043
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	0.0	19.8	22.2	0.0	19.8	23.0	10.2	10.2	22.8	10.2	10.2
Incr Delay (d2), s/veh	11.6	0.0	1.1	18.0	0.0	2.4	11.9	0.5	0.6	11.2	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.8	0.0	0.7	1.5	0.0	1.3	0.5	3.1	3.0	0.6	3.5	3.5
Lane Grp Delay (d), s/veh	34.2	0.0	20.9	40.2	0.0	22.1	34.9	10.8	10.8	34.0	10.8	10.8
Lane Grp LOS	C		C	D		C	C	B	B	C	B	B
Approach Vol, veh/h		114			201			843			939	
Approach Delay, s/veh		27.2			29.8			11.6			11.9	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.5	9.5		7.4	10.4		5.8	24.7		6.2	25.1	
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Max Green Setting (Gmax), s	4.0	27.0		4.0	27.0		4.0	27.0		4.0	27.0	
Max Q Clear Time (g_c+I1), s	3.4	3.5		4.3	5.1		2.8	9.8		3.1	10.7	
Green Ext Time (p_c), s	0.0	1.0		0.0	1.0		0.0	10.2		0.0	9.9	

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	29	642	35	17	1099	23	49	33	25	20	25	61
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	1	2	1	1	1	1	1	1	1
Cap, veh/h	51	1825	776	31	1784	758	74	208	177	37	169	144
Arrive On Green	0.03	0.49	0.49	0.02	0.48	0.48	0.04	0.11	0.11	0.02	0.09	0.09
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	32	698	38	18	1195	25	53	36	27	22	27	66
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.9	5.9	0.6	0.5	12.3	0.4	1.5	0.9	0.8	0.6	0.7	2.0
Cycle Q Clear(g_c), s	0.9	5.9	0.6	0.5	12.3	0.4	1.5	0.9	0.8	0.6	0.7	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	51	1825	776	31	1784	758	74	208	177	37	169	144
V/C Ratio(X)	0.63	0.38	0.05	0.57	0.67	0.03	0.72	0.17	0.15	0.59	0.16	0.46
Avail Cap(c_a), veh/h	142	2011	855	142	2011	855	142	1005	855	142	1005	855
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	8.0	6.7	24.4	10.0	6.9	23.7	20.1	20.1	24.3	21.0	21.6
Incr Delay (d2), s/veh	12.0	0.1	0.0	15.4	0.7	0.0	12.2	0.4	0.4	13.9	0.4	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	2.3	0.2	0.3	5.0	0.1	0.9	0.4	0.3	0.4	0.3	0.8
Lane Grp Delay (d), s/veh	36.1	8.1	6.7	39.8	10.7	6.9	35.8	20.5	20.5	38.1	21.4	23.8
Lane Grp LOS	D	A	A	D	B	A	D	C	C	D	C	C
Approach Vol, veh/h		768			1238			116			115	
Approach Delay, s/veh		9.2			11.1			27.5			26.0	
Approach LOS		A			B			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.9	29.0		5.4	28.5		6.6	10.1		5.6	9.0	
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Max Green Setting (Gmax), s	4.0	27.0		4.0	27.0		4.0	27.0		4.0	27.0	
Max Q Clear Time (g_c+I1), s	2.9	7.9		2.5	14.3		3.5	2.9		2.6	4.0	
Green Ext Time (p_c), s	0.0	13.3		0.0	9.6		0.0	0.6		0.0	0.6	

Intersection Summary			
HCM 2010 Ctrl Delay		12.1	
HCM 2010 LOS		B	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	138	405	118	39	449	102	93	400	39	124	470	232
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Cap, veh/h	188	947	273	57	784	177	130	971	93	170	738	363
Arrive On Green	0.11	0.34	0.34	0.03	0.27	0.27	0.07	0.29	0.29	0.10	0.31	0.31
Sat Flow, veh/h	1774	2782	802	1774	2943	665	1774	3347	322	1774	2361	1160
Grp Volume(v), veh/h	150	293	275	42	308	291	101	241	236	135	403	360
Grp Sat Flow(s),veh/h/ln	1774	1863	1721	1774	1863	1745	1774	1863	1806	1774	1863	1658
Q Serve(g_s), s	5.8	8.7	8.8	1.6	10.2	10.3	3.9	7.4	7.5	5.2	13.3	13.4
Cycle Q Clear(g_c), s	5.8	8.7	8.8	1.6	10.2	10.3	3.9	7.4	7.5	5.2	13.3	13.4
Prop In Lane	1.00		0.47	1.00		0.38	1.00		0.18	1.00		0.70
Lane Grp Cap(c), veh/h	188	634	586	57	496	465	130	540	524	170	583	519
V/C Ratio(X)	0.80	0.46	0.47	0.74	0.62	0.63	0.78	0.45	0.45	0.79	0.69	0.69
Avail Cap(c_a), veh/h	227	796	735	152	716	671	202	769	746	202	769	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	18.1	18.2	33.7	22.6	22.7	32.0	20.3	20.4	31.1	21.2	21.2
Incr Delay (d2), s/veh	15.3	0.5	0.6	17.3	1.3	1.4	9.6	0.6	0.6	16.6	1.7	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.3	3.9	3.7	1.0	4.7	4.5	2.1	3.4	3.3	3.1	6.2	5.6
Lane Grp Delay (d), s/veh	46.0	18.7	18.8	51.0	23.9	24.1	41.6	20.9	21.0	47.7	22.9	23.2
Lane Grp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		718			641			578			898	
Approach Delay, s/veh		24.4			25.8			24.6			26.7	
Approach LOS		C			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	11.4	28.4		6.2	23.2		9.1	24.9		10.7	26.5	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	9.0	30.0		6.0	27.0		8.0	29.0		8.0	29.0	
Max Q Clear Time (g_c+I1), s	7.8	10.8		3.6	12.3		5.9	9.5		7.2	15.4	
Green Ext Time (p_c), s	0.0	7.3		0.0	6.4		0.0	8.0		0.0	6.6	

Intersection Summary			
HCM 2010 Ctrl Delay		25.5	
HCM 2010 LOS		C	

Notes

Intersection	
Intersection Delay, s/veh	23.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	84	59	32	56	27	83	19	346	38	77	317	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	91	64	35	61	29	90	21	376	41	84	345	63

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1041	1002	376	1031	1013	397	408	0	0	417	0	0
Stage 1	543	543	-	438	438	-	-	-	-	-	-	-
Stage 2	498	459	-	593	575	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	208	242	670	211	239	652	1151	-	-	1142	-	-
Stage 1	524	520	-	597	579	-	-	-	-	-	-	-
Stage 2	554	566	-	492	503	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	146	214	670	141	211	652	1151	-	-	1142	-	-
Mov Capacity-2 Maneuver	146	214	-	141	211	-	-	-	-	-	-	-
Stage 1	511	470	-	583	565	-	-	-	-	-	-	-
Stage 2	442	552	-	364	455	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	108.1	47.7	0.4	1.4
HCM LOS	F	E		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1151	-	-	195	254	1142	-	-
HCM Lane V/C Ratio	0.018	-	-	0.975	0.71	0.073	-	-
HCM Control Delay (s)	8.185	0	-	108.1	47.7	8.402	0	-
HCM Lane LOS	A	A		F	E	A	A	
HCM 95th %tile Q(veh)	0.055	-	-	8.152	4.826	0.237	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	65.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	37	397	87	84	266	29	93	251	141	32	157	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	432	95	91	289	32	101	273	153	35	171	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	72.9	66.9	72.7	24.9
HCM LOS	F	F	F	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	7%	22%	16%
Vol Thru, %	52%	76%	70%	78%
Vol Right, %	29%	17%	8%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	485	521	379	202
LT Vol	251	397	266	157
Through Vol	141	87	29	13
RT Vol	93	37	84	32
Lane Flow Rate	527	566	412	220
Geometry Grp	1	1	1	1
Degree of Util (X)	1	1	0.973	0.58
Departure Headway (Hd)	8.278	8.328	8.499	9.505
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	438	436	428	380
Service Time	6.354	6.404	6.538	7.555
HCM Lane V/C Ratio	1.203	1.298	0.963	0.579
HCM Control Delay	72.7	72.9	66.9	24.9
HCM Lane LOS	F	F	F	C
HCM 95th-tile Q	12.7	12.7	11.7	3.5

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	127	490	85	271	402	45	45	470	396	84	524	108
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	1	2	2	1	1	2	0	1	2	0
Cap, veh/h	174	876	372	388	931	395	62	692	582	117	1203	246
Arrive On Green	0.10	0.24	0.24	0.11	0.25	0.25	0.03	0.37	0.37	0.07	0.40	0.40
Sat Flow, veh/h	1774	3725	1583	3442	3725	1583	1774	1872	1575	1774	3003	614
Grp Volume(v), veh/h	138	533	92	295	437	49	49	508	433	91	353	334
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1863	1585	1774	1863	1754
Q Serve(g_s), s	6.0	10.0	3.7	6.5	7.8	1.9	2.2	18.6	18.6	4.0	11.0	11.1
Cycle Q Clear(g_c), s	6.0	10.0	3.7	6.5	7.8	1.9	2.2	18.6	18.6	4.0	11.0	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.35
Lane Grp Cap(c), veh/h	174	876	372	388	931	395	62	688	586	117	746	703
V/C Ratio(X)	0.79	0.61	0.25	0.76	0.47	0.12	0.79	0.74	0.74	0.78	0.47	0.48
Avail Cap(c_a), veh/h	294	1333	566	526	1285	546	158	804	684	203	851	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	26.8	24.4	33.8	25.0	22.8	37.6	21.5	21.5	36.1	17.4	17.4
Incr Delay (d2), s/veh	7.8	0.7	0.3	4.4	0.4	0.1	19.8	3.1	3.6	10.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	3.0	4.7	1.5	3.0	3.6	0.7	1.3	8.9	7.7	2.1	5.0	4.7
Lane Grp Delay (d), s/veh	42.5	27.5	24.7	38.2	25.4	23.0	57.4	24.5	25.0	46.6	17.9	17.9
Lane Grp LOS	D	C	C	D	C	C	E	C	C	D	B	B
Approach Vol, veh/h		763			781			990			778	
Approach Delay, s/veh		29.9			30.1			26.4			21.2	
Approach LOS		C			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	11.7	23.0		12.9	24.1		6.7	33.5		9.2	36.0	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	13.0	28.1		12.0	27.1		7.0	33.9		9.0	35.9	
Max Q Clear Time (g_c+I1), s	8.0	12.0		8.5	9.8		4.2	20.6		6.0	13.1	
Green Ext Time (p_c), s	0.1	6.4		0.3	6.7		0.0	8.4		0.0	11.9	

Intersection Summary			
HCM 2010 Ctrl Delay		26.9	
HCM 2010 LOS		C	

Notes

Intersection	
Intersection Delay, s/veh	0.7

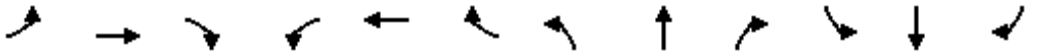
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	89	1138	98	65	1147	24	50	31	79	16	19	65
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	160	-	-	150	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	97	1237	107	71	1247	26	54	34	86	17	21	71

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1273	0	0	1343	0	0	2931	2898	1290	2944	2938	1260
Stage 1	-	-	-	-	-	-	1484	1484	-	1401	1401	-
Stage 2	-	-	-	-	-	-	1447	1414	-	1543	1537	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	546	-	-	513	-	-	# 9	# 16	200	# 9	# 15	208
Stage 1	-	-	-	-	-	-	156	188	-	174	207	-
Stage 2	-	-	-	-	-	-	163	204	-	144	178	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	546	-	-	513	-	-	-	# 11	200	-	# 11	208
Mov Capacity-2 Maneuver	-	-	-	-	-	-	-	# 11	-	-	# 11	-
Stage 1	-	-	-	-	-	-	128	155	-	143	178	-
Stage 2	-	-	-	-	-	-	82	176	-	53	146	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.7	+	+
HCM LOS			-	-

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	+	546	-	-	513	-	-	+
HCM Lane V/C Ratio	+	0.177	-	-	0.138	-	-	+
HCM Control Delay (s)	+	13.008	-	-	13.135	-	-	+
HCM Lane LOS	+	B			B			+
HCM 95th %tile Q(veh)	+	0.639	-	-	0.475	-	-	+

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	307	494	265	248	554	63	336	825	152	29	345	245
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	1	2	1	2	2	1	2	2	1
Cap, veh/h	352	1003	426	304	903	384	402	1296	551	84	952	404
Arrive On Green	0.20	0.27	0.27	0.17	0.24	0.24	0.12	0.35	0.35	0.02	0.26	0.26
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	3442	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	334	537	288	270	602	68	365	897	165	32	375	266
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1721	1863	1583	1721	1863	1583
Q Serve(g_s), s	16.9	11.2	14.8	13.5	13.3	3.1	9.5	18.8	6.9	0.8	7.6	13.7
Cycle Q Clear(g_c), s	16.9	11.2	14.8	13.5	13.3	3.1	9.5	18.8	6.9	0.8	7.6	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	1003	426	304	903	384	402	1296	551	84	952	404
V/C Ratio(X)	0.95	0.54	0.68	0.89	0.67	0.18	0.91	0.69	0.30	0.38	0.39	0.66
Avail Cap(c_a), veh/h	352	1177	500	318	1108	471	402	1374	584	171	1124	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	28.3	29.6	36.8	31.1	27.2	39.6	25.4	21.6	43.6	28.0	30.3
Incr Delay (d2), s/veh	35.0	0.4	2.9	24.2	1.1	0.2	24.1	1.4	0.3	2.8	0.3	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	10.9	5.3	6.1	8.1	6.2	1.2	5.5	8.8	2.6	0.4	3.5	5.7
Lane Grp Delay (d), s/veh	70.9	28.8	32.5	60.9	32.2	27.4	63.7	26.8	21.9	46.4	28.3	32.8
Lane Grp LOS	E	C	C	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		1159			940			1427			673	
Approach Delay, s/veh		41.9			40.1			35.7			30.9	
Approach LOS		D			D			D			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	22.0	28.9		19.6	26.5		14.6	36.1		6.2	27.7	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	18.0	28.7		16.3	27.0		10.6	33.5		4.5	27.4	
Max Q Clear Time (g_c+I1), s	18.9	16.8		15.5	15.3		11.5	20.8		2.8	15.7	
Green Ext Time (p_c), s	0.0	6.8		0.1	6.7		0.0	8.0		0.0	7.5	

Intersection Summary												
HCM 2010 Ctrl Delay			37.6									
HCM 2010 LOS			D									

Notes

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	27	213	90	38	174	39	101	22	54	40	39	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	232	98	41	189	42	110	24	59	43	42	30
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.4	11.9	11.3	10.3
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	57%	8%	15%	37%
Vol Thru, %	12%	65%	69%	36%
Vol Right, %	31%	27%	16%	26%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	177	330	251	107
LT Vol	22	213	174	39
Through Vol	54	90	39	28
RT Vol	101	27	38	40
Lane Flow Rate	192	359	273	116
Geometry Grp	1	1	1	1
Degree of Util (X)	0.306	0.51	0.403	0.19
Departure Headway (Hd)	5.731	5.12	5.32	5.877
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	625	703	674	608
Service Time	3.783	3.163	3.366	3.935
HCM Lane V/C Ratio	0.307	0.511	0.405	0.191
HCM Control Delay	11.3	13.4	11.9	10.3
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.3	2.9	1.9	0.7

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	59	318	156	152	419	109	62	502	125	127	613	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Cap, veh/h	82	751	319	202	1004	427	86	1362	579	172	1543	656
Arrive On Green	0.05	0.20	0.20	0.11	0.27	0.27	0.05	0.37	0.37	0.10	0.41	0.41
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	64	346	170	165	455	118	67	546	136	138	666	48
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.7	6.3	7.4	7.0	7.8	4.5	2.9	8.3	4.6	5.8	9.8	1.4
Cycle Q Clear(g_c), s	2.7	6.3	7.4	7.0	7.8	4.5	2.9	8.3	4.6	5.8	9.8	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	82	751	319	202	1004	427	86	1362	579	172	1543	656
V/C Ratio(X)	0.78	0.46	0.53	0.82	0.45	0.28	0.78	0.40	0.24	0.80	0.43	0.07
Avail Cap(c_a), veh/h	204	1313	558	232	1371	583	141	1362	579	185	1543	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	26.9	27.3	33.2	23.3	22.1	36.1	18.1	16.9	33.9	16.0	13.6
Incr Delay (d2), s/veh	14.6	0.4	1.4	17.8	0.3	0.3	14.2	0.9	1.0	20.7	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.5	2.9	2.9	4.1	3.5	1.7	1.6	3.9	1.8	3.6	4.4	0.5
Lane Grp Delay (d), s/veh	50.7	27.4	28.7	51.0	23.6	22.4	50.2	19.0	17.8	54.6	16.9	13.8
Lane Grp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		580			738			749			852	
Approach Delay, s/veh		30.3			29.5			21.5			22.8	
Approach LOS		C			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	7.5	20.0		12.7	25.1		7.7	32.5		11.4	36.2	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	8.8	27.0		10.0	28.2		6.1	28.0		8.0	29.9	
Max Q Clear Time (g_c+I1), s	4.7	9.4		9.0	9.8		4.9	10.3		7.8	11.8	
Green Ext Time (p_c), s	0.0	6.1		0.0	6.2		0.0	8.6		0.0	8.7	

Intersection Summary	
HCM 2010 Ctrl Delay	25.7
HCM 2010 LOS	C

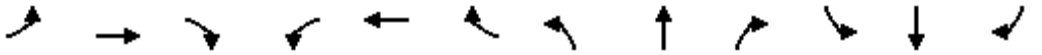
Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	56	181	467	53	68	254	973	508	92	790	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0
Lanes	1	1	1	2	2	0	1	2	1	1	2	0
Cap, veh/h	27	238	202	588	528	449	333	1545	657	127	1053	32
Arrive On Green	0.01	0.13	0.13	0.17	0.28	0.28	0.19	0.41	0.41	0.07	0.29	0.29
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3725	1583	1774	3597	109
Grp Volume(v), veh/h	16	61	197	508	58	74	276	1058	552	100	445	440
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1863	1583	1774	1863	1844
Q Serve(g_s), s	0.7	2.3	6.4	11.3	1.8	2.8	11.8	18.3	24.8	4.4	17.5	17.5
Cycle Q Clear(g_c), s	0.7	2.3	6.4	11.3	1.8	2.8	11.8	18.3	24.8	4.4	17.5	17.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	27	238	202	588	528	449	333	1545	657	127	545	539
V/C Ratio(X)	0.60	0.26	0.98	0.86	0.11	0.16	0.83	0.68	0.84	0.78	0.82	0.82
Avail Cap(c_a), veh/h	101	636	541	610	860	731	333	1669	709	148	660	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	31.1	14.7	31.9	20.9	21.3	30.9	18.9	20.8	36.1	26.0	26.0
Incr Delay (d2), s/veh	19.9	0.6	24.1	12.0	0.1	0.2	16.0	1.1	8.4	20.8	6.6	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.5	1.1	3.7	5.8	0.8	1.1	6.7	8.3	10.8	2.7	8.9	8.8
Lane Grp Delay (d), s/veh	58.6	31.7	38.8	43.9	21.0	21.5	46.9	20.0	29.2	56.9	32.6	32.7
Lane Grp LOS	E	C	D	D	C	C	D	B	C	E	C	C
Approach Vol, veh/h		274			640			1886			985	
Approach Delay, s/veh		38.4			39.2			26.6			35.1	
Approach LOS		D			D			C			D	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	5.2	14.6		17.5	26.9		19.3	37.3		9.7	27.6	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.5	4.5		4.0	4.5	
Max Green Setting (Gmax), s	4.5	27.0		14.0	36.5		14.0	35.4		6.6	28.0	
Max Q Clear Time (g_c+I1), s	2.7	8.4		13.3	4.8		13.8	26.8		6.4	19.5	
Green Ext Time (p_c), s	0.0	1.7		0.2	1.9		0.1	6.0		0.0	3.6	

Intersection Summary												
HCM 2010 Ctrl Delay			31.8									
HCM 2010 LOS			C									

Notes

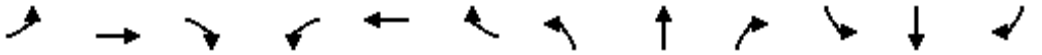


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	89	363	209	223	391	53	256	675	272	107	430	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3
Lanes	1	2	0	1	2	1	1	2	0	1	2	1
Cap, veh/h	124	531	301	257	1164	495	292	885	357	145	996	423
Arrive On Green	0.07	0.24	0.24	0.15	0.31	0.31	0.16	0.35	0.35	0.08	0.27	0.27
Sat Flow, veh/h	1774	2234	1267	1774	3725	1583	1774	2527	1019	1774	3725	1583
Grp Volume(v), veh/h	97	328	294	242	425	58	278	541	489	116	467	77
Grp Sat Flow(s),veh/h/ln	1774	1863	1639	1774	1863	1583	1774	1863	1683	1774	1863	1583
Q Serve(g_s), s	4.9	15.0	15.3	12.4	8.1	2.4	14.2	24.4	24.4	5.9	9.6	3.4
Cycle Q Clear(g_c), s	4.9	15.0	15.3	12.4	8.1	2.4	14.2	24.4	24.4	5.9	9.6	3.4
Prop In Lane	1.00		0.77	1.00		1.00	1.00		0.61	1.00		1.00
Lane Grp Cap(c), veh/h	124	442	389	257	1164	495	292	653	590	145	996	423
V/C Ratio(X)	0.78	0.74	0.75	0.94	0.37	0.12	0.95	0.83	0.83	0.80	0.47	0.18
Avail Cap(c_a), veh/h	232	549	483	257	1164	495	292	705	637	155	1122	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	32.4	32.5	38.8	24.5	22.5	37.9	27.3	27.3	41.4	28.1	25.9
Incr Delay (d2), s/veh	10.1	4.2	5.2	40.1	0.2	0.1	39.6	7.7	8.5	24.0	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	2.6	7.4	6.8	8.4	3.8	0.9	9.6	12.5	11.4	3.6	4.5	1.4
Lane Grp Delay (d), s/veh	52.0	36.6	37.7	78.9	24.6	22.6	77.5	35.0	35.7	65.3	28.5	26.1
Lane Grp LOS	D	D	D	E	C	C	E	C	D	E	C	C
Approach Vol, veh/h		719			725			1308			660	
Approach Delay, s/veh		39.1			42.6			44.3			34.7	
Approach LOS		D			D			D			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	10.4	26.3		17.3	33.1		19.1	36.6		11.5	29.0	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	12.0	27.0		13.3	28.3		15.1	34.7		8.0	27.6	
Max Q Clear Time (g_c+I1), s	6.9	17.3		14.4	10.1		16.2	26.4		7.9	11.6	
Green Ext Time (p_c), s	0.1	4.5		0.0	6.9		0.0	5.7		0.0	9.3	

Intersection Summary			
HCM 2010 Ctrl Delay		41.0	
HCM 2010 LOS		D	

Notes

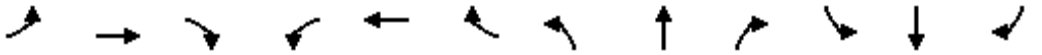


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	162	187	66	41	174	49	69	291	59	53	298	215
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Cap, veh/h	288	323	114	68	372	316	96	1090	463	81	1059	450
Arrive On Green	0.08	0.25	0.25	0.04	0.20	0.20	0.05	0.29	0.29	0.05	0.28	0.28
Sat Flow, veh/h	3442	1314	466	1774	1863	1583	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	176	0	275	45	189	53	75	316	64	58	324	234
Grp Sat Flow(s),veh/h/ln	1721	0	1780	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.2	0.0	6.2	1.1	4.1	1.2	1.9	2.9	1.3	1.5	3.1	5.6
Cycle Q Clear(g_c), s	2.2	0.0	6.2	1.1	4.1	1.2	1.9	2.9	1.3	1.5	3.1	5.6
Prop In Lane	1.00		0.26	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	288	0	437	68	372	316	96	1090	463	81	1059	450
V/C Ratio(X)	0.61	0.00	0.63	0.66	0.51	0.17	0.78	0.29	0.14	0.71	0.31	0.52
Avail Cap(c_a), veh/h	344	0	1069	177	1118	950	177	2236	950	177	2236	950
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	0.0	15.1	21.3	16.0	14.9	21.0	12.3	11.7	21.2	12.6	13.5
Incr Delay (d2), s/veh	2.3	0.0	1.5	10.6	1.1	0.2	12.8	0.1	0.1	11.0	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.0	0.0	2.5	0.7	1.8	0.5	1.1	1.2	0.5	0.8	1.3	2.0
Lane Grp Delay (d), s/veh	22.2	0.0	16.6	31.9	17.1	15.1	33.8	12.4	11.9	32.1	12.8	14.4
Lane Grp LOS	C		B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		451			287			455			616	
Approach Delay, s/veh		18.8			19.1			15.9			15.2	
Approach LOS		B			B			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	7.8	15.5		5.7	13.5		6.4	17.7		6.1	17.3	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	4.5	27.0		4.5	27.0		4.5	27.0		4.5	27.0	
Max Q Clear Time (g_c+I1), s	4.2	8.2		3.1	6.1		3.9	4.9		3.5	7.6	
Green Ext Time (p_c), s	0.0	2.8		0.0	2.9		0.0	5.4		0.0	5.2	

Intersection Summary		
HCM 2010 Ctrl Delay		16.9
HCM 2010 LOS		B

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	43	17	9	80	14	43	27	975	54	51	1335	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	60	59	50	99	107	91	36	1366	1161	71	1402	1192
Arrive On Green	0.03	0.03	0.03	0.06	0.06	0.06	0.02	0.73	0.73	0.04	0.75	0.75
Sat Flow, veh/h	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	47	18	10	87	15	47	29	1060	59	55	1451	54
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	3.3	1.2	0.7	6.1	1.0	3.6	2.0	44.2	0.7	3.9	94.5	1.1
Cycle Q Clear(g_c), s	3.3	1.2	0.7	6.1	1.0	3.6	2.0	44.2	0.7	3.9	94.5	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	59	50	99	107	91	36	1366	1161	71	1402	1192
V/C Ratio(X)	0.78	0.31	0.20	0.88	0.14	0.52	0.80	0.78	0.05	0.78	1.03	0.05
Avail Cap(c_a), veh/h	95	401	341	99	405	344	64	1384	1177	81	1402	1192
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.2	59.4	48.9	58.9	56.2	57.5	61.2	10.3	1.3	59.7	15.5	4.0
Incr Delay (d2), s/veh	18.9	2.9	1.9	54.0	0.6	4.5	31.3	2.8	0.0	33.7	33.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.8	0.6	0.3	4.3	0.5	1.6	1.3	19.3	0.4	2.4	52.4	0.4
Lane Grp Delay (d), s/veh	79.1	62.3	50.9	112.8	56.8	62.0	92.6	13.2	1.3	93.5	49.0	4.0
Lane Grp LOS	E	E	D	F	E	E	F	B	A	F	F	A
Approach Vol, veh/h		75			149			1148			1560	
Approach Delay, s/veh		71.3			91.2			14.6			49.0	
Approach LOS		E			F			B			D	
Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	8.3	8.5		11.5	11.7		6.6	96.6		9.0	99.0	
Change Period (Y+Rc), s	4.0	4.5		4.5	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	6.7	27.0		7.0	27.3		4.5	93.3		5.7	94.5	
Max Q Clear Time (g_c+I1), s	5.3	3.2		8.1	5.6		4.0	46.2		5.9	96.5	
Green Ext Time (p_c), s	0.0	0.1		0.0	0.4		0.0	41.1		0.0	0.0	
Intersection Summary												
HCM 2010 Ctrl Delay			38.2									
HCM 2010 LOS			D									
Notes												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	153	31	363	138	24	66	202	1220	68	97	905	59
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	1	1	1	1	0	1	2	1	1	2	1
Cap, veh/h	464	513	436	418	120	333	251	1500	637	127	1241	527
Arrive On Green	0.05	0.28	0.28	0.05	0.28	0.28	0.14	0.40	0.40	0.07	0.33	0.33
Sat Flow, veh/h	1774	1863	1583	1774	437	1211	1774	3725	1583	1774	3725	1583
Grp Volume(v), veh/h	166	34	395	150	0	98	220	1326	74	105	984	64
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1649	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	4.1	1.2	20.8	4.1	0.0	4.0	10.5	28.5	2.5	5.0	20.7	2.4
Cycle Q Clear(g_c), s	4.1	1.2	20.8	4.1	0.0	4.0	10.5	28.5	2.5	5.0	20.7	2.4
Prop In Lane	1.00		1.00	1.00		0.73	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	513	436	418	0	454	251	1500	637	127	1241	527
V/C Ratio(X)	0.36	0.07	0.91	0.36	0.00	0.22	0.88	0.88	0.12	0.82	0.79	0.12
Avail Cap(c_a), veh/h	464	585	497	418	0	518	251	1515	644	127	1256	534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	23.1	30.2	22.0	0.0	24.1	36.3	23.9	16.2	39.5	26.1	20.0
Incr Delay (d2), s/veh	0.5	0.1	18.8	0.5	0.0	0.2	27.6	6.5	0.1	33.6	3.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.9	0.5	10.3	0.5	0.0	1.6	6.6	14.1	1.0	3.5	10.0	0.9
Lane Grp Delay (d), s/veh	23.5	23.1	49.0	22.5	0.0	24.3	63.9	30.4	16.2	73.1	29.6	20.1
Lane Grp LOS	C	C	D	C		C	E	C	B	E	C	C
Approach Vol, veh/h		595			248			1620			1153	
Approach Delay, s/veh		40.4			23.2			34.3			33.0	
Approach LOS		D			C			C			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	8.6	28.2		8.6	28.2		16.2	39.2		10.2	33.2	
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	4.1	27.1		4.1	27.1		12.2	35.1		6.2	29.1	
Max Q Clear Time (g_c+I1), s	6.1	22.8		6.1	6.0		12.5	30.5		7.0	22.7	
Green Ext Time (p_c), s	0.0	1.0		0.0	2.2		0.0	4.3		0.0	5.8	

Intersection Summary			
HCM 2010 Ctrl Delay		34.2	
HCM 2010 LOS		C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	717	149	474	227	982	0	0	1092	240
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln				186.3	186.3	186.3	186.3	186.3	0.0	0.0	186.3	186.3
Lanes				2	1	1	1	2	0	0	2	1
Cap, veh/h				1124	590	502	282	2187	0	0	1426	606
Arrive On Green				0.32	0.32	0.32	0.16	0.59	0.00	0.00	0.38	0.38
Sat Flow, veh/h				3548	1863	1583	1774	3725	0	0	3725	1583
Grp Volume(v), veh/h				779	162	515	247	1067	0	0	1187	261
Grp Sat Flow(s),veh/h/ln				1774	1863	1583	1774	1863	0	0	1863	1583
Q Serve(g_s), s				17.0	5.8	28.0	12.0	14.6	0.0	0.0	25.5	10.8
Cycle Q Clear(g_c), s				17.0	5.8	28.0	12.0	14.6	0.0	0.0	25.5	10.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1124	590	502	282	2187	0	0	1426	606
V/C Ratio(X)				0.69	0.27	1.03	0.87	0.49	0.00	0.00	0.83	0.43
Avail Cap(c_a), veh/h				1124	590	502	301	2255	0	0	1454	618
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				26.4	22.6	30.2	36.3	10.6	0.0	0.0	24.7	20.2
Incr Delay (d2), s/veh				1.9	0.2	47.2	22.8	0.2	0.0	0.0	4.2	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln				7.8	2.7	17.6	7.1	6.3	0.0	0.0	12.4	4.2
Lane Grp Delay (d), s/veh				28.3	22.8	77.4	59.1	10.7	0.0	0.0	28.9	20.7
Lane Grp LOS				C	C	F	E	B			C	C
Approach Vol, veh/h					1456			1314			1448	
Approach Delay, s/veh					45.1			19.8			27.5	
Approach LOS					D			B			C	

Timer												
Assigned Phs					8		5	2			6	
Phs Duration (G+Y+Rc), s					32.0		18.1	56.4			38.3	
Change Period (Y+Rc), s					4.0		4.0	4.5			4.5	
Max Green Setting (Gmax), s					28.0		15.0	53.5			34.5	
Max Q Clear Time (g_c+I1), s					30.0		14.0	16.6			27.5	
Green Ext Time (p_c), s					0.0		0.1	25.9			6.3	

Intersection Summary		
HCM 2010 Ctrl Delay		31.2
HCM 2010 LOS		C

Notes
User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	209	148	298	0	0	0	0	1012	746	487	1403	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3				0.0	186.3	186.3	186.3	186.3	0.0
Lanes	1	2	1				0	2	1	1	2	0
Cap, veh/h	374	785	334				0	1513	643	503	2698	0
Arrive On Green	0.21	0.21	0.21				0.00	0.41	0.41	0.28	0.72	0.00
Sat Flow, veh/h	1774	3725	1583				0	3725	1583	1774	3725	0
Grp Volume(v), veh/h	227	161	324				0	1100	811	529	1525	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583				0	1863	1583	1774	1863	0
Q Serve(g_s), s	15.1	4.7	26.5				0.0	32.5	53.0	37.0	24.9	0.0
Cycle Q Clear(g_c), s	15.1	4.7	26.5				0.0	32.5	53.0	37.0	24.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	374	785	334				0	1513	643	503	2698	0
V/C Ratio(X)	0.61	0.21	0.97				0.00	0.73	1.26	1.05	0.57	0.00
Avail Cap(c_a), veh/h	374	785	334				0	1513	643	503	2698	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.6	42.5	51.1				0.0	32.7	38.8	46.8	8.4	0.0
Incr Delay (d2), s/veh	2.8	0.1	41.4				0.0	1.8	129.8	54.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	7.2	2.3	14.6				0.0	15.7	44.4	24.5	10.5	0.0
Lane Grp Delay (d), s/veh	49.4	42.6	92.5				0.0	34.4	168.5	101.2	8.7	0.0
Lane Grp LOS	D	D	F					C	F	F	A	
Approach Vol, veh/h		712						1911			2054	
Approach Delay, s/veh		67.5						91.3			32.5	
Approach LOS		E						F			C	

Timer												
Assigned Phs		4						2		1	6	
Phs Duration (G+Y+Rc), s		31.5						57.5		41.5	99.0	
Change Period (Y+Rc), s		4.0						4.5		4.5	4.5	
Max Green Setting (Gmax), s		27.5						53.0		37.0	94.0	
Max Q Clear Time (g_c+I1), s		28.5						55.0		39.0	26.9	
Green Ext Time (p_c), s		0.0						0.0		0.0	25.4	

Intersection Summary	
HCM 2010 Ctrl Delay	61.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	330	36	135	168	48	268	153	1171	74	387	1238	126
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3	190.0	186.3	190.0	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	0	1	1	0	2	0	1	2	1	2	2	1
Cap, veh/h	428	47	422	372	106	422	197	1747	743	496	1870	795
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.11	0.47	0.47	0.14	0.50	0.50
Sat Flow, veh/h	1608	175	1583	1396	397	1583	1774	3725	1583	3442	3725	1583
Grp Volume(v), veh/h	398	0	147	235	0	291	166	1273	80	421	1346	137
Grp Sat Flow(s),veh/h/ln	1782	0	1583	1793	0	1583	1774	1863	1583	1721	1863	1583
Q Serve(g_s), s	21.9	0.0	7.8	11.5	0.0	17.1	9.5	28.6	2.9	12.4	29.2	4.9
Cycle Q Clear(g_c), s	21.9	0.0	7.8	11.5	0.0	17.1	9.5	28.6	2.9	12.4	29.2	4.9
Prop In Lane	0.90		1.00	0.78		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	475	0	422	478	0	422	197	1747	743	496	1870	795
V/C Ratio(X)	0.84	0.00	0.35	0.49	0.00	0.69	0.84	0.73	0.11	0.85	0.72	0.17
Avail Cap(c_a), veh/h	545	0	484	478	0	422	239	1843	783	597	1987	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	0.0	30.8	32.1	0.0	34.2	45.2	22.2	15.4	43.3	20.1	14.1
Incr Delay (d2), s/veh	10.0	0.0	0.5	0.8	0.0	4.7	19.8	1.4	0.1	9.6	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	11.3	0.0	3.2	5.3	0.0	7.4	5.4	13.4	1.1	6.1	13.4	1.9
Lane Grp Delay (d), s/veh	45.9	0.0	31.3	32.9	0.0	38.9	65.0	23.6	15.5	52.9	21.3	14.2
Lane Grp LOS	D		C	C		D	E	C	B	D	C	B
Approach Vol, veh/h		545			526			1519			1904	
Approach Delay, s/veh		42.0			36.2			27.7			27.8	
Approach LOS		D			D			C			C	

Timer												
Assigned Phs		4			8		5	2		1	6	
Phs Duration (G+Y+Rc), s		31.6			31.6		15.5	53.1		18.9	56.6	
Change Period (Y+Rc), s		4.0			4.0		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s		31.7			27.5		14.0	51.3		18.0	55.3	
Max Q Clear Time (g_c+I1), s		23.9			19.1		11.5	30.6		14.4	31.2	
Green Ext Time (p_c), s		3.7			4.1		0.1	18.1		0.6	20.6	

Intersection Summary		
HCM 2010 Ctrl Delay		30.5
HCM 2010 LOS		C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	439	46	0	0	0	25	159	153	29	227	30
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	186.3				190.0	186.3	190.0	190.0	186.3	190.0
Lanes	0	2	1				0	1	0	0	1	0
Cap, veh/h	54	1041	466				157	338	299	172	582	73
Arrive On Green	0.29	0.29	0.29				0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	183	3533	1583				56	867	766	84	1492	186
Grp Volume(v), veh/h	263	240	50				366	0	0	312	0	0
Grp Sat Flow(s),veh/h/ln	1854	1863	1583				1689	0	0	1763	0	0
Q Serve(g_s), s	3.3	3.0	0.7				0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.3	3.0	0.7				4.7	0.0	0.0	3.6	0.0	0.0
Prop In Lane	0.10		1.00				0.07		0.45	0.10		0.11
Lane Grp Cap(c), veh/h	546	549	466				794	0	0	826	0	0
V/C Ratio(X)	0.48	0.44	0.11				0.46	0.00	0.00	0.38	0.00	0.00
Avail Cap(c_a), veh/h	1787	1796	1527				1797	0	0	1858	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.3	8.1	7.3				6.7	0.0	0.0	6.4	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.6	0.1				0.4	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.3	1.2	0.2				1.4	0.0	0.0	1.2	0.0	0.0
Lane Grp Delay (d), s/veh	8.9	8.7	7.4				7.2	0.0	0.0	6.7	0.0	0.0
Lane Grp LOS	A	A	A				A			A		
Approach Vol, veh/h		553						366			312	
Approach Delay, s/veh		8.7						7.2			6.7	
Approach LOS		A						A			A	

Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		12.9						15.6			15.6	
Change Period (Y+Rc), s		4.5						4.5			4.5	
Max Green Setting (Gmax), s		27.5						28.5			28.5	
Max Q Clear Time (g_c+I1), s		5.3						6.7			5.6	
Green Ext Time (p_c), s		3.2						4.4			4.5	

Intersection Summary												
HCM 2010 Ctrl Delay			7.7									
HCM 2010 LOS			A									

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	354	1230	208	0	0	0	0	164	47	111	145	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	190.0	186.3	190.0				0.0	186.3	190.0	190.0	186.3	0.0
Lanes	0	3	0				0	1	0	0	2	0
Cap, veh/h	528	1975	340				0	409	117	354	511	0
Arrive On Green	0.52	0.52	0.52				0.00	0.29	0.29	0.29	0.29	0.00
Sat Flow, veh/h	1008	3768	648				0	1393	399	722	1741	0
Grp Volume(v), veh/h	692	646	610				0	0	229	127	152	0
Grp Sat Flow(s),veh/h/ln	1812	1863	1748				0	0	1792	767	1695	0
Q Serve(g_s), s	14.5	12.5	12.6				0.0	0.0	5.1	4.7	3.4	0.0
Cycle Q Clear(g_c), s	14.5	12.5	12.6				0.0	0.0	5.1	9.8	3.4	0.0
Prop In Lane	0.56		0.37				0.00		0.22	0.96		0.00
Lane Grp Cap(c), veh/h	950	976	917				0	0	526	368	497	0
V/C Ratio(X)	0.73	0.66	0.67				0.00	0.00	0.44	0.34	0.31	0.00
Avail Cap(c_a), veh/h	1057	1087	1020				0	0	988	668	934	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.0	8.6	8.6				0.0	0.0	14.1	17.9	13.5	0.0
Incr Delay (d2), s/veh	2.3	1.3	1.4				0.0	0.0	0.6	0.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	5.8	5.0	4.8				0.0	0.0	2.1	1.4	1.3	0.0
Lane Grp Delay (d), s/veh	11.3	9.8	10.0				0.0	0.0	14.7	18.4	13.9	0.0
Lane Grp LOS	B	A	B						B	B	B	
Approach Vol, veh/h		1948						229			279	
Approach Delay, s/veh		10.4						14.7			16.0	
Approach LOS		B						B			B	

Timer												
Assigned Phs		4						2			6	
Phs Duration (G+Y+Rc), s		30.4						19.0			19.0	
Change Period (Y+Rc), s		4.5						4.5			4.5	
Max Green Setting (Gmax), s		28.8						27.2			27.2	
Max Q Clear Time (g_c+I1), s		16.5						7.1			11.8	
Green Ext Time (p_c), s		9.4						3.0			2.7	

Intersection Summary												
HCM 2010 Ctrl Delay			11.5									
HCM 2010 LOS			B									

Notes												

Intersection	
Intersection Delay, s/veh	60.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	74	316	121	142	343	40	167	113	119	67	201	63
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	343	132	154	373	43	182	123	129	73	218	68
Number of Lanes	1	1	0	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	68	61.9	38.7	74.7
HCM LOS	F	F	E	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	60%	0%	100%	0%	100%	0%	20%
Vol Thru, %	40%	0%	0%	72%	0%	90%	61%
Vol Right, %	0%	100%	0%	28%	0%	10%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	280	119	74	437	142	383	331
LT Vol	113	0	0	316	0	343	201
Through Vol	0	119	0	121	0	40	63
RT Vol	167	0	74	0	142	0	67
Lane Flow Rate	304	129	80	475	154	416	360
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.843	0.322	0.223	1	0.427	1	0.981
Departure Headway (Hd)	9.97	8.972	9.975	9.276	9.951	9.374	9.814
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	365	401	360	394	361	387	371
Service Time	7.715	6.718	7.754	7.055	7.731	7.154	7.852
HCM Lane V/C Ratio	0.833	0.322	0.222	1.206	0.427	1.075	0.97
HCM Control Delay	48.4	15.9	15.6	76.9	20	77.4	74.7
HCM Lane LOS	E	C	C	F	C	F	F
HCM 95th-tile Q	7.7	1.4	0.8	12	2.1	11.9	11.2

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	69.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	37	190	51	46	137	192	63	225	110	331	220	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	207	55	50	149	209	68	245	120	360	239	40
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	41.2	73.8	75.5	76.5
HCM LOS	E	F	F	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	13%	12%	56%
Vol Thru, %	57%	68%	37%	37%
Vol Right, %	28%	18%	51%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	398	278	375	588
LT Vol	225	190	137	220
Through Vol	110	51	192	37
RT Vol	63	37	46	331
Lane Flow Rate	433	302	408	639
Geometry Grp	1	1	1	1
Degree of Util (X)	1	0.798	0.996	1
Departure Headway (Hd)	8.916	9.504	8.793	9.19
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	407	381	416	403
Service Time	6.98	7.538	6.824	7.19
HCM Lane V/C Ratio	1.064	0.793	0.981	1.586
HCM Control Delay	75.5	41.2	73.8	76.5
HCM Lane LOS	F	E	F	F
HCM 95th-tile Q	12.3	6.9	12.2	12.1

Notes

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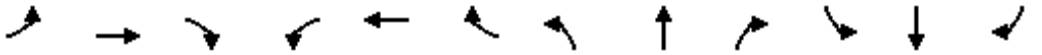


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	48	370	68	125	362	129	67	803	128	132	841	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Cap, veh/h	247	655	556	250	655	556	293	1673	266	288	1784	172
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.53	0.53	0.53	0.53	0.53	0.53
Sat Flow, veh/h	868	1863	1583	914	1863	1583	560	3138	500	555	3346	322
Grp Volume(v), veh/h	52	402	74	136	393	140	73	518	494	143	509	493
Grp Sat Flow(s),veh/h/ln	868	1863	1583	914	1863	1583	560	1863	1775	555	1863	1806
Q Serve(g_s), s	4.1	13.9	2.5	11.3	13.5	4.9	7.5	14.0	14.0	17.5	13.7	13.7
Cycle Q Clear(g_c), s	17.6	13.9	2.5	25.2	13.5	4.9	21.2	14.0	14.0	31.5	13.7	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.18
Lane Grp Cap(c), veh/h	247	655	556	250	655	556	293	993	946	288	993	963
V/C Ratio(X)	0.21	0.61	0.13	0.54	0.60	0.25	0.25	0.52	0.52	0.50	0.51	0.51
Avail Cap(c_a), veh/h	248	657	559	252	657	559	307	1040	990	302	1040	1008
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	20.9	17.2	31.3	20.8	18.0	18.5	11.8	11.8	22.0	11.7	11.7
Incr Delay (d2), s/veh	0.4	1.7	0.1	2.4	1.5	0.2	0.4	0.4	0.4	1.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.9	6.6	1.0	2.7	6.3	1.9	1.0	6.0	5.7	2.4	5.9	5.7
Lane Grp Delay (d), s/veh	28.4	22.6	17.3	33.7	22.3	18.2	18.9	12.2	12.2	23.3	12.1	12.1
Lane Grp LOS	C	C	B	C	C	B	B	B	B	C	B	B
Approach Vol, veh/h		528			669			1085			1145	
Approach Delay, s/veh		22.4			23.8			12.7			13.5	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs		4			8			2			6	
Phs Duration (G+Y+Rc), s		31.9			31.9			46.1			46.1	
Change Period (Y+Rc), s		4.5			4.5			4.5			4.5	
Max Green Setting (Gmax), s		27.5			27.5			43.5			43.5	
Max Q Clear Time (g_c+I1), s		19.6			27.2			23.2			33.5	
Green Ext Time (p_c), s		3.9			0.2			14.2			8.0	

Intersection Summary												
HCM 2010 Ctrl Delay			16.6									
HCM 2010 LOS			B									

Notes

Intersection	
Intersection Delay, s/veh	8.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	21	652	32	28	612	29	45	11	32	21	10	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	75	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	709	35	30	665	32	49	12	35	23	11	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	697	0	0	743	0	0	1533	1530	726	1537	1531	681
Stage 1	-	-	-	-	-	-	772	772	-	742	742	-
Stage 2	-	-	-	-	-	-	761	758	-	795	789	-
Follow-up Headway	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Capacity-1 Maneuver	899	-	-	864	-	-	95	117	425	95	117	450
Stage 1	-	-	-	-	-	-	392	409	-	408	422	-
Stage 2	-	-	-	-	-	-	398	415	-	381	402	-
Time blocked-Platoon, %		-	-		-	-						
Mov Capacity-1 Maneuver	899	-	-	864	-	-	79	110	425	76	110	450
Mov Capacity-2 Maneuver	-	-	-	-	-	-	79	110	-	76	110	-
Stage 1	-	-	-	-	-	-	382	399	-	398	407	-
Stage 2	-	-	-	-	-	-	350	401	-	331	392	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.4	106.7	53.1
HCM LOS			F	F

Minor Lane / Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	118	899	-	-	864	-	-	134
HCM Lane V/C Ratio	0.811	0.025	-	-	0.035	-	-	0.462
HCM Control Delay (s)	106.7	9.109	-	-	9.319	-	-	53.1
HCM Lane LOS	F	A			A			F
HCM 95th %tile Q(veh)	4.753	0.078	-	-	0.109	-	-	2.093

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection	
Intersection Delay, s/veh	38.7
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	46	85	47	50	78	86	45	610	76	98	586	46
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	92	51	54	85	93	49	663	83	107	637	50
Number of Lanes	0	1	0	0	1	0	0	2	0	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	18	19.5	42.4	45.7
HCM LOS	C	C	E	E

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	13%	0%	26%	23%	25%	0%
Vol Thru, %	87%	80%	48%	36%	75%	86%
Vol Right, %	0%	20%	26%	40%	0%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	350	381	178	214	391	339
LT Vol	305	305	85	78	293	293
Through Vol	0	76	47	86	0	46
RT Vol	45	0	46	50	98	0
Lane Flow Rate	380	414	193	233	425	368
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.833	0.882	0.447	0.519	0.936	0.789
Departure Headway (Hd)	7.879	7.669	8.316	8.038	7.932	7.705
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	460	472	433	449	455	468
Service Time	5.641	5.43	6.368	6.087	5.694	5.467
HCM Lane V/C Ratio	0.826	0.877	0.446	0.519	0.934	0.786
HCM Control Delay	39.3	45.3	18	19.5	56.1	33.8
HCM Lane LOS	E	E	C	C	F	D
HCM 95th-tile Q	8.1	9.4	2.3	2.9	10.9	7.1

Notes

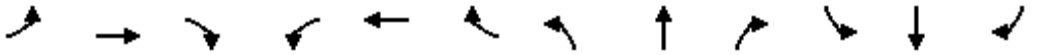
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	32	48	62	36	47	34	944	59	77	886	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Cap, veh/h	63	66	98	84	80	105	55	1670	104	107	1788	97
Arrive On Green	0.04	0.10	0.10	0.05	0.11	0.11	0.03	0.48	0.48	0.06	0.51	0.51
Sat Flow, veh/h	1774	678	1007	1774	734	960	1774	3471	216	1774	3503	189
Grp Volume(v), veh/h	45	0	87	67	0	90	37	551	539	84	512	503
Grp Sat Flow(s),veh/h/ln	1774	0	1685	1774	0	1693	1774	1863	1825	1774	1863	1829
Q Serve(g_s), s	1.4	0.0	2.8	2.1	0.0	2.9	1.2	12.5	12.5	2.7	10.7	10.7
Cycle Q Clear(g_c), s	1.4	0.0	2.8	2.1	0.0	2.9	1.2	12.5	12.5	2.7	10.7	10.7
Prop In Lane	1.00		0.60	1.00		0.57	1.00		0.12	1.00		0.10
Lane Grp Cap(c), veh/h	63	0	165	84	0	186	55	896	878	107	951	934
V/C Ratio(X)	0.71	0.00	0.53	0.79	0.00	0.48	0.67	0.61	0.61	0.78	0.54	0.54
Avail Cap(c_a), veh/h	142	0	791	170	0	822	130	1069	1047	201	1144	1123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	0.0	24.7	27.1	0.0	24.1	27.6	11.0	11.0	26.6	9.5	9.5
Incr Delay (d2), s/veh	13.7	0.0	2.6	15.3	0.0	2.0	13.3	0.8	0.8	11.6	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	0.9	0.0	1.3	1.3	0.0	1.3	0.7	5.1	5.0	1.5	4.4	4.3
Lane Grp Delay (d), s/veh	41.1	0.0	27.3	42.3	0.0	26.0	40.8	11.8	11.8	38.3	10.0	10.0
Lane Grp LOS	D		C	D		C	D	B	B	D	A	A
Approach Vol, veh/h		132			157			1127			1099	
Approach Delay, s/veh		32.0			33.0			12.7			12.1	
Approach LOS		C			C			B			B	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	6.6	10.1		7.2	10.8		6.3	32.2		8.0	33.8	
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Max Green Setting (Gmax), s	4.6	27.0		5.5	27.9		4.2	33.0		6.5	35.3	
Max Q Clear Time (g_c+I1), s	3.4	4.8		4.1	4.9		3.2	14.5		4.7	12.7	
Green Ext Time (p_c), s	0.0	1.0		0.0	1.0		0.0	13.1		0.0	15.2	

Intersection Summary												
HCM 2010 Ctrl Delay			14.7									
HCM 2010 LOS			B									

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	76	1476	55	29	1309	33	41	20	22	18	40	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3	186.3
Lanes	1	2	1	1	2	1	1	1	1	1	1	1
Cap, veh/h	106	2177	925	48	2056	874	62	152	129	33	122	104
Arrive On Green	0.06	0.58	0.58	0.03	0.55	0.55	0.03	0.08	0.08	0.02	0.07	0.07
Sat Flow, veh/h	1774	3725	1583	1774	3725	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	83	1604	60	32	1423	36	45	22	24	20	43	42
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1863	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.9	19.6	1.0	1.1	17.3	0.7	1.6	0.7	0.9	0.7	1.4	1.6
Cycle Q Clear(g_c), s	2.9	19.6	1.0	1.1	17.3	0.7	1.6	0.7	0.9	0.7	1.4	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	106	2177	925	48	2056	874	62	152	129	33	122	104
V/C Ratio(X)	0.78	0.74	0.06	0.66	0.69	0.04	0.73	0.15	0.19	0.60	0.35	0.41
Avail Cap(c_a), veh/h	142	2178	926	114	2118	900	114	820	697	114	820	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	9.5	5.6	30.1	10.1	6.4	29.8	26.7	26.7	30.4	27.9	28.0
Incr Delay (d2), s/veh	18.1	1.3	0.0	14.3	0.9	0.0	15.2	0.4	0.7	16.1	1.7	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	1.8	7.8	0.3	0.7	6.8	0.2	0.9	0.3	0.4	0.4	0.7	0.7
Lane Grp Delay (d), s/veh	47.1	10.8	5.6	44.4	11.1	6.4	45.1	27.1	27.4	46.5	29.6	30.5
Lane Grp LOS	D	B	A	D	B	A	D	C	C	D	C	C
Approach Vol, veh/h		1747			1491			91			105	
Approach Delay, s/veh		12.4			11.7			36.1			33.2	
Approach LOS		B			B			D			C	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	8.2	41.0		6.2	39.0		6.7	9.6		5.7	8.6	
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Max Green Setting (Gmax), s	5.0	36.5		4.0	35.5		4.0	27.5		4.0	27.5	
Max Q Clear Time (g_c+I1), s	4.9	21.6		3.1	19.3		3.6	2.9		2.7	3.6	
Green Ext Time (p_c), s	0.0	14.0		0.0	15.2		0.0	0.5		0.0	0.5	

Intersection Summary			
HCM 2010 Ctrl Delay		13.3	
HCM 2010 LOS		B	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	346	649	87	60	573	124	174	573	58	198	398	286
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow veh/h/ln	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0	186.3	186.3	190.0
Lanes	1	2	0	1	2	0	1	2	0	1	2	0
Cap, veh/h	341	1281	173	84	753	163	170	886	89	189	561	400
Arrive On Green	0.19	0.40	0.40	0.05	0.25	0.25	0.10	0.27	0.27	0.11	0.28	0.28
Sat Flow, veh/h	1774	3216	433	1774	2970	642	1774	3330	336	1774	2026	1445
Grp Volume(v), veh/h	376	408	392	65	390	368	189	348	338	215	398	346
Grp Sat Flow(s),veh/h/ln	1774	1863	1786	1774	1863	1749	1774	1863	1803	1774	1863	1608
Q Serve(g_s), s	18.0	15.8	15.8	3.4	18.5	18.6	9.0	15.8	15.8	10.0	18.4	18.6
Cycle Q Clear(g_c), s	18.0	15.8	15.8	3.4	18.5	18.6	9.0	15.8	15.8	10.0	18.4	18.6
Prop In Lane	1.00		0.24	1.00		0.37	1.00		0.19	1.00		0.90
Lane Grp Cap(c), veh/h	341	742	712	84	472	443	170	496	480	189	515	445
V/C Ratio(X)	1.10	0.55	0.55	0.78	0.83	0.83	1.11	0.70	0.70	1.13	0.77	0.78
Avail Cap(c_a), veh/h	341	742	712	170	537	504	170	557	539	189	577	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	21.7	21.7	44.1	33.0	33.0	42.3	31.0	31.0	41.8	31.1	31.2
Incr Delay (d2), s/veh	79.3	0.9	0.9	14.1	9.3	10.0	101.0	3.4	3.6	106.4	5.8	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q (50%), veh/ln	15.6	7.4	7.1	1.9	9.8	9.3	8.8	7.8	7.6	10.1	9.3	8.3
Lane Grp Delay (d), s/veh	117.1	22.6	22.6	58.2	42.3	43.1	143.3	34.5	34.6	148.2	36.9	38.1
Lane Grp LOS	F	C	C	E	D	D	F	C	C	F	D	D
Approach Vol, veh/h		1176			823			875			959	
Approach Delay, s/veh		52.8			43.9			58.1			62.3	
Approach LOS		D			D			E			E	

Timer												
Assigned Phs	7	4		3	8		5	2		1	6	
Phs Duration (G+Y+Rc), s	22.0	41.8		8.4	28.2		13.0	29.4		14.0	30.4	
Change Period (Y+Rc), s	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Max Green Setting (Gmax), s	18.0	36.0		9.0	27.0		9.0	28.0		10.0	29.0	
Max Q Clear Time (g_c+I1), s	20.0	17.8		5.4	20.6		11.0	17.8		12.0	20.6	
Green Ext Time (p_c), s	0.0	9.7		0.0	3.1		0.0	6.1		0.0	5.3	

Intersection Summary												
HCM 2010 Ctrl Delay			54.5									
HCM 2010 LOS			D									

Notes

Intersection	
Intersection Delay, s/veh	26.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	72	65	25	32	41	45	37	313	77	78	373	88
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	78	71	27	35	45	49	40	340	84	85	405	96

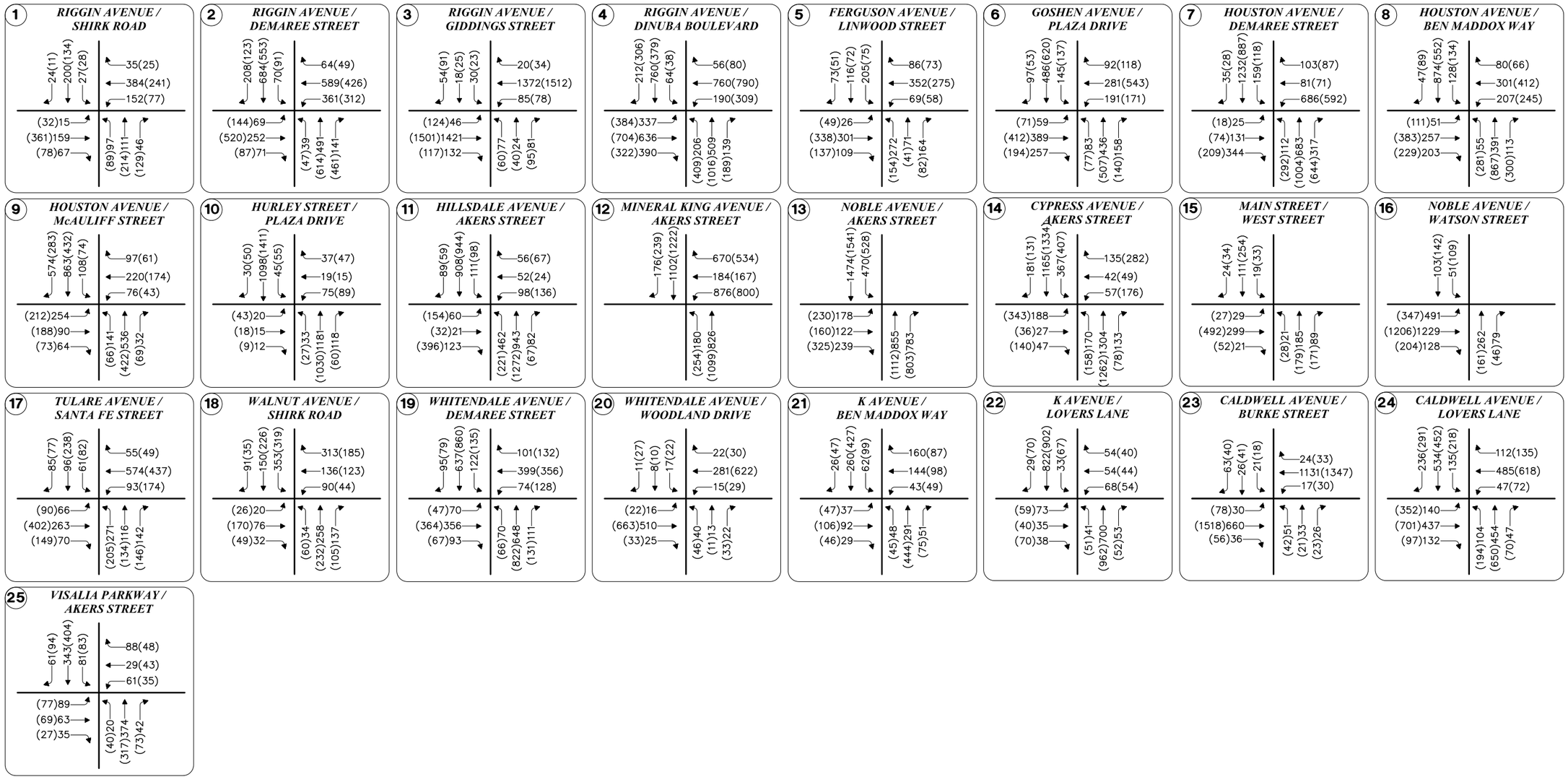
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1132	1127	453	1135	1134	382	501	0	0	424	0	0
Stage 1	623	623	-	463	463	-	-	-	-	-	-	-
Stage 2	509	504	-	672	671	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	180	205	607	179	203	665	1063	-	-	1135	-	-
Stage 1	474	478	-	579	564	-	-	-	-	-	-	-
Stage 2	547	541	-	445	455	-	-	-	-	-	-	-
Time blocked-Platoon, %								-	-		-	-
Mov Capacity-1 Maneuver	119	174	607	104	173	665	1063	-	-	1135	-	-
Mov Capacity-2 Maneuver	119	174	-	104	173	-	-	-	-	-	-	-
Stage 1	450	428	-	550	536	-	-	-	-	-	-	-
Stage 2	441	514	-	318	407	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	160.8	54.4	0.7	1.2
HCM LOS	F	F		

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1063	-	-	159	193	1135	-	-
HCM Lane V/C Ratio	0.038	-	-	1.107	0.665	0.075	-	-
HCM Control Delay (s)	8.52	0	-	160.8	54.4	8.428	0	-
HCM Lane LOS	A	A		F	F	A	A	
HCM 95th %tile Q(veh)	0.118	-	-	9.264	3.983	0.242	-	-

Notes
~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

NO PROJECT LEVEL OF SERVICE AND VOLUMES



LEGEND

XX – AM PEAK HOUR VOLUMES

(XX) – PM PEAK HOUR VOLUMES

City of Visalia Circulation Element Update

Figure 4–7

No Project 2030 Traffic Volumes

t1419tg003.dwg/062912/55–2818–04

No Project Roadway LOS (2030)

Roadway Segment	*Limits*	*No. of Lanes*	*Facility Type*	*AADT*	*LOS*
Akers Street	Rialto – Caldwell Avenue	4	Arterial	16,930	A
Akers Street	Goshen Avenue – Ferguson Ave.	4	Arterial	34,640	D
Caldwell Avenue	Shirk Street - Aspen	4	Arterial	18,780	B
Caldwell Avenue	Ben Maddox Way – Pinkham Ave.	4	Arterial	20,540	A
Center Avenue	Floral Street – Court Street	2	Arterial	3,820	A
County Center	Beech Street – Walnut Avenue	2	Collector	5,740	A
Demaree Street	Damsen - Nicholas	4	Arterial	34,410	D
Demaree Street	Walnut Avenue – Tulare Avenue	4	Arterial	27,930	B
Goshen Avenue	Demaree Street – Chinowth Street	4	Arterial	38,020	F
Main Street	Floral Street – Court Street	2	Collector	3,780	A
Noble Avenue	Pinkham Street – Lovers Lane	2	Arterial	13,310	C
Riggin Avenue	Akers Street – Linwood Street	4	Arterial	24,300	C
Santa Fe Street	Center Avenue – School Street	4	Collector	14,320	B
Santa Fe Street	Walnut Avenue – Tulare Avenue	4	Collector	13.990	B
Shirk Avenue	Goshen Avenue – Doe Avenue	4	Arterial	17,980	A
Shirk Avenue	Walnut Avenue – State Route 198	4	Arterial	19,520	B
Walnut Avenue	Atwood – Linwood Street	4	Arterial	13,970	A
Walnut Avenue	Conyer Street – Court Street	4	Arterial	21,240	A
Walnut Avenue	Yale – Mall Entrance	4	Arterial	13,560	A
Whitendale Avenue	Crenshaw – Linwood Street	2	Collector	5,540	B
Whitendale Avenue	West Street – Court Street	2	Collector	8,502	C
State Route 63	Caldwell Avenue – Walnut Avenue	6	State Route	31,280	A
State Route 63	Walnut Avenue – Tulare Avenue	6	State Route	34,930	B
State Route 63	School Avenue – Murray Avenue	4	State Route	27,880	C
State Route 99	Caldwell Avenue – State Route 198	6	State Route	101,230	C
State Route 99	State Route 198 – Avenue 304	6	State Route	87,190	B
State Route 99	Avenue 304 – Betty Drive	6	State Route	87,190	B
State Route 198	State Route 99 – Akers Street	4	State Route	73,840	D
State Route 198	**Akers Street – Mooney Boulevard**	**4**	**State Route**	**88,710**	**F**
State Route 198	**Mooney Boulevard – Lovers Lane**	**4**	**State Route**	**85,340**	**F**
State Route 198	Lovers Lane – Road 156	4	State Route	41,110	A
State Route 216	Mill Creek Parkway – Douglas Ave.	4	State Route	25,740	B
State Route 216	Lovers Lane – McAuliff Street	2	State Route	14,120	C

Source: TCAG Regional Travel Demand Forecast Model; Omni-Means, 2013

No Project Intersection LOS (2030)

No.	Intersection	Control Type	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	**Riggin Avenue/Shirk Road**	**AWSC**	**39.3**	**E**	**58.0**	**F**
2	Riggin Avenue/Demaree Street	Signal	23.5	C	35.8	D
3	**Riggin Avenue/Giddings Street**	**TWSC**	**OVER**	**F**	**OVER**	**F**
4	Riggin Avenue/Dinuba Boulevard	Signal	39.6	D	54.2	D
5	**Ferguson Avenue/Linwood Street**	**AWSC**	**78.1**	**F**	**47.2**	**E**
6	Goshen Avenue/Plaza Drive	Signal	32.1	C	28.5	C
7	**Houston Avenue/Demaree Street**	**Signal**	**71.7**	**E**	54.7	D
8	Houston Avenue/Ben Maddox way	Signal	27.3	C	53.9	D
9	Houston Avenue/McAuliff Street	Signal	34.5	C	19.0	B
10	Hurley Street/Plaza Drive	Signal	26.4	C	50.4	D
11	Hillsdale Avenue/Akers Street	Signal	28.1	C	40.1	C
12	Mineral King Avenue/Akers Street	Signal	44.0	D	41.5	D
13	**Noble Avenue/Akers Street**	**Signal**	**57.6**	**E**	**72.6**	**E**
14	Cypress Avenue/Akers Street	Signal	22.4	C	33.1	C
15	Main Street/West Street	Signal	6.6	A	8.4	A
16	Noble Avenue/Watson Street	Signal	13.1	B	11.0	B
17	**Tulare Avenue/Santa Fe Street**	**AWSC**	**57.5**	**F**	**68.1**	**F**
18	**Walnut Avenue/Shirk Road**	**AWSC**	**66.3**	**F**	**61.8**	**F**
19	Whitendale Avenue/Demaree Street	Signal	14.5	B	16.1	B
20	**Whitendale Avenue/Woodland Drive**	**TWSC**	23.9	C	**OVER**	**F**
21	K Avenue/Ben Maddox Way	AWSC	16.9	C	23.0	C
22	K Avenue/Lovers Lane	Signal	15.1	B	16.5	B
23	Caldwell Avenue/Burke Street	Signal	11.9	B	13.1	B
24	**Caldwell Avenue/Lovers Lane**	**Signal**	27.5	C	**62.8**	**E**
25	**Visalia Parkway/Akers Street**	**TWSC**	**OVER**	**F**	**OVER**	**F**

TWSC = Two-Way-Stop Control; AWSC = All-Way-Stop Control; OWSC = One-Way-Stop Control;

For Signalized Intersections Average Delay = Average Intersection Delay; For TWSC Intersections Average Delay = Worst-Case Intersection Movement Delay; For Signalized Intersections LOS = Average Intersection Level-of-Service; For TWSC Intersections LOS = Worst-Case Movement's Level-of-Service; Warrant = MUTCD Peak Hour Warrant 3

Over = Delay over 150 seconds

Source: Omni-Means, 2013

ALTERNATIVES 1 AND 2 ROADWAY SEGMENT LEVEL OF SERVICE

Alternative Roadway Segment Traffic Volumes

				Alternative 1		Alternative 2	
Roadway Segment	**Existing Traffic Volume**	**2030 # Lanes**	**2030 Facility Type**	**2030 Projected Volume**	**% Increase**	**2030 Projected Volume**	**% Increase**
STATE ROUTES							
State Route 99 n/o Betty Drive	49,000	6	6-Lane Freeway	75,220	54%	74,490	52%
State Route 99 s/o State Route 198	55,000	6	6-Lane Freeway	98,440	79%	106,920	94%
State Route 99 s/o Caldwell Avenue	52,000	6	6-Lane Freeway	96,270	85%	102,300	97%
State Route 63 n/o Riggin Avenue	16,000	4	4-Lane Arterial, Divided	22,210	39%	21,330	33%
State Route 63 n/o State Route 198	29,000	6	6-Lane Arterial, Divided	31,570	9%	35,080	21%
State Route 63 s/o State Route 198	31,000	6	6-Lane Arterial, Divided	34,490	11%	36,310	17%
State Route 63 s/o Walnut Avenue	33,000	6	6-Lane Arterial, Divided	28,400	-14%	30,560	-7%
State Route 63 s/o of Caldwell Avenue	26,000	6	6-Lane Arterial, Divided	38,940	50%	40,460	56%
State Route 216 n/State Route 198	21,700	4	4-Lane Arterial, Divided	30,650	41%	33,140	53%
State Route 216 e/o Lovers Lane	9,200	4	4-Lane Arterial, Divided	16,780	82%	20,810	126%
State Route 198 w/o State Route 99	19,000	4	4-Lane Freeway	46,370	144%	46,350	144%
State Route 198 e/o Plaza Drive	47,000	4	4-Lane Freeway	64,840	38%	68,860	47%
State Route 198 e/o Akers Street	53,000	6	6-Lane Freeway	76,720	45%	82,040	55%
State Route 198 e/o State Route 63 (Mooney Boulevard)	61,000	6	6-Lane Freeway	100,620	65%	109,360	79%
State Route 198 e/o Lovers Lane	29,000	4	4-Lane Freeway	59,230	104%	62,420	115%
N/S PRINCIPLE ARTERIALS							
Plaza Drive s/o State Route 198	4,600	4	4-Lane Arterial, Divided	12,100	163%	14,710	220%
Plaza Drive n/o State Route 198	15,500	4	4-Lane Arterial, Divided	33,610	117%	35,620	130%
Plaza Drive s/o Riggin Avenue	11,400	4	4-Lane Arterial, Divided	27,170	138%	32,450	185%
Road 80 s/o Avenue 320	11,400	4	4-Lane Arterial, Divided	23,830	109%	30,070	164%
Shirk Street n/o Avenue 272	2,200	4	4-Lane Arterial, Divided	3,700	68%	4,330	97%
Shirk Street n/o Walnut Avenue	5,000	4	4-Lane Arterial, Divided	19,400	288%	22,090	342%
Shirk Street s/o State Route 198	5,120	4	4-Lane Arterial, Divided	25,220	393%	31,430	514%
Shirk Street n/o State Route 198	9,800	4	4-Lane Arterial, Divided	35,920	267%	44,060	350%
Shirk Street s/o Riggin Avenue	4,200	4	4-Lane Arterial, Divided	19,200	357%	25,220	500%
Akers Street n/o Avenue 272	7,100	4	4-Lane Arterial, Divided	13,190	86%	13,130	85%
Akers Street n/o Caldwell Avenue	11,200	4	4-Lane Arterial, Divided	23,680	111%	26,710	138%
Akers Street s/o State Route 198	21,200	6	6-Lane Arterial, Divided	33,990	60%	36,780	73%
Akers Street n/o State Route 198	23,300	6	6-Lane Arterial, Divided	39,060	68%	41,940	80%
Akers Street n/o Goshen Avenue	10,400	4	4-Lane Arterial, Divided	40,190	286%	41,460	299%
Akers Street s/o Riggin Avenue	8,900	4	4-Lane Arterial, Divided	31,770	257%	32,810	269%
Demaree Street n/o Avenue 272	12,000	4	4-Lane Arterial, Divided	17,790	48%	18,540	55%
Demaree Street n/o Caldwell Avenue	16,800	4	4-Lane Arterial, Divided	26,520	58%	28,560	70%
Demaree Street s/o State Route 198	19,000	4	4-Lane Arterial, Divided	26,080	37%	28,180	48%
Demaree Street n/o State Route 198	16,900	4	4-Lane Arterial, Divided	33,410	98%	35,360	109%
Demaree Street n/o Goshen Avenue	15,800	4	4-Lane Arterial, Divided	32,590	106%	34,170	116%
Demaree Street s/o Riggin Avenue	9,700	4	4-Lane Arterial, Divided	26,550	174%	28,170	190%
Locust Street s/o State Route 198	6,600	2	2-Lane Arterial	10,690	62%	11,320	72%
Court Street n/o Caldwell Avenue	11,500	4	4-Lane Arterial, Divided	20,250	76%	23,130	101%
Court Street n/o Walnut Avenue	13,500	2	2-Lane Arterial	11,030	-18%	10,050	-26%
Santa Fe n/o Avenue 272	5,700	4	4-Lane Arterial, Divided	11,980	110%	13,720	141%
Santa Fe n/o Walnut Avenue	6,200	4	4-Lane Arterial, Divided	15,110	144%	16,440	165%
Santa Fe n/o Center Avenue	1,950	4	4-Lane Arterial, Divided	6,040	210%	6,330	225%
Santa Fe n/o Saint John's Parkway	3,400	4	4-Lane Arterial, Divided	4,680	38%	5,140	51%
Ben Maddox Way n/o Avenue 272	1,020	4	4-Lane Arterial, Divided	3,700	263%	4,060	298%
Ben Maddox Way n/o Walnut Avenue	12,000	4	4-Lane Arterial, Divided	25,400	112%	27,790	132%
Ben Maddox Way s/o Goshen Avenue	22,100	4	4-Lane Arterial, Divided	26,830	21%	28,000	27%
Ben Maddox n/o Saint John's Parkway	11,500	4	4-Lane Arterial, Divided	12,420	8%	12,810	11%
Lovers Lane n/o Avenue 272	10,500	4	4-Lane Arterial, Divided	11,540	10%	13,130	25%
Lovers Lane n/o Caldwell Avenue	12,500	4	4-Lane Arterial, Divided	32,970	164%	36,850	195%
Lovers Lane n/o Walnut Avenue	19,000	4	4-Lane Arterial, Divided	36,720	93%	39,180	106%
Lovers Lane s/o State Route 198	22,000	4	4-Lane Arterial, Divided	36,320	65%	38,210	74%
Lovers Lane n/o State Route 198	18,500	4	4-Lane Arterial, Divided	28,940	56%	31,300	69%
Lovers Lane s/o Saint John's Parkway	5,800	4	4-Lane Arterial, Divided	13,460	132%	15,200	162%
Road 148 n/o Caldwell Avenue	--	4	4-Lane Arterial, Divided	18,660		22,260	
Road 148 s/o State Route 198	--	4	4-Lane Arterial, Divided	16,450		21,570	
Road 148 n/o State Route 198	--	4	4-Lane Arterial, Divided	17,820		22,330	
E/W PRINCIPLE ARTERIALS							
Caldwell Avenue e/o State Route 99	10,600	4	4-Lane Arterial, Divided	17,040	61%	19,990	89%
Caldwell Avenue e/o Shirk Street	14,300	4	4-Lane Arterial, Divided	20,990	47%	24,610	72%
Caldwell Avenue e/o Akers Street	18,400	4	4-Lane Arterial, Divided	21,400	16%	27,370	49%
Caldwell Avenue e/o Demaree Street	23,800	4	4-Lane Arterial, Divided	33,390	40%	34,650	46%
Caldwell Avenue e/o County Center Drive	23,000	4	4-Lane Arterial, Divided	35,410	54%	37,700	64%
Caldwell Avenue e/o State Route 63	22,200	6	6-Lane Arterial, Divided	33,870	53%	37,430	69%
Caldwell Avenue e/o Court Street	19,900	4	4-Lane Arterial, Divided	44,180	122%	45,710	130%
Caldwell Avenue e/o Ben Maddox Way	13,500	4	4-Lane Arterial, Divided	32,330	139%	34,310	154%
Caldwell Avenue e/o Lovers Lane	12,200	4	4-Lane Arterial, Divided	35,750	193%	40,510	232%
Walnut Avenue e/o Shirk Street	6,300	4	4-Lane Arterial, Divided	5,330	-15%	7,010	11%
Walnut Avenue e/o Akers Street	14,200	4	4-Lane Arterial, Divided	14,430	2%	16,730	18%
Walnut Avenue e/o Demaree Street	15,700	4	4-Lane Arterial, Divided	15,010	-4%	17,520	12%
Walnut Avenue e/o State Route 63	17,200	4	4-Lane Arterial, Divided	16,790	-2%	22,620	32%
Walnut Avenue e/o Court Street	15,100	4	4-Lane Arterial, Divided	24,800	64%	27,870	85%
Walnut Avenue e/o Ben Maddox Way	10,200	4	4-Lane Arterial, Divided	25,020	145%	29,380	188%
Walnut Avenue e/o Lovers Lane	8,300	4	4-Lane Arterial, Divided	18,010	117%	21,330	157%
Goshen Avenue e/o State Route 99	9,800	4	4-Lane Arterial, Divided	14,800	51%	14,770	51%
Goshen Avenue e/o Plaza Drive	12,000	4	4-Lane Arterial, Divided	21,960	83%	26,160	118%
Goshen Avenue e/o Akers Street	17,200	4	4-Lane Arterial, Divided	35,850	108%	38,420	123%
Goshen Avenue e/o Demaree Street	14,600	4	4-Lane Arterial, Divided	36,280	148%	38,280	162%
Goshen Avenue w/o Giddings Street	14,400	4	4-Lane Arterial, Divided	27,750	93%	30,610	113%
Murray Avenue e/o Court Street	8,900	4	4-Lane Arterial, Divided	14,310	61%	15,870	78%
Murray Avenue w/o Pinkham Street	8,100	4	4-Lane Arterial, Divided	14,690	81%	16,630	105%
Riggin Avenue e/o State Route 99	4,300	4	4-Lane Arterial, Divided	18,620	333%	18,860	339%
Riggin Avenue e/o Shirk Street	5,500	4	4-Lane Arterial, Divided	22,190	303%	26,160	376%
Riggin Avenue e/o Demaree Street	9,900	4	4-Lane Arterial, Divided	31,640	220%	32,330	227%
Riggin Avenue e/o Mooney Boulevard	11,300	4	4-Lane Arterial, Divided	31,630	180%	32,330	186%