

City of Coalinga

and

Coalinga-Huron Unified School District



Natural Hazard Mitigation Plan

August 2005

*Prepared for the City of Coalinga and the
Coalinga-Huron Unified School District by:*

Ralph Andersen & Associates

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RESOLUTION NO. 3127

**A RESOLUTION OF THE CITY OF COALINGA
CITY COUNCIL ADOPTING A LOCAL HAZARD
MITIGATION PLAN PURSUANT TO
THE DISASTER MITIGATION ACT OF 2000**

WHEREAS, the Community Development Department has been designated the lead agency responsible for the preparation of the Local Hazard Mitigation Plan for the City, and;

WHEREAS, on November 17, 2005 the City Council held a duly noticed public hearing to receive input on the preparation of the Local Hazard Mitigation Plan, and;

WHEREAS, Section 15308 (Class 8 Protection of the Environment) of the California Code of Regulations exempts the project from the requirements of the preparation of documents imposed by the California Environmental Quality Act, and;

WHEREAS, pursuant to the Federal Disaster Mitigation Act of 2000, there is a need to prepare a Local Hazard Mitigation Plan in order to be eligible for funding support for disaster preparedness and relief, and;

WHEREAS, the City of Coalinga recognized that public input is an important component in the preparation of a local hazard mitigation plan.

NOW THEREFORE BE IT RESOLVED, that the City Council of the City of Coalinga hereby adopts the Local Hazard Mitigation Plan for the City of Coalinga. The decision of the City Council is final and conclusive as to all things involving this matter.

PASSED AND ADOPTED, by the City Council of the City of Coalinga at a regularly scheduled meeting held on this 17th day of November, 2005 by the following vote:

AYES: Pressey, Hill, Balling, Ramsey, Lander

NOES: None

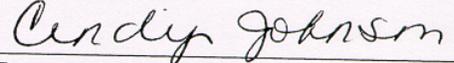
ABSTAIN: None

ABSENT: None



The Honorable Ron Lander, Mayor

ATTEST:



Deputy City Clerk

RESOLUTION #16/05-06

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE COALINGA-HURON UNIFIED SCHOOL DISTRICT ADOPTING A LOCAL HAZARD MITIGATION PLAN PURSUANT TO THE DISASTER MITIGATION ACT OF 2000

WHEREAS, the Community Development Department has been designated the lead agency responsible for the preparation of the Local Hazard Mitigation Plan for the City and Coalinga-Huron Unified School District, and;

WHEREAS, on November 17, 2005 the City Council held a duly noticed public hearing to receive input on the preparation of the Local Hazard Mitigation plan, and;

WHEREAS, the Coalinga-Huron Unified School District Board of Trustees held a duly noticed public hearing to receive input on the adoption of the Local Hazard Mitigation Plan for the City on November 17, 2005, and;

WHEREAS, Section 15308 (Class 8 Protection of the Environment) of the California Code of Regulations exempts the project from the requirements of the preparation of documents imposed by the California Environmental Quality Act, and;

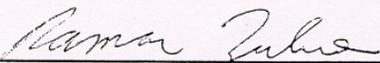
WHEREAS, pursuant to the Federal Disaster Mitigation Act of 2000, there is a need to prepare a Local Hazard Mitigation Plan in order to be eligible for funding support for disaster preparedness and relief, and;

WHEREAS, the Coalinga-Huron Unified School District Board of Trustees recognize that public input is an important component in the preparation of a Local Hazard Mitigation Plan.

NOW THEREFORE BE IT RESOLVED, that the Coalinga-Huron Unified School District Board of Trustees hereby adopts the Local Hazard Mitigation Plan for both the City of Coalinga and the Coalinga-Huron Unified School District. The decision of the Coalinga-Huron Unified School District Board of Trustees is final and conclusive as to all things involving this matter.

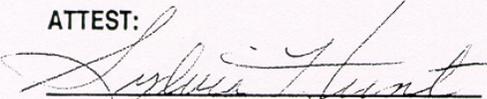
PASSED AND ADOPTED, by the Coalinga-Huron Unified School District Board of Trustees at a Special Board Meeting held on this 17th day of November, 2005 by the following vote:

AYES: 4
NOES: 0
ABSTAIN: 0
ABSENT: 1



Mr. Ramon Zubiri, Board President
Coalinga-Huron Unified School District

ATTEST:



Mrs. Sylvia Hunt, Clerk

Special Thanks and Acknowledgements

Federal Emergency Management Agency

California Office of Emergency Services

Mr. Ramon Zubiri, Board President, Coalinga-Huron USD

Mrs. Deborah Witt, Board Vice President, Coalinga-Huron USD

Mrs. Sylvia Hunt, Board Clerk, Coalinga-Huron USD

Mr. Francisco J. Chavez, Board Member, Coalinga-Huron USD

Mrs. Dolores L. Silva, Board Member, Coalinga-Huron USD

William McDermott, Ph.D., Superintendent, Coalinga-Huron USD

William Baker, Chief Business Official, Coalinga-Huron USD

Marco A. Sigala, Assistant Superintendent of Instructional Services,
Coalinga-Huron USD

Jim Reckas, Director Facilities/MOT, Coalinga-Huron USD

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Part I – Mitigation Action Plan

Executive Summary

Introduction

Hazard mitigation is a sustained effort to permanently reduce or eliminate long-term risk to people and property from the effects of hazards. The purpose of this plan is to identify hazards that are common to the City of Coalinga and Coalinga-Huron Unified School District and establish a framework for them to reduce the risks associated with these hazards.

Five-Year Action Plan Matrix

The City of Coalinga/Coalinga-Huron USD Natural Hazards Mitigation Action Plan includes resources and information to assist City and District employees, and others interested in participating in planning for natural hazard events. The mitigation plan provides a list of activities that may assist the City of Coalinga and the Coalinga-Huron USD in reducing risk and preventing loss from future natural hazard events. The action items address multi-hazard issues, as well as activities for earthquakes, secondary flooding and severe weather occasions.

How is the Plan Organized?

The Mitigation Plan contains a five-year action plan matrix, background on the purpose and methodology used to develop the mitigation plan, a profile of the City of Coalinga and the Coalinga-Huron Unified School District, sections on four natural hazards that occur within the City and the District, and a number of appendices. All of the sections are described in detail in the plan introduction.

Who Participated in Developing the Plan?

The City of Coalinga/Coalinga-Huron Unified School District Natural Hazards Mitigation Action Plan is the result of a collaborative effort between the City of Coalinga staff, the Coalinga-Huron Unified School District staff, public agencies, non-profit organizations, the private sector, and regional and state organizations. Public participation played a key role in the development of goals and action items. The public was invited for plan input and reviewed at two separate City Council Meetings and School District Board Meetings and one Planning Commission Meeting. A City and District Hazard Mitigation Steering Committee guided the process of plan development.

The City of Coalinga/Coalinga-Huron USD Hazard Mitigation Steering Committee was comprised of the following representatives:

- City of Coalinga
 - City of Coalinga, Steve Julian, Interim City Manager
 - Pat Medina, Coalinga Police Department
 - Ben Ramsey, Fire Department
 - Bill Skinner, Community Development
 - Randy Arp, Public Works
- Coalinga-Huron Unified School District
 - William McDermott, Ph.D., Superintendent
 - William Baker, Chief Business Official
 - Jim Reckas, Director Facilities/MOT
 - Marco A. Sigala, Assistant Superintendent Instructional Services
- Mark Ysusi, Boyle Engineering
- Marilyn Gabriel, Chamber of Commerce

What is the Plan Mission?

The mission of the City of Coalinga/Coalinga-Huron USD Natural Hazards Mitigation Plan is to promote sound public policy for the City and the District designed to protect citizens, students, critical facilities, infrastructure, and the environment from natural hazards. This can be achieved by increasing public awareness, documenting the resources for risk reduction and loss-prevention, and identifying activities to guide the City and the District towards building a safer, more sustainable environment.

What are the Plan Goals?

The plan goals describe the overall direction that the City of Coalinga and the Coalinga-Huron Unified School District can take to work toward mitigating risk from natural hazards. The goals are stepping-stones between the broad direction of the mission statement and the specific recommendations outlined in the action items.

1) Protect Life and Property

- Implement activities that assist in protecting lives by making our infrastructure, critical support facilities, and other property more resistant to losses from natural hazards.

- Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards.
- Improve hazard assessment information to make recommendations for discouraging new development in high hazard areas and encouraging preventative measures for existing development in areas vulnerable to natural hazards.

2) *Public Awareness*

- Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.
- Provide information on tools, partnership opportunities, and funding resources to assist in implementing mitigation activities.

3) *Partnerships and Implementation*

- Strengthen communication and coordinate participation among and within public agencies, citizens, parents, non-profit organizations, business, and industry to gain a vested interest in implementation.
- Encourage leadership within public and private sector organizations to prioritize and implement local and regional hazard mitigation activities.

4) *Emergency Services*

- Establish policy to ensure mitigation projects for critical City and District facilities, services, and infrastructure.
- Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.
- Coordinate and integrate natural hazard mitigation activities, where appropriate, with City and District emergency operations plans and procedures.

How Are The Action Items Organized?

The action items are listed as activities which the City and District can use to reduce risk. Each action item includes an estimate of the timeline for implementation. Short-term action items are activities that the City and District may implement with existing resources and authorities within one to two years. Long-term action items may require new or additional resources or authorities, and may take between one and five years (or more) to implement.

The action items are organized within the following matrix, which lists all of the multi-hazard and hazard-specific action items included in the mitigation plan. Data collection, research and public participation resulted in the development of these action items (**see Appendix B**). The matrix includes the following information for each action item:

- **Coordinating Organization.** The coordinating organization is the City and District Administrative Department(s) with regulatory responsibility to address natural hazards, or that is willing and able to organize resources, find appropriate funding, or oversee activity implementation, monitoring, and evaluation. Coordinating organizations may include Business Services, Facilities Maintenance & Operations and Public Safety that are capable of, or responsible for, implementing activities and programs.
- **Timeline.** Action items include both short- and long-term activities. Each action item includes an estimate of the timeline for implementation. Short-term action items are activities that the City and District are capable of implementing with existing resources and authorities within one to two years. Long-term action items may require new or additional resources or authorities, and may take between one and five years (or more) to implement.
- **Ideas for Implementation.** Each action item includes ideas for implementation and potential resources, which may include grant programs or human resources. The matrix includes the page number within the mitigation plan where the information can be found.
- **Plan Goals Addressed.** The plan goals addressed by each action item are included as a way to monitor and evaluate how well the mitigation plan is achieving its goals once implementation begins. The plan goals are organized into the following five areas:
 - Protect Life and Property
 - Public Awareness
 - Natural Systems
 - Partnerships and Implementation
 - Emergency Services
- **Partner Organizations.** The Partner Organizations are not listed with the individual action items or in the plan matrix. Partner Organizations are listed in *Appendix A* of this plan and are agencies or public/private sector organizations that may be able to assist in the implementation of action items by providing relevant resources to the coordinating organization. The Partner Organizations listed in the Resource Directory of the City of Coalinga and Coalinga-Huron Unified School District Natural Hazards Mitigation Plan are potential partners recommended by the City’s and District’s Hazard Mitigation Steering Committee, but may not have been contacted during the development of the Mitigation Plan. Partner Organizations should be contacted by the coordinating organization to establish commitment of time and resources to action items.
- **Constraints.** Constraints may apply to some of the action items. These constraints may be a lack of City and/or District staff, lack of funds, or vested property rights, which might expose the City and District to legal action as a result of adverse impacts on private property.

How Will the Plan be Implemented, Monitored and Evaluated?

The Plan Maintenance Section of this document details the formal process that will ensure that the City of Coalinga and Coalinga-Huron Unified School District Natural Hazards Mitigation Plan remains an active and relevant document. The plan maintenance process includes a schedule for monitoring and evaluating the Plan annually and producing a plan revision every five years. This section describes how the City and District will integrate public participation throughout the plan maintenance process. Finally, this section includes an explanation of how the City of Coalinga and the Coalinga-Huron Unified School District intend to incorporate the mitigation strategies outlined in this Plan into existing planning mechanisms such as Building & Safety Codes updates and improvements and remodernization projects.

Plan Adoption

Once the plan is completed, the City of Coalinga City Council and the Coalinga-Huron Unified School District School Board will be responsible for adopting the “*City of Coalinga and Coalinga-Huron Unified School District Natural Hazards Mitigation Plan.*” The City Council and the School Board have the responsibility and authority to promote sound public policy regarding natural hazards. The City Council and School Board may periodically need to re-adopt the plan as it is revised to meet changes in the natural hazard risks and exposures in the community. The approved Natural Hazard Mitigation Plan will be significant in the future growth and development of the City and the District.

Coordinating Body

A City of Coalinga and Coalinga-Huron Unified School District Hazard Mitigation Steering Committee will be responsible for coordinating implementation of Plan action items and undertaking the formal review process.

Convener

The City of Coalinga City Council and the Coalinga-Huron Unified School District School Board will adopt the City of Coalinga and Coalinga-Huron Unified School District Natural Hazard Mitigation Plan, and the City’s and District’s Hazard Mitigation Steering Committee will take responsibility for plan implementation. The City Manager and the District’s Chief Business Official will serve as a convener to facilitate these meetings of the Committee. Plan implementation and evaluation will be a shared responsibility among all of the City’s and District’s Hazard Mitigation Steering Committee Members.

Implementation Through Existing Programs

The City of Coalinga addresses citywide planning goals and legislative requirements through its Capital Improvement Plans and State Building & Safety Codes. The Natural Hazards Mitigation Plan provides a series of recommendations that are closely related to the goals and objectives of these existing planning programs. The City of Coalinga and the Coalinga-Huron USD will have the opportunity to implement recommended mitigation action items through existing programs and procedure.

Economic Analysis of Mitigation Projects

The Federal Emergency Management Agency's approach to identify costs and benefits associated with natural hazard mitigation strategies or projects fall into two general categories: benefit/cost analysis and cost-effectiveness analysis. Conducting benefit/cost analysis for a mitigation activity can assist the City and the District in determining whether a project is worth undertaking now, in order to avoid disaster-related damages later. Cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating natural hazards can provide decision makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

Formal Review Process

The City of Coalinga and Coalinga-Huron Unified School District Natural Hazards Mitigation Plan will be evaluated on an annual basis to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities. The evaluation process includes a firm schedule and timeline, and identifies the local agencies and organizations participating in plan evaluation. The Convener will be responsible for contacting the City's and District's Hazard Mitigation Steering Committee members and organizing the annual meeting. Committee members will be responsible for monitoring and evaluating the progress of the mitigation strategies in the Plan.

Continued Public Involvement

The City of Coalinga and the Coalinga-Huron Unified School District is dedicated to involving the public directly in the continual review and updates of the Hazard Mitigation Plan. Copies of the plan will be made available at the City administrative office and at each City facility and at the District administrative office and at each school site. In addition, copies of the Plan and any proposed changes will be posted on the City of Coalinga and the Coaling-Huron USD websites. These sites will also contain an e-mail address and phone number to which people can direct their comments and concerns.

City Profile

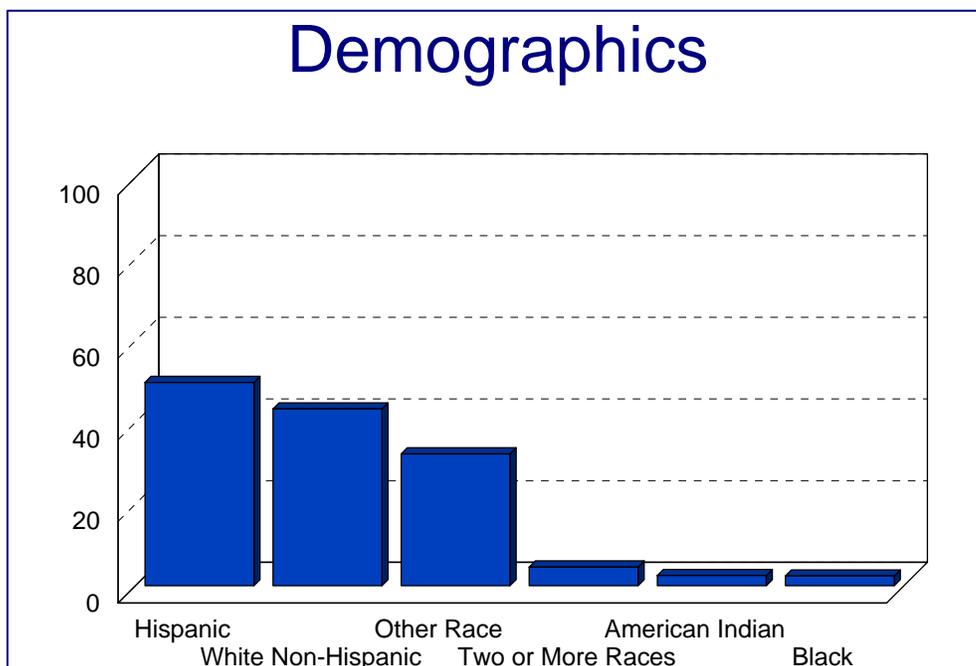


Located in the heart of California and nestled in Pleasant Valley, at the edge of California's Coast Range Mountains, and surrounded by hills, ranches, and some of America's most productive agricultural land, Coalinga is ten miles west of Interstate 5, and sixty miles southwest of Fresno – California's sixth largest city. The City's total land area totals 6.58 square miles.

Coalinga is a General Law City operating in a Council – Manager form of Government, with five Councilmembers elected to four year staggered terms. The City Council chooses a Mayor and Mayor Pro-Tem from among its members. The City has 147 full-time employees.

Coalinga is a full-service city, with a Redevelopment Agency, Public Finance Authority and a new municipal airport. Coalinga provides highly professional Community Development, Transit, Public Works and public safety services (Police, Fire and EMT/Ambulance) and water, wastewater treatment, sanitation, recycling and natural gas utility services. The City also operates the Claremont Custody Center under contract with the State of California.

The City has a current population of 17,200. The ethnic diversity of the City of Coalinga is broken down as follows: 49.8% Hispanic, 43.3% White Non-Hispanic, 32.3% Other race, 4.6% Two or More Races, 2.5% American Indian, and 2.4% Black. (It should be noted that the total can be greater than 100% because Hispanics could be counted in other races.)



City of Coalinga Sites and Facilities

Site #1		
Name of Building: City Hall Building		
Physical Address: 160 W. Elm Avenue, Coalinga, CA		
Date Built	1937	Square Footage: 15,791
Purpose: City Hall		
Type of Structure: Concrete Block		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent <input checked="" type="checkbox"/> Good ___ Fair ___ Poor		
Comments:		

Site #2		
Name of Building: City Hall Building (Building Expansion)		
Physical Address: 155 W. Durlan Avenue, Coalinga, CA		
Date Built	1990	Square Footage: 21,060
Purpose: City Hall		
Type of Structure: All Comb (Wood Frame)		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent <input checked="" type="checkbox"/> Good ___ Fair ___ Poor		
Comments:		

Site #3		
Name of Building: Claremont Custody Center		
Physical Address: 185 W. Gale, Coalinga, CA		
Date Built	1990	Square Footage: 71,820
Purpose:		
Type of Structure: Prison		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent <u>X</u> Good ___ Fair ___ Poor		
Comments:		

Site #4		
Name of Building: Corporate Yard		
Physical Address: 135 Sacramento, Coalinga, CA		
Date Built	1937	Square Footage: 5,350
Purpose: Equipment and Parts Storage		
Type of Structure: Public Works		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent <u>X</u> Good ___ Fair ___ Poor		
Comments:		

Site #5		
Name of Building: Sewer Farm Control Building		
Physical Address: 25034 W. Palmer		
Date Built	1983	Square Footage:
Purpose: Wastewater Treatment		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent <u>X</u> Good ___ Fair ___ Poor		
Comments:		

Site #6		
Name of Building: Clarifier (3)		
Physical Address: Coalinga, CA		
Date Built	1992	Square Footage:
Purpose: Water Treatment		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent <u>X</u> Good ___ Fair ___ Poor		
Comments:		

Site #7		
Name of Building: Water System		
Physical Address: Palmer Avenue, Coalinga, CA		
Date Built	1971	Square Footage:
Purpose: Water Tank		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent <u>X</u> Good ___ Fair ___ Poor		
Comments:		

Site #8		
Name of Building: Water System		
Physical Address: Oil King, Coalinga, CA		
Date Built	1971	Square Footage: 500,000 gallon tank
Purpose: Water Tank		
Type of Structure: Steel – water storage tank		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair <u>X</u> Poor		
Comments:		

Site #9		
Name of Building: Water System		
Physical Address: Derrick Avenue, Coalinga, CA		
Date Built	1971	Square Footage:
Purpose: Water Tank		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent <input checked="" type="checkbox"/> Good ___ Fair ___ Poor		
Comments:		

Site #10		
Name of Building: Water System		
Physical Address: Palmer Avenue, Coalinga, CA		
Date Built	1971	Square Footage:
Purpose: Water Tank		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #11		
Name of Building: Water System		
Physical Address: Calaveras Avenue, Coalinga, CA		
Date Built 1993		Square Footage:
Purpose: Water Tank		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #12		
Name of Building: North West Reservoir		
Physical Address: N.W. of Derrick and Palmer Avenue.		
Date Built		Square Footage:
Purpose: Water Tank (200,000 gallons)		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #13		
Name of Building: Water Filtration Plant and Expansion		
Physical Address: 25034 W. Palmer Avenue, Coalinga		
Date Built 1971		Square Footage:
Purpose: Water Filtration Plant		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #14		
Name of Building: Chemical Plant		
Physical Address: 25034 W. Palmer Avenue		
Date Built 1971		Square Footage:
Purpose: Chemical Plant		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #15		
Name of Building: Mixer Building		
Physical Address: 25034 W. Palmer Avenue, Coalinga, CA		
Date Built	Square Footage:	
Purpose:		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #16		
Name of Building: Chemical Storage Tank (7)		
Physical Address: 25034 W. Palmer Avenue		
Date Built 1971	Square Footage: 2,250	
Purpose: Chemical Storage Tank		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #17		
Name of Building: Water Pump House		
Physical Address: 25034 W. Palmer Avenue, Coalinga, CA		
Date Built 1971		Square Footage:
Purpose: Pump House		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #18		
Name of Building: Filter Control Building (3)		
Physical Address: 25034 W. Palmer Avenue, Coalinga, CA		
Date Built 1971		Square Footage:
Purpose:		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #19		
Name of Building: Mobile Home		
Physical Address: 25034 W. Palmer Avenue, Coalinga, CA		
Date Built	1971	Square Footage: 684
Purpose:		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? <input type="checkbox"/> Yes <input type="checkbox"/> No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input checked="" type="checkbox"/> Poor		
Comments:		

Site #20		
Name of Building: Transit Building		
Physical Address: 195 W. Elm Avenue, Coalinga, CA		
Date Built	1984	Square Footage:
Purpose: Old Transit Station		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? <input type="checkbox"/> Yes <input type="checkbox"/> No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: <input type="checkbox"/> Excellent <input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor		
Comments:		

Site #21		
Name of Building: Bus Barn		
Physical Address: Coalinga, CA		
Date Built 1984	Square Footage:	
Purpose:		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments: Relocated to Claremont Custody Center		

Site #22		
Name of Building:		
Physical Address: 380 – 390 Coalinga Plaza & 100 – 166 E. Cedar, Coalinga, CA		
Date Built 1984	Square Footage: 6,427	
Purpose: Retail Rental		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: <input checked="" type="checkbox"/> Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #23		
Name of Building:		
Physical Address: 265-299 Coalinga Plaza, Coalinga, CA		
Date Built	1984	Square Footage: 10,277
Purpose: Retail Rentals		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: <input checked="" type="checkbox"/> Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #24		
Name of Building: Fire Station		
Physical Address: 300 W. Elm Avenue, Coalinga, CA		
Date Built	1985	Square Footage: 12,254
Purpose: Fire Station		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: <input checked="" type="checkbox"/> Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #25		
Name of Building: Recycling Center		
Physical Address: 1255 E. Elm Avenue, Coalinga, CA		
Date Built	1994	Square Footage: 19,602
Purpose: Rehab for CCC Prisoners		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #26		
Name of Building: Airplane Hangers		
Physical Address: Airport		
Date Built	1999	Square Footage: 24,864
Purpose: Airplane Hangers		
Type of Structure: Sheet Metal		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent <u>X</u> Good ___ Fair ___ Poor		
Comments:		

Site #27		
Name of Building: Maintenance Hanger		
Physical Address: Airport		
Date Built		Square Footage: 3,000
Purpose: Maintenance Hanger		
Type of Structure: Sheet Metal		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent <u>X</u> Good ___ Fair ___ Poor		
Comments:		

Site #28		
Name of Building: Flight Service Center		
Physical Address: Airport		
Date Built		Square Footage: 2,800
Purpose: Flight Service Center		
Type of Structure:		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent <u>X</u> Good ___ Fair ___ Poor		
Comments:		

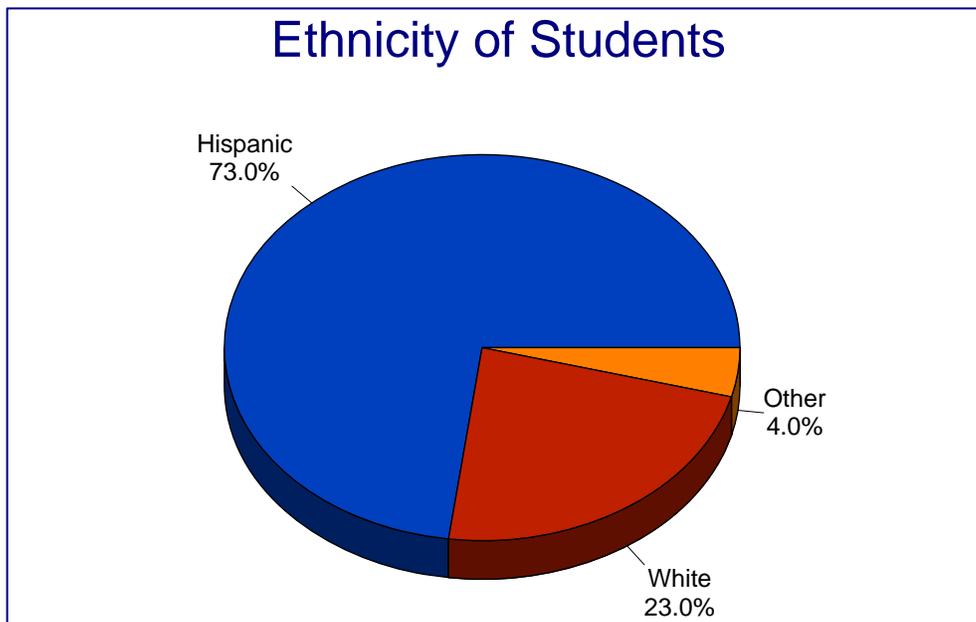
Site #29		
Name of Building: Fuel System Above Ground		
Physical Address: Airport, Coalinga, CA		
Date Built		Square Footage:
Purpose: Fuel System		
Type of Structure: Fuel tank (12,000 gallon)		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent <u>X</u> Good ___ Fair ___ Poor		
Comments:		

District Profile



The mission of the Coalinga-Huron Unified School District is to ensure the success of all students by having high expectations, and providing a quality comprehensive program so that all students can learn and become responsible, productive citizens of a global society.

The District encompasses 1,095 square miles and serves the educational needs of 4,385 students in kindergarten through twelfth grade. The ethnicity of our students (as shown in the exhibit below) is 73% Hispanic, 23% White, and 4% other. Almost 45% of our students are English Language Learners. Ten percent of the enrollment receives some kind of Special Education services including speech therapy and adaptive physical education. Another eight percent take advantage of Gifted and Talented Education resources.



The high school provides a strong college preparatory program, as over 80% of our graduates go on to community college or universities. There are more advanced placement courses available now due to on-line courses offered at the site. Vocational Education is offered on our 14-acre farm site, ROP nursing classes, and ROP CAD drawing classes. There are opportunities for all to succeed with alternative high school settings.

The Coalinga-Huron communities provide a unique small town atmosphere of supportive, involved parents. The governing board maintains a keen eye on district resources while providing a laser-focus on student achievement. The staffs, many of whom live in the community, take pride in each child's accomplishments.

Coalinga-Huron Unified School District Sites and Facilities

Site #1		
Name of Building: Bishop Elementary School		
Physical Address: 1501 Sunset Street, Coalinga, CA 93210		
Date Built	Square Footage:	28,559
Purpose: School		
Type of Structure: Concrete Block		
Components:		
Renovations: (Qualifies as Seismic Retrofit? <input type="checkbox"/> Yes <input type="checkbox"/> No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor		
Comments:		



Site #2		
Name of Building: Cheney Elementary School		
Physical Address: 149 Adams Street, Coalinga, CA 93210		
Date Built	Square Footage:	16,860
Purpose: School		
Type of Structure: Wood Frame, Steel Frame		
Components:		
Renovations: (Qualifies as Seismic Retrofit? <input type="checkbox"/> Yes <input type="checkbox"/> No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor		
Comments:		



Site #3		
Name of Building: Dawson Elementary School		
Physical Address: 1303 Sunset Street, Coalinga, CA 93210		
Date Built	Square Footage:	48,056
Purpose: School		
Type of Structure: Concrete/Wood, Steel Frame, Wood/Steel		
Components:		
Renovations: (Qualifies as Seismic Retrofit? <input type="checkbox"/> Yes <input type="checkbox"/> No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor		
Comments:		
Modernized in 2000. Classroom size limited to 20.		



Site #4		
Name of Building: Huron Elementary and Middle School		
Physical Address: 12 & N Street, Huron, CA 93234		
Date Built	Square Footage:	132,918
Purpose: School		
Type of Structure: Wood Frame, Masonry, Steel Frame		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		



Site #5		
Name of Building: Sunset Elementary School		
Physical Address: 985 Sunset Street, Coalinga, CA 93210		
Date Built	Square Footage:	50,596
Purpose: School		
Type of Structure: Concrete/Wood, Wood Frame, Steel Frame, Masonry		
Components:		
Renovations: (Qualifies as Seismic Retrofit? <input type="checkbox"/> Yes <input type="checkbox"/> No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor		
Comments:		



Site #6		
Name of Building: Coalinga Middle School		
Physical Address: 265 Cambridge Avenue, Coalinga, CA 93210		
Date Built	Square Footage:	66,486
Purpose: School		
Type of Structure: Wood/Masonry, Wood Frame, Steel Frame		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		



Site #7		
Name of Building: High School Farm		
Physical Address:		
Date Built	Square Footage:	30,052
Purpose: School Farm		
Type of Structure: Wood Frame, Steel Frame, Wood/Steel, Concrete		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #8		
Name of Building: Coalinga High School		
Physical Address: 750 Van Ness Avenue, Coalinga, CA 93210		
Date Built	Square Footage:	213,892
Purpose: School		
Type of Structure: Concrete, Steel Frame, Masonry, Steel, Wood Frame		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		



Site #9		
Name of Building: Cambridge Continuation School/ESC Baker		
Physical Address: 516 Baker Street, Coalinga, CA 93210		
Date Built	Square Footage:	37,173
Purpose: School		
Type of Structure: Modular		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		



Site #10		
Name of Building: Community Day School		
Physical Address:		
Date Built	Square Footage:	3,003
Purpose:		
Type of Structure: Modular		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #11		
Name of Building: District Maintenance		
Physical Address: B/O		
Date Built	Square Footage:	9,654
Purpose: Maintenance Operations		
Type of Structure: Block		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #12		
Name of Building: Swimming Pool Complex		
Physical Address:		
Date Built	Square Footage:	20,343
Purpose: Swimming Pool	Buildings:	2,212
Type of Structure: Steel Frame, Concrete	Site:	57,229
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #13		
Name of Building: District Administration Building		
Physical Address:		
Date Built	Square Footage:	3,696
Purpose: Administration Offices		
Type of Structure: Masonry		
Components:		
Renovations: (Qualifies as Seismic Retrofit? ___ Yes ___ No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: ___ Excellent ___ Good ___ Fair ___ Poor		
Comments:		

Site #14		
Name of Building: Transportation Facility		
Physical Address:		
Date Built	Square Footage:	CLGA 26,640 Huron 660
Purpose: Transportation Operations		
Type of Structure: Steel / Wood		
Components:		
Renovations: (Qualifies as Seismic Retrofit? <input type="checkbox"/> Yes <input type="checkbox"/> No)		
Details of Renovation	Date	Cost
#1		
#2		
#3		
General Condition: <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor		
Comments:		

Section 1

Introduction

Throughout history, the residents of the City of Coalinga have dealt with the various natural hazards affecting the area. Photos, journal entries, and newspapers from the 1800's show that the residents of the area dealt with earthquakes, wildland fire, secondary flooding and severe weather occasions.

Although there were fewer people in the area, the natural hazards adversely affected the lives of those who depended on the land and climate conditions for food and welfare. As the population continues to increase, the exposure to natural hazards creates an even higher risk than previously experienced.

The City of Coalinga is the 6th most populous city in Fresno County with an approximate population of 17,200¹, and offers the benefits of living in a Mediterranean climate. The City is characterized by the unique and attractive landscape that makes the area so popular. However, the potential impact of natural hazards associated with the terrain make the environment and population vulnerable to natural disaster situations.

The geographical area is subject to earthquakes, wildland fire, severe weather occasions, low risk for landslides and subject to localized or secondary flooding. It is impossible to predict exactly when these disasters will occur, or the extent to which they will affect the City and the District. However, with careful planning and collaboration among public agencies, private sector organizations, and citizens within the community, it is possible to minimize the losses that can result from these natural disasters.

Why Develop a Mitigation Plan?

As the costs of damage from natural disasters continue to increase, the community realizes the importance of identifying effective ways to reduce vulnerability to disasters. Natural hazard mitigation plans assist communities in reducing risk from natural hazards by identifying resources, information, and strategies for risk reduction, while helping to guide and coordinate mitigation activities throughout the City and the District.

The plan provides a set of action items to reduce risk from natural hazards through education and outreach programs and to foster the development of partnerships, and implementation of preventative activities such as land use programs that restrict and control development in areas subject to damage from natural hazards.

¹ City of Coalinga Website (www.coalinga.com).

The resources and information within the Mitigation Plan:

- Establish a basis for coordination and collaboration among agencies and the public in the City of Coalinga and the Coalinga-Huron Unified School District;
- Identify and prioritize future mitigation projects; and
- Assist in meeting the requirements of federal assistance programs.

The mitigation plan works in conjunction with other existing plans, including the City of Coalinga General Plan and SEMS Multi-Hazard Functional Plan and the Coalinga-Huron Unified School District's *Safe School Plans* for each of the District's school sites.

Whom Does the Mitigation Plan Affect?

The City of Coalinga and the Coalinga-Huron Unified School District Natural Hazards Mitigation Plan affects the 5.9 square mile area that lies within the boundaries of the City and the 106.69 square miles that encompass the Coalinga-Huron Unified School District.

Map 2 (Appendix E), shows major roads in the City of Coalinga. **Map 10** (Appendix E) shows the boundaries of the Coalinga-Huron Unified School District. This plan provides a framework for planning for natural hazards. The resources and background information in the plan are applicable throughout the City of Coalinga and the Coalinga-Huron Unified School District.

Natural Hazard Land Use Policy in California

Planning for natural hazards should be an integral element of any city, district, or agency land-use planning program.

The continuing challenge faced by local officials and state government is to keep the network of local plans effective in responding to the changing conditions and needs of California's diverse communities, particularly in light of the very active seismic region in which we live.

This is particularly true in the case of planning for natural hazards where communities must balance development pressures with detailed information on the nature and extent of hazards.

Planning for natural hazards, calls for local plans to include inventories, policies, and ordinances to guide development in hazard areas. These inventories should include the compendium of hazards facing the City and the District, the built environment at risk, the personal property that may be damaged by hazard events, and most of all, the people who live in the shadow of these hazards.

Support for Natural Hazard Mitigation

All mitigation is local, and the primary responsibility for development and implementation of risk reduction strategies and policies lies with local jurisdictions. Local jurisdictions, however, are not alone. Partners and resources exist at the regional, state and federal levels. Numerous California state agencies have a role in natural hazards and natural hazard mitigation. Some of the key agencies include:

- The Governor’s Office of Emergency Services (OES) is responsible for disaster mitigation, preparedness, response, recovery, and the administration of federal funds after a major disaster declaration;
- The Southern California Earthquake Center (SCEC) gathers information about earthquakes, integrates this information on earthquake phenomena, and communicates it to end-users and the general public to increase earthquake awareness, reduce economic losses, and save lives.
- The California Division of Forestry (CDF) is responsible for all aspects of wildland fire protection on private and state land, and administers forest practices regulations, including landslide mitigation, on non-federal lands.
- The California Division of Mines and Geology (DMG) is responsible for geologic hazard characterization, public education, the development of partnerships aimed at reducing risk, and exceptions (based on science-based refinement of tsunami inundation zone delineation) to state mandated tsunami zone restrictions; and
- The California Division of Water Resources (DWR) plans, designs, constructs, operates, and maintains the State Water Project; regulates dams, provides flood protection and assists in emergency management. It also educates the public and serves local water needs by providing technical assistance.

Plan Methodology

Information in the Mitigation Plan is based on research from a variety of sources. Staff from the City of Coalinga and the Coalinga-Huron Unified School District conducted data research and analysis, facilitated Steering Committee meetings and public workshops, and developed the final mitigation plan. The research methods and various contributions to the plan include:

Input from the Steering Committee:

Prior to each Steering Committee meeting a core group of City administrative officials, District administrative officials, and the City Manager, gathered together to assign research tasks and develop Steering Committee meeting agendas. The City of Coalinga and Coalinga-Huron Unified School District Hazard Mitigation Steering Committee convened about 7 weeks (a total of 7 meetings) to guide development of the Mitigation Plan. The Committee played an integral role in

developing the mission, goals, and action items for the mitigation plan. The Committee consisted of representatives of public and private agencies and organizations in the City of Coalinga and the Coalinga-Huron Unified School District.

State and federal guidelines and requirements for mitigation plans:

Following are the federal requirements for approval of a Natural Hazard Mitigation Plan:

- Open public involvement, with public meetings that introduce the process and project requirements.
- The public must be afforded opportunities for involvement in: identifying and assessing risk, drafting a plan, and public involvement in approval stages of the plan.
- Community cooperation, with opportunity for other local government agencies, the business community, educational institutions, and non-profits to participate in the process.
- Incorporation of local documents, including a City Facility Master Plan, Building Codes, and other pertinent documents.

The following components must be part of the planning process:

- Complete documentation of the planning process;
- A detailed risk assessment on hazard exposures in the community;
- A comprehensive mitigation strategy, which describes the goals and objectives, including proposed strategies, programs and actions to avoid long-term vulnerabilities;
- A plan maintenance process, which describes the method and schedule of monitoring, evaluating and updating the plan and integration of the All Hazard Mitigation Plan into other planning mechanisms;
- Formal adoption by the City of Coalinga City Council and the Coalinga-Huron Unified School District School Board; and
- Plan Review by both State OES and FEMA.

These requirements are spelled out in greater detail in the following plan sections and supporting documentation.

A minimum of two public hearings (or other public forums) is recommended to meet the requirement for public participation, in addition to the inclusion of representatives from outside organizations on the planning committee itself. The timing and scheduling of the hearings may vary, but will generally be held during a City Council or School Board meeting.

City of Coalinga and Coalinga-Huron USD staff examined existing mitigation plans from around the country, current FEMA hazard mitigation planning standards (386 series) and the State of California Natural Hazards Mitigation Plan Guidance.

Other reference materials consisted of county and city mitigation plans, including:

- Clackamas County (Oregon) Natural Hazards Mitigation Plan
- Six County (Utah) Association of Governments
- Upper Arkansas Area Risk Assessment and Hazard Mitigation Plan
- Urbandale-Polk County, Iowa Plan
- Hamilton County, Ohio Plan
- Southern California Edison

Hazard specific research: City of Coalinga and Coalinga-Huron USD staff collected data and compiled research on four (4) hazards: earthquakes, windstorms/adverse weather occasions, secondary flooding, and wildland fires. Research materials came from state agencies including OES and FEMA. The City of Coalinga and Coalinga-Huron USD staff conducted research by referencing historical local newspapers, researching the Internet and locating the City of Coalinga and Coalinga-Huron USD information in historical documents.

The City of Coalinga and Coalinga-Huron Unified School District Hazard Mitigation Steering Committee identified current mitigation activities, resources and action items for those research materials.

Public Hearings

The City of Coalinga and Coalinga-Huron USD staff facilitated two hearings to gather comments and ideas from citizens residing in the City of Coalinga and in the Coalinga-Huron Unified School District about mitigation planning and priorities for mitigation plan goals. Although the public hearing targeted citizens within the City and the District, public notification welcomed any interested party to participate in the process. The public hearings were held January 6, 2005 and November 17, 2005.

The resources and information cited in the mitigation plan provide a strong local perspective and help identify strategies and activities to make the City of Coalinga and the Coalinga-Huron Unified School District more disaster resilient.

How Is the Plan Used?

Each section of the mitigation plan provides information and resources to assist people in understanding the City of Coalinga and the hazard-related issues facing citizens, businesses, and the

environment. Combined, the sections of the plan work together to create a document that guides the mission to reduce risk and prevent loss from future natural hazard events.

The structure of the plan enables people to use a section of interest to them. It also allows the City of Coalinga and Coalinga-Huron Unified School District staff to review and update sections when new data becomes available. The ability to update individual sections of the mitigation plan places less of a financial burden on the City of Coalinga and the Coalinga-Huron USD. Decision-makers can allocate funding and staff resources to selected pieces in need of review, thereby avoiding a full update, which can be costly and time-consuming. New data can be easily incorporated, resulting in a natural hazards mitigation plan that remains current and relevant to the City of Coalinga and the Coalinga-Huron Unified School District.

The mitigation plan is organized in three parts. Part I contains an executive summary, introduction, City and District profile, risk assessment and multi-hazard plan maintenance. Part II contains the four natural hazard sections and Part III includes the appendices. Each section of the plan is described below.

Part I: Mitigation Action Plan

Executive Summary: Five-Year Action Plan

The Five-Year Action Plan provides an overview of the mitigation plan mission, goals, and action items. The plan action items are included in this section, and address multi-hazard issues, as well as hazard-specific activities that can be implemented to reduce risk and prevent loss from future natural hazard events.

Section 1: Introduction

The introduction describes the background and purpose of developing the mitigation plan for the City of Coalinga and Coalinga-Huron Unified School District.

Section 2: Community Profile

This section presents the history, geography, demographics, and socioeconomics of the City of Coalinga and Coalinga-Huron Unified School District. It serves as a tool to provide an historical perspective of natural hazards affecting the City and the District.

Section 3: Risk Assessment

This section provides information on hazard identification, vulnerability and risk associated with natural hazards in the City of Coalinga and the Coalinga-Huron Unified School District.

Section 4: Multi-Hazard Goals and Action Items

This section provides information on the process used to develop goals and action items that cut across the four natural hazards addressed in the mitigation plan.

Section 5: Plan Maintenance

This section provides information on plan implementation, monitoring and evaluation.

Part II: Hazard Specific Information

Hazard specific information on four chronic hazards are addressed in this plan. Chronic hazards occur with some regularity and may be predicted through historic evidence and scientific methods. The chronic hazards addressed in the plan include:

- Section 2: Earthquakes
- Section 3: Windstorms/Adverse Weather Occasions
- Section 4: Secondary Flooding
- Section 5: Wildland Fires

Catastrophic hazards do not occur with the frequency of chronic hazards, but can have devastating impacts on life, property, and the environment. In Central California, because of the geology and terrain, earthquake, earth movement, flooding and wildfire also have the potential to be catastrophic as well as chronic hazards. For the coastal areas of California, tsunamis, while very rare, have the potential to calamitously devastate low-lying coastal areas. The City of Coalinga and the Coalinga-Huron Unified School District are not threatened by the tsunamis.

Each of the hazard specific sections includes information on the history, hazard causes and characteristics, hazard assessment, goals and action items, and local, state, and national resources.

Part III: Resources

The plan appendices are designed to provide users of the City of Coalinga and Coalinga-Huron Unified School District Natural Hazards Mitigation Plan with additional information to assist them in understanding the contents of the mitigation plan, and potential resources to assist them with implementation.

Appendix A: Plan Resource Directory

The resource directory includes city, regional, state, and national resources and programs that may be of technical and/or financial assistance to the City of Coalinga and the Coalinga-Huron Unified School District during plan implementation.

Appendix B: Public Participation Process

This appendix includes specific information on the various public processes used during development of the plan.

Appendix C: List of Acronyms

This section provides a list of acronyms for city, regional, state, and federal agencies and organizations that may be referred to within the City of Coalinga and Coalinga-Huron Unified School District Natural Hazards Mitigation Plan.

Appendix D: Glossary

This section provides a glossary of terms used throughout the plan.

Appendix E: List of Maps

This section provides all of the maps referenced throughout the plan.

Appendix F: City and District Site Non-Structural Action Item List

This section provides the action items lists pertaining to the City of Coalinga and Coalinga-Huron Unified School District’s non-structural action items.

Appendix G: City Structures and Contents Replacement Values

This section provides a listing of City of Coalinga structures and their contents replacement values.

Appendix H: District Structures and Contents Replacement Values

This section provides a listing of Coalinga-Huron Unified School District structures and their contents replacement values.

Appendix I: STAPLEE Analysis of Proposed Mitigation Strategies – City of Coalinga

This section provides the STAPLEE Analysis of the proposed mitigation strategies for the City of Coalinga.

Appendix J: STAPLEE Analysis of Proposed Mitigation Strategies – Coalinga-Huron Unified School District

This section provides the STAPLEE Analysis of the proposed mitigation strategies for the Coalinga-Huron Unified School District.

Section 2

Community Profile

Why Plan for Natural Hazards in the City of Coalinga and the Coalinga-Huron Unified School District

Natural hazards impact citizens, staff, students, parents and property of the City of Coalinga and the Coalinga-Huron Unified School District. Earthquakes could expose City of Coalinga citizens and staff and the Coalinga-Huron USD students, parents and staff to the financial and emotional costs of recovering after natural disasters. The risks associated with natural hazards increases as more people move to areas affected by natural hazards.

Even in those communities that are essentially “built-out”, i.e., have little or no vacant land remaining for development, population density continues to increase as low-density housing is replaced with medium and high-density development projects.

The inevitability of natural hazards, and growing population and activity within the City and District create an urgent need to develop strategies, coordinate resources, and increase public awareness to reduce the risk and prevent loss from future natural events. Identifying the risks posed by natural hazards, and developing strategies to reduce the impact of a hazard event can assist in protecting life and property within the City. The City’s and District’s parents, residents and businesses can work together with the City and District to create a natural hazard plan that addresses the potential impacts of hazard events.

Geography and the Environment

The City of Coalinga, found in Pleasant Valley, is located in the heart of California adjacent to the San Joaquin Valley and within minutes of the Interstate-5 Freeway.

City of Coalinga Profile

The City of Coalinga is centrally located halfway between Los Angeles and San Francisco and covers 6.58 square miles. The City of Coalinga has an elevation of 676 feet above sea level with an average temperature in January of 64° for a high and 29° for a low and in July of 103° for a high and 53° for a low.

The following brief history of the City of Coalinga was obtained from the Coalinga Area Chamber of Commerce’s website (www.coalingachamber.com/history.html).

Coalinga is the only incorporated city in Fresno County, and one of the few in California, that began as a mining boom town and survived. This longevity is now over 100 years old as a community. The City of Coalinga celebrated its 90th birthday in 1996 as an incorporated city.

Oil is the mineral that has provided Coalinga with over 100 years of relative prosperity, but it was the discovery of coal that inspired the naming of the town when laid out by Southern Pacific Railroad engineers in 1891. Legend has it during those days there were three coaling stations; stations A, B and C. The name Coalinga is derived from mixing Coaling with Station A to arrive at the naming of the city.

Oil was an important trade item to inhabitants of the area long before the first European settlers began to immigrate to the new world. Seepages in the area provided an asphalt used to line baskets and as a trade item with other Native American tribes.

Interest in these seepages inspired an "oil rush" to the area in 1865 that was described in news accounts as not unlike a gold discovery. In 1867, a specialized oil drilling rig was shipped around the Horn from the east coast and began drilling for oil north of the present site of Coalinga. This early interest was to die down primarily because of shipping problems and the world had not yet discovered the full potential of petroleum.

The discovery of low grade coal deposits helped solve the transportation problem. The use of petroleum as a substitute for coal as a fuel began the rush to produce more of the 'black gold'.

In the nearby foothills is also the worlds only known deposit of Benitoite, adopted a few years ago as the State Gem.

While Southern Pacific Railroad showed no interest in oil production during those early days, it extended the tracks from Huron because of the coal discoveries.

In 1889, the Coalinga post office was established and in 1891 Southern Pacific Railroad purchased the 160 acres homestead of M. L. Curtis and laid out the town site of Coalinga.

The extension of the railroad coincided with a significant worldwide interest in oil productions. As the coal mines proved to be of little value, the second "oil rush" of 1890 proved Southern Pacific's investment to be a sound one. By 1910, Coalinga was the third largest shipping point for the railroad in California with nearly all tonnage connected with oil production.

With over 15 years of continuous prosperity behind them, a handful of local citizens began the process of incorporation, which was completed in April 1906.

Recognized as being a "boom town" not unlike those established in the gold country, these pioneers saw a future for the city that would extend its life far beyond the longevity of most of the gold rush communities whose flame flickered and died as the mother lode faded away. This faith has been justified as Coalinga celebrates 90 years of incorporation with oil supplying the major portion of its prosperity during the period.

In 1909, the Coalinga Chamber of Commerce was organized and in its first report dated April 16, 1910, there was plenty to "crow" about. The Coalinga oil field was the largest in California. In

September 1909, the Silver Tip well, just one-half mile from the city limits, blew in with the greatest gusher known in California at that time. This discovery caused enough excitement among the financiers of California that the Los Angeles Stock Exchange was closed on a Friday in November so that members could come to Coalinga on a special excursion.

Coalinga's oil field of that time was to produce men and companies who were to become some of the giants of the industry. Just one of these was R. C. Baker, founder of Baker Oil Tools. His original buildings in Coalinga are now home of the R. C. Baker Memorial Museum, one of the outstanding small museums in the state. It focuses not only on oil, but all phases of pioneer life in the Coalinga area.

In those early days there was no one to provide natural gas to customers in Coalinga. The City simply contracted with nearby oil companies to supply natural gas from their wells, which was then re-sold to city residents. To this day, Coalinga is nearly unique as being one of just a handful of cities to operate this utility. Natural gas is currently purchased from major suppliers for residents.

Drinking water was also in short supply in Pleasant Valley. To meet this challenge, Coalinga's drinking water has always been imported. Until 1972, every Coalinga residence had three water faucets in the kitchen; hot water, cold water and drinking water. Until 1960 the major source of drinking water was water wells in Armona owned by Southern Pacific. This water shipped to Coalinga in tank cars for distribution. In 1960, Coalinga was a site selected from experimental systems to soften hard water to a point where it was palatable for human consumption. The first of these was an ionic system that was later replaced by the reverse osmosis method that was eventually to be commonly used throughout the world to convert even sea water to a drinkable state.

The third faucet was not to become an unused conversation piece until 1972 when Coalinga received its first delivery of San Luis Canal water from the state water system. This April 1972 date came almost 66 years to the day following incorporation of the city.

While oil was the staple of the local economy, agriculture always played an important part. Before 1972, agriculture was limited to growing cotton and other salt water resistant crops. With the arrival of the canal water, the area now has become a region of specialty crops such as lettuce, tomatoes, asparagus and a variety of nut and fruit trees.

In the early days, the women of Coalinga recognized that a library was needed. Their answer was to form a library district. An Andrew Carnegie grant was secured and Coalinga has a library that can challenge many counties in California.

In 1918, Coalinga veterans of the "World War" began organizing a local Great War Veterans organization. This idea spread through the efforts of local organizers until it reached state-wide interest. When veterans met in 1919 to establish the American Legion, Coalinga was designated Post #2 in California. Post #1 in San Francisco lent their support to designate Coalinga as the "Mother Post" of California. This patriotic spirit has never faded. From World War I through the latest military involvements, Coalinga men and women have served their country honorably.

In 1933 Junior Chamber of Commerce became involved in an impromptu racing of various wild critters during an official function of that group. This evolved into the Coalinga Horned Toad

Derby and this year will see the 61st annual running of the "Horned Toads". The only years missed since 1993 were the years 1942-1945, when Coalinga residents, along with the rest of the United States were busy winning a war.

The Horned Toad was adopted by the high school as its mascot in 1938. The Fighting Horned Toads are unique in the nation as a mascot. Even the fight song, words and music, was written by a student who wanted something different than a copy of some midwestern university fight song to play at football games.

Education has always been important in Coalinga. Grammar schools date from the earliest settlers in the area. The first high school was built in 1910 and the first graduation class – all three members – graduated in 1912. Recognizing the need for an opportunity for the youth of the city to expand their education beyond a high school, a junior college was established in 1932. Academically, Coalinga residents have proven themselves in every field, with many gaining the highest recognition. Coalinga High School and West Hills Community College graduates have been involved in worldwide impacting work ranging from the development of one of the first mechanical cotton pickers to significant developments in the landing system of the space shuttle.

In athletics, Coalinga High School and West Hills graduates have scored touchdowns in the Rose Bowl game. Many have excelled in athletics while earning their education at major universities. Today, there are Coalinga athletes in major universities. Some graduates have gone onto fame in the professional ranks, especially in football and baseball. During the heyday of boxing, some young men were to become recognized as world class fighters. There have been many championship seasons in Coalinga in all sports. One of these seasons was the five man track team that won the state championship in 1917. More recently has been national recognition for the fine performances of the West Hills College rodeo teams.

Coalinga natives have also gone on to fame in the entertainment field, some gaining worldwide recognition for accomplishments.

The West Hills College campus is where the WAMBOBASS balloon festival is held each November. This annual celebration is held on the weekend closest to the anniversary of man's first successful balloon flight.

A first was chalked up for Coalinga when it hired Luella Kay Good in 1975 as the first female police chief in the United States. Prior to that, while still part of the Fresno County Constable system of law enforcement, a Coalinga woman, Jeanne Peterson, stirred up the State in 1932 when she successfully ran for the job of constable held by her late husband. She continued to hold the position until she retired some 16 years later.

The biggest test for the existence of the city came on May 2, 1983, when Coalinga experienced the 6.7 earthquake that leveled a significant portion of the business district and caused over \$31 million in damages. There was open speculation that Coalinga would not survive this disaster. The disaster proved, however, to be just another challenge to residents determined to disprove these speculations. Coalinga has a history of meeting challenges.

With a spirit of getting things done, Coalinga residents rolled up their sleeves and began not only to recover from the earthquake, but to enter into a new period of prosperity.

By May 1983, residents realized that the oil was not going to last forever. The earthquake was the catalyst that inspired the City to revitalize in more ways than just new buildings. The City was successful in their effort to have the Department of Corrections locate a major prison facility in the Pleasant Valley. The \$36 million industry was the major revenue source to replace a fading oil income.

With this as an economic base, the City has developed a 40 acre industrial park ready for occupancy in addition to a brand new \$8 million facility with a 100' by 5,000' runway. This combined with the mid-way location of the City along the busy 1-5 corridor, is expected to diversify the Coalinga economy as state growth continues. Coalinga is nearly equidistant from the major Northern and Southern California metropolitan centers.

In 1988 the residents approved a bond issue for a new hospital. This \$14 million facility was the first small town hospital constructed in the United States in several years. While other smaller cities and towns throughout the nation are experiencing problems in attracting doctors to locate in their community, Coalinga Regional Medical Center, with the latest in medical technology, is constructing new office buildings to accommodate the medical practitioners who choose to practice here.

Since 1983 the Coalinga Huron Parks & Recreation District has expanded its facilities. Twelve recreational sites have benefited from over \$2 million in construction including a first class combination youth entertainment and community center plus a top flight light center and first class senior citizens center.

In 1991, Coalinga completed an 800 acre annexation, increasing the city limits by 25%.

Is Coalinga meeting the challenge of recovery? Since the earthquake, housing has grown from 2,700 units on May 2, 1983 to nearly 3,500 today. The population has increased from 8,000 on May 2, 1983 to over 10,000 today. From an operation budget of under \$2 million in 1983, the City's combined operation, enterprise funds and redevelopment budget in 1995 exceeded a balance \$30 million.

Is the boom town of 1906 going to last? The roots are deep – just add water and watch it grow!

The Coalinga-Huron Unified School District

The Coalinga-Huron Unified School District encompasses 1,095 square miles and has a California Basic Educational Data System (CBEDS) enrollment of 4,385 and a Budget of \$28.5 million. The District employs 250 certificated and 247 classified full and part-time employees.

The Communities

The Coalinga Huron area includes two attractive, friendly communities on either side of I-5. The City of Coalinga with 17,200 population and the City of Huron with over 5,000 population are served with a regional hospital and West Hills Community College; away from the bustle of big cities, but within a comfortable drive to their amenities; about three hours to Los Angeles and

San Francisco, and even closer to Pismo Beach, Morro Bay, Monterey, and to Sequoia, Kings Canyon and Yosemite National Parks.

For a more detailed description of the Community of Coalinga, see Part I, Section 2 – City of Coalinga Profile.

Schools

The District has a total of 11 schools, 5 elementary schools, 2 middle schools, 1 high school, 2 continuing high schools, and 1 community day school. A listing of all schools is as follows:

- Bishop Elementary
- Cambridge High School
- Cheney Kindergarten
- Chesnut High School
- Coalinga High School
- Coalinga Middle School
- Community Day School
- Dawson Elementary
- Huron Elementary
- Huron Middle School
- Sunset Elementary

Geography

The City of Coalinga and the Coalinga-Huron USD are located approximately 197 miles north of downtown Los Angeles. The City's total land area encompasses 6.58 square miles and the District's total land area encompasses 106.69 square miles.

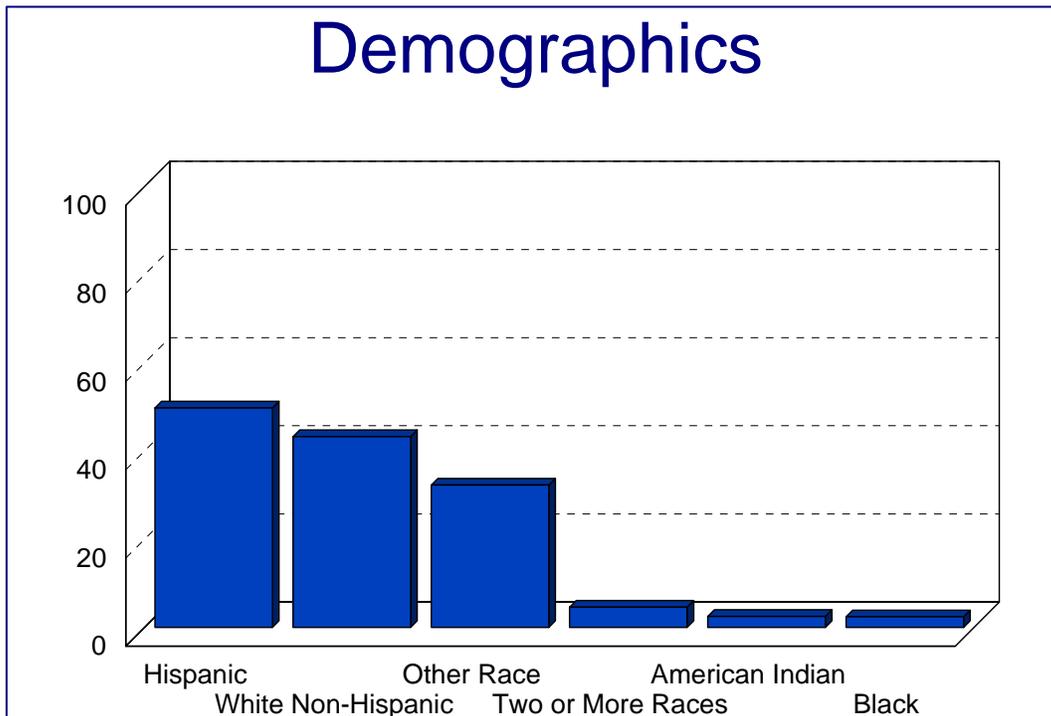
Freeway access to the City of Coalinga is provided indirectly by Interstate 5 (I-5) which runs in a north-south direction approximately 13 miles from the City. Direct access to the City is provided by State Route 33, which runs in a north-south direction through the north side of town and an east-west direction through the east side of town. Before turning east, State Route 33 intersects with State Route 198 which runs in a southerly direction out of the City. Main arteries in the City

include Cambridge Avenue, North Monterey Avenue, Van Ness Street, Adams Street, and West Polk Street.

Existing development in the City is characterized by residential neighborhoods at varying densities, with commercial uses concentrated along State Route 33/198 (Elm Street) and Polk Street (State Route 33) for retail and service commercial. The City’s professional services are generally concentrated in the downtown area, including but not necessarily limited to banks, post office, City Hall, library, and various other mixed use commercial. Commercial development in the City includes, amongst others, the Coalinga State Hospital (currently under construction), Claremont Custody Center (operated by the City under contract with the State of California), and Coalinga Municipal Airport.

Population

The City has a current population of 17,200 and has 147 full-time employees. The ethnic diversity of the City of Coalinga is broken down as follows: 49.8% Hispanic, 43.3% White Non-Hispanic, 32.3% Other race, 4.6% Two or More Races, 2.5% American Indian, and 2.4% Black. (It should be noted that the total can be greater than 100% because Hispanics could be counted in other races.)



The increase of people living in the area of the City of Coalinga creates more community exposure and changes how the City prepares for and responds to natural hazards. In the 1987 publication, Fire Following Earthquakes, issued by the All Industry Research Advisory Council, Charles Scawthorn explains how a post-earthquake urban conflagration would develop. The conflagration would be started by fires resulting from earthquake damage, but would be made much worse

by the loss of pressure in the fire mains, caused by lack of electricity to power water pumps, and/or loss of water pressure resulting from broken fire mains.

Increased density can affect risk. For example, narrower streets are more difficult for emergency service vehicles to navigate, the higher ratio of residents to emergency responders affects response times, and homes located closer together increase the chances of fires spreading.

The anticipated growth in population density over the next few years will create greater service loads on the built infrastructure, including roads, water supply, sewer services, and storm drains.

Natural hazards do not discriminate, but the impacts in terms of vulnerability and the ability to recover vary greatly among the population. According to Peggy Stahl of the Federal Emergency Management Agency (FEMA) Preparedness, Training, and Exercise Directorate, 80% of the disaster burden falls on the public. Within that number, a disproportionate burden is placed upon special needs groups: women, children, minorities, and the poor.

The ethnic and cultural diversity suggests a need to address multi-cultural needs and services.

The median household income in the year 2000 was \$38,133. The number of people that live at or below the poverty level in the City is approximately 20.27% of the population.

Vulnerable populations, including seniors, disabled citizens, women, and children, as well as those people living in poverty, may disproportionately be impacted by natural hazards.

Examining the reach of hazard mitigation policies to special needs populations may assist in the increasing access to services and programs. FEMA’s Office of Equal Rights addresses this need by suggesting that agencies and organizations planning for natural disasters identify special needs populations, make recovery centers more accessible, and review practices and procedures to remedy any discrimination in relief application or assistance.

The cost of natural hazards recovery can place an unequal financial responsibility on the general population when only a small proportion may benefit from governmental funds used to rebuild private structures. Discussions about natural hazards that include local citizen groups, insurance companies, and other public and private sector organizations can help ensure that all members of the population are a part of the decision-making processes.

Based on Census records since the City was incorporated in 1906, the total population has remained relatively constant. The population from the 2000 Census was 20,046 persons. The following tables show population figures since 1970 and a breakdown of population by age:

1970	1980	1990	2000
6,161	6,593	8,212	11,668

Rail System

The rail system that existed in the City of Coalinga was abandoned over a decade ago and is no longer in use.

Air Travel

The Coalinga Municipal Airport is located within the City of Coalinga city limits. Other airports within driving distance include Paso Robles Municipal Airports located approximately 38 miles from the City in Paso Robles; Fresno Yosemite International Airport located approximately 62 miles from the City in Fresno; and the San Luis County Regional Airport located approximately 66 miles from the City in San Luis Obispo.

Bus Transportation

The City of Coalinga receives bus service from Coalinga Transit offering service within the City limits as well as to the City of Fresno.

Major Rivers

No major rivers are adjacent to the City of Coalinga. The City, however, does have located on its boundaries the Los Gatos Creek (northern boundary) and the Warthan Creek (eastern boundary).

Climate

The climate in the City of Coalinga and the Coalinga-Huron Unified School District is mild and damp in the winter to hot and dry in the summer months with average temperatures in January of 64° for a high and 29° for a low and in July of 103° for a high and 53° for a low. The following tables illustrate monthly averages for temperature and precipitation:

Table 2.3 – Monthly Average Maximum and Minimum Temperatures (Fahrenheit)

Avg. Temp	Jan	Feb	Mar	Apr	May	Jun
Max.	58.4	64.9	70.3	77.8	86.4	94.2
Min.	37.9	41.1	43.9	47.4	54.0	60.8
Avg. Temp	July	Aug	Sep	Oct	Nov	Dec
Max.	99.0	97.7	92.5	82.9	68.1	59.0
Min.	66.1	65.1	60.0	51.4	41.8	35.9

Table 2.4 – Monthly Average Total Precipitation (Inches)

Jan	Feb	Mar	Apr	May	Jun	Annual 8.4
1.8	1.8	1.6	0.5	0.2	0.1	
July	Aug	Sep	Oct	Nov	Dec	
0.0	0.0	0.3	0.4	0.6	1.1	

Minerals and Soil

The City of Coalinga and the Coalinga-Huron Unified School District are located in the heart of California and nestled in Pleasant Valley, at the edge of California's Coast Range Mountains, and surrounded by hills, ranches, and some of America's most productive agricultural land. The City of Coalinga is ten miles west of Interstate 5, and sixty miles southwest of Fresno – California's sixth largest city. The City's total land area totals 6.58 square miles. The District's total land area is 106.69 square miles. Ground elevations within the City range from 642 feet above mean sea level at the eastern section of Coalinga to 689 feet above mean sea level.

The Coalinga area landscape is marked by steep mountains and rolling foothills giving way to the flat plains of the Central Valley. In geological terms, the area is an anticline: folds of layered strata, pushed up by the buckling of the Earth's crust, with the oldest strata at the center producing mountain peaks. This geology is typically responsible for trapping oil fields. The City of Coalinga is located in the Pleasant Valley region of the San Joaquin Valley. The San Joaquin Valley is structurally part of the Sierra block that forms the Sierra Nevada to the east. The valley is physiographically (i.e., relating to physical geography) considered part of this block since it extends, at increasing depths, across the floor of the valley to the eastern edge of the Coast Ranges.

The Great Valley sequence, consisting of approximately 28,000 feet of thinly bedded mudstone, sandstone, and conglomerate, overlies the deep contact between the Sierra Nevada basement and the Coast Ranges. The Franciscan Complex, which constitutes a major portion of the Coast Range in the planning area, has been estimated to be more than 50,000 feet thick. It has been uplifted, faulted, and folded against the Sierra basement by contractional forces related to movement along the San Andreas Fault.

The characteristics of the minerals and soils present in the area that encompasses the City of Coalinga and the Coalinga-Huron Unified School District indicate the potential types of hazards that may occur. Rock hardness and soil characteristics can determine whether or not an area will be prone to geologic hazards such as earthquakes, landslides and liquefaction resulting from a significant seismic event.

Localities most susceptible to liquefaction-induced damage are underlain by loose, water-saturated, granular sediment within 40 feet of the ground surface. These conditions do not exist for the City of Coalinga.

The City of Coalinga exists in a 5.9 square mile area and the Coalinga-Huron Unified School District exists in a 106.69 square mile area that is made up of loose sandy soil, gravel, sediment, and silt layers. The area also has a shallow water table (within 40 feet of the surface).

Landslides can also be induced by seismic activity. The City of Coalinga has no history of landslide activity.

Other Significant Geological Features

The City of Coalinga and the Coalinga-Huron Unified School District, like most areas in California's Coast Range Mountain area, lies over or near the area of one or more known earthquake faults, and potentially many more unknown faults, particularly so-called lateral or blind thrust faults. The City of Coalinga is located approximately 29 miles from the Town of Parkfield – which is located on the San Andreas fault and has been the site of an intensive, multidisciplinary earthquake study since the late 1970's.

Coalinga is approximately 20 miles east of the central San Andreas Fault. The presence of significant oil deposits and the general appearance of the terrain around Coalinga suggests to observant residents that the area was geologically complex.²

Coalinga and the vicinity had been surveyed and reported on by West Hills College Geologist E. Fowkes (1982). His brief description of faulting and earthquakes, while highlighting the San Andreas Fault, mentions that many other faults, both named and unnamed, crisscross the area. The report notes that the area has experienced a number of earthquakes in recent times, gives the impression that most of them have been relatively small, and links seismic activity in the area mainly to the San Andreas Fault.³

There are many faults that can affect the Coast Range Mountain area. These and other faults may also affect the City of Coalinga and the Coalinga-Huron Unified School District. The following faults, gathered from various sources, could impact the City and the District:

- San Andreas
- Nunez (unnamed)

Paleoseismological research indicates that large (8.0+) earthquakes occur on the San Andreas Fault at intervals between 45 and 322 years, with an average interval of 140 years.

² Report on the Coalinga Earthquake of May 2, 1983 by Kathleen J. Tierney, Seismic Safety Commission, State of California, George Deukmejian, Governor.

³ Ibid.

As noted on the Seismo-Watch website⁴, the City of Coalinga experienced a strong earthquake measuring 6.7. This quake struck an isolated region of the western San Joaquin Valley near Coalinga. The main shock occurred near Anticline Ridge about 15 km northeast of Coalinga. It was felt from the Los Angeles area north to Susanville and from the Pacific Coast to western Nevada.

Nearly 200 people were injured and about 1,000 were left homeless – fortunately, no deaths were reported. The temblor caused more than \$30 million in damages, forcing the town to rebuild a 12-block section of the downtown and shut down production from nearby oil fields for some time.

Of 139 buildings in the eight-block downtown commercial district, 59 collapsed or were heavily damaged. The most severe damage occurred to the old (usually pre-1930) one- and two-story buildings of unreinforced brick masonry wall construction, with floors and roofs of wood. Newer buildings of reinforced concrete-block walls or prefabricated metal had little structural damage. Underground public utilities (water, electricity, gas, sewerage) sustained little damage considering the above ground damage.

Private residences were heavily damaged. More than eight hundred single-family houses were destroyed or incurred major damage. Most of these domestic buildings were of unreinforced adobe construction.

Strong aftershocks continued for more than two years, with the largest event registered 6.0 on July 22. Although surface faulting did not occur from the main shock, a strong 5.7 aftershock produced a maximum of 64 cm of reverse and 20 cm of right-lateral displacement along a 3.3 km long trace of the previous unnamed Nunez fault, about 12 km northwest of Coalinga.

Water Resources

On October 28, 1968 the City of Coalinga entered into a 40-year contract with the United States Department of the Interior, Bureau of Reclamation (Reclamation) providing for water service to Coalinga. The City's existing contract with Reclamation will remain in effect through December 31, 2008; however, Reclamation has contacted the City and has requested that the City consider early renewal of the contract in exchange for non-payment of the City's share of mitigation and restoration costs that Reclamation has incurred as a result of the Central Valley Project Improvement Act (CVPIA) Programmatic Environmental Impact Statement. Only preliminary contract renewal discussions have occurred thus far, but Reclamation has indicated that the City can expect that their current annual allotment of water will not likely be reduced.

The current contract obligates Reclamation to furnish Coalinga up to 10,000 acre-feet (AF) of water per year. The contract also establishes that, commencing with the first year water is delivered to the City (1972), the minimum quantity of water that the City is obligated to accept and pay for throughout the life of the contract shall not be less than the average annual use for the previous five years.

⁴ www.seismo-watch.com/eqservices/notableeq/may/0502.coalinga.html.

When the initial contract with Reclamation was prepared, the City’s projected water use, beginning with the first year of delivery, was shown as follows in the contract:

Contract Year	Actual Years	Projected Average Annual Use (AFY)
1 st through 5 th	1972 through 1976	2,500
6 th through 10 th	1977 through 1981	3,250
11 st through 15 th	1982 through 1986	4,000
16 th through 20 th	1987 through 1991	5,000
21 st through 25 th	1992 through 1996	6,500

The amount of water projected in the contract compared favorably with Coalinga’s growth and resulting water use. The contract also provides that, commencing with the 26th year and each year thereafter for the remainder of the term of the contract, the City is obligated to accept and pay for a quantity of firm water not less than the average quantity delivered to the City during the immediately preceding five years. The City has never been in a position of having to pay for water they did not use or need. Therefore, this provision has never been a problem.

In 2000, Coalinga treated and furnished approximately 4,856 AF of potable water to its customers. Around 235 AF of untreated water was also sold to two customers: 64 AF to Harris Ranch feedlot and 171 AF to the Polvadero Golf Course. In addition, Coalinga transferred 3,000 AF of excess water in 2000 to another Reclamation user, bringing Coalinga’s total water provided by Reclamation in the year 2000 to 7,091 AF.

Surface Waters

The City of Coalinga is located in the Arroyo Pasajero watershed. Storm water from the city drains into Warthan and Los Gatos creeks, which are tributaries to the Arroyo Pasajero. The Arroyo Pasajero historically drained to the Tulare Lake Basin which is located southeast of the city. Since construction of the California Aqueduct the water of the Arroyo Pasajero normally are retained on the state owned property north of the City of Huron and west of the California Aqueduct. Only in extremely wet years is water from the Arroyo Pasajero allowed to flow east of the California Aqueduct through the evacuation culvert under the aqueduct and on the to the Tulare Lake Basin.

Natural Resources

The Coalinga area has over 100 years of prosperity due to the oil production in the region. But it was the discovery of coal that inspired the naming of the town when laid out by southern Pacific Railroad engineers in 1891.

Oil was an important trade item to inhabitants of the area long before the first European settlers began to immigrate to the new world. Seepages in the area provided an asphalt used to line baskets and as a trade item with other native American tribes. Interest in these seepages inspired an “oil rush” to the area in 1865. In 1867, a specialized oil-drilling rig was shipped around the Horn

from the east coast and began drilling for oil north of the present site of Coalinga. The only known deposition of Benitoite in the world is located in the nearby foothills.

Parks/Recreation

Recreational facilities within the City of Coalinga and the Coalinga-Huron Recreation and Park District occupy approximately 110.30 acres for the District and 38.82 acres for the City. The following tables list these parks and the following map shows their locations.

Table 2.6 – City of Coalinga Parks

Park	Acres
Posa Chanet Park	5.00
Sandalwood Park	2.41
Frame Park	0.23
Lynch Park	0.13
Memorial Park	0.14
Motte Fountain Park	0.12
Watanabe Natural Science Park	27.27
Jelly Bean Park (Warthan Creek)	0.26
Walking Beam Park	0.18
Van Ness & Durian Triangle	0.06
Elm & Grant Triangle	0.10
Sunset & Coalinga Plaza Triangle	0.11
Forest & Polk Triangle	0.04
Hawthorne & Hayes Triangle	0.11
Phelps Avenue Parkway	0.68
Jayne Avenue Parkway	0.29
Posa Chanet Medians	0.31
Creekside Subdivision Median	0.03
Washington Median	0.61
Princeton Median	0.05
Monterey Median	0.22
Juniper Ridge Medians	0.47
TOTAL	38.82

Table 2.7 – Coalinga-Huron Recreation and Park District

Park	Acres
Olsen Park	12.11
Keck Park	16.20
Sports Complex	82.00
TOTAL	110.30

In addition to City and District parks, school playgrounds are also available for public use after school hours. These schools provide open fields for baseball, soccer and football, basketball courts, tot lots, and other game courts for public use.

Land Use Designations

The General Plan defines the planned use of all land within the City’s jurisdiction and the preferred policy for lands outside the City Limits, but within the Area of Interest.

Residential Land Use Designations

This section provides a description of the official residential land use designations. Density ranges are included for each of the designations. Unless subject to a master plan, density is calculated on a gross acreage basis. Gross acreage includes all properties designated residential but excludes existing right-of-way and non-residential designations (i.e., Open Space, Recreation, Industrial, etc.). When a park, trails, common area landscaping, or other facility of community benefit is provided within the residential designation, the density may be transferred to other contiguous lands proposed for concurrent development.

Ranchette (RCH) – 0 to 0.1 DU/Acre

This designation applies to large lot developments with a minimum parcel size of ten (10) acres with one single-family residence per lot. This designation applies largely to that area north of the developed portion of the community, along Highway 198/33. Equestrian oriented developments with public linkages to trail systems are strongly encouraged in this designation. Upon annexation into the City Limits these areas will be served by City water; however, they will not be served by City sewer.

Residential Estate (RE) – 0.2 to 2.0 DU/Acre

This designation applies to large-lot developments with one single-family residence per lot. This designation applies largely to areas to the east and south of developed portion of the City and is intended to serve as a buffer between higher density urban areas and agricultural lands. Equestrian oriented developments with public linkages to trail systems are strongly encouraged in this designation. Clustering is encouraged in this land use designation to preserve natural features and/or provide community amenities (i.e., parks, trails, etc.).

Residential Single Family (RSF) – 2.1 to 5.0 DU/Acre

This designation applies to traditional single-family detached housing units. Development typically requires a full range of urban services and public improvements. Development on large parcels should be concentrated in more developable areas with large contiguous areas left in open space. The use of clustering techniques is encouraged.

Residential Multi-Family Low Density (RML) – 5.1 to 15 DU/Acre

This designation is for higher-density, single-family small lot subdivisions and a variety of attached homes intended to meet the needs of “workforce housing”. Homes may be either individually owned or rental housing. Low and moderate-income housing can be developed at this density with density bonuses to reduce housing costs. Common amenities such as pools, landscaping, tot lots, trails, open space, etc. should be included.

Residential Multi-Family Medium Density (RMM) – 15.1 to 25.0 DU/Acre

Higher density multi-family structures are allowed in these areas. Low and moderate-income housing can be developed at this density with density bonuses to reduce housing costs. Common amenities such as pools, landscaping, tot lots, trails, open space, etc. should be included.

Mixed Use (MX) – 0.0 to 15.0 DU/Acre

This designation encourages a mix of residential and commercial uses. Commercial uses should be primarily retail or office in nature with some Commercial Service uses. This designation typically applies to urbanized portions of the community and is focused towards infill and redevelopment projects.

All uses allowed in the CG (General Commercial) and CS (Service Commercial) designation are allowed in the MX designation. Exclusive residential development and mixed residential/commercial development is subject to the PD (Planned Development Overlay) requirements. Residential uses on a given parcel must not exceed 15 dwelling units/gross acre as described under the RML (Multi-family Low-Density Residential) General Plan designation.

Commercial

Existing commercial uses are concentrated along State Route 33/198 (Elm Street) and Polk Street (State Route 33) for retail and service commercial. The City's professional services are generally concentrated in the downtown area, including but not necessarily limited to banks, post office, City Hall, library, and various other mixed use commercial. Commercial development in the City includes, amongst others, the Coalinga State Hospital (currently under construction), Claremont Custody Center (operated by the City under contract with the State of California), and Coalinga Municipal Airport.

Commercial Designations

This section provides a description of each of the official commercial land use designations.

General Commercial (CG)

The Commercial General land use category is used to indicate areas of concentrated retail such as the concentration of retail stores located at Elm Avenue and Coalinga. In addition, the CG designation is also applied to other concentrations of retail uses, generally located adjacent to major streets. The CG designation contains food, drug, clothing, and other retail uses and services such as small restaurants, laundry outlets, etc. Hotels and motels are permitted in CG areas, subject to zoning regulations. Medical and professional offices are permitted within this designation, subject to zoning restrictions.

Service Commercial (CS)

The Service Commercial land use category allows for a full range of retail and service uses for which a shopper usually makes a single-purpose trip to visit one establishment. Such uses include repair facilities, building materials and industrial supplies, and auto and accessories dealers. In addition, light manufacturing/distributing uses, which include wholesale and/or retail outlets, are included in this category.

Other Designations

This section provides a description of each of the official non-residential and non-commercial land use designations. These designations are intended to concentrate businesses, industry and services in appropriate locations that serve the community, rely on existing infrastructure, and protect residential neighborhoods. Site-specific zoning requirements are often required to mitigate impacts associated with high intensity uses.

Manufacturing/Business (MB)

Both large and small-scale businesses that are involved in light manufacturing, distribution, or services fall within this designation. City zoning regulations distinguish between light and heavy manufacturing uses covered within this single category. Office/manufacturing “condominiums” and wholesale-to-the-public outlets are allowed in the MB designated areas.

Public Facilities (PF)

The Public Facilities land use category includes City, County and other governmental and agency properties, such as the post office, Civic Center, public schools and playgrounds, and fire stations. Public Facilities may also include public utility right-of-ways.

Recreation Facilities (RC)

The Recreation Facilities land use category applies to public and private recreation facilities, including public parks, golf courses, and equestrian centers.

Open Space/Conservation (O)

Properties with significant physical constraints to development are included in this classification. These properties typically have one or more of the following constraints:

- Floodway or floodplain
- Fault rupture hazard area
- Unstable geologic or soils conditions
- Hazardous materials
- Wildlife corridors or habitat areas

No residential or commercial uses, except equestrian boarding and training and limited agricultural uses are allowed within this classification. Sand and gravel extraction, as a temporary use, may be allowed as determined by City zoning procedures. Passive recreational uses (e.g., bicycle and hiking trails) are highly encouraged.

Agriculture (A)

This designation is designed for intensive agriculture and related uses. The development density is twenty (20) gross acres minimum size.

Table 2.8 – Summary of Land Uses Within the Area of Interest

Land Uses with Proposed Area of Interest	Acres	%
O – Open Space	798	1.5%
RC – Recreation Facilities	193	0.4%
A – Agriculture	38,729	72.0%
RCH – Ranchette Residential	2,726	5.1%
ER – Estate Residential	602	1.1%
RSF – Single Family Residential	1,257	2.3%
RML – Multi-Family Residential (Low Density)	130	0.2%
RMM – Multi-Family Residential (Medium Density)	118	0.2%
MX – Mixed Use (Variable Density)	41	0.1%
CG – General Commercial	84	0.2%
CS – Service Commercial	44	0.1%
MB – Manufacturing/Business	295	0.5%
PF – Public Facilities	2,392	4.4%
Estimated Area of Street and Canal	6,393	11.9%
Total Area of Existing SOI	53,801	100%

Overlay Designations

The following Overlay Designations have been included in the 2020 General Plan Update with the intent to promote orderly growth, protect public safety and the environment, and preserve scenic, cultural and historic resources.

Master Plan Growth Area Overlay

This Master Plan Growth Area Overlay Designation is applied to large (usually areas of twenty (20) acres or greater) vacant parcels located on the periphery of developed portions of the City. Land use designations have been approximated in these areas. Within these master plan areas urban development is expected to expand during the 20-year planning period. Specific development intensities are defined for each Master Plan Area. These areas are subject to development under the PD or Specific Plan process.

Flood Hazard Overlay

This Overlay Designation is applied to land within the 100-year flood plain of Los Gatos and Warthan Creeks. Land within the flood plain is designated as Open Space. With the exception of multi-use trails and passive recreation uses, development should occur outside the Flood Hazard Overlay.

Habitat Conservation Plan Overlay

This Overlay Designation is applied to unurbanized land proposed for new development primarily located on the periphery of developed portions of the City. These areas are subject to the terms and conditions specified in the Habitat Conservation Plan, an abbreviated version of which has been included in the appendix to the 2020 General Plan Update.

Oil Production Overlay

This Overlay Designation is applied to land currently under oil production. Urban development into these areas is highly discouraged.

Corresponding Zoning Classifications

Table 2.9 below establishes the corresponding Zoning Classifications that are consistent with the General Plan Land Use Designations. Zoning consistency determinations with the General Plan shall be consistent with Table 2.9.

Table 2.9 – General Plan Land Use & Zoning Designations

Land Use Designation	Corresponding Zoning Classification
O	O
A	AE-20
RCH	AE-10
RE	R-H
RSF	R-1
RML	R-2, T-P
RMM	R-2, R-3, T-P
MX	C-P, C-4, C-5, R-2, R-3
CB	C-1, C-4, C-5
CS	C-1, C-4, C-5, C-M
MB	C-M, M-1, M-3
PF	Any Zone
RC	O, R-1, AE-5, AE-20

Public Infrastructure

There are approximately 46 miles of roadways and alleys in the City. The street system is defined by major north-south streets such as N. Monterey Avenue, S. Monterey Avenue, California Street, E. Elm Avenue/Highway 33, and W. Elm Avenue/Highway 198; and major east-west streets such as Cambridge Avenue, Washington Street, Van Ness Street, W. Polk Street, and East Polk Street/Highway 33.

Most roadways in the City consist of two travel lanes, with major streets having four travel lanes. Some residential streets have rights of way of 50 feet or less. This does not permit two travel lanes and on-street parking. Expansion to 60 feet (a desirable width) is often not possible due to the nature and extent of existing development.

Hospitals

There is one hospital located within the City of Coalinga city limits and three hospitals located within a 50+ miles radius of the City. Additionally, the Coalinga State Hospital is currently under construction and scheduled for completion by the summer of 2005. The following table is a listing of these hospitals.

Table 2.10 - Hospitals

Name	Address	Distance from City	Number of Beds
Coalinga Regional Medical Center	1191 Phelps Avenue Coalinga, CA	Within City Limits	78 beds
Twin Cities Community Hospital	1100 Las Tablas Road Templeton, CA	49 miles	84 beds
George L. Mee Memorial Hospital	809 Broadway King City, CA	49 miles	42 beds
Central Valley General Hospital	1025 North Douty Street Hanford, CA	51 miles	49 beds

Public Safety

The City of Coalinga is a full-service city providing public safety services including Police, Fire and EMT/Ambulance services. The Coalinga-Huron Unified School District is provided security services through a contract with Def-Con Security (located in Coalinga). The District also employs a School Resource Police officer during normal school hours.

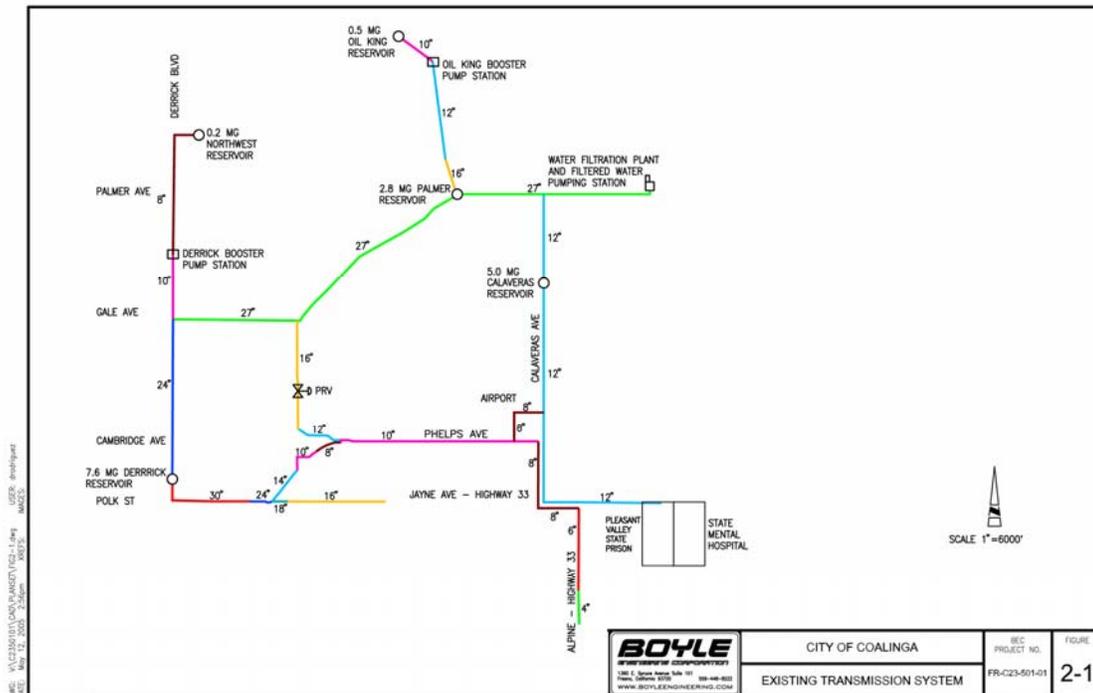
Public Works

Water

The City of Coalinga provides water service through the City’s Water Department.

Raw water destined for Coalinga flows from the Sacramento-San Joaquin Delta southerly in either the Delta-Mendota Canal or the Central Valley Project California Aqueduct to the O’Neil Forebay, then on southerly in the California Aqueduct to the point of origination of the Coalinga Canal, approximately 15 miles northeast of the City of Coalinga where Highway 145 crosses over the California Aqueduct. After leaving the California Aqueduct, the water is carried in the Coalinga Canal approximately 12 miles south to the City of Coalinga water treatment plant intake. The water is then lifted by a raw water pump station to the City’s water treatment plant. After the water flows through the City’s conventional filtration treatment plant, the treated water is pumped by a filtered-water pump station into a 27-inch diameter pipeline in Palmer Avenue. Approximately two miles west of the water treatment plant, the flow tees at Calaveras Avenue. The water eventually finding its way to the City of Coalinga, continues west another mile and a half to the to the 2.8-MG Palmer Avenue Reservoir. Water going to the Pleasant Valley State Prison travels south in the 12-inch Calaveras Avenue pipeline to the 5-MG Calaveras Avenue Reservoir and then, after flowing through the Calaveras Reservoir, continues south in Calaveras

Avenue another 3.5 miles to Jayne Avenue and then east a little over a mile to the prison. The water leaving the Palmer Avenue Reservoir flows through approximately 8 miles of 27-inch and 24-inch transmission mains to the 7.6-MG Derrick Avenue Reservoir. After leaving the Derrick Avenue Reservoir, the water then flows through a 30-inch transmission main into the City of Coalinga distribution system.



The City also provides treated water to two oil company users (Chevron and AERA Energy) and a co-generation facility (Coalinga CoGen). Chevron takes service from several locations along Gayle and Derrick Avenues and from the Northwest Reservoir. The 0.2-MG Northwest Reservoir is located north of Coalinga on Derrick Avenue and is fed by the Derrick Booster Pump Station consisting of two 75-HP pumps.

AERA Energy takes service from the 0.5-MG Oil King Reservoir, located a little over three miles north of Palmer Avenue on the west side of Highway 33/198. The Oil King Booster Pump Station, consisting of two 200-HP pumps, takes water from the Palmer Avenue 27-inch pipeline upstream of the Palmer Avenue Reservoir and lifts it to the Oil King Reservoir.

The City also serves several residential customers east of Coalinga and south of Jayne Avenue through the “Rural System” and a few low-demand industrial/commercial customers outside of town along the various transmission lines.

Surface Water Treatment Plant

Coalinga’s surface water treatment plant originally came on line in April 1972 with a nominal capacity of 8 million gallons per day (MGD) average daily flow and a hydraulic (maximum flow) capacity of 12 MGD. In 1992, primarily in anticipation of the increased

demands resulting from the then soon-coming Pleasant Valley State Prison, the plant was expanded to a nominal treatment capacity of 12 MGD and a hydraulic capacity of 16 MGD.

Filtered Water Pump Station

The filtered water pump station consists of two 450 HP, 2,300 gpm and three 700 HP, 3,600 gpm vertical turbine pumps. When in good repair, the pump station has the operational ability to pump the treatment plant capacity of 16.4 MGD (11,400 gpm) with one of the 450 HP pumps out of service. The City had PG&E perform an analysis of the treated water pumps and the study recommended the immediate replacement of one of the 450 HP pumps (P-12) due to its poor mechanical status and correspondingly low efficiency. The other 450 HP pump (P-13) is also in need of replacement, but not as critical as pump P-12. Pump P-12 was recently replaced.

Storage

Coalinga's existing water system includes five storage reservoirs located at different sites outside the City. All of the reservoirs described below are steel tanks resting on reinforced concrete ring wall foundations. None of the tanks are bolted to the ring wall foundations.

The five reservoirs are described below.

- **Palmer Avenue Reservoir.** Located on the south side of Palmer Avenue, approximately 800 feet east of Highway 33/198, the Palmer Avenue Reservoir has a capacity of 2.8 MG (110 feet in diameter by 40 feet high), a bottom elevation of 993.50 feet, and a high water elevation of 1033.50 feet. This reservoir, constructed as a part of the 1972 Coalinga Water Project, receives filtered water from the water treatment as described previously.
- **Derrick Avenue Reservoir.** The Derrick Reservoir, also constructed as a part of the Coalinga Water Project, is located west of the City on the east side of Derrick Avenue approximately 2,500 feet north of Jayne Avenue. It has a capacity of 7.6 MG (180 feet in diameter by 40 feet high), a bottom elevation of 802.00 feet, and a high water elevation of 841.30 feet. The normal water level is at elevation 838.50 feet, providing the pressure for the City distribution system. As described previously, treated water flows from the Palmer Avenue Reservoir through the Derrick Avenue Reservoir and into the City.
- **Calaveras Avenue Reservoir.** This reservoir was constructed in 1992 as a result of being recommended by the 1991 water master plan report. It is located on the east side of Calaveras Avenue, approximately 1½ miles south of Palmer Avenue. The Calaveras Avenue Reservoir has a capacity of 5 MG (156 feet in diameter by 40 feet high), a bottom elevation of 801.50 feet, and a maximum high water elevation of 838.50 feet. Like the Derrick Avenue Reservoir, the Calaveras Avenue Reservoir provides pressure to the City distribution system and has a normal high operating elevation of 838.50 feet.

- **Oil King Reservoir.** Located west of Highway 33/198, a little over three miles north of Palmer Avenue, the Oil King Reservoir was constructed in 1972 and has a capacity of 0.5 MG (48 feet in diameter by 40 feet high), a bottom elevation of 1215.50 feet and a high water elevation of 1254.80 feet. This reservoir serves AERA Energy exclusively.
- **Northwest Reservoir.** Located east of Derrick Avenue, approximately 3 miles north of Gale Avenue, the Northwest Reservoir has a capacity of 0.2 MG (40 feet in diameter by 24 feet high), a bottom elevation of 1137.50 feet, and a high water elevation of 1160.80 feet. Like the Oil King Reservoir, this reservoir is for the exclusive benefit of oil company customers.

The Oil King and Northwest reservoirs' sole function is to provide water to oil companies. As such, they are considered as available water when evaluating the City's available storage. The existing combined storage capacity of the Palmer, Derrick, and Calaveras reservoirs is 15.4 MG.

Booster Pumping Stations

Coalinga's water system includes two booster-pumping stations, but neither function as a part of the City's main service area. Both booster pumping stations pump to the reservoirs serving the oil company customers exclusively.

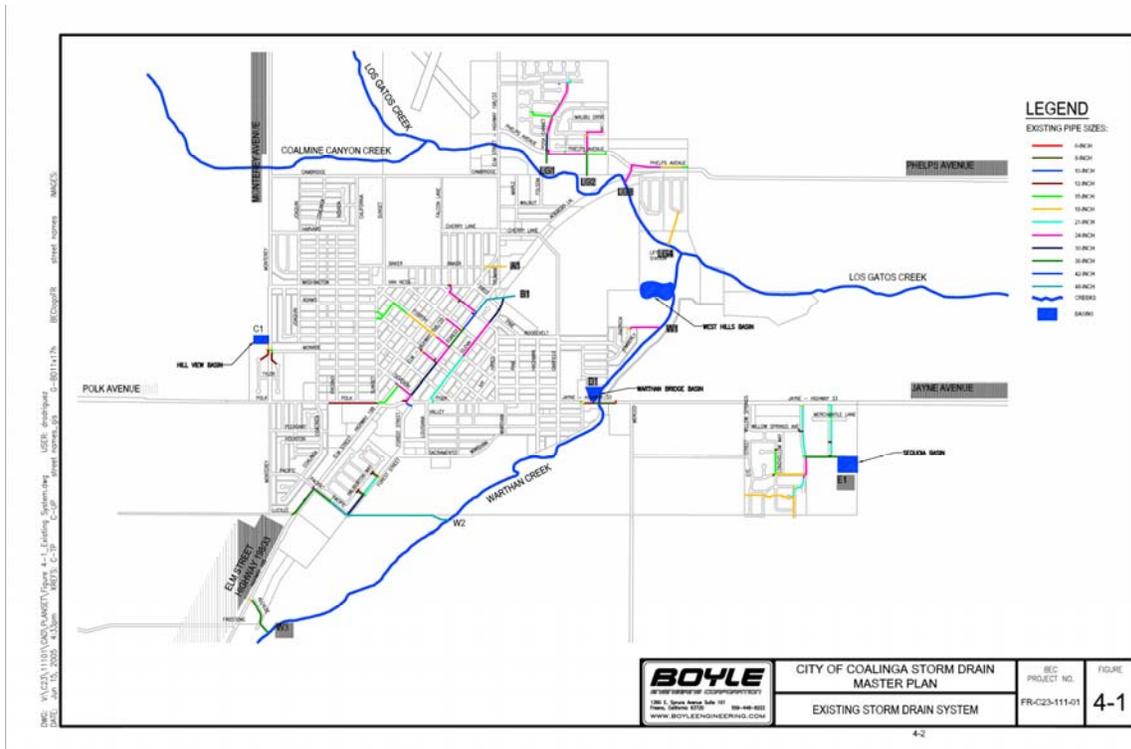
- **Oil King Booster.** This booster pumping station consists of two 200-HP, 1,440 gpm booster pumps to elevate the Palmer Avenue Reservoir water to the Oil King Reservoir.
- **Derrick Booster.** This booster pumping station consists of two 75-HP, 556 gpm booster pumps to elevate the water to the Northwest Reservoir.

City Distribution System

Water entering the City travels primarily from the Derrick Avenue Reservoir through 30-inch, 24-inch, and 18-inch transmission mains into the City water distribution system. Water can potentially travel from the Calaveras Avenue Reservoir westerly into the City in the Phelps Avenue pipeline, but the hydraulic conditions are such that this seldom occurs. The City distribution system consists of a network of water mains ranging in size from 4 inches in diameter through 14 inches. There were approximately 2,965 service connections inside the City serving the 2002 population of 12, 379. In addition to the Pleasant Valley State Prison connection serving around 4,700 persons, there are also approximately 57 service connections serving the rural system and a half dozen or so miscellaneous small businesses outside the City.

Storm Drainage

The City of Coalinga is located at the downstream end of a large mountainous watershed area and is surrounded on the north and east by Los Gatos Creek and Warthan Creek, respectively. The total watershed area is approximately 7 square miles due to the contribution from surround-



ing mountains to the west. The local area of the City is primarily sloping from west to east following a funnel pattern with the outlet of the funnel being where Los Gatos Creek and Warthan Creek combine into a single creek. The City’s storm drain system consists of several independent networks of storm drain inlets and pipes that discharge either into a basin or a creek at 12 different locations. The majority of stormwater runoff flows towards downtown and is collected within the storm drain system along primarily along Forest and Glenn. The pipe networks in the downtown area discharge at the West Hills College school farm drainage swales, and the runoff is directed out to the pond. The runoff from the older residential development east of downtown Coalinga and south of the West Hills College school farm also discharges into the open drainage swales via street overflow through the gutters and some pipes.

A number of deficiencies in the storm drain system, as evidenced by historic street flooding, have been identified in the City.

Solid Waste Disposal

Solid waste disposal services are provided by the Mid-Valley Disposal for residential customers and private haulers provide service to commercial and industrial users. Solid wastes are brought to the Coalinga Disposal Site, Fresno County and recyclables are brought to Claremont Custody Facility.

In accordance with AB 939, the City of Coalinga has developed a variety of source reduction and recycling programs designed to reduce solid waste disposal needs by 50% by 2000. These programs include the ongoing residential curbside recycling program, mandatory recycling areas for non-residential uses, and green waste recycling programs.

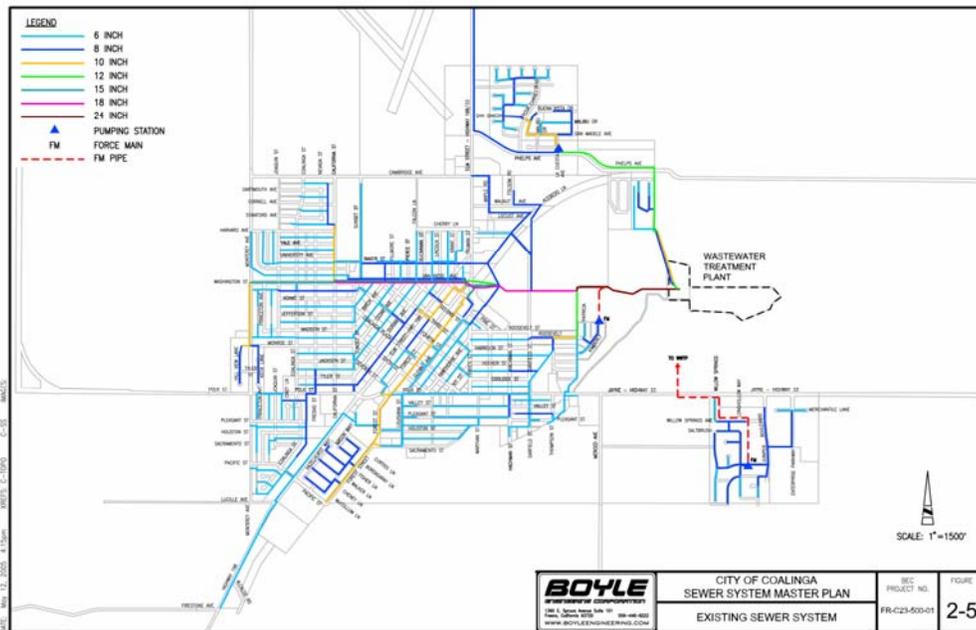
Wastewater Treatment

Sewer service in Coalinga is provided by the City. Sewage from the City is conveyed in sewer lines maintained by the Department of Public Works.

The City of Coalinga is located in the southwestern portion of the San Joaquin Valley in an area known as Pleasant Valley. Access to Coalinga is primarily by State Route 198 and by State Route 33, with Interstate 5 located approximately 13 miles to the east. The current population of the City of Coalinga in 2002 was approximately 16,800 including the current Pleasant Valley State Prison population of 4,700. The City annexed the prison in 2000 and now includes the prison in their population estimates. The 2002 estimated City of Coalinga population, excluding the prison, was 12,100.

The City's existing sewer collection system is comprised of a network of over 42 miles of sewer pipelines with sizes ranging from 6 to 24 inches in diameter. The system also includes three sewage-pumping stations. Wastewater is conveyed by the sewer collection system to the City's Wastewater Treatment Plant (WWTP), which is located east of the City near the confluence of Warthan Creek and Los Gatos Creek.

The oldest portions of the City's wastewater collection system were constructed in the first half of the 20th century to serve what is now the central portion of the City. As the City has grown, the collection system has been extended to serve the new development. The collection system currently serves all developed areas within the city limits.



There have been two major improvement projects at the WWTP during the last 20 years. In 1982, the then existing primary clarifier and anaerobic digester were abandoned in favor of additional aerated lagoons, increasing the permitted treatment capacity to 0.93 million gallons per day (mgd). In 1991, modifications to the plant, including rehabilitation of the previously abandoned primary clarifier and conversion of the previously decommissioned anaerobic digester to

an aerobic digester, increased the permitted plant capacity to 1.34 mgd. The current plant inflow is around 75 percent of the 1.34 mgd capacity, but the biochemical oxygen demand (BOD) of the wastewater flowing into the plant is greater than assumed for the design of the treatment facilities, and the plant is operating at around 90 percent of the plant's BOD reduction capability or treatment capacity and, therefore, plans for expansion must begin.

Natural Gas

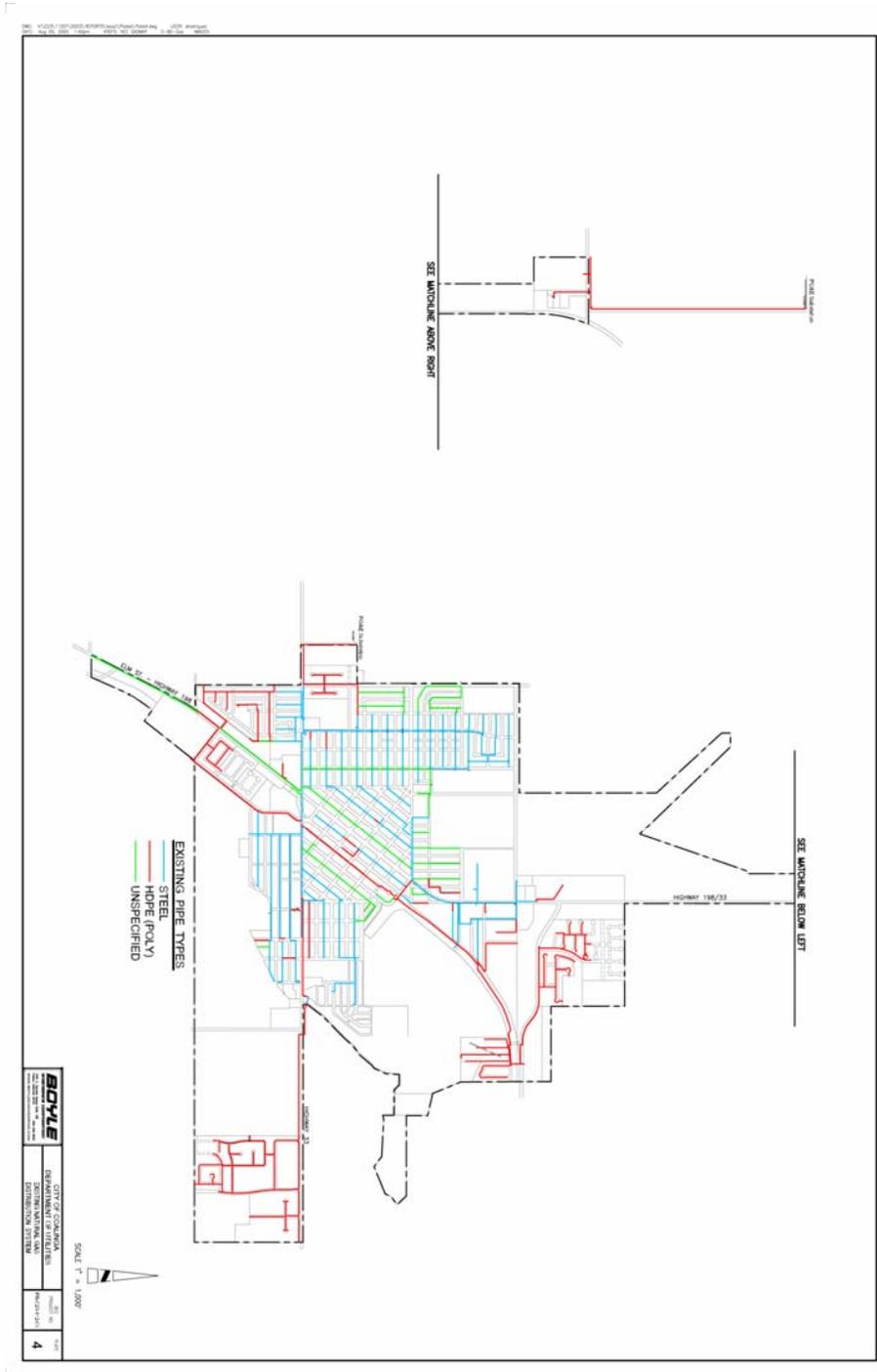
Natural gas service is provided by the City of Coalinga. As of January 1, 2004, the current City population was approximately 16,800, including the Pleasant Valley State Prison (PVSP) population of around 4,700. The City annexed the prison in 2000 and since then includes the prison in their population estimates. During that same year, the City also annexed the Coalinga State Hospital. Historical gas demands from 1995 to 2003 were obtained from the City. The per capita gas consumption was calculated by dividing the annual gas production by that year's serviced population. A per capita demand of 200 Th/Yr/c will be used for projection of future gas requirements as detailed later in this report.

The City's existing gas system consists of:

1. Two Pacific Gas & Electric Company gas substations. The primary gas substation, which serves most of the City at 23 psig, is located about one-quarter mile west of the intersection of Monterey Avenue and Monroe Street. The smaller gas substation, located about one mile north of the intersection of Hwy 198/33 and Gale Avenue at the far north end of the City, serves a small isolated group of connections, including the Claremont Custody Center, at 5 psig.
2. The City distribution system consisting of steel and polyethylene gas mains ranging in size from $\frac{3}{4}$ inch to 8 inches. The small distribution system serving the area around the Claremont Custody Center is not interconnected with the rest of the City's distribution system. There are in excess of 2,900 service connections providing natural gas to customers in the City.

Schools

Students (K-12) within the City of Coalinga go to schools managed by the Coalinga-Huron Unified School District. See previous profile for the School District.



Other Government Offices

Public facilities are defined as land in public ownership, excluding parks. There are approximately 2,060 acres of public facilities in Coalinga, including the Coalinga Post Office, City Hall, Coalinga Huron District Library, schools, Coalinga State Prison, Wastewater Treatment Plant, Water Treatment Plant and storage tanks, Public Works corporation yard, Parks, Senior Center,

Parks and Recreation District Community Recreation Center, Community Swim complex, West-hills Community College and local churches. The Coalinga City Hall located at 155 West Durian Avenue between N 6th Street and N 5th Street, just off of Highway 33. The City Hall was constructed in 1989. The Coalinga Huron District Library is located at 305 N. 4th Street, on the corner of N 4th Street and East Durian Avenue. The Post Office is located at 218 West Durian, between 7th Street and N 6th Street.

Other Utilities

Cable TV

The City has an agreement with Comcast Cable to provide the public with alerting and notification of various disaster situations. The estimated subscriber rate is 15%. This system includes break in to all TV's that are a part of this cable system. The City's Cable Channel 3 will provide directions to the citizens via scrolled information. This includes a "leader" that will scroll across any TV station that is turned on directing viewers to tune to their local cable channel for more information.

Electricity

Electrical service is provided by PG&E.

Land and Development

Development in California from the earliest days was a cycle of boom or bust. The Second World War, however, dramatically changed the cycle. Military personnel and defense workers came to California to fill the logistical needs created by the war effort. The available housing was rapidly exhausted and existing commercial centers proved inadequate for the influx of people. Immediately after the war, construction began on the freeway system, and the face of California was forever changed. Home developments and shopping centers sprung up everywhere and within a few decades the central basin of Los Angeles County was virtually built out. This pushed new development further and further away from the urban center.

The environment of most California cities is nearly identical with that of their immediate neighbors and the transition from an incorporated municipality to another is seamless to most people. Seamless too are the exposures to the natural hazards that affect all of Southern California.

Section 3

Risk Assessment

What is a Risk Assessment?

Conducting a risk assessment can provide information: on the location of hazards, the value of existing land and property in hazard locations, and an analysis of risk of life, property, and the environment that may result from natural hazard events. Specifically, the three levels of a risk assessment are as follows:

1) *Hazard Identification*

This is the description of the geographic extent, potential intensity and the probability of occurrence of a given hazard. Maps are frequently used to display hazard identification data. The City of Coalinga and the Coalinga-Huron Unified School District identified four major hazards that affect this geographic area. These hazards are:

- Earthquakes
- Windstorms/Adverse Weather Occasions
- Secondary Flooding
- Wildland Fires

The above hazards were identified through an extensive process that utilized input from the Hazard Mitigation Steering Committee. The geographic extent for the identified hazards has been identified by the City of Coalinga, the Coalinga-Huron Unified School District, the California Department of Conservation, and the U.S. Army Corps of Engineers using the best available data, and is illustrated by the charts/maps listed in *Table 3-1*.

2) *Profiling Hazard Events*

This process describes the causes and characteristics of each hazard, how it has affected the City of Coalinga and the Coalinga-Huron Unified School District in the past, and what part of the City's or District's population, infrastructure, and environment has historically been vulnerable to each specific hazard. A profile of each hazard discussed in this plan is provided in each hazard section. For a full description of the history of hazard specific events, please see the appropriate hazard chapter.

3) *Vulnerability Assessment/Inventorying Assets*

This is a combination of hazard identification with an inventory of the existing (or planned) property development(s) and population(s) exposed to a hazard. Critical facilities are of particular concern because these entities provide essential products and services to the general public that are necessary to preserve the welfare and quality of life in the region and fulfill important public safety, emergency response, and/or disaster recovery functions.

4) *Land Use and Future Land Use*

The regulation of land use applies primarily to the City of Coalinga and the Coalinga-Huron Unified School District through use of California Building Codes.

Building Design, Codes, Use Regulations:

- Require structures to be built to withstand destructive forces, e.g., severe weather, earthquakes, etc.
- Require retrofit of repetitive loss properties as a condition for receiving a building permit for other activities.
- Retrofit of buildings (by hazard).
- Design, construction, and land use (by hazard).
- Earthquake: Seismic safety design; construction; and land use.
- Building codes that will:
 - Regulate storm water drainage.
 - Promote water conservation.
 - Promote reduction in density and intensity in areas that have experienced repetitive damage.

5) *Risk Analysis*

Estimating potential losses involves assessing the damage, injuries, and financial costs likely to be sustained in a geographic area over a given period of time. This level of analysis involves using mathematical models. The two measurable components of risk analysis are magnitude of the harm that may result and the likelihood of the harm occurring. Describing vulnerability in terms of dollar losses provides the community and the state with a common framework in which to measure the effects of hazards on assets.

Once the hazard identification step was complete, the HMSC conducted a vulnerability assessment to describe the impact that each hazard identified in the preceding section would have upon the City of Coalinga and the Coalinga-Huron Unified School District. As a starting point, the HMSC utilized estimated net value, replacement values for contents and building to define a

baseline against which all other disaster impacts could be compared. The baseline is the catastrophic worst case scenario, the estimated net value of both City of Coalinga and School District building and content replacement values, \$6,878,559.

Total Value, Property and Contents Replacement	
City of Coalinga	\$1,421,543
Coalinga-Huron Unified School District	\$5,457,016
Total	\$6,878,559

The value is deceptively low in that it only reflects infrastructure, structure replacement values and building contents. The value does not reflect other community elements vulnerable to disaster, such as the economic impact to agriculture or business and industry. Land values have been purposely excluded and subsequent market devaluation is frequently short-term and difficult to quantify. Additionally, state and federal disaster assistance programs generally do not address loss of land or its associated value.

6) Assessing Vulnerability/Analyzing Development Trends

This step provides a general description of land uses and development trends within the community so that mitigation options can be considered in land use planning and future land use decisions. This plan provides a description of the character of the City of Coalinga and the Coalinga-Huron Unified School District in the Community Profile. This description includes the geography and environment, population and demographics, land use and development, and housing and community development. Analyzing these components of the City of Coalinga and the Coalinga-Huron Unified School District can help in identifying potential problem areas and can serve as a guide for incorporating the goals and ideas contained in this mitigation plan into other community development plans.

Table 3-1 – List of Hazard Mitigation Plan Charts/Maps		
Map #	Type of Map	Section of the Plan
1	City of Coalinga Location	Appendix E – Map 1
2	City of Coalinga City Map	Appendix E – Map 2
3	City of Coalinga Evacuation Routes	Appendix E – Map 3
4	City of Coalinga, Quadrangle map	Appendix E – Map 4
5	City of Coalinga Fault Zone Proximity	Appendix E – Map 5
6	10% Probability of Earthquake Shaking in 50 Years and Historic Earthquake Epicenters	Appendix E – Map 6
7	FEMA Flood Insurance Rate Map	Appendix E – Map 7
8	Wildland Fire Threat Map	Appendix E – Map 8
9	Coalinga-Huron Unified School District Boundary	Appendix E – Map 9
10	Coalinga-Huron Unified School District Evacuation routes	Appendix E – Map 10
11	City of Coalinga – Park Locations	Appendix E – Map 11

Table 3-1 – List of Hazard Mitigation Plan Charts/Maps		
Map #	Type of Map	Section of the Plan
12	City of Coalinga – Gas Mains	Appendix E – Map 12
13	City of Coalinga – Storm Sewer	Appendix E – Map 13
14	City of Coalinga – Sewer	Appendix E – Map 14
15	City of Coalinga – Water	Appendix E – Map 15

Note: The information on the maps in this plan was derived from a variety of resources found in Appendix A. Care was taken in the creation of these maps, but is provided “as is”. The City of Coalinga and the Coalinga-Huron Unified School District cannot accept any responsibility for any errors, omissions or positional accuracy, and therefore, there are no warranties that accompany these products (the maps). Although information from land surveys may have been used in the creation of these products, in no way does this product represent or constitute a land survey. Users are cautioned to field verify information on this product before making any decisions.

Hazard assessments are subject to the availability of hazard-specific data. Gathering data for a hazard assessment requires a commitment of resources on the part of participating organizations and agencies. Each hazard-specific section of the plan includes a section on hazard identification using data and information from district, city, county or state agency sources.

Regardless of the data available for hazard assessments, there are numerous strategies the City and District can take to reduce risk. These strategies are described in the action items detailed in each hazard section of this Plan. Mitigation strategies can further reduce disruption to critical services, reduce the risk to human life, and alleviate damage to personal and public property and infrastructure. Action items throughout the hazard sections provide recommendations to collect further data to map hazard locations and conduct hazard assessments.

Federal Requirements for Risk Assessment

Recent federal regulations for hazard mitigation plans outlined in FEMA Interim Final Rule 44 CFR Part 201 include a requirement for risk assessment. This risk assessment requirement is intended to provide information that will help communities to identify and prioritize mitigation activities that will reduce losses from the identified hazards. There are four hazards profiled in the mitigation plan, earthquakes, windstorms/adverse weather occasions, secondary flooding and wildland fires. The Federal criteria for risk assessment and information on how the City of Coalinga and Coalinga-Huron Unified School District Natural Hazard Mitigation Plan meets those criteria is outlined in *Table 3-2* below.

Table 3-2 – Federal Criteria for Risk Assessment	
Section 322 Plan Requirement	How is this addressed?
Identifying Hazards	Each hazard section includes an inventory of the best available data sources that identify hazard areas. To the extent GIS data are available, the District developed maps identifying the location of the hazards. The Executive Summary and the Risk Assessment sections of the plan include a list of the hazard maps.
Profiling Hazard Events	Each hazard section includes documentation of the history, and causes and characteristics of the hazard.

Table 3-2 – Federal Criteria for Risk Assessment

Section 322 Plan Requirement	How is this addressed?
Assessing Vulnerability: Identifying Assets	Where data is available, the vulnerability assessment for each hazard addressed in the mitigation plan includes an inventory of all publicly owned land within hazardous areas. Each hazard section provides information on vulnerable areas in the Community Issues section. Each hazard section also identifies potential mitigation strategies.
Assessing Vulnerability: Estimating Potential Losses	The Risk Assessment Section of this mitigation plan identifies key critical facilities and lifelines and includes a map of these facilities. Vulnerability assessments have been completed for the hazards addressed in the plan, and quantitative estimates were made for each hazard where data was available.
Assessing Vulnerability: Analyzing Development Trends	The City of Coalinga and Coalinga-Huron Unified School District Profile Section of this plan provided a description of the development trends in the area, including the geography and environment, population and demographics, land use and development, housing and community development, employment and industry, and transportation and commuting patterns.

Critical Facilities and Infrastructure

Facilities critical to the City, District and government response and recovery activities (i.e., life safety and property and environmental protection) include: emergency operations centers, police and fire stations, public works facilities, communications centers, sewer and water facilities, hospitals and roads. Facilities that, if damaged, could cause serious secondary impacts may also be considered “critical.”

Critical and essential facilities are those facilities that are vital to the continued delivery of key government services or that may significantly impact the public’s ability to recover from the emergency. These facilities may include other public facilities such as the City’s water pumping station, public and private schools, recreation centers and temporary shelters.

Section 2, Community Profile, provides a summary of these critical and essential facilities.

Summary

The City of Coalinga and the Coalinga-Huron Unified School District has to rely on the fact that the infrastructure of surrounding cities and jurisdictions are intact as the infrastructure will be necessary to provide support. This includes natural hazards mitigation strategies that can reduce the impacts concentrated at large employment and industrial centers, public infrastructure, and critical facilities. Natural hazard mitigation for industries and employers may include developing relationships with emergency management services and their employees before disaster strikes, and establishing mitigation strategies together. Collaboration among the public and private sector to create mitigation plans and actions can reduce the impacts of natural hazards.

Section 4

Multi-Hazard Goals and Action Items

This section provides information on the process used to develop goals and action items that pertain to the natural hazards addressed in the mitigation plan. It also describes the framework that focuses the plan on developing successful mitigation strategies. The framework is made up of three parts: the Mission, Goals and Action Items.

Mission

The mission of the City of Coalinga and Coalinga-Huron Unified School District's Natural Hazards Mitigation Plan is to promote sound City and District policy designed to protect citizens and staff, students and parents, infrastructure, critical support facilities, and the environment from natural hazards. This can be achieved by increasing awareness, documenting the resources for risk reduction and loss-prevention, and identifying activities to guide the City and District towards building a safer and more sustainable City and District.

Goals

The plan goals describe the overall direction that the City of Coalinga and the Coalinga-Huron Unified School District can take to minimize the impacts of natural hazards. These goals are stepping-stones between the broad direction of the mission statement and the specific requirements that are outlined in the action items.

Action Plan and Implementation Schedule

The action items are a listing of activities in which the City and the District can be engaged to reduce risk. Each action item includes an estimate of the time line for implementation. Short-term action items are activities that the City and District may implement with existing resources and authorities within one to two years. Long-term action items may require new or additional resources or authorities, and may take between one and five years (or more) to implement.

A. Potential Mitigation Strategies

The next step is to review the existing mitigation strategies (Project Evaluation Worksheets), propose improvements to them, and identify additional potential strategies. A detailed list of mitigation strategies applicable to the City and District can be seen on pages 94-107. These potential mitigation strategies were organized into four categories according to the type of hazard event, and include: 1) earthquake; 2) secondary flooding; 3) severe weather and 4) wildland fires.

The brainstorming session resulted in the following list of actions that could be taken to mitigate future hazards, by hazard type:

1. Earthquake

- Minimize losses to existing and future City and District buildings and structures.
- Reducing the potential for fatalities.
- Maintain safe and clear exit ways to access building and provide secure evacuation routes in time of emergency.

2. Secondary Flooding

- Ensure that areas susceptible to secondary flooding on City and District property are addressed to reduce or eliminate the future hazard that exists.
- Inspect and clean all ground and roof drains, gutters, scuppers, down pipes, roof surfaces and runoff areas.
- Move all water sensitive materials and equipment to the highest practical level available.

3. Severe Weather

- Reduce the hazard of falling trees and tree limbs during high wind conditions.
- Perform regular assessments of all major trees and their health status throughout the City and District.
- Remove trees that are diseased or may have the potential to fall and are deemed hazardous to life and property.

4. Wildland Fire

- Reduce the risk of wildfires by minimizing the amount of fuel in areas prone to wildfires.
- Develop and maintain a comprehensive public education program that increases awareness of the wildland fire interface fire risk and promotes actions to reduce the risk of fire to life and property.

B. Feasibility and Prioritization of Proposed Mitigation Strategies

The goal of each strategy is reduction or prevention of damage from a hazard event. In order to determine their effectiveness in accomplishing this goal, a set of criteria was applied to each proposed strategy. The STAPLEE method analyzes the Social, Technical, Administrative, Political, Legal, Economic and Environmental aspects of a project and is commonly used by public ad-

ministration officials and planners for making planning decisions. The following questions were asked about the proposed mitigation strategies and discussed in each of the eight Project Evaluation Work Sheets contained in Appendix I.

- **Social:** Is the proposed strategy socially acceptable to the community? Review equity issues involved that would mean that one segment of the community are treated unfairly?
- **Technical:** Will the proposed strategy work? Will it create more problems than it solves?
- **Administrative:** Can the community implement the strategy? Is there someone to coordinate and lead the effort?
- **Political:** Is the strategy politically acceptable? Is there public support both to implement and to maintain the project?
- **Legal:** Is the community authorized to implement the proposed strategy? Is there a clear legal basis or precedent for this activity?
- **Economic:** What are the costs and benefits of this strategy? Does the cost seem reasonable for the size of the problem and the likely benefits?
- **Environmental:** How will the strategy impact the environment? Will the strategy need environmental regulatory approvals?

**Each proposed mitigation strategy was evaluated and assigned a score (Good = 3, Average = 2, Poor = 1) based on the above criteria. An evaluation chart with total scores for each strategy can be found in each of the eight individual project evaluation worksheets.*

Mitigation Plan Goals and Public Participation

The Plan goals help to guide direction of future activities aimed at reducing risk and preventing loss from natural hazards. The goals listed here serve as checkpoints as agencies and organizations begin implementing mitigation action items.

Protect Life and Property

- Implement activities that assist in protecting lives by making our support facilities and other property more resistant to natural hazards.
- Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards.
- Improve hazard assessment information to make recommendations for discouraging new development and encouraging preventative measures for existing development in areas vulnerable to natural hazards.

Public Awareness

- Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.
- Provide information on tools, partnership opportunities, and funding resources to assist in implementing mitigation activities.

Partnerships and Implementation

- Strengthen communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry to gain a vested interest in implementation.
- Encourage leadership within public and private sector organizations to prioritize and implement local, county, and regional hazard mitigation activities.

Emergency Services

- Establish a policy to ensure mitigation projects for critical facilities, services, and infrastructure.
- Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.
- Coordinate and integrate natural hazard mitigation activities, where appropriate, with current City and District emergency operations plans and procedures.

Public Participation

- Public input during development of the mitigation plan assisted in creating plan goals. Meetings with the project Core Group and Steering Committee, served as methods to obtain input and identify priorities in developing goals for reducing risk and preventing loss from natural hazards in the City of Coalinga and the Coalinga-Huron Unified School District.

Natural Hazard Mitigation Plan Action Items

The mitigation plan identifies short- and long-term action items developed through data collection and research, and the public participation process. Mitigation plan activities may be considered for funding through Federal and State grant programs, and when other funds are made available through the city and district. Action items address multi-hazard (MH) and hazard specific issues. To help ensure activity implementation, each action item includes information on the timeline and coordinating organizations. Upon implementation, the coordinating organizations may look to partner organizations for resources and technical assistance.

Coordinating Organization

The coordinating organization is the organization that is willing and able to organize resources, find appropriate funding, or oversee activity implementation, monitoring, and evaluation. For the City of Coalinga and the Coalinga-Huron Unified School District, the Administrative staff and Hazard Mitigation Steering Committee will be the main coordinating organization. Additional coordinating organizations may include local or regional agencies that are capable of, or responsible for, implementing further activities and programs.

Priority

The Hazard Mitigation Steering Committee has established a priority for each short- and long-term activity based on timeline, plan goals addressed and constraints. These priority levels have been set at high, medium and low. High priority activities are those that have the significant importance with the most achievable timeline, contain significant plan goals that would be addressed and/or limited constraints. Medium priority activities are those that may have some importance with potential difficulties in timeline, plan goals and/or constraints. Low priority activities may have more significant obstacles in timeline, plan goals and/or constraints.

Timeline

Action items include both short- and long-term activities. Each action item includes an estimate of the timeline for implementation. Short-term action items are activities that city and district agencies may implement with existing resources and authorities within one to two years. Long-term action items may require new or additional resources or authorities, and may take between one and five years (or more) to implement.

Ideas for Implementation

Each action item includes ideas for implementation and potential resources, which may include grant programs or human resources.

Plan Goals Addressed

The plan goals addressed by each action item are included as a way to monitor and evaluate how well the mitigation plan is achieving its goals once implementation begins.

Constraints

Constraints may apply to some of the City's and District's action items. These constraints, unfortunately, result from decreased or lack of state and federal funds, increased insurance costs, and a general poor health of the California economy.

Project Evaluation

The Hazard Mitigation Steering Committee has reviewed two documents that comprise the City’s and District’s Capital Improvement Plan. The first document is an evaluation of City and District infrastructure that includes all improvements necessary for mitigation purposes. The second document is the Implementation Plan that prioritizes each need for each site. The process of prioritizing was based on need and available funding. After review the Hazard Mitigation Steering Committee supported the Capital Improvement Plan that also addresses mitigation needs.

Multi-Hazard Action Items – City of Coalinga

Multi-hazard action items are those activities that pertain to two or more of the four hazards in the mitigation plan: secondary flooding, severe weather occasions, earthquakes, and wildland fires. There are six short-term and three long-term multi-hazard action items described below.

SHORT TERM ACTIVITY – MULTI HAZARD #1: Integrate the goals and action items from the City of Coalinga Natural Hazard Mitigation Plan into existing regulatory documents and programs, where appropriate.

Ideas for Implementation: **High Priority**

- Partner with other organizations and agencies with similar goals to promote Building & Safety Codes that are more disaster resistant at the state level.
- The governing codes for the City of Coalinga are as follows:
 - Title 8 of the Coalinga Municipal Code
 - 2001 CA Building Codes
 - 1997 Uniform Building Code
- The City’s Community Development Director is responsible for the Building and Safety functions of the City. The District’s Director of Maintenance, Operations & Transportation / Director of Facilities is responsible for the Building and Safety functions of the District.

Coordinating Organization:	Hazard Mitigation Steering Committee
Priority:	High
Timeline:	Ongoing
Plan Goals Addressed:	Partnerships and Implementation
Constraints:	Limited to time available from City and District staff.

SHORT TERM ACTIVITY – MULTI HAZARD #2: Identify and pursue funding opportunities to develop and implement City mitigation activities.

Ideas for Implementation: **High Priority**

- Allocate District, City, county, and state resources and assistance to mitigation projects when possible; and
- Partner with other organizations and agencies in the City of Coalinga and the Coalinga-Huron Unified School District to identify grant programs and foundations that may support mitigation activities.

Coordinating Organization: City and District Administration/Steering Committee
Priority: High
Timeline: Ongoing
Plan Goals Addressed: Partnerships and Implementation
Constraints: Limited to time available from City and District staff

SHORT TERM ACTIVITY – MULTI HAZARD #3: Establish a formal role for the City of Coalinga Natural Hazards Mitigation Steering Committee to develop a sustainable process for implementing, monitoring, and evaluating City and District mitigation activities.

Ideas for Implementation: **High Priority**

- Establish clear roles for participants, meeting regularly to pursue and evaluate implementation of mitigation strategies.
- Oversee implementation of the mitigation plan.
- Establish measurable standards to evaluate mitigation policies and programs and provide a mechanism to update and revise the mitigation plan.
- Monitor hazard mitigation implementation by City and District infrastructure through surveys and other reporting methods.
- Develop updates for the Natural Hazards Mitigation Action Plan when presented with new information.
- Conduct a full review of the Natural Hazards Mitigation Action Plan every five (5) years by evaluating mitigation successes, failures, and areas that were not addressed.
- Provide training for Committee members to remain current on developing issues in the natural hazard loss reduction field.

Coordinating Organization: Hazard Mitigation Steering Committee

Priority: High
Timeline: Ongoing
Plan Goals Addressed: Implementation
Constraints: Limited to time available from City and District staff.

SHORT TERM ACTIVITY – MULTI HAZARD #4: Develop public and private partnerships to foster natural hazard mitigation program coordination and collaboration in the City of Coalinga.

Ideas for Implementation: **Medium Priority**

- Identify all organizations within the City of Coalinga and the Coalinga-Huron Unified School District that have programs or interests in natural hazards mitigation.

Coordinating Organization: Hazard Mitigation Steering Committee
Priority: Medium
Timeline: Ongoing
Plan Goals Addressed: Partnerships and Implementation
Constraints: Limited to time available from City and District staff

SHORT TERM ACTIVITY – MULTI HAZARD #5: Develop inventories of at-risk City and District buildings and facilities and prioritize mitigation projects that will reduce risk, facilitate recovery and resumption to prevent the loss of City funding.

Ideas for Implementation: **High Priority**

- Identify critical facilities at risk from natural hazards events.
- Develop strategies to mitigate risk to these facilities, or to utilize alternative facilities should natural hazards events cause damages to the facilities in question.

Coordinating Organization: Public Works Department
Priority: High
Timeline: 2-4 years
Plan Goals Addressed: Protect Life and Property
Constraints: May be budgetary limits than can prolong the length of the project

SHORT TERM ACTIVITY – MULTI HAZARD #6: Improve internal facility non-structural resistance to damage and injury due to earthquakes. Non-structural components include furnishings, equipment, electrical and mechanical fixtures, and architectural features such as partitions, cabinets, and shelves.

Multi-Hazard Action Items – Coalinga-Huron Unified School District

Multi-hazard action items are those activities that pertain to two or more of the four hazards in the mitigation plan: flood, severe weather occasions, earthquakes and wildland fires. There are six short-term and three long-term multi-hazard action items described below.

SHORT TERM ACTIVITY – MULTI HAZARD #1: Integrate the goals and action items from the Coalinga-Huron Unified School District Natural Hazard Mitigation Plan into existing regulatory documents and programs, where appropriate.

Ideas for Implementation:

Medium Priority

- Partner with other organizations and agencies with similar goals to promote Building & Safety Codes that are more disaster resistant at the state level.

Coordinating Organization: CCHUSD Hazard Mitigation Steering Committee
Priority: Medium
Timeline: Ongoing
Plan Goals Addressed: Partnerships and Implementation
Constraints: Limited to time available from District staff.

SHORT TERM ACTIVITY – MULTI HAZARD #2: Identify and pursue funding opportunities to develop and implement District mitigation activities.

Ideas for Implementation:

High Priority

- Allocate District, county, and state resources and assistance to mitigation projects when possible; and
- Partner with other organizations and agencies in the City of Coalinga to identify grant programs and foundations that may support mitigation activities.

Coordinating Organization: CCHUSD Administration/Business Services
Priority: High
Timeline: Ongoing
Plan Goals Addressed: Partnerships and Implementation
Constraints: Limited to time available from District staff

SHORT TERM ACTIVITY – MULTI HAZARD #3: Establish a formal role for the Coalinga-Huron Unified School District Natural Hazards Mitigation Steering Committee to develop a sustainable process for implementing, monitoring, and evaluating District mitigation activities.

Ideas for Implementation: **High Priority**

- Establish clear roles for participants, meeting regularly to pursue and evaluate implementation of mitigation strategies.
- Oversee implementation of the mitigation plan.
- Establish measurable standards to evaluate mitigation policies and programs and provide a mechanism to update and revise the mitigation plan.
- Monitor hazard mitigation implementation by school site through surveys and other reporting methods.
- Develop updates for the Natural Hazards Mitigation Action Plan when presented with new information.
- Conduct a full review of the Natural Hazards Mitigation Action Plan every five (5) years by evaluating mitigation successes, failures, and areas that were not addressed.
- Provide training for Committee members to remain current on developing issues in the natural hazard loss reduction field.

Coordinating Organization:	Hazard Mitigation Steering Committee
Priority:	High
Timeline:	Ongoing
Plan Goals Addressed:	Implementation
Constraints:	Limited to time available from District staff.

SHORT TERM ACTIVITY – MULTI HAZARD #4: Develop public and private partnerships to foster natural hazard mitigation program coordination and collaboration in the Coalinga-Huron Unified School District.

Ideas for Implementation: **Medium Priority**

- Work with city government (City of Coalinga) to develop local Natural Hazards Mitigation Plans that are consistent with the goals and framework of their respective city plans.
- Identify all organizations within City of Coalinga-Coalinga-Huron Unified School District that have programs or interests in natural hazards mitigation.

Coordinating Organization: Hazard Mitigation Steering Committee
Priority: Medium
Timeline: Ongoing
Plan Goals Addressed: Partnerships and Implementation
Constraints: Limited to time available from District staff

SHORT TERM ACTIVITY – MULTI HAZARD #5: Develop inventories of at-risk school buildings and facilities and prioritize mitigation projects that will reduce risk, facilitate recovery and resumption to prevent the loss of District funding.

Ideas for Implementation: **High Priority**

- Identify critical facilities at risk from natural hazards events.
- Develop strategies to mitigate risk to these facilities, or to utilize alternative facilities should natural hazards events cause damages to the facilities in question.

Coordinating Organization: CCHUSD Maintenance & Operations Department
Priority: High
Timeline: 1-2 years
Plan Goals Addressed: Protect Life and Property
Constraints: May be budgetary limits that can prolong the length of the project

LONG TERM ACTIVITY – MULTI HAZARD – MH #1: Develop, enhance, and implement education programs aimed at mitigating natural hazards, and reducing the risk to students, their parents, employees, and citizens residing near or within the District.

Ideas for Implementation: **Medium Priority**

Multi Hazard Action Items

- Make the City of Coalinga-Coalinga-Huron Unified School District Natural Hazards Mitigation Plan available to the public by publishing the plan electronically on the District web site.
 - Develop and complete a baseline survey to gather perceptions of private citizens, employees, and any interested party regarding natural hazard risks and identify mitigation needs. Repeat the survey in five years to monitor successes and failures of natural hazard mitigation programs.
 - Education: Conduct natural hazards awareness programs at school sites for students, parents, employees and citizens residing in or near the District.
-

- Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare students, parents, and employees for all disasters.

Coordinating Organization: Hazard Mitigation Steering Committee
Priority: Medium
Timeline: Ongoing
Plan Goals Addressed: Public Awareness, Protect Life and Property
Constraints: Limited to time available from District staff

LONG TERM ACTIVITY – MULTI HAZARD – MH #2: Complete all work needed listed in the Capital Improvement Plan that reduces hazards to students, employees, and protects facilities.

Ideas for Implementation: **Low Priority**

Multi Hazard Action Item

- Replace, repair and/or upgrade all utility systems identified in the Capital Improvement Plan.
- Replace, repair and/or upgrade all site drain systems identified in the Capital Improvement Plan.
- Remove and replace, or upgrade, any structures that do not meet seismic standards.
- Insure that all new construction meets or exceeds standards set by the State Office of Architects.
- Research and seek out funding sources to meet any identified short fall to complete all projects identified in the Capital Improvement Plan.

Coordinating Organization: Hazard Mitigation Steering Committee
Priority: Low
Timeline: On going
Plan Goals Addressed: Protect Life and Property
Constraints: Lack of funding to complete all identified projects

Section 5

Plan Maintenance

The plan maintenance section of this document details the formal process that will ensure that the City of Coalinga and Coalinga-Huron Unified School District Natural Hazards Mitigation Plan remains an active and relevant document. The plan maintenance process includes a schedule for monitoring and evaluating the Plan annually and producing a plan revision every five years. This section describes how the City and District will integrate public participation throughout the plan maintenance process. Finally, this section includes an explanation of how the City of Coalinga and the Coalinga-Huron Unified School District intends to incorporate the mitigation strategies outlined in this plan into existing planning mechanisms such as City of Coalinga's General Plan, District Capital Improvement Plans, and Building and Safety Codes.

Monitoring and Implementing the Plan

Plan Adoption

The City of Coalinga City Council and the Coalinga-Huron Unified School District School Board will be responsible for adopting the City of Coalinga and Coalinga-Huron Unified School District Natural Hazards Mitigation Plan. This governing body has the authority to promote sound public policy regarding natural hazards. Once the Plan has been adopted, the City's Director of Planning and the District's Chief Business Official will be responsible for submitting it to the State Hazard Mitigation Officer at The Governor's Office of Emergency Services and the Federal Emergency Management Agency (FEMA) for review. This review will address the federal criteria outlined in FEMA Interim Final Rule 44 CFR Part 201. Upon acceptance by FEMA, the City of Coalinga and the Coalinga-Huron Unified School District will gain eligibility for Hazard Mitigation Grant Program funds.

Coordinating Body

The City of Coalinga and Coalinga-Huron Unified School District Administration and Hazard Mitigation Steering Committee will be responsible for coordinating implementation of Plan action items and undertaking the formal review process.

The Hazard Mitigation Steering Committee will meet no less than quarterly. Meeting dates will be scheduled once the final Hazard Mitigation Steering Committee has been established. These meetings will provide an opportunity to discuss the progress of the action items and maintain the partnerships that are essential for the sustainability of the mitigation plan.

Convener

The City of Coalinga City Council and the Coalinga-Huron Unified School District School Board will adopt the City of Coalinga and Coalinga-Huron Unified School District Natural Hazard Mitigation Plan, and the Hazard Mitigation Steering Committee will take responsibility for Plan implementation. The City’s Director of Planning and the District’s Chief Business Official will serve as conveners to facilitate the Hazard Mitigation Steering Committee meetings, and will assign tasks such as updating and presenting the Plan to the members of the Committee. Plan implementation and evaluation will be a shared responsibility among all of the Natural Hazard Steering Committee Members.

Implementation Through Existing Programs

The City of Coalinga addresses statewide planning goals and legislative requirements through the City of Coalinga’s General Plan, Department of State Architects, and City Building and Safety Codes. The Coalinga-Huron Unified School District falls under the control of the State of California. The Natural Hazard Mitigation Plan provides a series of recommendations – many of which are closely related to the goals and objectives of existing planning programs. The City of Coalinga and the Coalinga-Huron Unified School District will have the opportunity to implement recommended mitigation action items through existing programs and procedures.

The City of Coalinga Community Development Department – Building Division is responsible for administering the governing Building & Safety Codes. In addition, the Community Development Department will work with other agencies at the state level to review, develop and ensure Building & Safety Codes that are adequate to mitigate or prevent damage by natural hazards. This is to ensure that life-safety criteria are met for new construction.

Within six months of formal adoption of the mitigation plan, the recommendations listed above will be incorporated into the process of existing planning mechanisms throughout the City and the District. The meetings of the Hazard Mitigation Steering Committee will provide an opportunity for committee members to report back on the progress made on the integration of mitigation planning elements, documents and procedures.

Economic Analysis of Mitigation Projects

FEMA’s approaches to identify the costs and benefits associated with natural hazard mitigation strategies, measures, or projects fall into two general categories: benefit/cost analysis and cost-effectiveness analysis.

Conducting benefit/cost analysis for a mitigation activity can assist communities in determining whether a project is worth undertaking now, in order to avoid disaster-related damages later.

Cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating natural hazards can provide decision-makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

Given federal funding, the Hazard Mitigation Steering Committee may use a FEMA-approved benefit/cost analysis approach to identify and prioritize mitigation action items. For other projects and funding sources, the Hazard Mitigation Steering Committee will use other approaches to understand the costs and benefits of each action item and develop a prioritized list.

Evaluating and Updating the Plan

Formal Review Process

The City of Coalinga and Coalinga-Huron Unified School District Natural Hazards Mitigation Plan will be evaluated on an annual basis to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities. The evaluation process includes a firm schedule and timeline, and identifies the local agencies and organizations participating in plan evaluation. The convener or designee will be responsible for contacting the Hazard Mitigation Steering Committee members and organizing the annual meeting.

Committee members will be responsible for monitoring and evaluating the progress of the mitigation strategies in the Plan. The Committee will review the goals and action items to determine their relevance to changing situations in the City and District, as well as changes in State or Federal policy, and to ensure they are addressing current and expected conditions. The Committee will also review the risk assessment portion of the Plan to determine if this information should be updated or modified, given any new available data. The coordinating organizations responsible for the various action items will report on the status of their projects, the success of various implementation processes, difficulties encountered, success of coordination efforts, and which strategies should be revised.

The Convener will assign the duty of updating the plan to one or more of the Committee members. The designated committee members will have three months to make appropriate changes to the Plan before submitting it to the Committee members. Every five years the updated plan will be submitted to the State Hazard Mitigation Officer and the Federal Emergency Management Agency for review.

Continued Public Involvement

The City of Coalinga and the Coalinga-Huron Unified School District is dedicated to involving the public directly in review and updates of the Hazard Mitigation Plan. The Hazard Mitigation Steering Committee members are responsible for the annual review and update of the plan.

The public will also have the opportunity to provide feedback about the Plan. Copies of the Plan will be kept at all City and District sites and the Administrative Offices. In addition, copies of the Plan and any proposed changes will be posted on the City's and District's websites. These sites will also contain an email address and phone number to which people can direct their comments and concerns.

A public hearing will also be held after each annual evaluation or when deemed necessary by the Hazard Mitigation Steering Committee. The meetings will provide the public a forum for which they can express its concerns, opinions, or ideas about the Plan.

Part II – Specific Natural Hazards

Section 1

Specific Natural Hazards

Identification and Prioritizing Natural Hazards

The process used to identify and prioritize threats to the City and District was to have the Core Group research the history of events, their potential threat, and overall impact to the City and District. The information gathered was presented to the Steering Committee for review, input, and recommendations.

The Core Group and Steering Committee reviewed a general list of natural threats. Both the Group and Committee agreed on four potential natural threats to the City and District. These threats are earthquakes, severe weather conditions, secondary flooding, and wildland fires.

The Core Group and Steering Committee used the criteria of frequency, intensity, and resulting injury and damage generated by a single event.

1. Earthquake

Earthquakes do not have the frequency rate of other natural events. However, history shows the results of an event of significant magnitude is responsible for the loss of life, injuries, destruction of property, and a threat to the environment. Earthquakes can trigger other events, such as the loss of containment for a hazardous material, train derailment, and igniting fires. The faults and fault zones near and around the City and District have the potential to generate an earthquake event of significant magnitude. Earthquakes can cause not only injury and property destruction but can financially impact the City by loss of daily revenue and the District by loss of Average Daily Attendance (ADA) funding. Recovery and resumption from a major event can be lengthy and costly.

2. Severe Weather Occasions

The area's climate is generally mild and is characterized as Mediterranean. The Group and Committee reviewed history which includes erratic, unpredictable, and unexpected shifts in weather patterns. With the exception of high winds during severe winter storm conditions and heavy rains during an El Nino condition there has not been a significant event that has impacted the City and District.

3. Secondary Flooding

The Group and Committee considered secondary flooding as the next significant natural hazard. Flooding has a history dating back to the 1850's however, a wide range of county

projects were completed dating from the 1930's to the mid-1990's. These projects include several dams, a flood control channel system, and extensive spreading grounds. Dam failure is considered remote, overflowing levees is considered remote, and the only significant threat would be urban flooding. During the last El Nino condition that resulted in some flooding, the City and District were not impacted. There is a future potential for flooding due to the City planning higher density housing projects increasing rapid water run off during heavy rains. This risk, however, is considered to be low.

4. Wildland Fire

The planning process has identified that both the City of Coalinga and Coalinga-Huron Unified School District are susceptible to wildland fire hazards. As with most wildfire vulnerability, it is the result of increased development encroaching into dry grassland areas. This is referred to as the Wildland Urban Interface (WUI). In Fresno County, grass fires are the predominate type of wildland fire vulnerability facing the City and School District. This risk is considered to be low.

Non-Threatening Hazards

The Core Group and Steering Committee reviewed the following natural hazards and found that they do not represent a threat to the City and District.

- Avalanche – No impact. The City and District are not located in a mountainous region.
- Coastal Erosion – No impact. The City and District are not located near a coastal region.
- Coastal Storms – No impact. The City and District are not located near a coastal region.
- Dam Failure – No impact.
- Drought – No impact. There is no history in the City or District and local water districts consider supplies adequate for the next 10 years.
- Expansive Soils – No impact. This is not a threat to the City or District with the exception of a seismic event that causes liquefaction – covered in earthquake hazard.
- Tsunami – No impact. The City and District are not located in or near a coastal region.
- Volcano – No impact. The general area in and around the City and District have no history of, or future potential for, volcanic activity.
- Wildfire – No impact. The City and District are not near any urban/rural interface.

Section 2

Earthquakes

Why Are Earthquakes a Threat to the City of Coalinga and the Coalinga-Huron Unified School District?

The most recent significant earthquake event affecting the City of Coalinga and the Coalinga-Huron Unified School District was the May 2, 1983 Coalinga Earthquake when Coalinga experienced the 6.7 earthquake that leveled a significant portion of the business district and caused over \$31 million in damages. There was open speculation that Coalinga would not survive this disaster. The disaster proved, however, to be just another challenge to residents determined to disprove these speculations. Coalinga has a history of meeting challenges.

This quake struck an isolated region of the western San Joaquin Valley near Coalinga. The main shock occurred near Anticline Ridge about 15 km northeast of Coalinga. It was felt from the Los Angeles area north to Susanville and from the Pacific Coast to western Nevada.

Nearly 200 people were injured and about 1,000 were left homeless – fortunately, no deaths were reported. The temblor caused more than \$30 million in damages, forcing the town to rebuild a 12-block section of the downtown and shut down production from nearby oil fields for some time.

Of 139 buildings in the eight-block downtown commercial district, 59 collapsed or were heavily damaged. The most severe damage occurred to the old (usually pre-1930) one- and two-story buildings of unreinforced brick masonry wall construction, with floors and roofs of wood. Newer buildings of reinforced concrete-block walls or prefabricated metal had little structural damage. Underground public utilities (water, electricity, gas, sewerage) sustained little damage considering the above ground damage.

Private residences were heavily damaged. More than eight hundred single-family houses were destroyed or incurred major damage. Most of these domestic buildings were of unreinforced adobe construction.

Strong aftershocks continued for more than two years, with the largest event registered 6.0 on July 22. Although surface faulting did not occur from the main shock, a strong 5.7 aftershock produced a maximum of 64 cm of reverse and 20 cm of right-lateral displacement along a 3.3 km long trace of the previous unnamed Nunez fault, about 12 km northwest of Coalinga.

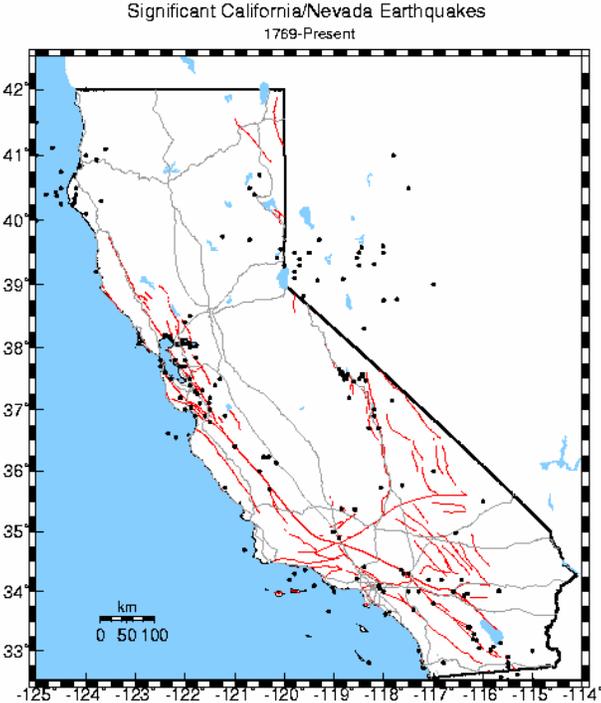
Since the earthquake, housing has grown from 2,700 units on May 2, 1983 to nearly 3,500 today. The population has increased from 8,000 on May 2, 1983 to over 10,000 today. From an opera-

tion budget of under \$2 million in 1983, the City's combined operation, enterprise funds and re-development budget in 1995 exceeded a balance \$30 million.

Historical and geological records show that California has a long history of seismic events. Probably best known fault is the San Andreas Fault, a 400 mile long fault running from the Mexican border to a point offshore, west of San Francisco. “Geologic studies show that over the past 1,400 to 1,500 years large earthquakes have occurred at about 130 year intervals on the southern San Andreas fault. As the last large earthquake on the southern San Andreas occurred in 1857, that section of the fault is considered a likely location for an earthquake within the next few decades.”¹

The San Andreas fault is capable of producing an earthquake with a magnitude of 8+ on the Richter scale.

The map below shows significant earthquakes in California and Nevada from 1769 to present.²



For decades, partnerships have flourished between the USGS, Cal Tech, the California Geological Survey and universities to share research and educational efforts with Californians. Tremendous earthquake mapping and mitigation efforts have been made in California in the past two decades, and public awareness has risen remarkably during this time. Major federal, state, and local government agencies and private organizations support earthquake risk reduction, and have

¹ <http://pubs.usgs.gov/gip/earthq3/when.html>

² http://pasadena.wr.usgs.gov/images/cahist_eqs.gif

made significant contributions in reducing the adverse impacts of earthquakes. Despite the progress, the majority of California communities remain unprepared because there is a general risk of understanding regarding earthquake hazards among Californians.

1769	Los Angeles Basin	1916	Tejon Pass Region
1800	San Diego Region	1918	San Jacinto
1812	Wrightwood	1923	San Bernardino Region
1812	Santa Barbara Channel	1925	Santa Barbara
1827	Los Angeles Region	1933	Long Beach
1855	Los Angeles Region	1941	Carpenteria
1857	Great Fort Tejon Earthquake	1952	Kern County
1858	San Bernardino Region	1954	W. of Wheeler Ridge
1862	San Diego Region	1971	San Fernando
1892	San Jacinto or Elsinore Fault	1973	Point Magu
1893	Pico Canyon	1986	North Palm Springs
1894	Lytle Creek Region	1987	Whittier Narrows
1894	E. of San Diego	1992	Landers
1899	Lytle Creek Region	1992	Big Bear
1899	San Jacinto and Hemet	1994	Northridge
1907	San Bernardino Region	1999	Hector Mine
1910	Glen Ivy Hot Springs		

Source:
<http://geology.about.com/gi/dynamic/offsite.htm?site=http%3A%2F%2Fpasadena.wr.usgs.gov%2Finfo%2Fcahist-egs.html>

To better understand the earthquake hazard, the scientific community has looked at historical records and accelerated research on those faults that are the sources of the earthquakes occurring in California. Historical earthquake records can generally be divided into records of the pre-instrumental period and the instrumental period. In the absence of instrumentation, the detection of earthquakes is based on observations and felt reports, and is dependent upon population density and distribution. Since California was sparsely populated in the 1800s, the detection of pre-instrumental earthquakes is relatively difficult. However, two very large earthquakes, the Fort Tejon in 1857 (7.9) and the Owens Valley (7.6) are evidence of the tremendously damaging potential of earthquakes in the Southern California region. In more recent times two 7.3 earthquakes struck California, in Kern County (1952) and Landers (1992). The damage from these four large earthquakes was limited because they occurred in areas which were sparsely populated at the time they happened. The seismic risk is much more severe today than in the past because the population at risk is in the millions, rather than a few hundred or a few thousand persons.

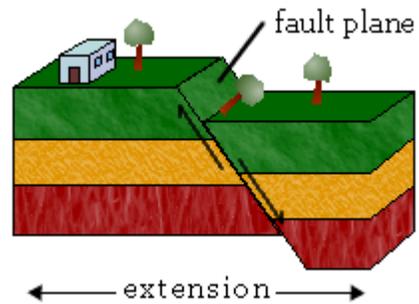
History of Earthquake Events in California

Since seismologist started recording and measuring earthquakes, there have been tens of thousands of recorded earthquakes in California, most with a magnitude below three. No community in California is beyond the reach of a damaging earthquake. Table 2-1 describes some of the historical earthquake events that have affected California.

Table 2-2 – Causes and Characteristics of Earthquakes in California

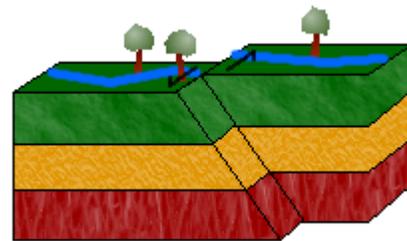
Earthquake Faults

In a normal fault, the block above the fault moves down relative to the block below the fault. This fault motion is caused by tensional forces and results in extension. (other names: normal-slip fault, tensional fault or gravity fault)



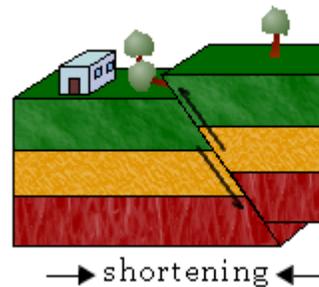
Strike-Slip

In a strike-slip fault, the movement of blocks along a fault is horizontal. If the block on the far side of the fault moves to the left, as shown to the right, the fault is called left-lateral. If the block on the far side moves to the right, the fault is called right-lateral. The fault motion of a strike-slip fault is caused by shearing forces. (other names: transcurrent fault, lateral fault, tear fault, or wrench fault)



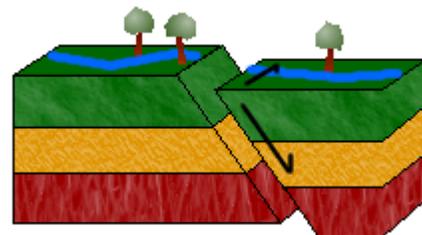
Dip-Slip

In a reverse (dip-slip) fault, the block above the fault moves up relative to the block below the fault. This fault motion is caused by compressional forces and results in shortening. A reverse fault is called a thrust fault if the dip of the fault plane is small. (other names: thrust fault, reverse-slip fault or compressional fault)



Oblique-Slip Fault

Oblique-slip faulting suggests both dip-slip faulting and strike-slip faulting. It is caused by a combination of shearing and tension of compressional forces.



The Coalinga-Pleasant Valley area had experienced 91 earthquakes between 1962 and April 1982 of M3.0 or greater. In 1975, a sequence of earthquakes centered 25 miles from Coalinga included 14 tremors of 3.0 or greater (Urhammer, Darragh, and Bolt, 1983).³

Faults of the Coalinga Area

San Andreas Fault Zone

Type of Fault: Right-Lateral Strike-Slip

Length: 1200 km. 550 km south from Parkfield; 650km northward

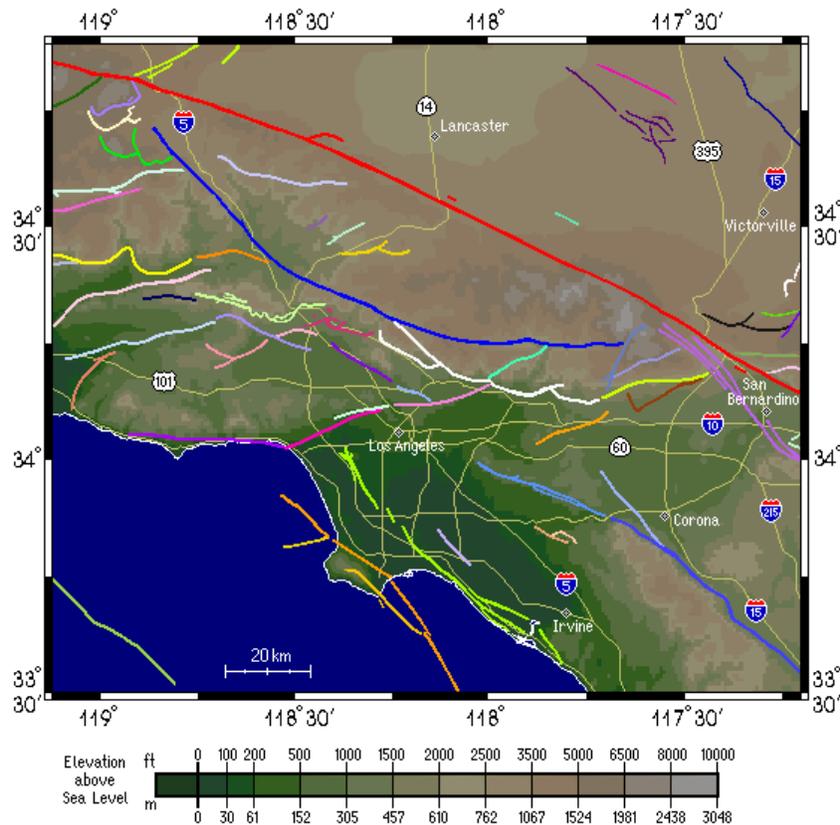
Nearby Community: Parkfield, Frazier Park, Palmdale, Wrightwood, San Bernardino, Banning, Indio

Last Major Rupture: January 9, 1857 (Mojave segment); April 18, 1906 (Northern segment)

Slip Rate: about 20 to 35 mm per year

Interval Between Major Ruptures: average of about 140 years on the Mojave segment; recurrence interval varies greatly – from under 20 years (at Parkfield only) to over 300 years.

Probable Magnitudes: M_W6.8 – 8.0

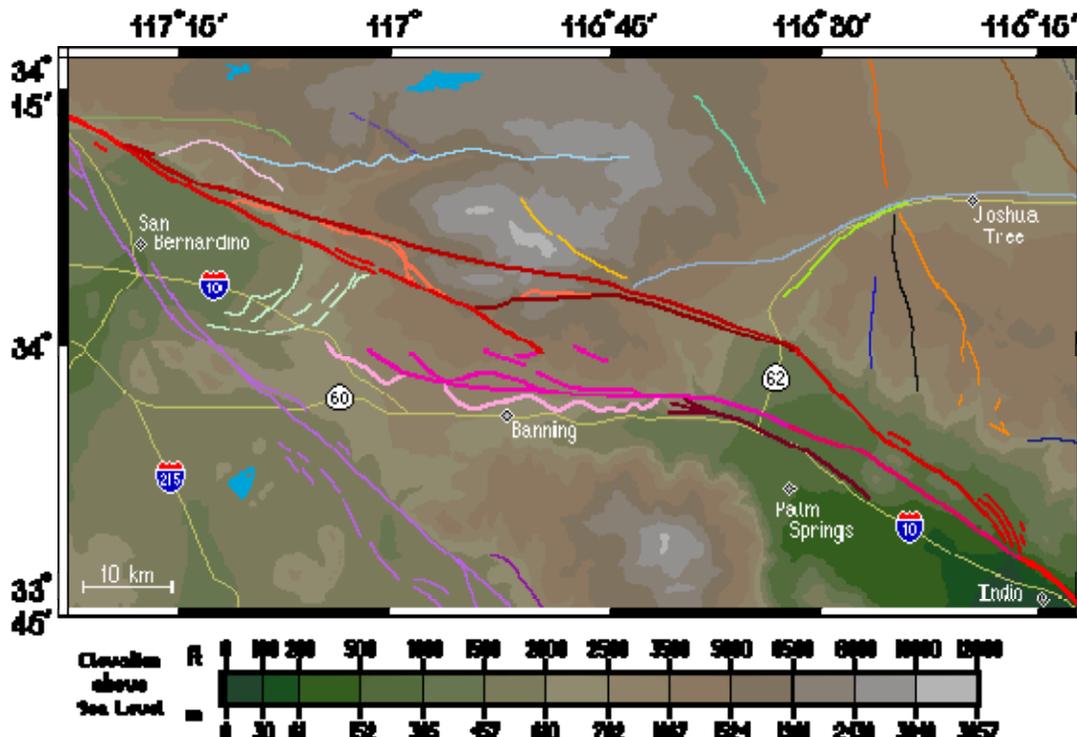


³ Report on the Coalinga Earthquake of May 2, 1983 by Kathleen J. Tierney, Seismic Safety Commission, State of California, George Deukmejian, Governor.

San Andreas Fault Zone – San Gorgonia Pass Area:

The San Gorgonio Pass area is fairly complex, geologically speaking. Here the San Andreas fault interacts with other faults (most notably the San Jacinto fault zone and the Pinto Mountain fault) and thereby becomes somewhat fractured, over the distance extending from just north of San Bernardino to just north of Indio, some 110 kilometers (70 miles). Because this deformation has been going on for well over a million years, ancient and inactive strands of the San Andreas fault can be found here. Other faults in this area have been “reawakened” recently after being dormant for hundreds of thousands of years. There is even evidence to suggest that there is no active, continuous main trace of the San Andreas fault going all the way through the pass, not even at depth – implying that the San Andreas fault may currently be in the process of creating a new fault path through this area! This could also mean that a single continuous rupture from Cajon Pass to the Salton Sea (a stretch of the San Andreas that has not ruptured in historical times) is unlikely to occur. Fault rupture mechanics are still not well understood, however, and the discontinuity could prove to have little effect on tempering a major earthquake on this southern stretch of the San Andreas fault zone.

Below is a map of the San Gorgonio Pass area, similar to the other clickable maps within these pages; clicking on the survey of the trace of a fault will take you to a file detailing some of the features of that fault. Cities and towns are shown as diamonds, lakes are shown in light blue, and highways are shown in yellow. It should be noted that due to the complexity of this area, many researchers have used different nomenclature for the local faults, and placed the dividing lines between certain named fault segments in varying places. This naturally makes it difficult to decide upon one standard for labeling maps such as this. When possible, these differences will be noted within the fault files, but keep in mind that the system used here represents only one of many ways of characterizing this intriguing and complex geologic region.



Dr. Kerry Sieh of Cal Tech has investigated the San Andreas fault at Pallett Creek. “The record at Pallett Creek shows that rupture has recurred about every 130 years, on average, over the past 1,500 years. But actual intervals have varied greatly, from less than 50 years to more than 300. The physical cause of such irregular recurrence remains unknown.”⁴ Damage from a great quake on the San Andreas would be widespread throughout Southern California.

Earthquake Related Hazards

Ground shaking, landslides, liquefaction, and amplification are the specific hazards associated with earthquakes. The severity of these hazards depends on several factors, including soil and slope conditions, proximity to the fault, earthquake magnitude, and the type of earthquake.

Ground Shaking

Ground shaking is the motion felt on the earth’s surface caused by seismic waves generated by the earthquake. It is the primary cause of earthquake damage. The strength of ground shaking depends on the magnitude and depth of the earthquake, the type of fault, and distance from the epicenter (where the earthquake originates). Buildings on poorly consolidated and thick soils will typically see more damage than buildings on consolidated soils and bedrock.

Earthquake Induced Landslides

Earthquake induced landslides are secondary earthquake hazards that occur from ground shaking. They can destroy the roads, buildings, utilities, and other critical facilities necessary to respond and recover from an earthquake. Many communities in California have a high likelihood of encountering such risks, especially in areas with steep slopes.

Liquefaction

Liquefaction occurs when ground-shaking causes wet granular soils to change from a solid state to a liquid state. This results in the loss of soil strength and the soil’s ability to support weight. Buildings and their occupants are at risk when the ground can no longer support these buildings and structures.

Amplification

Soils and soft sedimentary rocks near the earth’s surface can modify ground shaking caused by earthquakes. One of these modifications is amplification. Amplification increases the magnitude of the seismic waves generated by the earthquake. The amount of amplification is influenced by the thickness of geologic materials and their physical properties. Buildings and structures built

⁴ <http://www.gps.caltech.edu/~sieh/home.html>

on soft and unconsolidated soils can face greater risk.⁵ Amplification can also occur in areas deep sediment filled basins and on ridge tops.

Earthquake Hazard Assessment

Hazard Identification

In California, many agencies are focused on seismic safety issues: the State's Seismic Safety Commission, the Applied Technology Council, Governor's Office of Emergency Services, United States Geological Survey, Cal Tec, the California Geological Survey as well as a number of universities and private foundations.

These organizations, in partnership with other state and federal agencies, have undertaken a rigorous program in California to identify seismic hazards and risks including active fault identification, bedrock shaking, tsunami inundation zones, ground motion amplification, liquefaction, and earthquake induced landslides. Seismic hazard maps have been published and are available for many communities in California through the State Division of Mines and Geology.

In California, each earthquake is followed by revisions and improvements in the Building Codes. The 1933 Long Beach resulted in the Field Act, affecting school construction. The 1971 Sylmar earthquake brought another set of increased structural standards. Similar re-evaluations occurred after the 1989 Loma Prieta and 1994 Northridge earthquakes. These code changes have resulted in stronger and more earthquake resistant structures.

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. This state law was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. Surface rupture is the most easily avoided seismic hazard.⁶

The Seismic Hazards Mapping Act, passed in 1990, addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides.⁷ The State Department of Conservation operates the Seismic Mapping Program for California. Extensive information is available at their website: <http://gmw.consrv.ca.gov/shmp/index.htm>.

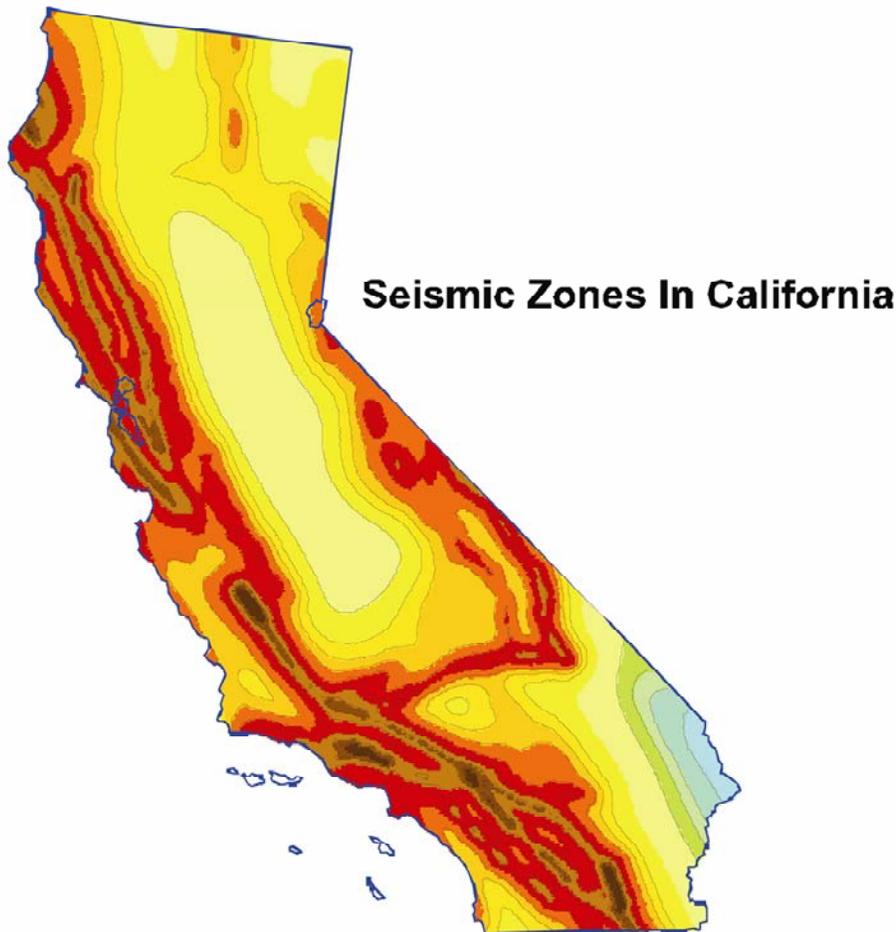
⁵ Planning for Natural Hazards: The California Technical Resource Guide, Department of Land Conservation and Development (July 2000)

⁶ http://www.data.scec.org/fault_index/newping.html

⁷ <http://pubs.usgs.gov/gip/earthq3/when.html>

Vulnerability Assessment

The effects of earthquakes span a large area, and large earthquakes occurring in many parts of the California region would probably be felt throughout the region. However, the degree to which the earthquakes are felt, and the damages associated with them may vary. At risk from earthquake damage are large stocks of old buildings and bridges; many high tech and hazardous materials facilities; extensive sewer, water and natural gas pipelines; earth dams; petroleum pipelines; and other critical facilities and private property located in the county. The relative or secondary earthquake hazards, which are liquefaction, ground shaking, amplification, and earthquake-induced landslides, can be just as devastating as the earthquake.



Darker Shaded Areas indicate Greater Potential Shaking

Source: USGS Website

The California Geological Survey has identified areas most vulnerable to liquefaction. Liquefaction occurs when ground-shaking causes wet granular soils to change from a solid state to a liquid state. This results in the loss of soil strength and the soil's ability to support weight. Buildings and their occupants are at risk when the ground can no longer support these buildings and structures. **Map 4** identifies areas that have soils vulnerable to liquefaction.

Risk Analysis

Risk analysis is the third phase of a hazard assessment. Risk analysis involves estimating the damage and cost likely to be experienced in a geographic area over a period of time.⁸ Factors included in assessing earthquake risk include population and property distribution in the hazard area, the frequency of earthquake events, landslide susceptibility, buildings, infrastructure, and disaster preparedness of the region. This type of analysis can generate estimates of the damages to the region due to an earthquake event in a specific location. FEMA's software program, HAZUS, uses mathematical formulas and information about building stock, local geology and the location and size of potential earthquakes, economic data, and other information to estimate losses from a potential earthquake.⁹

For California there are multiple worst case scenarios, depending on which fault might rupture, and which communities are in proximity to the fault. But damage will not necessarily be limited to immediately adjoining communities. Depending on the hypocenter of the earthquake, seismic waves may be transmitted through the ground to unsuspecting communities. In the Northridge 1994 earthquake, Santa Monica suffered extensive damage, even though there was a range of mountains between it and the origin of the earthquake.

Damages from a large earthquake almost anywhere in California are likely to run into the billions of dollars. Although building codes are some of the most stringent in the world, ten's of thousands of older existing buildings were built under much less rigid codes. California has laws affecting unreinforced masonry buildings (URM's) and although many building owners have retrofitted their buildings, hundreds of pre-1933 buildings still have not been brought up to current standards.

Non-structural bracing of equipment and contents is often the most cost-effective type of seismic mitigation. Inexpensive bracing and anchoring may be the most cost effective way to protect expensive equipment. Non-structural bracing of equipment and furnishings will also reduce the chance of injury for the occupants of a building.

Community Earthquake Issues

What is susceptible to earthquakes?

Earthquake damage occurs because humans have built structures that cannot withstand severe shaking. Buildings, airports, schools, and lifelines (highways and utility lines) suffer damage in earthquakes and can cause death or injury to humans. The welfare of homes, major businesses, and public infrastructure is very important. Addressing the reliability of buildings, critical facili-

⁸ <http://www.gps.caltech.edu/~sieh/home.html>

⁹ Planning for Natural Hazards: The California Technical Resource Guide, Department of Land Conservation and Development (July 2000)

ties, and infrastructure, and understanding the potential costs to government, businesses, and individuals as a result of an earthquake, are challenges faced by the City and District.

Dams

Dams hold billions of gallons of water in reservoirs. Releases of water from the major reservoirs are designed to protect the area from floodwaters and to store domestic water. Seismic activity can compromise the dam structures, and the resultant flooding could cause catastrophic flooding. Dam failure is not considered a threat to the City of Coalinga or the Coalinga-Huron Unified School District since there are no dams in the general vicinity.

Buildings

The built environment is susceptible to damage from earthquakes. Buildings that collapse can trap and bury people. Lives are at risk and the cost to clean up the damages is great. In most California communities many buildings were built before 1993 when building codes were not as strict. In addition, retrofitting is not required except under certain conditions which can be expensive. Therefore, the number of buildings at risk remains high. The California Seismic Safety Commission makes annual reports on the progress of the retrofitting of unreinforced masonry buildings.

Bridge Damage

Even modern bridges can sustain damage during earthquakes, leaving them unsafe for use. Some bridges have failed completely due to strong ground motion. Bridges are a vital transportation link with even minor damages making some areas inaccessible. Because bridges vary in size, materials used, location and design, any given earthquake will affect them differently. Bridges built before the mid-1970's have a significantly higher risk of suffering structural damage during a moderate to large earthquake compared to those built after 1980 when design improvements were made.

Much of the interstate highway system was built in the mid-to-late 1960's. The City of Coalinga has no bridges within the City limits. Cal Trans has retrofitted most bridges on the freeway systems; however, there are still some county maintained bridges that are not retrofitted. The FHWA requires that bridges on the National Bridge Inventory be inspected every two years. CalTrans checks when the bridges are inspected because they administer the Federal funds for bridge projects.

Damage to Lifelines

Lifelines are the connections between communities and outside services. They include water and gas lines, transportation systems, electric delivery systems and communication networks. Ground shaking and amplification can cause pipes to break open, power lines to fall, roads and railways to crack or move, and radio and telephone communication to cease. Disruption to transportation makes it especially difficult to bring in supplies or services. Lifelines need to be usable after

earthquakes to allow for rescue, recovery, and rebuilding efforts and to relay important information to the public.

Disruption of Critical Services

Critical facilities include police stations, fire stations, hospitals, shelters, and other facilities that provide important services to the community. These facilities and their services need to be functional after an earthquake event.

Businesses

Seismic activity can cause great loss to businesses, both large-scale corporations and small retail shops. When a company is forced to stop production for a day, the economic loss can be tremendous, especially when its market is at a national or global level. Seismic activity can create economic loss that presents a burden to large and small shop owners who may have difficulty recovering from their losses.

Forty percent of businesses do not reopen after a disaster and another twenty-five percent fail within one year according to the Federal Emergency Management Agency (FEMA). Similar statistics from the United States Small Business Administration indicate that over ninety percent of businesses fail within two years after being struck by a disaster.¹⁰

Individual Preparedness

Because the potential for earthquake occurrences and earthquake related property damage is relatively high in the Community of Coalinga increasing individual preparedness is a significant need. Strapping down heavy furniture, water heaters, and expensive personal property, as well as being earthquake insured, and anchoring buildings to foundations are just a few steps individuals can take to prepare for an earthquake.

Death and Injury

Death and injury can occur both inside and outside of buildings due to collapsed buildings, falling equipment, furniture, debris, and structural materials. Downed power lines and broken water and gas lines can also endanger human life.

Fire

Downed power lines or broken gas mains can trigger fires. When fire stations suffer building or lifeline damage, quick response to extinguish fires is less likely. Furthermore, major incidents will demand a larger share of resources, and initially smaller fires and problems will receive little

¹⁰ Ibid

or insufficient resources in the initial hours after a major earthquake event. Loss of electricity may cause a loss of water pressure in some communities, further hampering fire fighting ability.

Existing Mitigation Activities

Existing mitigation activities include current mitigation programs and activities that are being implemented by county, regional, state, or federal agencies or organizations.

City of Coalinga Codes

Implementation of earthquake mitigation policy most often takes place at the local government level. The City of Coalinga Community Development Department – Building Division enforces building codes pertaining to earthquake hazards.

The City of Coalinga Community Development Department enforces the zoning and land use regulations relating to earthquake hazards.

Generally, these codes seek to discourage development in areas that could be prone to flooding, landslide, wildfire and/or seismic hazards; and where development is permitted, that the applicable construction standards are met. Developers in hazard-prone areas may be required to retain a qualified professional engineer to evaluate level of risk on the site and recommend appropriate mitigation measures.

California Earthquake Mitigation Legislation

California is painfully aware of the threats it faces from earthquakes. Dating back to the 19th Century, Californians have been killed, injured, and lost property as a result of earthquakes. As the State’s population continues to grow, and urban areas become even more densely built up, the risk will continue to increase. For decades the Legislature has passed laws to strengthen the built environment and protect the citizens. Table 2-3 provides a sampling of some of the 200 plus laws in the State’s codes.

Table 2-3 – Partial List of the Over 200 California Laws on Earthquake Safety	
Government Code Section 8870-8870.95	Creates Seismic Safety Commission
Government Code Section 8876.1-8876.10	Established the California Center for Earthquake Engineering Research
Public Resources Code Section 2800-2804.6	Authorized a prototype earthquake prediction system along the central San Andreas fault near the City of Parkfield.
Public Resources Code Section 2810-2815	Continued the Southern California Earthquake Preparedness Project and the Bay Area Regional Earthquake Preparedness Project.
Health and Safety Code Section 16100-16110	The Seismic Safety Commission and State Architect, will develop a state policy on acceptable levels of earthquake risk for new and existing state-owned buildings.
Government Code Section 8871-8871.5	Established the California Earthquake Hazards Reduction Act of 1986.

Table 2-3 – Partial List of the Over 200 California Laws on Earthquake Safety	
Health and Safety Code Section 130000-130025	Defined earthquake performance standards for hospitals.
Public Resources Code Section 2805-2808	Established the California Earthquake Education Project.
Government Code Section 8899.10-8899.16	Established the Earthquake Research Evaluation Conference.
Public Resources Code Section 2621-2630 2621	Established the Alquist-Priolo Earthquake Fault Zoning Act.
Government Code Section 8878.50-8878.52 8878.50	Created the Earthquake Safety and Public Buildings Rehabilitation Bond Act of 1990.
Education Code Section 35295-35297 35295	Established emergency procedure systems in kindergarten through grade 12 in all the public or private schools.
Health and Safety Code Section 19160-19169	Established standards for seismic retrofitting of unreinforced masonry buildings.
Health and Safety Code Section 1596.80-1596.879	Required all child day care facilities to include an Earthquake Preparedness Checklist as an attachment to their disaster plan.
Source: http://www.leginfo.ca.gov/calaw.html	

Earthquake Education

Earthquake research and education activities are conducted at several major universities in the Southern California region, including Cal Tech, USC, UCLA, UCSD, and UCI. The local clearinghouse for earthquake information is the Southern California Earthquake Center located at the University of Southern California, Los Angeles, California 90089, telephone (213) 740-5843, fax (213) 740-0011, e-mail SCEinfo@usc.edu, website <http://www.scec.org>. The Southern California Earthquake Center (SCEC) is a community of scientists and specialists who actively coordinate research on earthquake hazards at nine core institutions, and communicate earthquake information to the public. SCEC is a National Science Foundation (NSF) Science and Technology Center and is co-funded by the United States Geological Survey (USGS).

Earthquake Mitigation Action Items

The earthquake mitigation action items provide guidance on suggesting specific activities that the City of Coalinga and the Coalinga-Huron Unified School District can undertake to reduce risk and prevent loss from earthquake events. Each action item is followed by ideas for implementation, which can be used by the Steering Committee and City and District Administration in pursuing strategies for implementation.

Mitigation Goal #1

Minimize losses to existing and future City of Coalinga and Coalinga-Huron Unified School District buildings and structures.

Objective

Improve internal facility resistance to damage from earthquakes. The City of Coalinga and Coalinga-Huron Unified School District have identified the following potential earthquake hazards associated with non-structural components of city and district buildings. Non-structural components include furnishings and equipment, electrical and mechanical fixtures, and architectural features such as partitions, cabinets and shelves. Securing these components and building contents will improve safety at the City's and District's sites by:

- Reducing the potential for fatalities and injuries;
- Helping to maintain safe and clear exit ways to access buildings and provide secure evacuation routes in times of emergencies;
- Reduce the potential for chemical spills, fires and gas leaks; and
- Improving the probability of using our critical facilities as a shelter following an earthquake.

Mitigation Goal #2

Educate City of Coalinga and Coalinga-Huron Unified School District employees, students, parents and citizens on understanding and making an ongoing commitment to Hazard Mitigation and Disaster Preparedness.

Objective

Utilize the City's and District's Safety and Disaster Preparedness Committees.

Actions for Implementation

- Coordinate training activities, drills and safety in-services at City and District sites to address Emergency response.
- Develop newsletters or bulletins to inform staff about the latest information on Hazard Mitigation and Disaster Preparedness in the City and District.

Objective

Provide adoption of policies or practices going to mitigating effects of hazards.

Actions for Implementation

- This will include activities that lead to building and/or sustaining public/private hazard mitigation partnerships.

- Explore using the American Red Cross Community Disaster Education curriculum titled “Masters of Disasters” to educate staff on natural hazards like floods and earthquakes.
- Explore using the American Red Cross Community Disaster Education curriculum titled “Together We Prepare” to teach preparedness at home.

Objective

Utilize staff meetings as avenues for informing staff on Hazard Mitigation and Disaster Preparedness.

Actions for Implementation

- Provide dedicated time during staff meetings to present information on natural hazards and how staff can prepare and protect themselves and their families.
- Utilize the City of Coalinga Fire Department to conduct fire and earthquake safety talks to employees during special staff meetings.

Objective

Develop alternative means to educate the community on Hazard Mitigation and Disaster Preparedness in which the City of Coalinga and Coalinga-Huron Unified School District serve.

Actions for Implementation

- Utilize the City’s and District’s websites to provide updated activities and information regarding the City’s and District’s Hazard Mitigation and Disaster Preparedness plans.
- Updates will be done on a quarterly basis or whenever new information becomes available.

Objective

Assess the readiness of the City and District to survive a disaster.

Actions for Implementation

- Keep a copy of the City’s and District’s Disaster Response Plan, with current site maps, in the City Manager’s office, the District Superintendent’s and at each City and District site. In addition, maintain one master copy of each site plan at the City and District Administration offices.
- Continue to provide training for all City and District staff that have been assigned emergency response duties per the City and District Disaster Response Plan.

- Conduct City-wide and District-wide disaster drills that train the staff on various contingencies and response activities such as evacuation, traffic control and search and rescue.

Mitigation Goal #3

Improve coordination of planning with local municipalities and support agencies

Objective

Share all plans related to Disaster Response.

Actions for Implementation

- Provide the City of Huron and Fresno County with current Emergency Response and Hazard Mitigation plans.

Objective

Deepen the City's and District's commitment to communication with local communities.

Actions for Implementation

- Include plans for sheltering-in-place or evacuation by local Sheriff's Department, and the City of Coalinga Fire Department.
- Provide updated site maps of all City and District facilities to these departments.

Objective

Understand what assistance may be available from local public agencies in preventing or limiting water damage to City and District facilities.

Actions for Implementation

- Have the City and District facilitate a meeting with the adjoining municipality to look at what capital improvement plans and stormwater management ordinances or amendments may have been developed that impact City and District facilities.

Section 3

Windstorms/Adverse Weather Occasions

Windstorms

Historically, high wind conditions have caused injury, death, property damage, and fanned wild fires before becoming a firestorm. Windstorms with significant intensity have been responsible for the sinking of watercraft and the downing of aircraft resulting in the loss of life. The most common wind condition in the community of Coalinga is caused by severe winter storms.

Severe Weather

A variety of weather related events have occurred in California in recent and past years that would seem unusual for the region due to the fact that these events do not occur with great frequency, but do occur. Some of these weather events have occurred in other parts of the country on a larger scale with sever intensity that has resulted in wide scale destruction, injury, and loss of life.

Tornados, Funnel Clouds, and Waterspouts

These weather events are considered rare for California and historically have not impacted the City; however, these events are not predictable as to time of the event or location. Funnel clouds and waterspouts are related to coastal areas and have been responsible for damage and injuries.

Several tornados have been recorded in California. Tornados have caused damage to property, caused power outages, injuries, and responsible for the loss of life when a tornado touched down in Santa Monica in 1952. Meteorologists can identify weather conditions that would be conducive to forming a tornado but this does not mean that the tornado will form. If a tornado forms, the exact location, size and intensity are not predictable.

Thunderstorms and Hail

Thunderstorms occur annually throughout California but their impact is usually limited to power outages in urban areas. Ground strikes have been responsible for fires in rural and wooded areas. It is rare that a person is struck by lighting but loss of life has resulted.

Hail is rare but when it occurs it is usually in conjunction with windy conditions. The intensity of a driving wind and hail stone as large as a golf ball have caused significant damage.

High and Low Temperatures

Generally California is considered to have a Mediterranean type of climate. The area has experienced both very high and significantly low temperatures. High temperatures have exceeded 110 degrees and resulted in loss of crops, livestock, workers sent home, and the temporary closure of schools. Very high temperatures in August 1997 contributed to five deaths. During, what is referred to as California's fire season, high temperatures have hampered firefighting efforts.

Objective

- Reduce the hazard of falling trees and tree limbs during high wind conditions.

Actions for Implementation

- Perform regular assessments of all major trees and their health status throughout the City and District.
- Remove trees that are diseased or may have the potential to fall and are deemed hazardous to life and property.

Section 4

Secondary Flooding

Introduction

Secondary flooding has been a hazard to the community of Coalinga on occasion. A nearby creek overflows periodically, and there has been flooding on several occasions, notably in 1969 and earlier in 1983. Portions of the City of Coalinga lie within a 100- or 500- year floodplain, as delineated by the Federal Emergency Management Agency (FEMA). However, the potential for a flood event still exists within Coalinga, and it is an important hazard to be addressed in the City's and District's Natural Hazard Mitigation Plan.

Hazard Profile

Flooding hazards are directly related to precipitation (rainfall) intensity and duration. Topography, type and extent of vegetation coverage, amount of impermeable surfaces, local slope characteristics, and available drainage facilities all factor into an area's ability to divert precipitation runoff. However, a key element in safely managing runoff volume is the extent of urbanized area. Urbanization increases the volume and velocity of runoff water via two main processes:

- Areas that would normally absorb rainfall (e.g., soils) have been replaced by impermeable surfaces (e.g., streets, houses); and
- The channelization and accumulation of runoff water adds to the collective whole, resulting in increased volumes and velocity.

The size, or magnitude, of a flood is described by a term called a "recurrence interval." By studying a long period of flow records for a stream, it is possible to estimate the size of a flood that would have a five-year recurrence interval (also called a five-year flood or five-year flood event). A five-year flood is one that would occur, on the average, once every five years (or has 20 percent of occurring during any year). Although a 100-year flood is expected to happen only once in a century, there is a one-percent chance that a flood of that size could happen during any year. The magnitude of flood events could be altered if changes are made to a drainage basin, such as an increase in the amount of impervious (i.e., urbanized) surfaces.

FEMA, as part of its statutory responsibilities to carry out the National Flood Insurance Program, has mapped most of the flood risk areas within the United States. In fact, most communities with a one percent chance of a flood occurring in any given year (100-year flood) have a floodway depicted on a Flood Insurance Rate Map (FIRM). However, according to FEMA, Coalinga is

designated as Flood Zone X, AD and AE, which is an area with “undetermined possible flood hazards”.

Historic Events

Portions of the City of Coalinga lie within a flood plain. A nearby creek overflows periodically, and there has been flooding on several occasions, notably in 1969 and earlier in 1983. Storm related flooding is a natural disaster that poses a comparatively minor inconvenience to the residents of the community of Coalinga.

Hazard Location and Extent

Portions of Coalinga do lie within a designated floodplain management area and flooding is a potential hazard to the community due to a nearby creek and storm drain blockage during heavy rains.

Storm Related Flooding

Although the City and the District have not experienced large-scale storm-related flooding since the construction of flood control infrastructure, localized inundation remains a concern for Coalinga residents and District staff. Members of the community have indicated that heavy rainfall results in highly localized areas of minor flooding. Although exact locations of recorded flood damage were unavailable at the time of publication of this plan, known locations with flooding issues include low-lying locations with deficiencies in the storm drainage system. Specific locations of concern are listed below:

- Phelps
- Third Street
- Fifth Street
- Forest
- Glenn
- Polk
- Washington

While localized flooding does impede traffic flow, the extent of the flooding hazard does not overwhelm the City’s or District’s resources or result in significant adverse impacts.

Probability of Future Events

It is unlikely that the City of Coalinga or the Coalinga-Huron Unified School District will experience significant storm-related flooding in the future, comparable to the scale of floods that took place in its early history. The considerable flood control infrastructure that was developed mid-century has been effective in preventing large-scale flood events. On the other hand, it is anticipated that localized flooding will continue to occur in the City and District in the absence of appropriate mitigation measures.

Vulnerability Assessment Overview

The City of Coalinga and the Coalinga-Huron Unified School District has a low vulnerability to flood hazards. Current flood control measures effectively prevent the types of damaging floods that were experienced in the 1860s. Current flood issues are restricted to localized street inundation during heavy storm events. Although localized flooding occurs seasonally, it has minimal impacts on the City and District due to its limited location and extent.

Identifying Vulnerabilities

The City of Coalinga and Coalinga-Huron Unified School District is quite resilient to storm-related flooding. Due to the limited scope of the hazard, no structures are considered directly vulnerable to flood damage.

The greatest impact caused by storm-related flooding is impediments to the circulation of traffic. Motorists are required to make detours when flooding renders streets impassible. This is typically nothing more than an inconvenience.

Existing Flood Mitigation Activities

Flood mitigation activities listed here include current mitigation programs and activities that are implemented by the City of Coalinga and the Coalinga-Huron Unified School District.

Stormwater Systems

Coalinga has an extensive storm drainage network to prevent flooding by conveying water off the streets and into drainage channels. Its existing drainage system is an urban network that generally consists of curbside catch basins, inlet structures, and manholes connected by reinforced concrete laterals and main lines, draining into storm drain channels. These facilities are maintained by the City. The City has ~150 catch basins that are maintained by the City.

Mitigation Goal

Localized Flood Control Improvements – While the City and District have an effective flood control system, several localized areas continue to be subject to storm-related flooding.

Objective

Ensure that areas susceptible to flooding on City and District property are addressed to reduce or eliminate the hazard that exists.

Actions for Implementation

- Conduct a study of these localized flooding hazards and identify needed improvements.
- Determine priority for implementation in part with cost-effectiveness analysis.
- Once the improvements are identified, consider options for requiring construction of the improvements as part of development projects if appropriate and feasible.

Section 5 Wildland Fire

Severity: Normal – Above Normal

Risk Assessment

Wildfire and Urban Wildfire are an ongoing concern for the City of Coalinga and Coalinga-Huron Unified School District. Generally, the fire season extends from early spring to late fall. Fire conditions arise from a combination of hot weather, an accumulation of vegetation, and low moisture content in the air. These conditions, when combined with high winds and years of drought, increase the potential for a wildfire to occur. Urban fires often occur in those areas when development has expanded into the rural areas. A fire along this urban/rural interface can result in major losses of property and structures. Generally, there are three major factors that sustain wildfires and allow for predictions of a given area's potential to burn. These factors include fuel, topography, and weather.



Fuel

Fuel is the material that feeds a fire and is a key factor in wildfire behavior. Fuel is generally classified by type and by volume. Fuel sources are diverse and include everything from dead tree needles and leaves, twigs, and branches to dead standing trees, live trees, brush and cured grasses. Also to be considered as a fuel source, are man-made structures and other associated combustibles. The type of prevalent fuel directly influences the behavior of wildfire. Light fuels, such as greases, burn quickly and serve as a catalyst for fire spread. The volume of available fuel is described in terms of Fuel Loading. Certain areas in Fresno County and surrounding City of Coalinga and Coaling-Huron Unified School District are extremely vulnerable to fires as a result of grassy vegetation combined with a growing number of structures being built near and within rural lands.

Topography

An area's terrain and land slopes affect its susceptibility to wildfire spread. Fire intensities and rates of speed increase as slope increases due to the tendency of heat from a fire to rise via convection. The natural arrangement of vegetation throughout a hillside can also contribute to increased fire activity on slopes.

Weather

Weather components such as temperature, relative humidity, wind, and lightning also affect the potential for wildfire. High temperatures and low relative humidity dry out fuels that feed the wildfire creating a situation where fuel will more readily ignite and burn more intensely. Wind is the most treacherous weather factor. The greater a wind, the faster the fire will spread, and the more intense it will be. Winds can be significant at times in Fresno County. However, it should be noted that winds generally occur during the winter storm season, not during the summer, fire seasons. In addition to high winds, wind shifts can occur suddenly due to temperature changes or the interaction of wind with topographical features such as slopes or steep hillsides. Related to weather is the issue of recent drought conditions contributing to concerns about wildfire vulnerability. During the periods of drought, the threat of wildfire increases.

The planning process has identified that both the City of Coalinga and Coalinga-Huron Unified School District are moderately susceptible to wildland fire hazards. As with most wildfire vulnerability, it is the result of increased development encroaching into dry grassland areas. Fire risk in this geographical area of California is determined by a number of factors including drought, the availability and type of fuels, and development in the wildland-urban interface (WUI), lives, infrastructure, and property within the WUI are vulnerable to wildland fires.

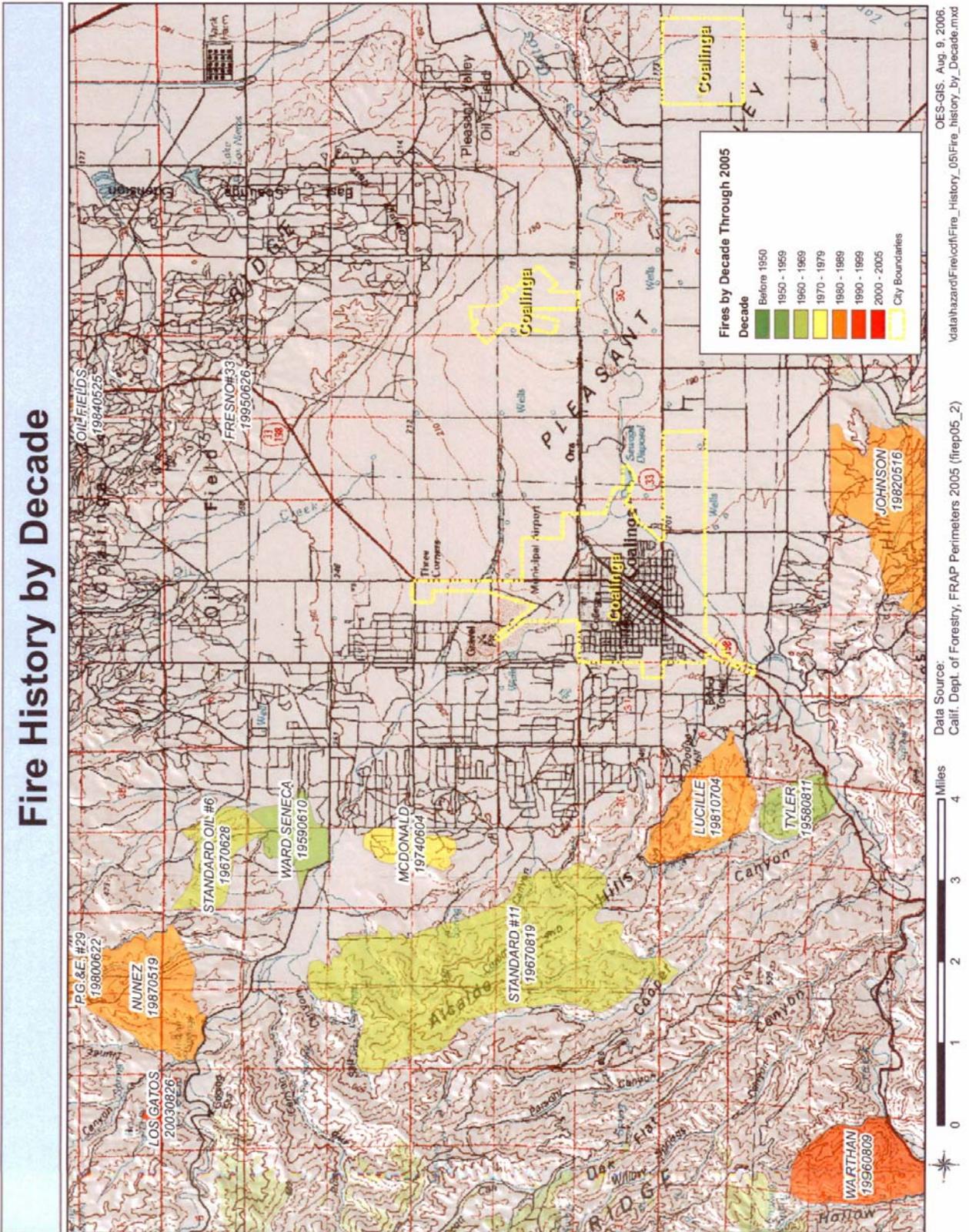
The City must address the sometimes incompatible issues of wildfire prevention and habitat conservation.

The following **State of California Fire Threat Map** shows the City of Coalinga and Coalinga-Huron Unified School District at risk for wildland fires.



Past Occurrences

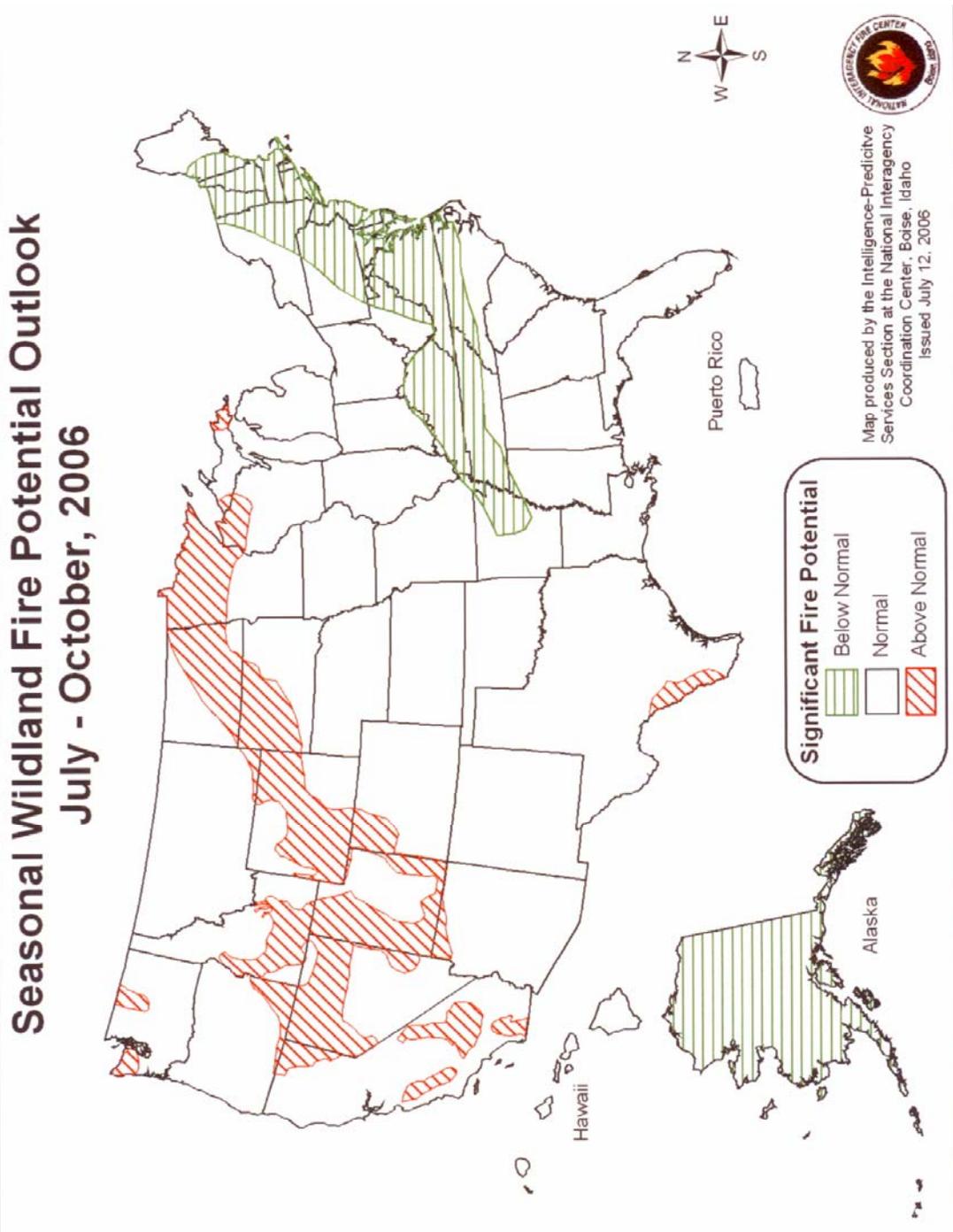
Within the past years alone, there have been numerous urban and wildland fires within Fresno County and recently an 8,000-acre grass fire north of Coalinga, along Interstate 5, was contained. In Fresno County, grass fires are the main type of wildland fires of concern. Grass fires are an annual threat. However, there have been no disaster declarations for wildfire within the City of Coalinga and Coalinga-Huron Unified School District between 1950 and 2006.





Probability of Future Events

The following map, **Seasonal Wildland Fire Potential Outlook, July – October 2006**, illustrates an above normal wildland fire potential for the City of Coalinga and the Coalinga-Huron School District.



Identifying Vulnerabilities

The City of Coalinga and Coalinga-Huron Unified School District is susceptible to both urban and wildland fire hazards. Both the City and School District must address the sometimes incompatible issues of wildfire prevention and habitat conservation.

Wildland and Urban Fire Action Items

The wildfire mitigation action items provide guidance on suggesting activities that the City of Coalinga and the Coalinga-Huron Unified School District can undertake to reduce risk and prevent loss from wildfires. Each action item is followed by ideas for implementation which can be used by the Steering Committee for City and School District Administration in pursuing strategies for implementation.

Mitigation Goal #1: Protect Life

Periodically evaluate fire protection services and service criteria to ensure that Coalinga and the School District continue to receive adequate fire protection and prevention.

Objective

The City of Coalinga and School District have the primary responsibility of protecting its citizens, students, and infrastructure from wildland and urban fires.

Actions for Implementation

- Develop and promote recommendations for local ordinances to prevent fires in interface areas resulting from fireworks, debris burning, campfires, and other human-caused sources.
- Identify and resolve conflicts in laws and regulations that currently prevent effective fuel management in wildland fire interface areas.

Mitigation Goal #2: Protect Property

Mitigation actions taken to protect life often also protect property especially actions with a structural element, such as those designated to strengthen a building from the forces of violent ground shaking.

Objective

The focus of the following actions are to protect property from the hazards of wildland fire.

Actions for Implementation

- Develop and maintain a comprehensive public education program that increases awareness of the wildland interface fire risk and promotes actions that reduce the risk of fire to life and property.
- Develop and promote comprehensive and cost-effective recommendations for both local landuse plans and ordinances that reduce the risk of natural hazards including wildland fire in interface areas.
- Maintain development guidelines that mandate adequate access for firefighting equipment and appropriate buffer areas for the protection of property from wildland fires.
- Periodically assess the impact of incremental increases in development and traffic congestion on fire hazards and emerging response times.

Mitigation Goal #3: Reduce Risks of Wildfires

Objective

Minimize the amount of fuel in areas prone to wildfires.

Actions for Implementation

- Expand vegetation management program.
- Vegetation mapping – acquire detailed vegetation mapping to identify level of fire hazard severity by fuel conditions.

Part III – Resources

Appendix A

Plan Resource Directory

Plan Resource Directory

The Plan Resource Directory provides contact information for local, regional, state, and federal programs that are currently involved in hazard mitigation activities. The City of Lomita and Coalinga-Huron Unified School District Hazard Mitigation Steering Committee may look to the organizations on the following pages for resources and technical assistance. The Resource Directory provides a foundation for potential partners in action item implementation.

The City of Lomita and Coalinga-Huron Unified School District Hazard Mitigation Steering Committee will continue to add contact information for organizations currently engaged in hazard mitigation activities. This section may be used by various community members interested in hazard mitigation information and projects.

American Public Works Association (APWA)			
Level: National	Hazard: Multi	http://www.apwa.net	
2345 Grand Boulevard		Suite 500	
Kansas City, MO 64104-2641		Ph: 816/472-6100	Fx: 816/472-1610
Notes: The American Public Works Association is an international educational and professional association of public agencies, private sector companies, and individuals dedicated to providing high quality public works goods and services.			
Association of State Floodplain Managers			
Level: Federal	Hazard: Flood	www.floods.org	
2809 Fish Hatchery Road			
Madison, WI 53713		Ph: 608/274-0123	Fx: 608/274-0696
Note: The Association of State Floodplain Managers is an organization of professionals involved in floodplain management, flood hazard mitigation, the National Flood Insurance Program, and flood preparedness, warning and recovery.			
Building Seismic Safety Council (BSSC)			
Level: National	Hazard: Earthquake	www.bssconline.org	
1090 Vermont Avenue, NW		Suite 700	
Washington, DC 20005		Ph: 202/289-7800	Fx: 202/289-1092
Notes: The Building Seismic Safety Council (BSSC) develops and promotes building earthquake risk mitigation regulatory provisions for the nation.			

California Department of Transportation (CalTrans)		
Level: State	Hazard: Multi	http://www.dot.ca.gov
120 S. Spring Street		
Los Angeles, CA 90012	Ph: 213/897-3656	Fx: 213/897-3836
Notes: CalTrans is responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as that portion of the Interstate Highway System within the state’s boundaries. Alone and in partnership with Amtrack, CalTrans, is also involved in the support of intercity passenger rail service in California.		
California Resources Agency		
Level: State	Hazard: Multi	http://resources.ca.gov/
1416 Ninth Street		Suite 1311
Sacramento, CA 95814	Ph: 916/653-5656	Fx: 916/653-8102
Notes: The California Resources Agency restores, protects and manages the state’s natural, historical and cultural resources for current and future generations using solutions based on science, collaboration and respect for all the communities and interests involved.		
California Division of Mines and Geology (DMG)		
Level: State	Hazard: Milti	www.consrv.ca.gov/cgs/index.htm
801 K Street		MS 12-30
Sacramento, CA 95814	Ph: 916/445-1825	Fx: 916/445-5718
Notes: The California Geological Survey develops and disseminates technical information and advice on California’s geology, geologic hazards, and mineral resources.		
California Environmental Resources Evaluation System (CERES)		
Level: State	Hazard: Multi	http://ceres.ca.gov
900 N Street		Suite 250
Sacramento, CA 95814	Ph: 916/653-2238	Fx: 916/653-8102
Notes: CERES is an excellent website for access to environmental information and websites.		
California Department of Water Resources (DWR)		
Level: State	Hazard: Flood	http://www.dwr.water.ca.gov
1416 9 th Street		
Sacramento, CA 95814	Ph: 916/653-6192	Fx: 916/653-4684
Notes: The Department of Water Resources manages the water resources of California in cooperation with other agencies, to benefit the State’s people, and to protect, restore, and enhance the natural and human environments.		

California Department of Conservation: Southern California Regional Office		
Level: State	Hazard: Multi	www.consrv.ca.gov
655 S. Hope Street		#700
Los Angeles, CA 90017-2321		Ph: 213/239-0878 Fx: 213/239-0984
Notes: The Department of Conservation provides services and information that promote environmental health, economic vitality, informed land-use decisions and sound management of our state's natural resources.		
Federal Emergency Management Agency, Mitigation Division		
Level: Federal	Hazard: Multi	www.fema.gov/fima/planhowto.shtm
500 C Street, SW		
Washington, DC 20472		Ph: 202/646-2781 Fx: 202/646-7970
Notes: The Mitigation Division manages the National Flood Insurance Program and oversees FEMA's mitigation programs. It has a number of programs and activities of which provide citizens Protection with flood insurance; Prevention with mitigation measures, and partnerships with communities throughout the country.		
Floodplain Management Association		
Level: Federal	Hazard: Flood	www.floodplain.org
P.O. Box 50891		
Sparks, NV 89435-0891		Ph: 775/626-6389 Fx: 775/626-6389
Notes: The Floodplain Management Association is a nonprofit educational association. It was established in 1990 to promote the reduction of flood losses and to encourage the protection and enhancement of natural floodplain values. Members include representatives of federal, state and local government agencies as well as private firms.		
Governor's Office of Emergency Services (OES)		
Level: State	Hazard: Multi	www.oes.ca.gov
P.O. Box 419047		
Rancho Cordova, CA 95741-9047		Ph: 916/845-8911 Fx: 916/845-8910
Notes: The Governor's Office of Emergency Services coordinates overall state agency response to major disasters in support of local government. The office is responsible for assuring the state's readiness to respond to and recover from natural, manmade, and war-caused emergencies, and for assisting local governments in their emergency preparedness, response and recovery efforts.		

National Resources Conservation Service (NRCS)		
Level: Federal	Hazard: Multi	http://www.nrcs.usda.gov/
14 th and Independence Avenue, SW		Room 5105-A
Washington, DC 20250	Ph: 202/720-7246	Fx: 202/720-7690
Notes: NRCS assists owners of America’s private land with conserving their soil, water, and other natural resources, by delivering technical assistance based on sound science and suited to a customer’s specific needs. Cost shares and financial incentives are available in some cases.		
National Fire Protection Association (NFPA)		
Level: National	Hazard: Wildfire	http://www.nfpa.org/catalog/home/index.asp
1 Batterymarch Park		
Quincy, MA 02169-7471	Ph: 617/770-3000	Fx: 617/770-0700
Notes: The mission of the international nonprofit NFPA is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating scientifically-based consensus codes and standards, research, training and education.		
National Floodplain Insurance Program (NFIP)		
Level: Federal	Hazard: Flood	www.fema.gov/nfip/
500 C Street, SW		
Washington, SC 20472	Ph: 202/566-1600	Fx:
Notes: The Mitigation Division manages the National Flood Insurance Program and oversees FEMA’s mitigation programs. It has a number of programs and activities which provide citizens protection with flood insurance; prevention with mitigation measures, and partnerships with communities throughout the country.		
National Oceanic/Atmospheric Administration (NOAA)		
Level: Federal	Hazard: Multi	www.noaa.gov
14 th Street & Constitution Avenue NW		Room 6013
Washington, DC 20230	Ph: 202/482-6090	Fx: 202/482-3154
Notes: NOAA’s historical role has been to predict environmental changes, protect life and property, provide decision makers with reliable scientific information, and foster global environmental stewardship.		

National Weather Service		
Level: Federal	Hazard: Multi	http://www.nws.noaa.gov/
520 North Elevar Street		
Oxnard, CA 93030	Ph: 805/988-6615	Fx: 805/988-6613
Notes: The National Weather Service is responsible for providing weather service to the nation. It is charged with the responsibility of observing and reporting the weather and with issuing forecasts and warnings of weather and floods in the interest of national safety and economy. Briefly, the priorities for service to the nation are: 1) protection of life, 2) protection of property, and 3) promotion of the nation’s welfare and economy.		
Southern California Earthquake Center (SCEC)		
Level: Regional	Hazard: Earthquake	www.scec.org
3651 Trousdale Parkway		Suite 169
Los Angeles, CA 90089-0742	Ph: 213/740-5843	Fx: 213/740-0011
Notes: The Southern California Earthquake Center (SCEC) gathers new information about earthquakes in Southern California, integrates this information into a comprehensive and predictive understanding of earthquake phenomena, and communicates this understanding to end-users and the general public in order to increase earthquake awareness, reduce economic losses, and save lives.		
State Fire Marshal (SFM)		
Level: State	Hazard: Wildfire	http://osfm.fire.ca.gov
1131 “S” Street		
Sacramento, CA 95814	Ph: 916/445-8200	Fx: 916/445-8509
Notes: The Office of the State Fire Marshal (SFM) supports the mission of the California Department of Forestry and Fire Protection (CDF) by focusing on fire prevention. SFM regulates buildings in which people live, controls substances which may cause injuries, death and destruction by fire; provides statewide direction for fire prevention within wildland areas; regulates hazardous liquid pipelines; reviews regulations and building standards; and trains and educates in fire protection methods and responsibilities.		

The Community Rating Systems (CRS)			
Level: Federal	Hazard: Flood	http://www.fema.gov/nfip/crs.shtm	
500 C Street SW			
Washington, DC 20472		Ph: 202/566-1600	Fx:
Notes: The Community Rating System (CRS) recognizes community floodplain management efforts that go beyond the minimum requirements of the NFIP. Property owners within the County would receive reduced NFIP flood insurance premiums if the County implements floodplain management practices that qualify it for a CRS rating. For further information on the CRS, visit FEMA’s website.			
United States Geological Survey (USGS)			
Level: Federal	Hazard: Multi	http://www.usgs.gov/	
345 Middlefield Road			
Menlo Park, CA 94025		Ph: 650/853-8300	
Notes: The USGS provides reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life.			
US Army Corps of Engineers			
Level: Federal	Hazard: Multi	http://www.usace.army.mil	
P.O. Box 532711			
Los Angeles, CA 90053-2325		Ph: 213/452-3921	Fx: 213/452-4209
Notes: The United States Army Corps of Engineers work in engineering and environmental matters. A workforce of biologists, engineers, geologists, hydrologists, natural resource managers and other professionals provide engineering services to the nation including planning, designing, building and operating water resources and other civil works projects.			
USGS Water Resources			
Level: Federal	Hazard: Multi	www.water.usgs.gov	
6000 J Street		Placer hall	
Sacramento, CA 95819-6129		Ph: 916/278-3000	Fx: 916/278-3070
Notes: The USGS Water Resources mission is to provide water information that benefits the Nation’s citizens: publications, data, maps, and applications software.			

Western States Seismic Policy Council (WSSPC)		
Level: Regional	Hazard: Earthquake	www.wsspc.org/home.html
125 California Avenue		Suite D201, #1
Palo Alto, CA 94306		Ph: 650/330-1101 Fx: 650/326-1769
Notes: WSSPC is a regional earthquake consortium funded mainly by FEMA. Its website is a great resource, with information clearly categorized – from policy to engineering to education.		

Appendix B

The Public Participation Process

The Public Participation Process

Public participation is a key component to the strategic planning process. Community participation offers citizens the chance to voice their ideas, interests, and opinions. The Federal Emergency Management Agency also requires public input during the development of mitigation plans.

The City of Coalinga and Coalinga-Huron Unified School District Local Hazard Mitigation Plan integrates a cross-section of citizen input throughout the planning process. To accomplish this goal, the City of Coalinga and Coalinga-Huron Unified School District Hazard Mitigation Steering Committee developed a public participation process through these components: (1) developing a Steering Committee comprised of knowledgeable individuals representative of the City, District and the Community; (2) create a Core Group from the Steering Committee to conduct research and plan development; and (3) conduct two public hearings to identify common concerns and ideas regarding hazard mitigation and to discuss specific goals and actions of the mitigation plan.

Integrating public participation during the development of the City of Coalinga and Coalinga-Huron Unified School District Local Hazard Mitigation Plan has ultimately resulted in increased public awareness. Through citizen involvement, the mitigation plan reflects Community issues, concerns, and new ideas and perspectives on mitigation opportunities and plan action items.

Steering Committee

Hazard mitigation at both the City of Coalinga and the Coalinga-Huron Unified School District is overseen by the City of Coalinga and Coalinga-Huron Unified School District Hazard Mitigation Steering Committee, which consists of representatives from various city and district agencies, representatives from local business and Community organizations and the public. Steering Committee members have an understanding of how the Community is structured and how City and District staff, Community, and the environment may be affected by natural hazard events. The Steering Committee guided the development of the plan, and assisted in developing plan goals and action items, in addition to sharing local expertise to create a more comprehensive plan.

Table B-1 lists the various people and organizations that participated on the City of Coalinga and Coalinga-Huron Unified School District Hazard Mitigation Steering Committee.

<p>Table B-1 City of Coalinga and Coalinga-Huron Unified School District Hazard Mitigation Steering Committee</p>
Steve Julian, City of Coalinga, Interim City Manager
Pat Medina, City of Coalinga Safety Director
Bill Skinner, City of Coalinga, Community Development
Randy Arp, City of Coalinga, Public Works
William McDermott, Ph.D., Coalinga-Huron Unified School District, Superintendent
William Baker, Coalinga-Huron Unified School District, Chief Business Official
Jim Reckas, Coalinga-Huron Unified School District, Director Facilities/MOT
Marco A. Sigala, Coalinga-Huron Unified School District, Assistant Superintendent Instructional Services
Mark Ysusi, Boyle Engineering
Marilyn Gabriel, Chamber of Commerce

Meeting #1: November 10, 2004 – Core Group

This was the first meeting of the Core Group. The Core Group was formed to facilitate the planning process through research, forming of a Steering Committee, schedule meetings and public hearings, and present material to the Steering Committee for review and approval.

An invitation list for the Steering Committee was developed with the purpose of creating a diverse cross section of the City that would allow for a wide range of input and opinion. The following is the invitation list created by the Core Group:

- Steve Julian, City of Coalinga, Interim City Manager
- Randy Arp, City of Coalinga, Public Works
- William McDermott, Ph.D., Coalinga-Huron Unified School District, Superintendent
- William Baker, Coalinga-Huron Unified School District, Chief Business Official

The City’s Disaster Preparedness Consultant would schedule and facilitate the meetings throughout the planning process along with attending public hearings and updating the City Council. Guided by the Core Group, the Steering Committee would meet each month or on an as needed basis.

The Core Group felt that the first Steering Committee meeting should be an orientation to DMA 2000 so the planning process was understood along with an approximate time frame to complete

the process. It was agreed that the Steering Committee would meet once a month or more frequently if necessary to complete the final DMA2K plan. The first meeting in January 2005 would be an orientation to DMA 2000 with all subsequent meetings as actual work/planning sessions.

It was also determined that research should commence immediately on threat analysis, vulnerabilities, and City history and profile. This information would be ready for presentation at the second meeting in December 2004.

Public Hearing #1: January 5, 2005

The first Public Hearing was conducted with no comments or questions from the public or City Council.

Meeting #1: January 5, 2005 – Steering Committee

The Steering Committee met for the first time and it started with self-introductions include backgrounds.

The City's Consultant initiated an in depth discussion on how City facilities and building contents were insured. The Consultant provided an overview on the importance of accurately identifying all replacement values of existing buildings and their contents along with the condition of the buildings and previous steps taken to mitigate against identified vulnerabilities such as earthquakes.

Through participative discussion the Steering Committee in conjunction with the Core Group determined that employee training including disaster management (ICS/NIMS), first aid, CPR, search and rescue, and managing small fires through fire extinguisher training were the City of Coalinga's top training priorities. It was unanimously agreed that employee training should be a mitigation strategy.

Hazard analysis was reviewed. Earthquake was considered the number one hazard with secondary flooding and severe weather as low risks.

The Committee was provided with the FEMA Crosswalk so they would have an understanding of how the plan is rated and the components that are required in an approved plan.

Meeting #2: February 10, 2005 – Steering Committee

The Steering Committee reviewed the process of plan development. The first draft will be presented for review and approval at the Steering Committee meeting in August 2005. After revisions and modifications are completed the information would be presented at the final public hearing.

Meeting minutes were discussed along with the importance and need to gather the information from recorded meetings and maintain documentation of the planning process.

The time line was established by the Steering Committee that identified a September 2005 meeting and public hearing for final review and adoption. By the meeting in August the draft should be completed and ready for review by the Committee and adoption by the City Council at the September 2005 meeting and public hearing.

The Committee reviewed the final draft of Part I, and Part II which as presented by the City's Disaster Preparedness Consultant. The Core Group reviewed the three hazards, earthquake, flood and adverse weather to establish mitigation strategies and action items.

The strategies reviewed will be prepared for the August Steering Committee meeting. This includes threat reduction action, building standards, employee training, and the City's Capital Improvement Projects that include mitigation measures (all projects contingent on availability of resources).

Meeting #3: March 10, 2005 – Steering Committee

The City's Disaster Preparedness Consultant prepared an agenda and executive summary overview of the DMA 2000 planning process. The Steering Committee was given information on their role in the planning process. This included the role of the Core Group that would be developing information through research and implementing the information into a draft plan for Committee review and input.

Proposed plan maintenance was discussed which incorporates an annual review by the Steering Committee and a five year review by California Governors Office of Emergency Services and the Federal Emergency Management Agency. The Committee agreed the plan should be reviewed annually.

Meeting #4: April 7, 2005 – Steering Committee

Letter of intent was reviewed. The City's Disaster Preparedness Consultant had directed questions to OES regarding FEMA. Prior to adoption have City Council review the final draft plan.

Crosswalk – Basic information and rating system that will be completed. Documentation will be included in the plan when it is submitted.

Once the City of Coalinga City Council adopts the plan, a hard copy, electronic copy, and a cover letter will be provided in advance of the City's submittal to California's OES and FEMA for review and approval.

Meeting #5: May 5, 2005 – Steering Committee

During this meeting it was agreed to by the Committee to include the Coalinga-Huron Unified School District as part of the plan. By sharing hazards mitigation challenges, this will ensure coordination and mitigation of assets allowing increased efficiency/effectiveness.

Meeting #6: June 9, 2005

Reviewed proposed plan maintenance which incorporates annual review by the Steering Committee. Must provide updates to FEMA with overall plan review after five years.

Discussed approval to notify and involve the community during process and in the future.

Proposed meeting schedule for project tasks.

It is suggested that the Steering Committee recess during the months of July and August.

The City's Hazard Mitigation Plan was placed on the agenda for City Council review and public comment.

The City's Disaster Preparedness Consultant provided an update on changes in the mitigation planning process, which included a letter of intent for OES and changes in the FEMA crosswalk.

Public Hearing #2: November 17, 2005

City Disaster Preparedness consultant will add comments upon completion of second Public Hearing.

A completed Local Hazard Mitigation Plan for the City of Coalinga was presented to the City Council for review and approval. The plan was approved and adopted by the Council.

Public hearing held on November 17, 2005 at the City Council Meeting. No questions were asked however, the Committee did get positive feedback from the City Council members in keeping the public informed and also keeping the City Council up to date on the project.

There were no public comments or questions regarding the plan.

Appendix C
Acronyms

Federal Acronyms

AASHTO	American Association of State Highway and Transportation Officials
ATC	Applied Technology Council
b/ca	Benefit/Cost Analysis
BFE	Base Flood Evaluation
BLM	Bureau of Land Management
BSSC	Building Seismic Safety Council
CDBG	Community Development Block Grant
CFR	Code of Federal Regulations
CRS	Community Rating System
EDA	Economic Development Administration
EPA	Environmental Protection Agency
ER	Emergency Relief
EWP	Emergency Watershed Protection (NRCS Program)
FAS	Federal Aid System
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMA	Flood Mitigation Assistance (FEMA Program)
FTE	Full Time Equivalent
GIS	Geographic Information System
GNS	Institute of Geological and Nuclear Sciences (International)
GSA	General Services Administration
HAZUS	Hazards U.S.

HMGP	Hazard Mitigation Grant Program
HMST	Hazard Mitigation Survey Team
HUD	Housing and Urban Development (United States, Department of)
IBHS	Institute of Business and Home Safety
ICC	Increased Cost of Compliance
IHMT	Interagency Hazard Mitigation Team
NCDC	National Climate Data Center
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHMP	Natural Hazard Mitigation Plan (also known as “409 Plan”)
NIBS	National Institute of Building Sciences
NIFC	National Interagency Fire Center
NMFS	National Marine Fisheries Services
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NWS	National Weather Service
SBA	Small Business Administration
SEAO	Structural Engineers Association of Oregon
SHMO	State Hazard Mitigation Officer
TOR	Transfer of Development Rights
UGB	Urban Growth Boundary
URM	Unreinforced Masonry
USACE	United States Army Corps of Engineers
USBR	United States Bureau of Reclamation

- USDA United States Department of Agriculture
- USFA United States Fire Administration
- USFS United States Forest Service
- USGS United States Geological Survey
- WSSPC Western States Seismic Policy Council

California Acronyms

A&W	Alert and Warning
AA	Administering Areas
AAR	After Action Report
ARC	American Red Cross
ARP	Accidental Risk Prevention
ATC20	Applied Technology Council 20
ATC21	Applied Technology Council 21
BCP	Budget Change Proposal
BSA	California Bureau of State Audits
CAER	Community Awareness & Emergency Response
CalARP	California Accidental Release Prevention
CalBO	California Building Officials
CalEPA	California Environmental Protection Agency
CalREP	California Radiological Emergency Plan
CALSTARS	California State Accounting Reporting System
CalTRANS	California Department of Transportation
CBO	Community Based Organization
CD	Civil Defense
CDF	California Department of Forestry and Fire Protection
CDMG	California Division of Mines and Geology
CEC	California Energy Commission
CEPEC	California Earthquake Prediction Evaluation Council

CESRS	California Emergency Services Radio System
CHIP	California Hazardous Identification Program
CHMIRS	California Hazardous Materials Incident Reporting System
CHP	California Highway Patrol
CLETS	California Law Enforcement Telecommunications System
CSTI	California Specialized Training Institute
CUEA	California Utilities Emergency Association
CUPA	Certified Unified Program Agency
DAD	Disaster Assistance Division (of the state Office of Emergency Services)
DFO	Disaster Field Office
DGS	California Department of General Services
DHSRHB	California Department of Health Services, Radiological Health Branch
DO	Duty Officer
DOC	Department Operations Center
DOE	Department of Energy (U.S.)
DOF	California Department of Finance
DOJ	California Department of Justice
DPA	California Department of Personnel Administration
DPIG	Disaster Preparedness Improvement Grant
DR	Disaster Response
DSA	Division of the State Architect
DSR	Damage Survey Report
DSW	Disaster Service Worker
DWR	California Department of Water Resources
EAS	Emergency Alerting System

EDIS	Emergency Digital Information System
EERI	Earthquake Engineering Research Institute
EMA	Emergency Management Assistance
EMI	Emergency Management Institute
EMMA	Emergency Managers Mutual Aid
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency (U.S.)
EPEDAT	Early Post Earthquake Damage Assessment Tool
EPI	Emergency Public Information
EPIC	Emergency Public Information Council
ESC	Emergency Services Coordinator
FAY	Federal Award Year
FDAA	Federal Disaster Assistance Administration
FEAT	Governor’s Flood Emergency Action Team
FEMA	Federal Emergency Management Agency
FFY	Federal Fiscal Year
FIR	Final Inspection Reports
FIRESCOPE	Firefighting Resources of Southern California Organized for Potential Emergencies
FMA	Flood Management Assistance
FSR	Feasibility Study Report
FY	Fiscal Year
GIS	Geographical Information System

HAZMAT	Hazardous Materials
HASMIT	Hazardous Mitigation
HAZUS	Hazards United States (an earthquake damage assessment prediction tool)
HAD	Housing and Community Development
HEICS	Hospital Emergency Incident Command System
HEPG	Hospital Emergency Planning Guidance
HIA	Hazard Identification and Analysis Unit
HMEP	Hazardous Materials Emergency Preparedness
HMGP	Hazard Mitigation Grant Program
IDE	Initial Damage Estimate
IA	Individual Assistance
IFG	Incident Response Geographic Information System
IPA	Information and Public Affairs (of state Office of Emergency Services)
LAN	Local Area Network
LEMMA	Law Enforcement Master Mutual Aid
LEPC	Local Emergency Planning Committee
MARAC	Mutual Aid Regional Advisory Council
MHID	Multihazad Identification
MOU	Memorandum of Understanding
NBC	Nuclear, Biological, Chemical
NEMA	National Emergency Management Agency
NEMIS	National Emergency Management Information System
NFIP	National Flood Insurance Program
NOAA	National Oceanic and Atmospheric Association
NPP	Nuclear Power Plant

NSF	National Science Foundation
NWS	National Weather Service
OA	Operational Area
OASIS	Operational Area Satellite Information System
OCC	Operations Coordination Center
OCD	Office of Civil Defense
OEP	Office of Emergency Planning
OES	California Governor’s Office of Emergency Services
OSHPD	Office of Statewide Health Planning and Development
OSPR	Oil Spill Prevention and Response
PA	Public Assistance
PC	Personal Computer
PDA	Preliminary Damage Assessment
PIO	Public Information Office
POST	Police Officer Standards and Training
PPA/CA	Performance Partnership Agreement/Cooperative Agreement (FEMA)
PSA	Public Service Announcement
PTAB	Planning and Technological Assistance Branch
PTR	Project Time Report
RA	Regional Administrator (OES)
RADEF	Radiological Defense (program)
RAMP	Regional Assessment of Mitigation Priorities
RAPID	Railroad Accident Prevention & Immediate Deployment
RDO	Radiological Defense Officer
RDMHC	Regional Disaster Medical Health Coordinator

REOC	Regional Emergency Operations Center
REPI	Reserve Emergency Public Information
RES	Regional Emergency Staff
RIMS	Response Information Management System
RMP	Risk Management Plan
RPU	Radiological Preparedness Unit (OES)
RRT	Regional Response Team
SAM	State Administrative Manual
SARA	Superfund Amendments & Reauthorization Act
SAVP	Safety Assessment Volunteer Program
SBA	Small Business Administration
SCO	California State Controller’s Office
SEMS	Standardized Emergency Management System
SEPIC	State Emergency Public Information Committee
SLA	State and Local Assistance
SONGS	San Onofre Nuclear Generating Station
SOP	Standard Operating Procedure
SWEPC	Statewide Emergency Planning Committee
TEC	Travel Expense Claim
TRU	Transuranic
TTT	Train the Trainer
UPA	Unified Program Account
UPS	Uninterrupted Power Source
USAR	Urban Search and Rescue
USGS	United States Geological Survey

WC	California State Warning Center
WAN	Wide Area Network
WIPP	Waste Isolation Pilot Project

Appendix D

Glossary

Glossary

Acceleration	The rate of change of velocity with respect to time. Acceleration due to gravity at the earth’s surface is 9.8 meters per second squared. That means that every second that something falls toward the surface of earth its velocity increases by 9.8 meters per second.
Asset	Any manmade or natural feature that has value, including, but not limited to people; buildings; infrastructure like bridges, roads, sewer and water systems; lifelines like electricity and communication resources; or environmental, cultural, or recreational features like parks, dunes, wetlands, or landmarks.
Base Flood	Flood that has a one percent probability of being equaled or exceeded in any given year. Also known as the 100-year flood.
Base Flood Elevation (BFE)	Elevation of the base flood in relation to a specified datum, such as the National Geodetic Vertical Datum of 1929. The Base Flood Elevation is used as the standard for the National Flood Insurance Program.
Bedrock	The solid rock that underlies loose material, such as soil, sand, clay, or gravel.
Building	A structure that is walled and roofed, principally above ground and permanently affixed to a site. The term includes a manufactured home on a permanent foundation on which the wheels and axles carry no weight.
Coastal High Hazard Area	Area, usually along an open coast, bay, or inlet that is subject to inundation by storm surge and, in some instances, wave action caused by storms or seismic sources.
Coastal Zones	The area along the shore where the ocean meets the land as the surface of the land rises above the ocean. This land/water interface includes barrier islands, estuaries, beaches, coastal wetlands, and land areas having direct drainage to the ocean.
Community Rating System (CRS)	An NFIP program that provides incentives for NFIP communities to complete activities that reduce flood hazard risk. When the community completes specified activities, the insurance premiums of policyholders in these communities are reduced.

Computer-Aided Design and Drafting (CADD)	A computerized system enabling quick and accurate electronic 2-D and 3-D drawings, topographic mapping, site plans, and profile/cross-section drawings.
Contour	A line of equal ground elevation on a topographic (contour) map.
Critical Facility	Facilities that are critical to the health and welfare of the population and that are especially important following hazard events. Critical facilities include, but are not limited to, shelters, police and fire stations, and hospitals.
Debris	The scattered remains of assets broken or destroyed in a hazard event. Debris caused by a wind or water hazard event can cause additional damage to other assets.
Digitize	To convert electronically points, lines, and area boundaries shown on maps into x, y coordinates (e.g., latitude and longitude, universal transverse mercator (UTM), or table coordinates) for use in computer applications.
Displacement Time	The average time (in days) which the building's occupants typically must operate from a temporary location while repairs are made to the original building due to damages resulting from a hazard event.
Duration	How long a hazard event lasts.
Earthquake	A sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of earth's tectonic plates.
Erosion	Wearing away of the land surface by detachment and movement of soil and rock fragments, during a flood or storm or over a period of years, through the action of wind, water, or other geologic processes.
Erosion Hazard Area	Area anticipated being lost to shoreline retreat over a given period of time. The projected inland extent of the area is measured by multiplying the average annual long-term recession rate by the number of years desired.
Essential Facility	Elements that are important to ensure a full recovery of a community or state following a hazard event. These would include: government functions, major employers, banks, schools, and certain commercial establishments, such as grocery stores, hardware stores, and gas stations.
Extent	The size of an area affected by a hazard or hazard event.

Extratropical Cyclone	Cyclonic storm events like Nor'easters and severe winter low-pressure systems. Both West and East coasts can experience these non-tropical storms that produce gale-force winds and precipitation in the form of heavy rain or snow. These cyclonic storms, commonly called Nor'easters on the East Coast because of the direction of the storm winds, and last for several days and can be very large – 1,000-mile wide storms are not uncommon.
Fault	A fracture in the continuity of a rock formation caused by a shifting or dislodging of the earth's crust, in which adjacent surfaces are differentially parallel to the plane of fracture.
Federal Emergency Management Agency (FEMA)	Independent agency created in 1978 to provide a single point of accountability for all Federal activities related to disaster mitigation and emergency preparedness, response and recovery.
Fire Potential Index (FPI)	Developed by USGS and USFS to assess and map fire hazard potential over broad areas. Based on such geographic information, national policy makers and on-the-ground fire managers established priorities for prevention activities in the defined area to reduce the risk of managed and wildfire ignition and spread. Prediction of fire hazard shortens the time between fire ignition and initial attack by enabling fire managers to pre-allocate and stage suppression forces to high fire risk areas.
Flash Flood	A flood event occurring with little or no warning where water levels rise at an extremely fast rate.
Flood	A general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of inland or tidal waters, (2) the unusual and rapid accumulation or runoff of surface water from any source, or (3) mudflows or the sudden collapse of shoreline land.
Flood Depth	Height of the flood water surface above the ground surface.
Flood Elevation	Elevation of the water surface above an established datum, e.g., National Geodetic Vertical Datum of 1929, North American Vertical Datum of 1988, or Mean Sea Level.
Flood Hazard Area	The area shown to be inundated by a flood of a given magnitude on a map.
Flood Insurance Rate Map (FIRM)	Map of a community, prepared by the Federal Emergency Management Agency that shows both the special flood hazard areas and the risk premium zones applicable to the community.

Flood Insurance Study (FIS)	A study that provides an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations in a community or communities.
Floodplain	Any land area, including watercourse, susceptible to partial or complete inundation by water from any source.
Frequency	A measure of how often events of a particular magnitude are expected to occur. Frequency describes how often a hazard of a specific magnitude, duration, and/or extent typically occurs, on average. Statistically, a hazard with a 100-year recurrence interval is expected to occur once every 100 years on average, and would have a one percent chance – its probability – of happening in any given year. The reliability of this information varies depending on the kind of hazard being considered.
Fujita Scale of Tornado Intensity	Rates tornadoes with numeric values from F0 to F5 based on tornado wind speed and damage sustained. An F0 indicates minimal damage such as broken tree limbs or signs, while an F5 indicated severe damage sustained.
Functional Downtown	The average time (in days) during which a function (business or service) is unable to provide its services due to a hazard event.
Geographic Area Impacted	The physical area in which the effects of the hazard are experienced.
Geographic Information Systems (GIS)	A computer software application that relates physical features on the earth to a database to be used for mapping and analysis.
Ground Motion	The vibration or shaking of the ground during an earthquake. When a fault ruptures, seismic waves radiate, causing the ground to vibrate. The severity of the vibration increases with the amount of energy released and decreases with distance from the causative fault or epicenter, but soft soils can further amplify ground motions.
Hazard	A source of potential danger or adverse condition. Hazards in this how to series will include naturally occurring events such as floods, earthquakes, tornadoes, tsunami, coastal storms, landslides, and wildfires that strike populated areas. A natural event is a hazard when it has the potential to harm people or property.
Hazard Event	A specific occurrence of a particular type of hazard.
Hazard Identification	The process of identifying hazards that threaten an area.

Hazard Mitigation	Sustained actions taken to reduce or eliminate long-term risk from hazards and their effects.
Hazard Profile	A description of the physical characteristics of hazards and a determination of various descriptors including magnitude, duration, frequency, probability and extent. In most cases, a community can most easily use these descriptors when they are recorded and displayed as maps.
HAZUS (Hazards U.S.)	A GIS-based nationally standardized earthquake loss estimation tool developed by FEMA.
Hurricane	An intense tropical cyclone, formed in the atmosphere over warm ocean areas, in which wind speeds reach 74-miles-per-hour or more and blow in a large spiral around a relatively calm center or “eye.” Hurricanes develop over the north Atlantic Ocean, northeast Pacific Ocean, or the South Pacific Ocean east of 160°E longitude. Hurricane circulation is counter-clockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.
Hydrology	The science of dealing with the waters of the earth. A flood discharge is developed by a hydrologic study.
Infrastructure	Refers to the public services of a community that have a direct impact on the quality of life. Infrastructure includes communication technology such as phone lines or Internet access, vital services such as public water supplies and sewer treatment facilities, and includes an area’s transportation system such as airports, heliports; highways, bridges, tunnels, roadbeds, overpasses, railways, bridges, rail yards, depots; and waterways, canals, locks, seaports, ferries, harbors, dry-docks, piers and regional dams.
Intensity	A measure of the effects of a hazard event at a particular place.
Landslide	Downward movement of a slope and materials under the force of gravity.
Lateral Spreads	Develop on gentle slopes and entail the sidelong movement of large masses of soil as an underlying layer liquefies in a seismic event. The phenomenon that occurs when ground shaking causes loose soils to lose strength and act like viscous fluid. Liquefaction causes two types of ground failure: lateral spread and loss of bearing strength.
Liquefaction	Results when the soil supporting structures liquefies. This can cause structures to tip and topple.
Lowest Floor	Under the NFIP, the lowest floor of the lowest enclosed area (including basement) of a structure.

Magnitude	A measure of the strength of a hazard event. The magnitude (also referred to as severity) of a given hazard event is usually determined using technical measures specific to the hazard.
Mitigation Plan	A systematic evaluation of the nature and extent of vulnerability to the effects of natural hazards typically present in the state and includes a description of actions to minimize future vulnerability to hazards.
National Flood Insurance Program (NFIP)	Federal program created by Congress in 1968 that makes flood insurance available in communities that enact minimum floodplain management regulations in FEMA Interim Final Rule 44 CFR §60.3.
National Geodetic Vertical Datum of 1929 (NGVD)	Datum established in 1929 and used in the NFIP as a basis for measuring flood, ground, and structural elevations, previously referred to as Sea Level Datum or Mean Sea Level. The Base Flood Elevations shown on most of the Flood Insurance Rate Maps issued by the Federal Emergency Management Agency are referenced to NGVD.
National Weather Service (NWS)	Prepares and issues flood, severe weather, and coastal storm warnings and can provide technical assistance to federal and state entities in preparing weather and flood warning plans.
Nor'easter	An extra-tropical cyclone producing gale-force winds and precipitation in the form of heavy snow or rain.
Outflow	Follows water inundation creating strong currents that rip at structures and pound them with debris, and erode beaches and coastal structures.
Planimetric	Describes maps that indicate only man-made features like buildings.
Planning	The act or process of making or carrying out plans; the establishment of goals, policies and procedures for a social or economic unit.
Probability	A statistical measure of the likelihood that a hazard event will occur.
Recurrence Interval	The time between hazard events of similar size in a given location. It is based on the probability that the given event will be equaled or exceeded in any given year.
Repetitive Loss Property	A property that is currently insured for which two or more National Flood Insurance Program losses (occurring more than ten days apart) of at least \$1,000 each have been paid within any 10-year period since 1978.
Replacement Value	The cost of rebuilding a structure. This is usually expressed in terms of cost per square foot, and reflects the present-day cost of labor and materials to construct a building of a particular size, type and quality.

Richter Scale	A numerical scale of earthquake magnitude devised by seismologist C.F. Richter in 1935.
Risk	The estimated impact that a hazard would have on people, services, facilities, and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate or low likelihood of sustaining damage above a particular threshold due to a specific type of hazard event. It also can be expressed in terms of potential monetary losses associated with the intensity of the hazard.
Riverine	Of or produced by a river.
Scale	A proportion used in determining a dimensional relationship; the ratio of the distance between two points on a map and the actual distance between the two points on the earth's surface.
Scarp	A steep slope.
Scour	Removal of soil or fill material by the flow of flood waters. The term is frequently used to describe storm-induced, localized conical erosion around pilings and other foundation supports where the obstruction of flow increases turbulence.
Seismicity	Describes the likelihood of an area being subject to earthquakes.
Special Flood Hazard Area (SFHA)	An area within a floodplain having a one percent or greater chance of flood occurrence in any given year (100-year floodplain); represented on Flood Insurance Rate Maps by darkly shaded areas with zone designations that include the latter A or V.
Stafford Act	The Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 100-107 was signed into Law November 23, 1988 and amended the Disaster Relief Act of 1974, PL 93-288. The Stafford Act is the statutory authority for most Federal disaster response activities, especially as they pertain to FEMA and its programs.
State Hazard Mitigation Officer (SHMO)	The representative of state government who is the primary point of contact with FEMA, other state and Federal agencies, and local unit of government in the planning and implementation of pre- and post-disaster mitigation activities.
Storm Surge	Rise in the water surface above normal water level on the open coast due to the action of wind stress and atmospheric pressure on the water surface.
Structure	Something constructed. (See also Building)

Substantial Damage	Damage of any origin sustained by a structure in a Special Flood Hazard Area whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty percent (50%) of the market value of the structure before the damage.
Super Typhoon	A typhoon with maximum sustained winds of 150 mph or more.
Surface Faulting	The differential movement of two sides of a fracture – in other words, the location where the ground breaks apart. The length, width, and displacement of the ground characterize surface faults.
Tectonic Plate	Torsionally rigid, thin segments of the earth’s lithosphere that may be assumed to move horizontally and adjoin other plates. It is the friction between plate boundaries that cause seismic activity.
Topographic	Characterizes maps that show natural features and indicate the physical shape of the land using contour lines. These maps may also include man-made features.
Tornado	A violently rotating column of air extending from a thunderstorm to the ground.
Tropical Cyclone	A generic term for a cyclonic, low-pressure system over tropical or subtropical waters.
Tropical Depression	A tropical cyclone with maximum sustained winds of less than 39 mph.
Tropical Storm	A tropical cyclone with maximum sustained winds greater than 39 mph and less than 74 mph.
Tsunami	Great sea wave produced by submarine earth movement or volcanic eruption.
Typhoon	A special category of tropical cyclone peculiar to the western North Pacific Basin, frequently affecting areas in the vicinity of Guam and the North Mariana Islands. Typhoons whose maximum sustained winds attain or exceed 150 mph are called super typhoons.

<p>Vulnerability</p>	<p>Describes how exposed or susceptible to damage an asset is. Vulnerability depends on an asset’s construction, contents, and the economic value of its functions. Like indirect damages, the vulnerability of one element of the community is often related to the vulnerability of another. For example, many businesses depend on uninterrupted electrical power – if an electric substation is flooded, it will affect not only the substation itself, but a number of businesses as well. Often, indirect effects can be much more widespread and damaging than direct ones.</p>
<p>Vulnerability Assessment</p>	<p>The extent of injury and damage that may result from a hazard event of a given intensity in a given area. The vulnerability assessment should address impacts of hazard events on the existing and future built environment.</p>
<p>Water Displacement</p>	<p>When a large mass of earth on the ocean bottom sinks or uplifts, the column of water directly above it is displaced, forming the tsunami wave. The rate of displacement, motion of the ocean floor at the epicenter, the amount of displacement of the rupture zone, and the depth of water above the rupture zone all contribute to the intensity of the tsunami.</p>
<p>Wave Run-up</p>	<p>The height that the wave extends up to on steep shorelines, measured above a reference level (the normal height of the sea, corrected to the state of the tide at the time of wave arrival).</p>
<p>Wildfire</p>	<p>An uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures.</p>
<p>Zone</p>	<p>A geographical area shown on a Flood Insurance Rate Map (FIRM) that reflects the severity or type of flooding in the area.</p>

Appendix E

List of Maps

Map 1
City of Coalinga
Location Map

Location Map - State

State of California - Not to Scale





City of Coalinga

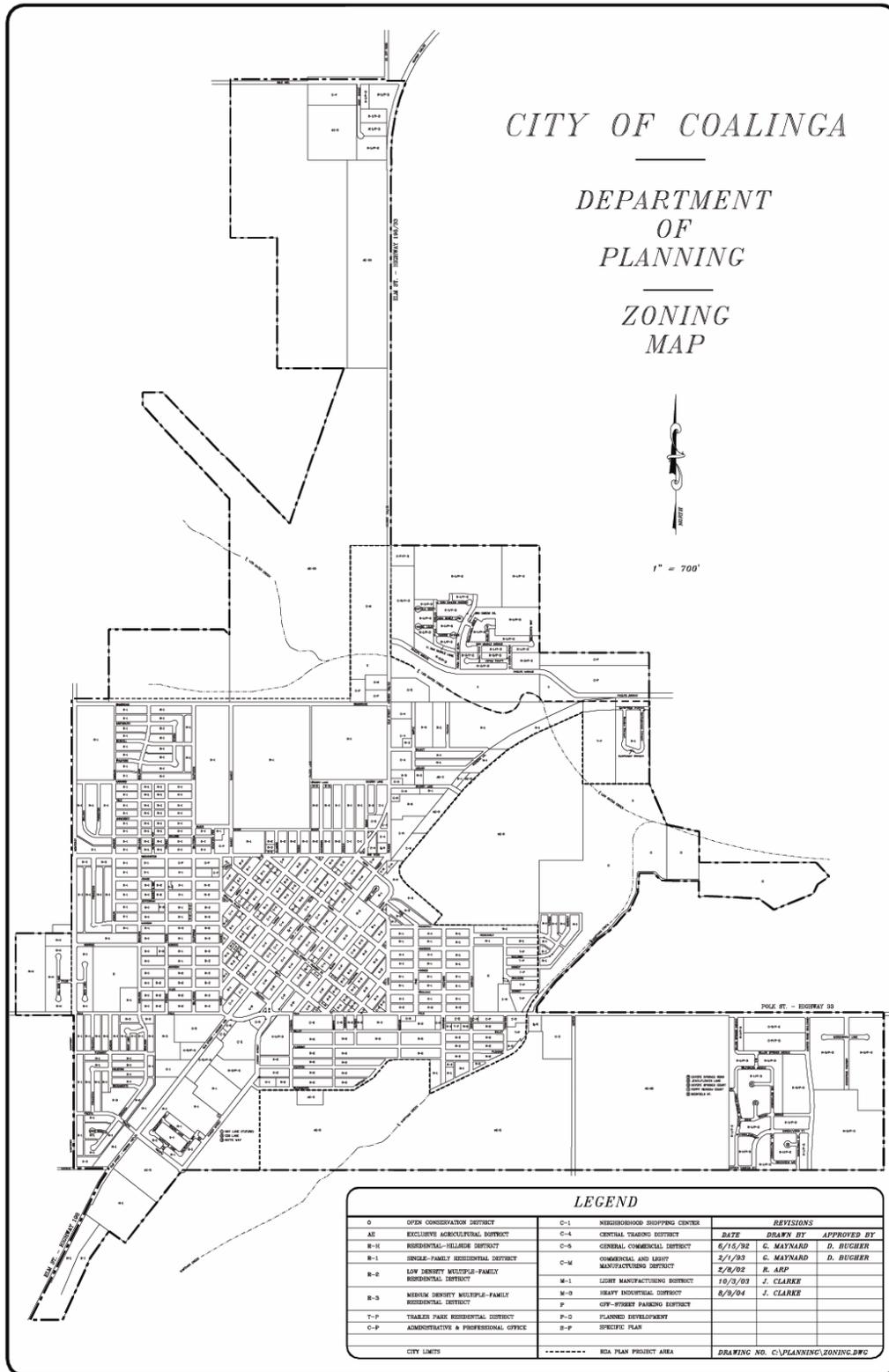


School Site

Map 2
City of Coalinga
City Map

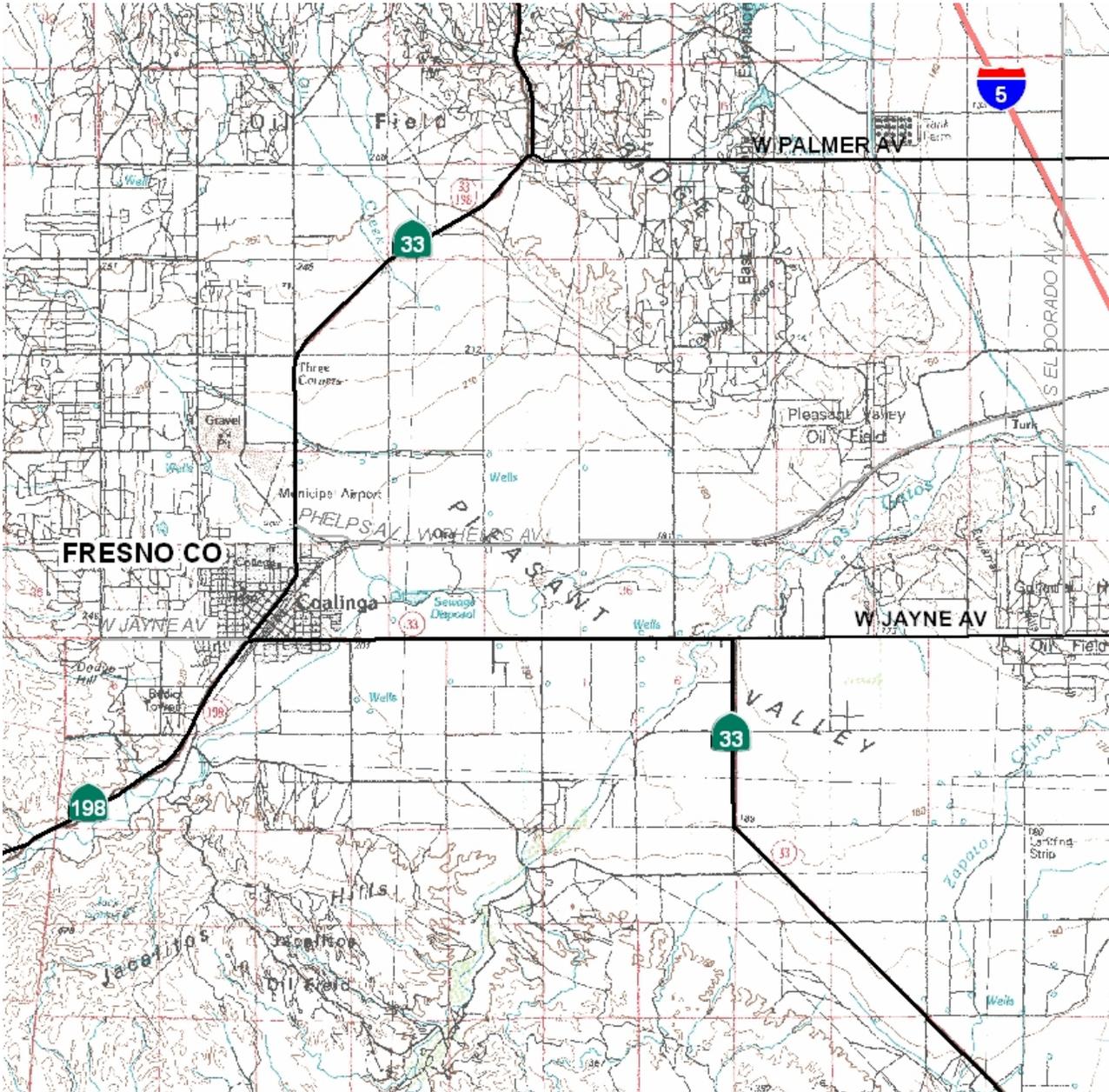


Downtown Coalinga



**Map 3
City of Coalinga
Evacuation Routes**

Map 4
City of Coalinga
Quadrangle Map

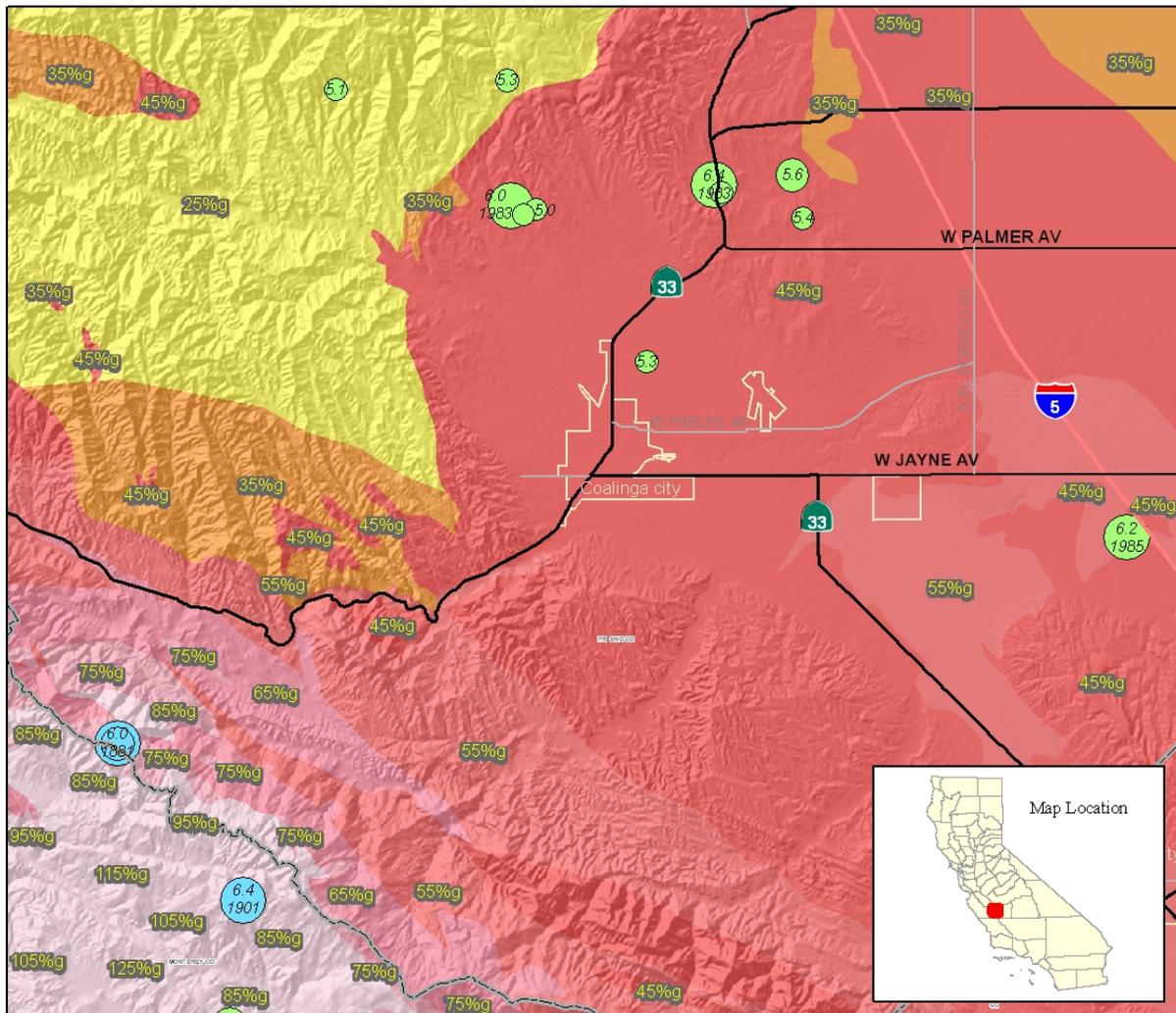


Map 5
City of Coalinga
Fault Zone Proximity



Map 6
10% Probability of Earthquake
Shaking in 50 Years
and
Historic Earthquake Epicenters

10% Probability of Earthquake Shaking in 50 Years and Historic Earthquake Epicenters



0 5 10 Miles



Legend

Probability of Earthquake Shaking-10% in 50 Years

Spect. Acceleration, 1 sec freq, %gravity

- 80 - 176% g (Greatest Shaking)
- 70-80% g
- 60-70% g
- 50-60% g
- 40-50% g
- 30-40% g
- 20 - 30% g
- 10-20% g
- 0-10 %g (Least Shaking)

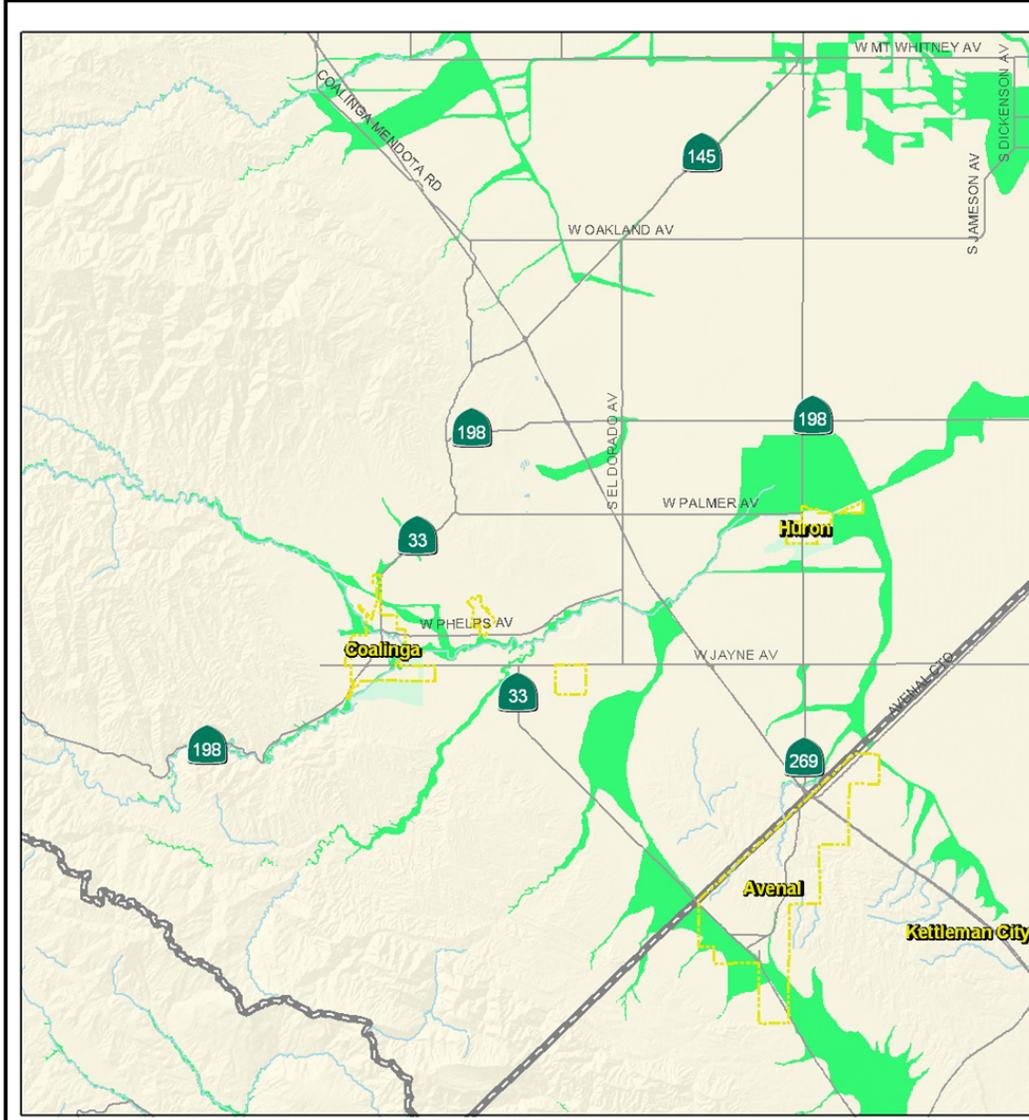
- Water
- Counties
- City, CDP, Town Boundaries
- Freeways
- Highways
- Primary
- Secondary

Historical Earthquake Epicenters >M5 by Mag, Year

1800-1869	1870-1931	1932-2000
● 5.0 - 5.4	● 5.0 - 5.4	● 5.0 - 5.4
● 5.5 - 5.9	● 5.5 - 5.9	● 5.5 - 5.9
● 6.0 - 6.4	● 6.0 - 6.4	● 6.0 - 6.4
● 6.5 - 6.9	● 6.5 - 6.9	● 6.5 - 6.9
● 7.0 - 7.9	● 7.0 - 7.9	● 7.0 - 7.9

Map Prepared by Office of Emergency Services.
Mar 14, 2005

Map 7
FEMA Flood Insurance
Rate Map



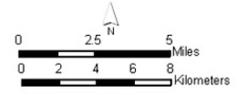
FEMA Flood Insurance Rate Map

Mar 15, 2005

- FEMA Flood Insurance Rate (FIRM) Zones**
- A - 100 Year Zone
 - AO - 100 Year Sheet Flow
 - V - 100 Year w Velocity Hazard (Wave Action)
 - X500 - 500 Year and 100 Yr w Depth < 1 Ft
 - D - Undetermined, but Possible Flood Hazards
 - ANI - Not Mapped
 - X - Outside 100 and 500 Yr Flood
 - ★ NFIP Repetitive Claims
 - Permanent Open Water
- Intmnt. Water
 - Major Roads
 - Secondary
 - County Boundary

Data Source:
 Flood zones from FEMA Flood Insurance Rate Q3 data:
 Zone A - An area inundated by 1% annual chance flooding, for which no base flood elevations have been determined
 Zone AO - An area inundated by 1% annual chance flooding (usually sheet flow on sloping terrain), for which average depth have been determined; flood depth range from 1 to 3 feet.
 Zone D - an area of undetermined but possible flood hazards.
 Zone V - An area inundated by 1% annual chance flooding with velocity hazard (wave action); no base flood elevations have been determined
 Zone X - An area that is determined to be outside the 1% and 0.2% annual chance floodplains.
 Zone X500 (0.2% Annual Chance) - An area inundated by 0.2% annual chance flooding, and area inundated by 1% annual chance flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; or an area protected by levees from 1% annual chance flooding.
 National Flood Insurance Program (NFIP) Repetitive Claims: FEMA.

Major Roads: Thomas Bros Maps, Inc., local roads removed.



Map Prepared by: Office of Emergency Services
 Geographic Information Systems Unit
 File: 1_Adu_Map_Rpt_030505.mxd 3/15/05

City of Coalinga Flood Map

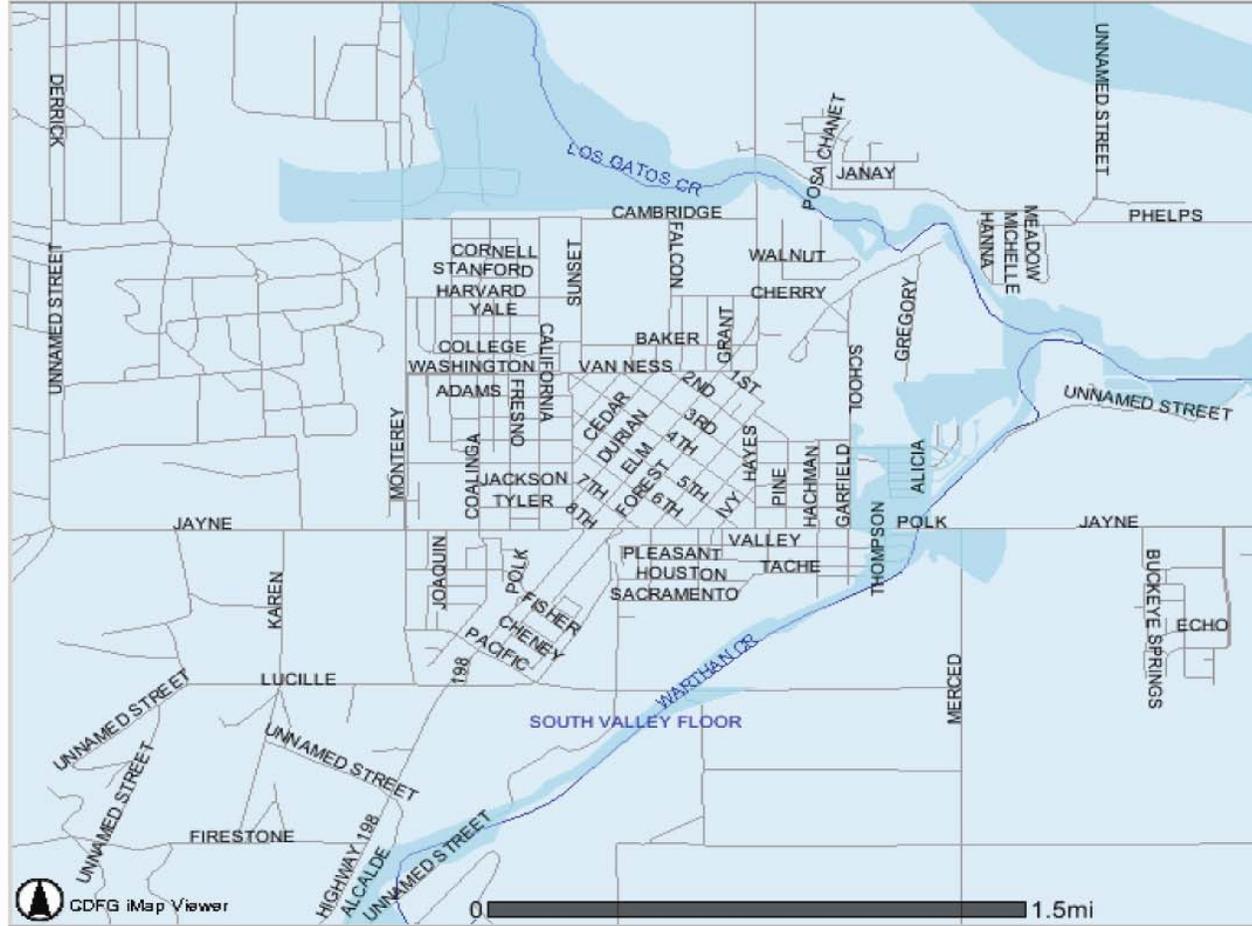
Date: 11/22/2005 2:52 PM



Map Legend

FEMA 100 year Flood Data

- No Data
- Zone A
- Zone D
- Zone V
- Roadways
- CRMP/Watershed Plan
- Rivers and Creeks
- creeks
- rivers
- California River Basins
- 1
- 2
- 3
- 4
- 5
- Hydrography 100k
- Calwater Watersheds

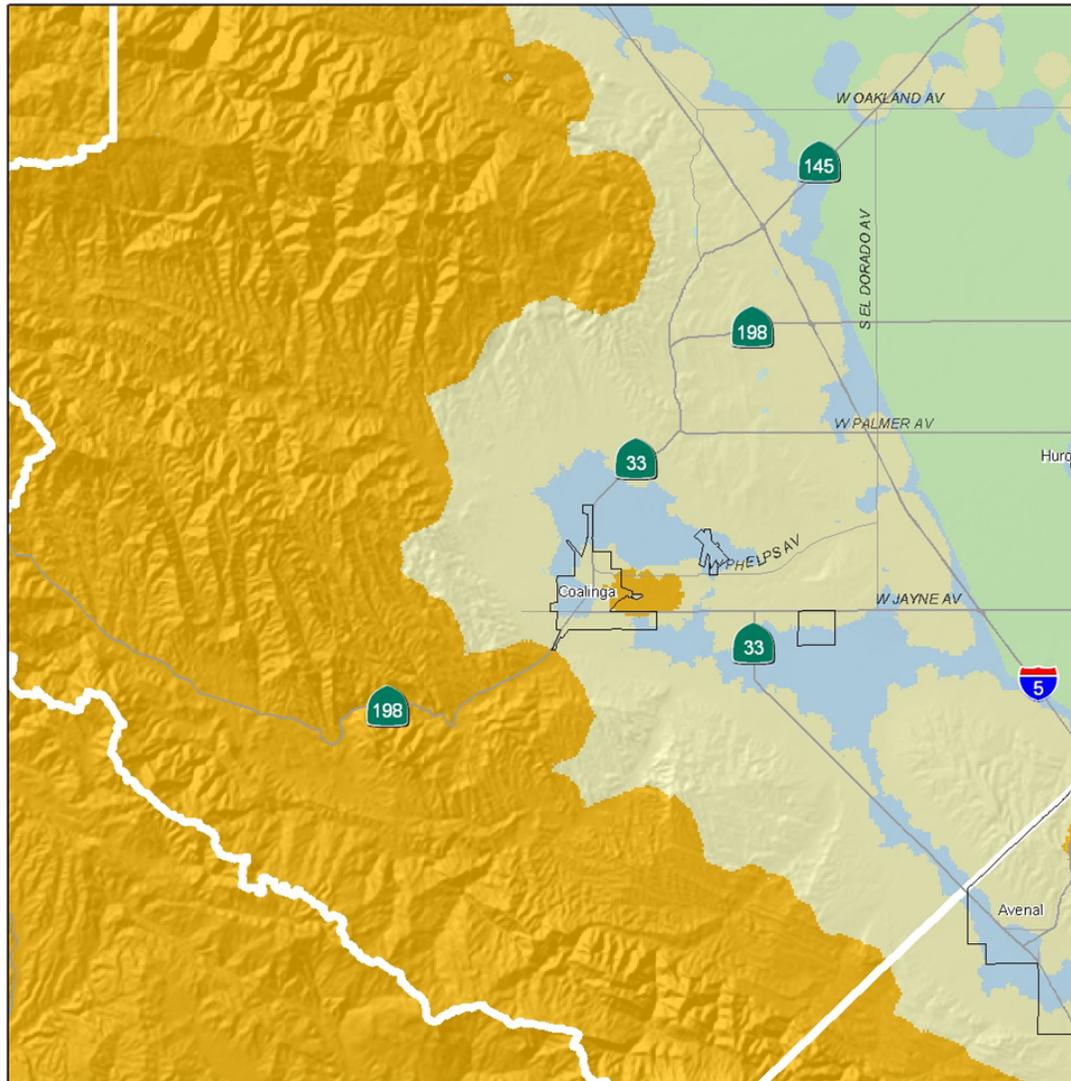


GDFG iMap Viewer

0 1.5mi

Map 8
Wildland Fire Threat Map

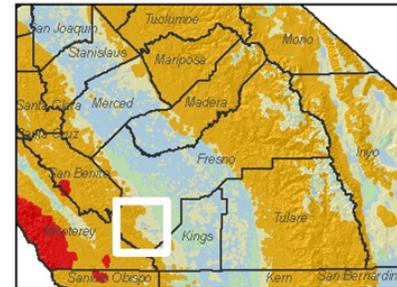
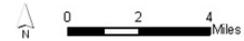
Wildland Fire Threat



Data Sources:
 Wildland Fire Threat:
 California Dept. of Forestry and Fire Protection.
 Displayed to show wildland fire threats to people.
 Threats are buffered up to 1.5 miles to show spreading effects.
 Publication date: Aug. 30, 2004.
 (grid name: fhrt04_1)
<http://frap.cdf.ca.gov/data/frapgisdata/select.asp>

Major Roads: Thomas Bros Maps, Inc., local roads removed.

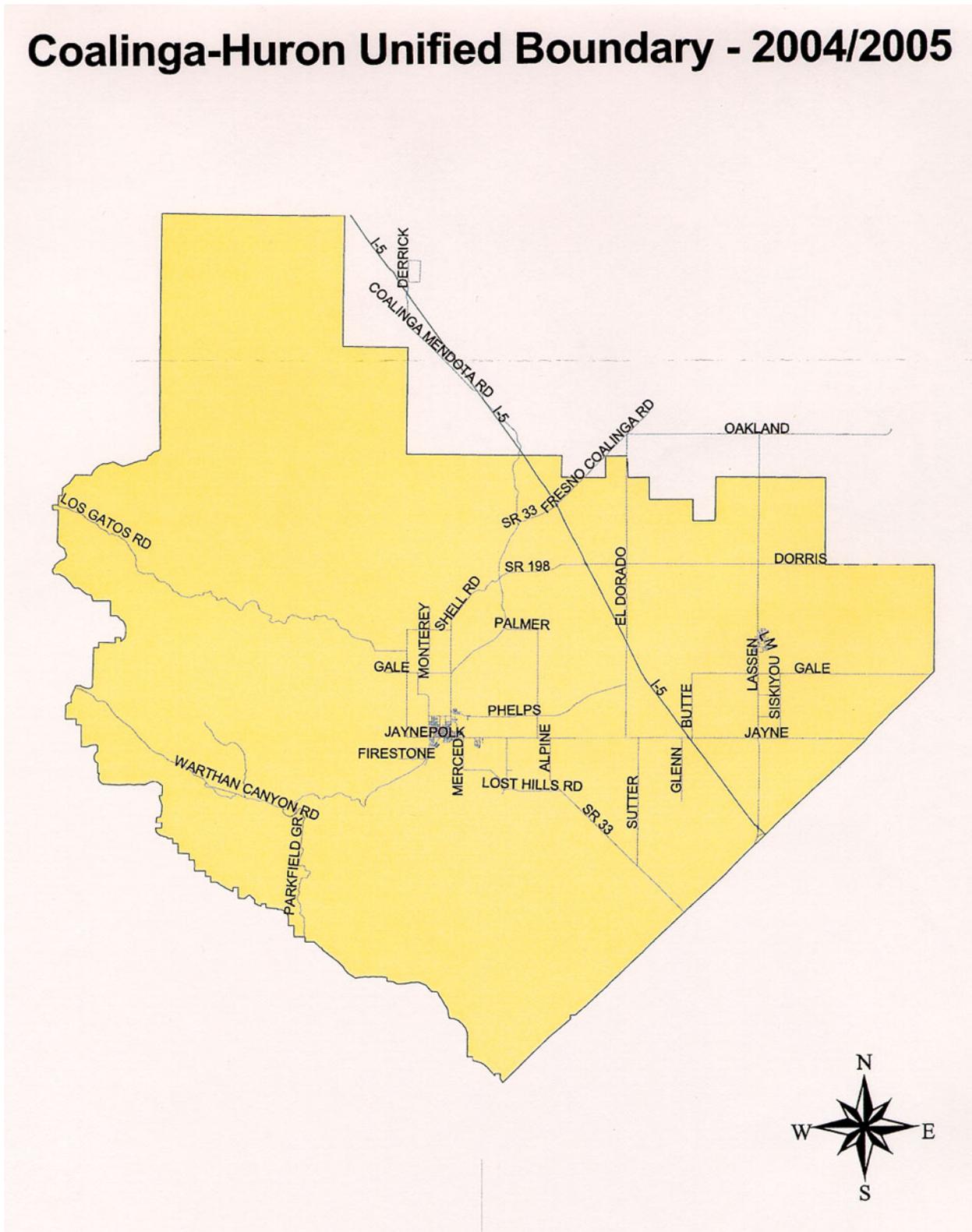
Incorporated Places, Census Designated Places:
 US Census Bureau 2000 Tiger files.



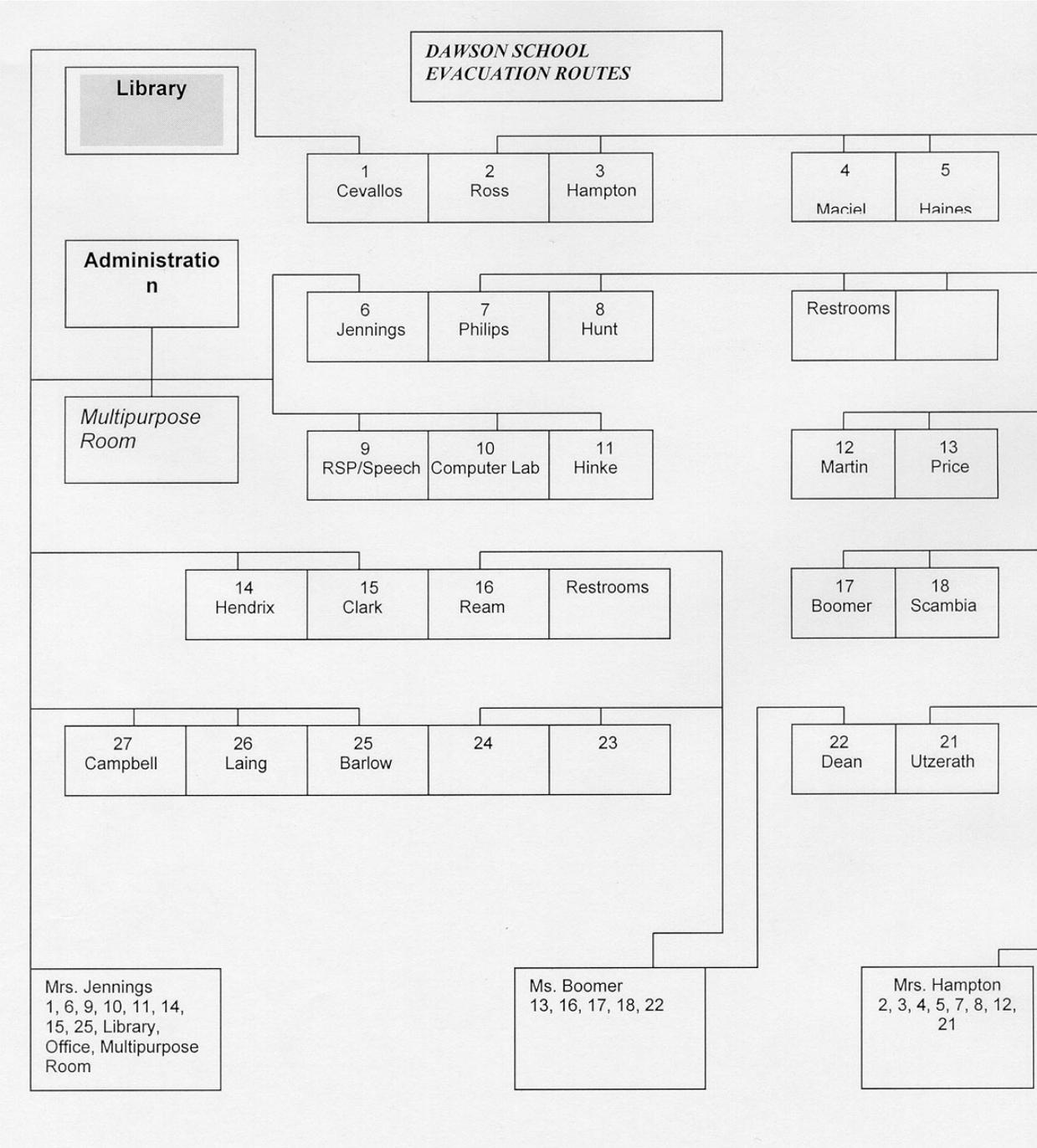
Map Prepared by Office of Emergency Services
 Geographic Information Systems
 Wildland_Fire_Threat_Atlas_Map_Book_caze.mxd
 Mar 15, 2005
 akilgore

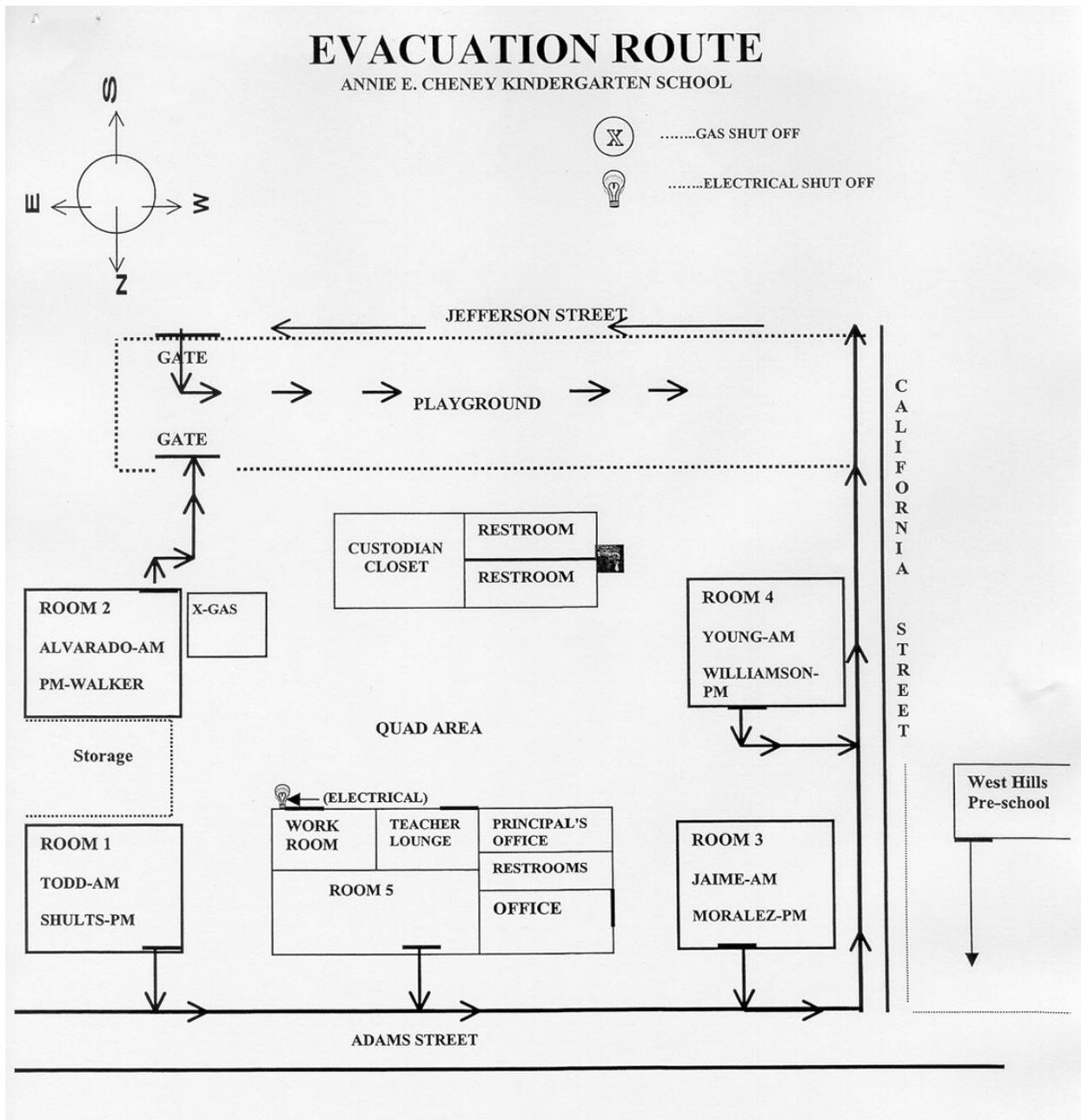
Map 9
Coalinga-Huron Unified School District
Boundary

Coalinga-Huron Unified Boundary - 2004/2005

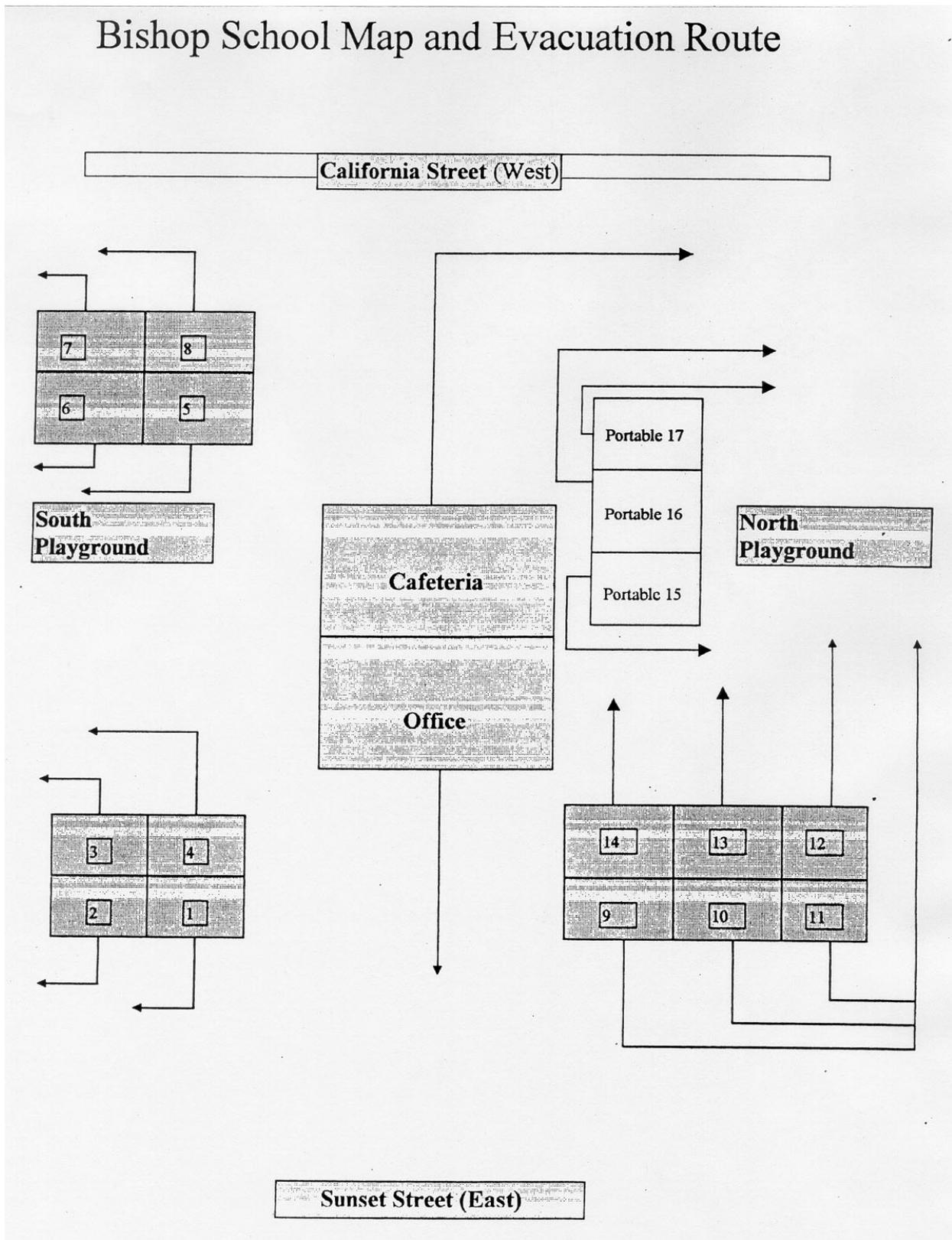


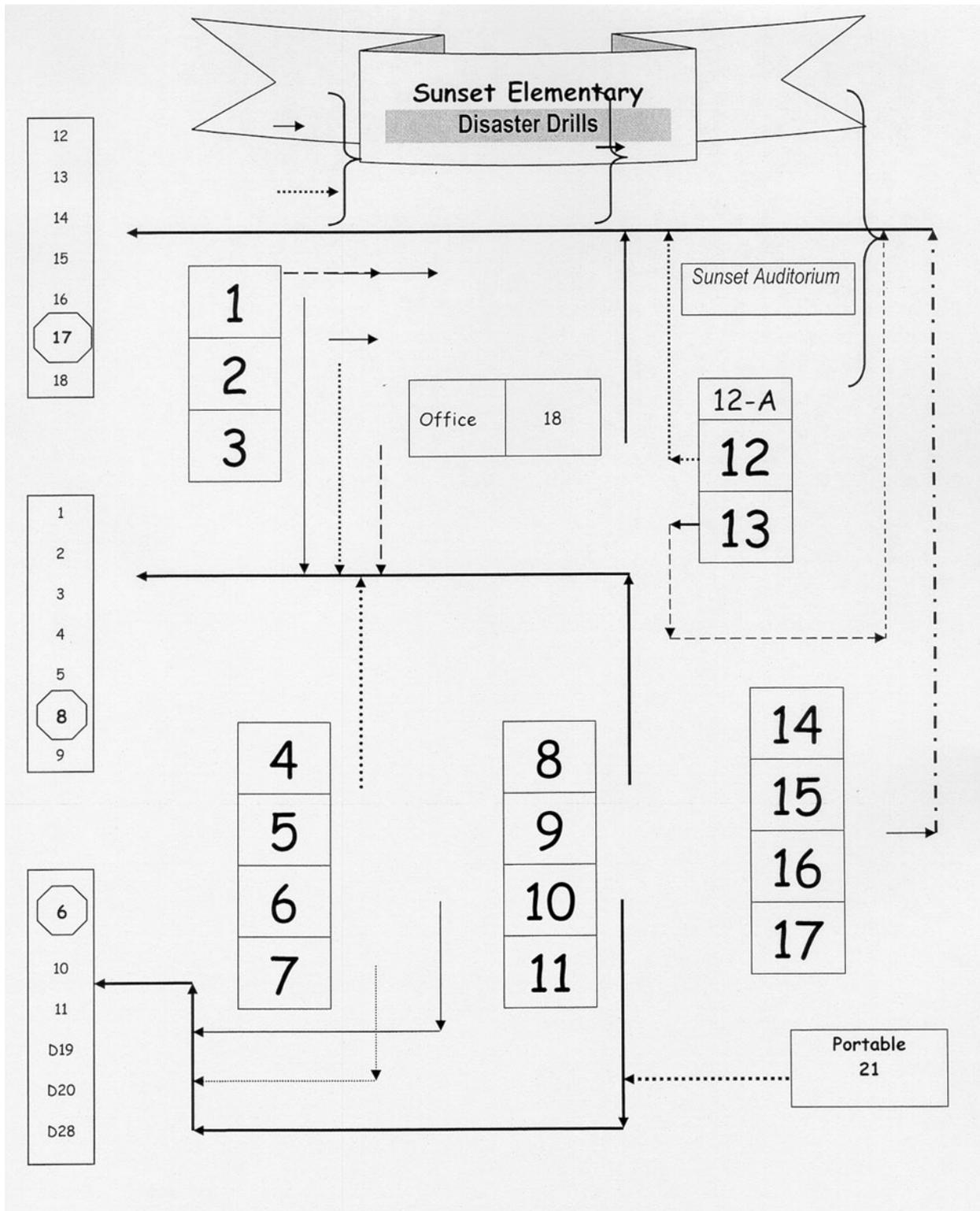
Map 10
Coalinga-Huron Unified School District
Evacuation Routes

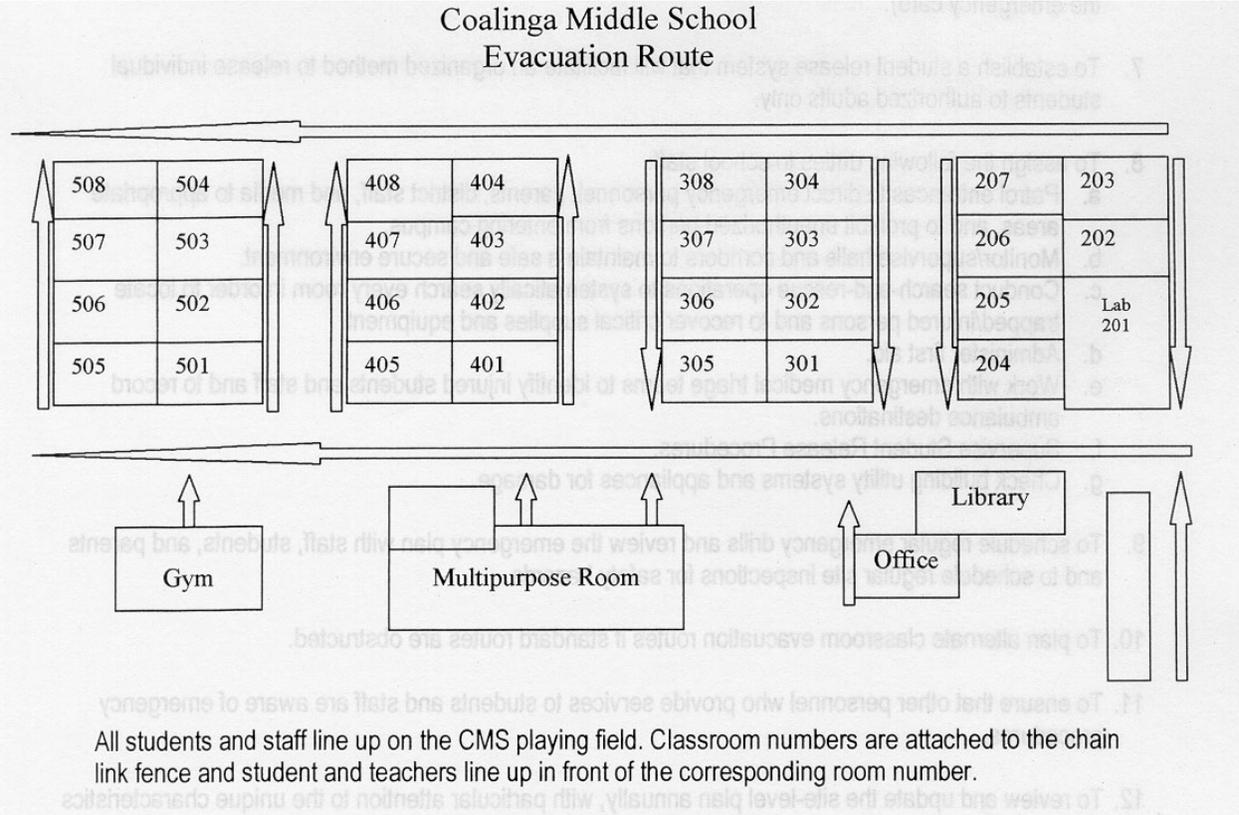


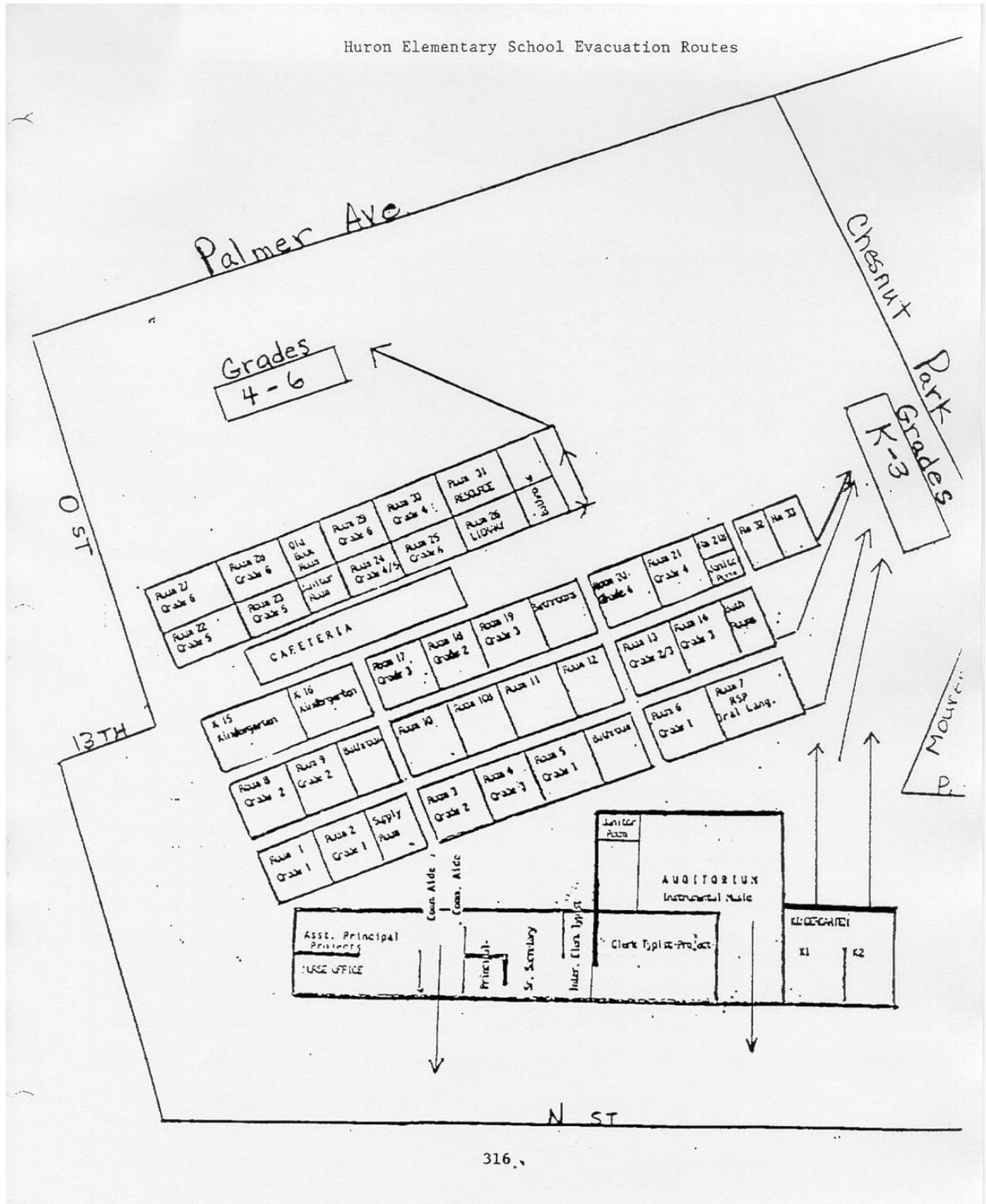


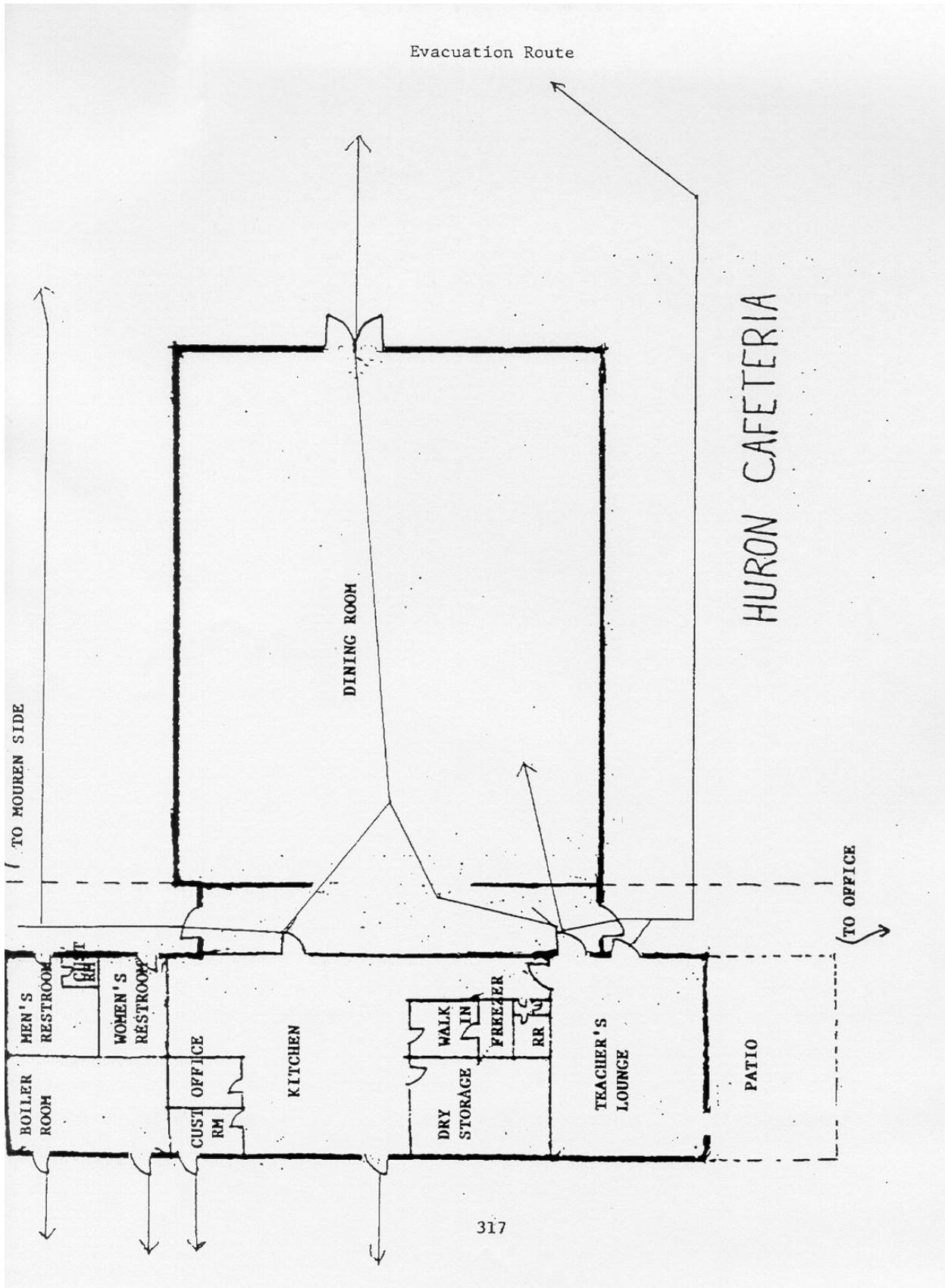
Bishop School Map and Evacuation Route

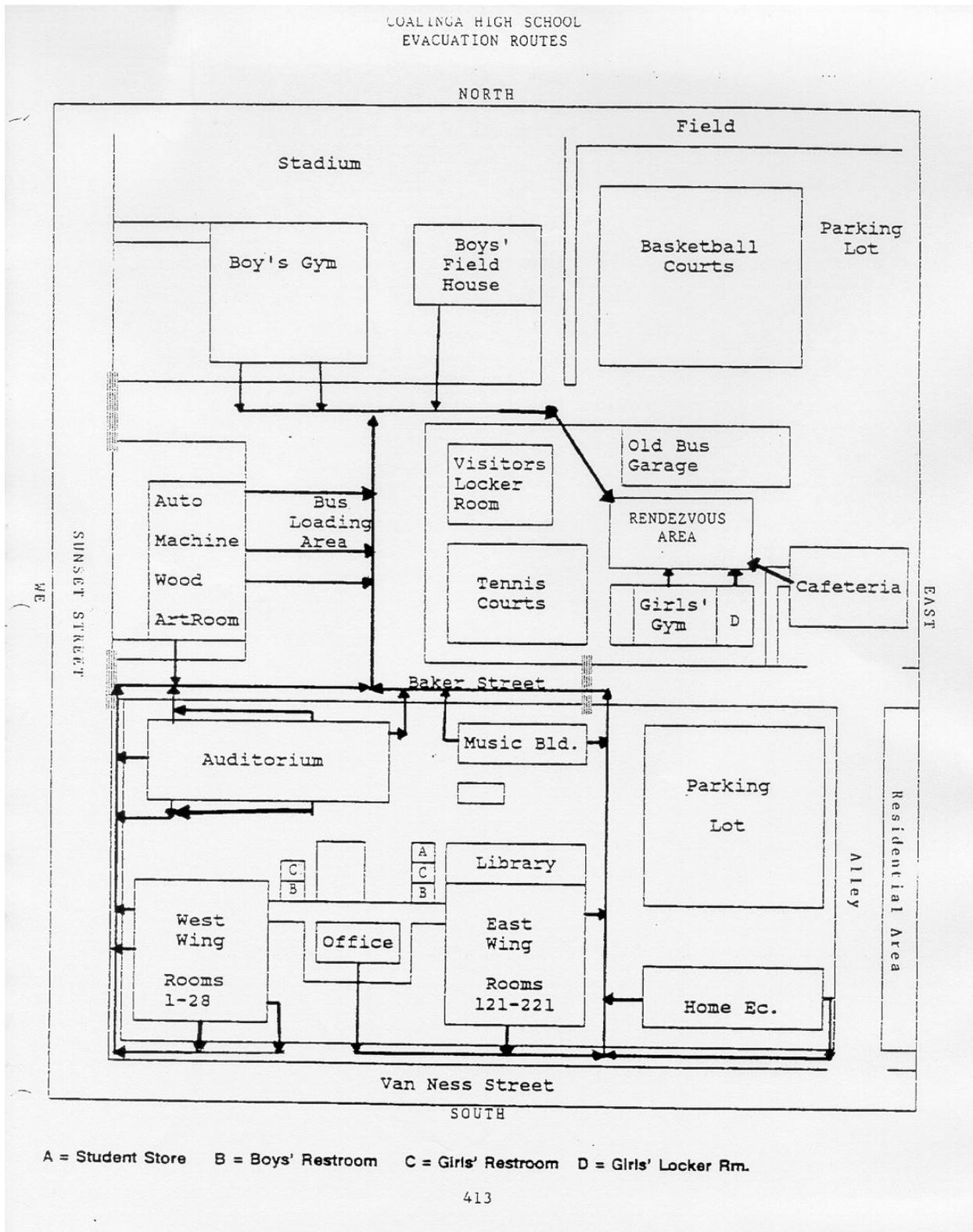


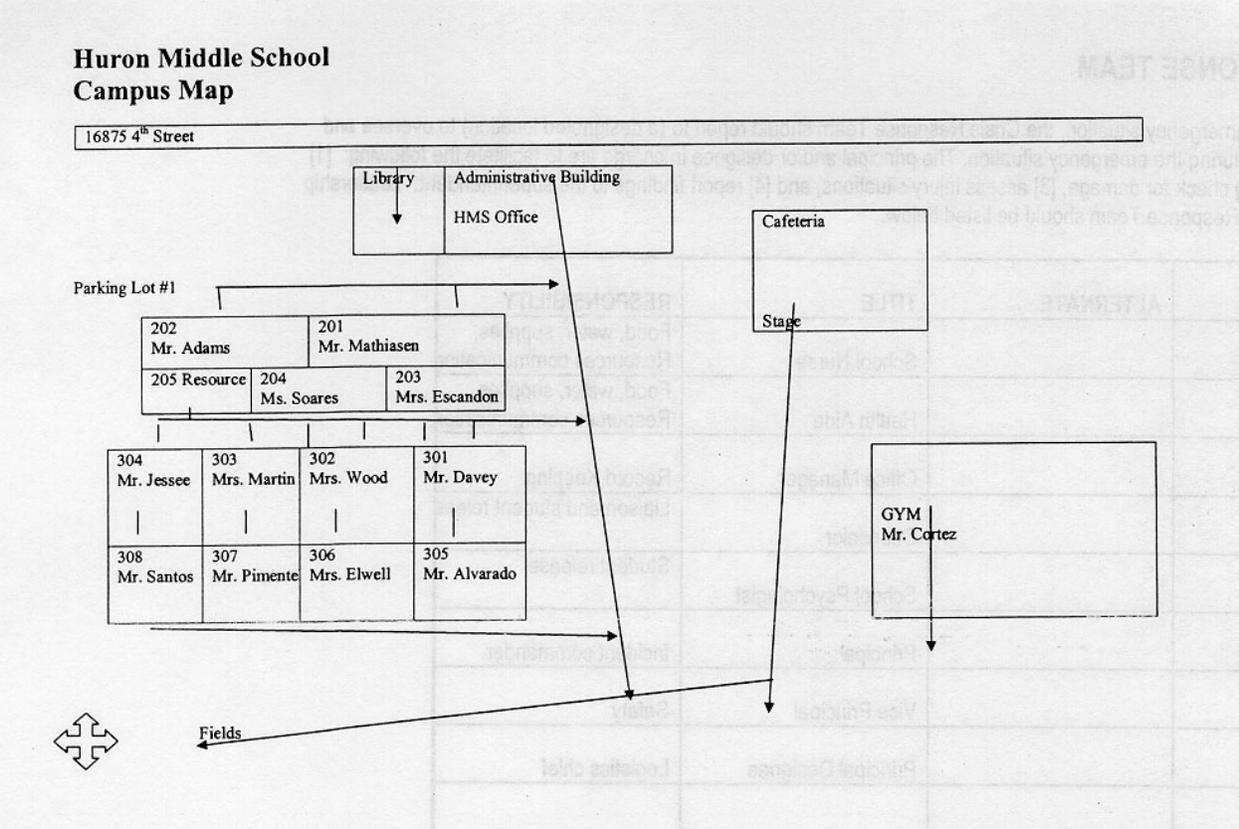


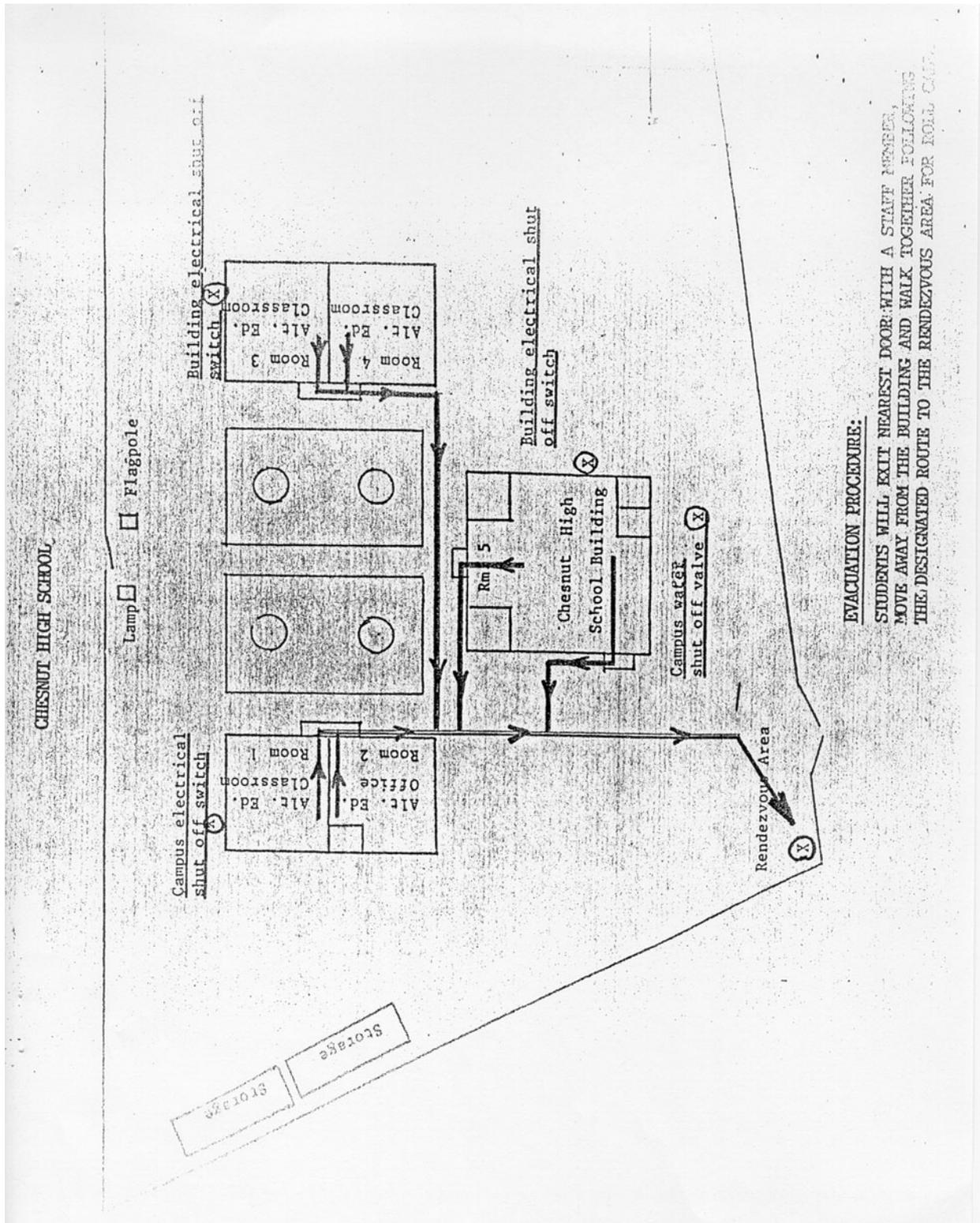












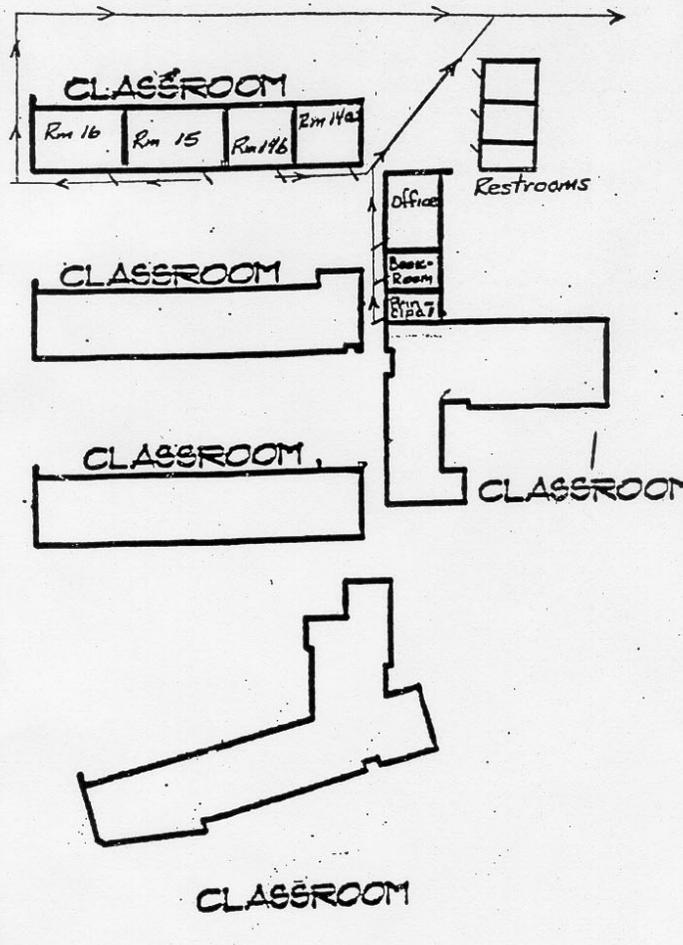


Cambridge High School

516 Baker
Coalinga, Ca 93210
Phone: 559-935-7579

VACUATION PROCEDURE:

Students will exit nearest door with a staff member, follow to the rendezvous area or roll call.

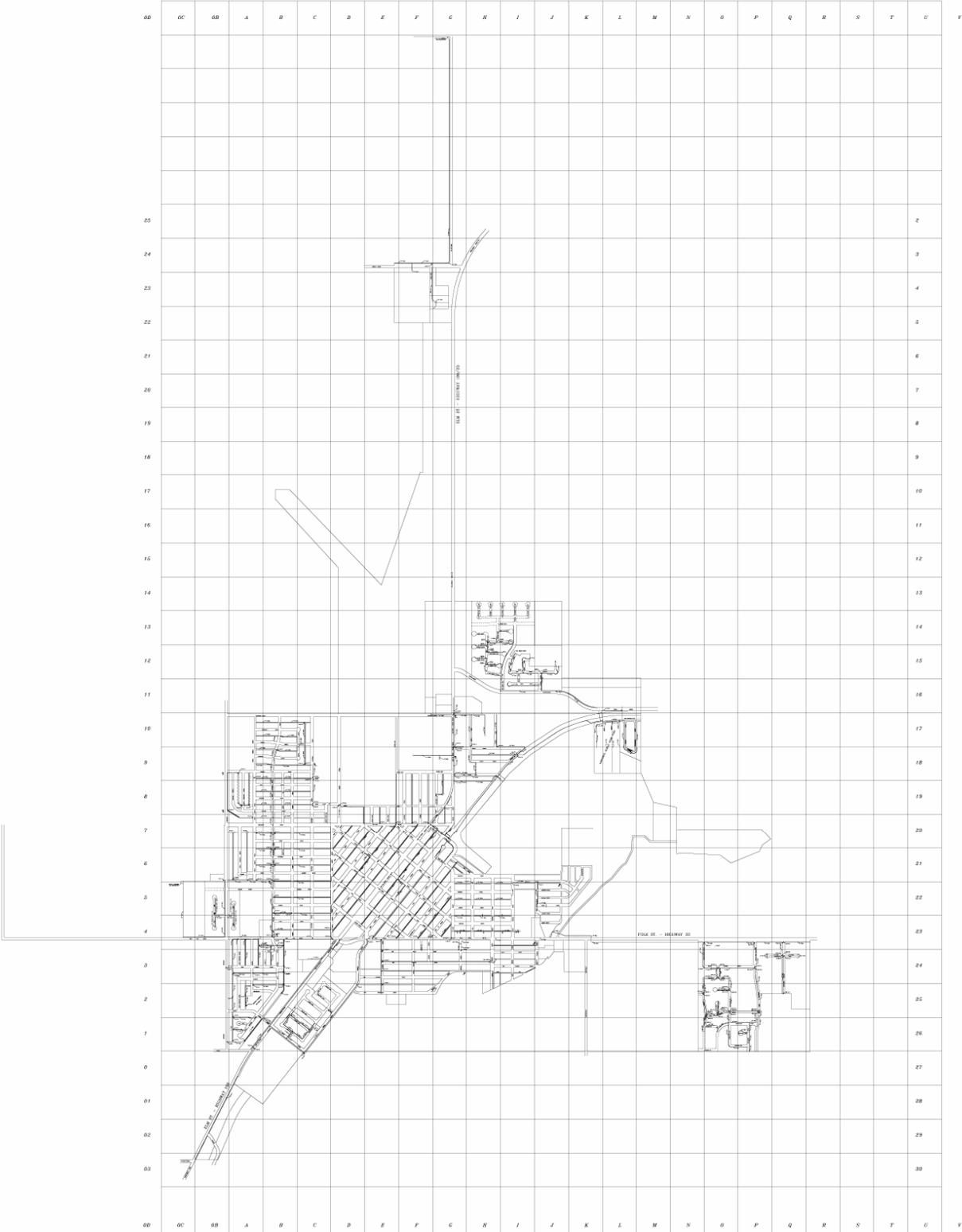


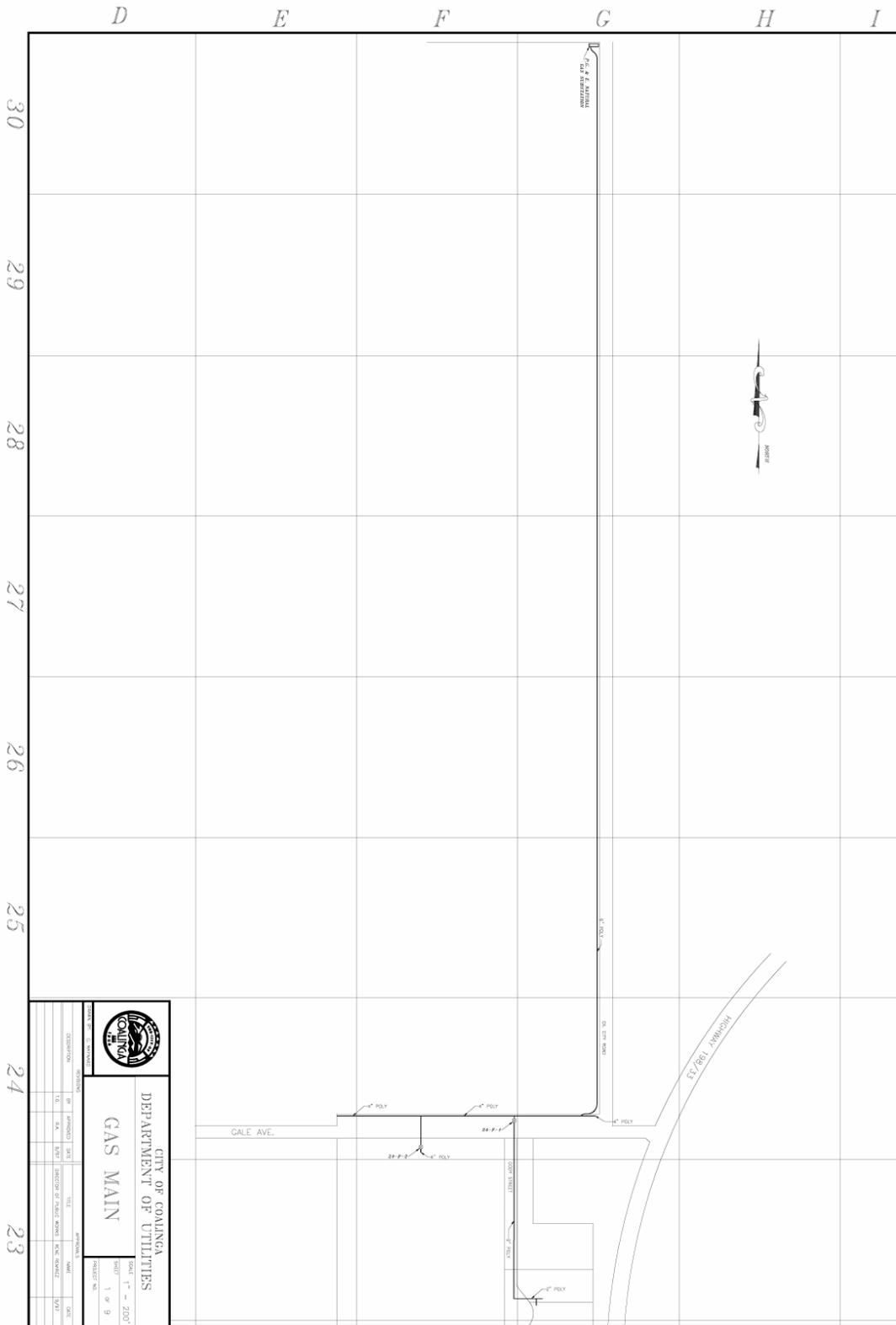
- Rm 16
- Rm 15
- Rm 14b
- Rm 14a

“There is no substitute for a great Education”

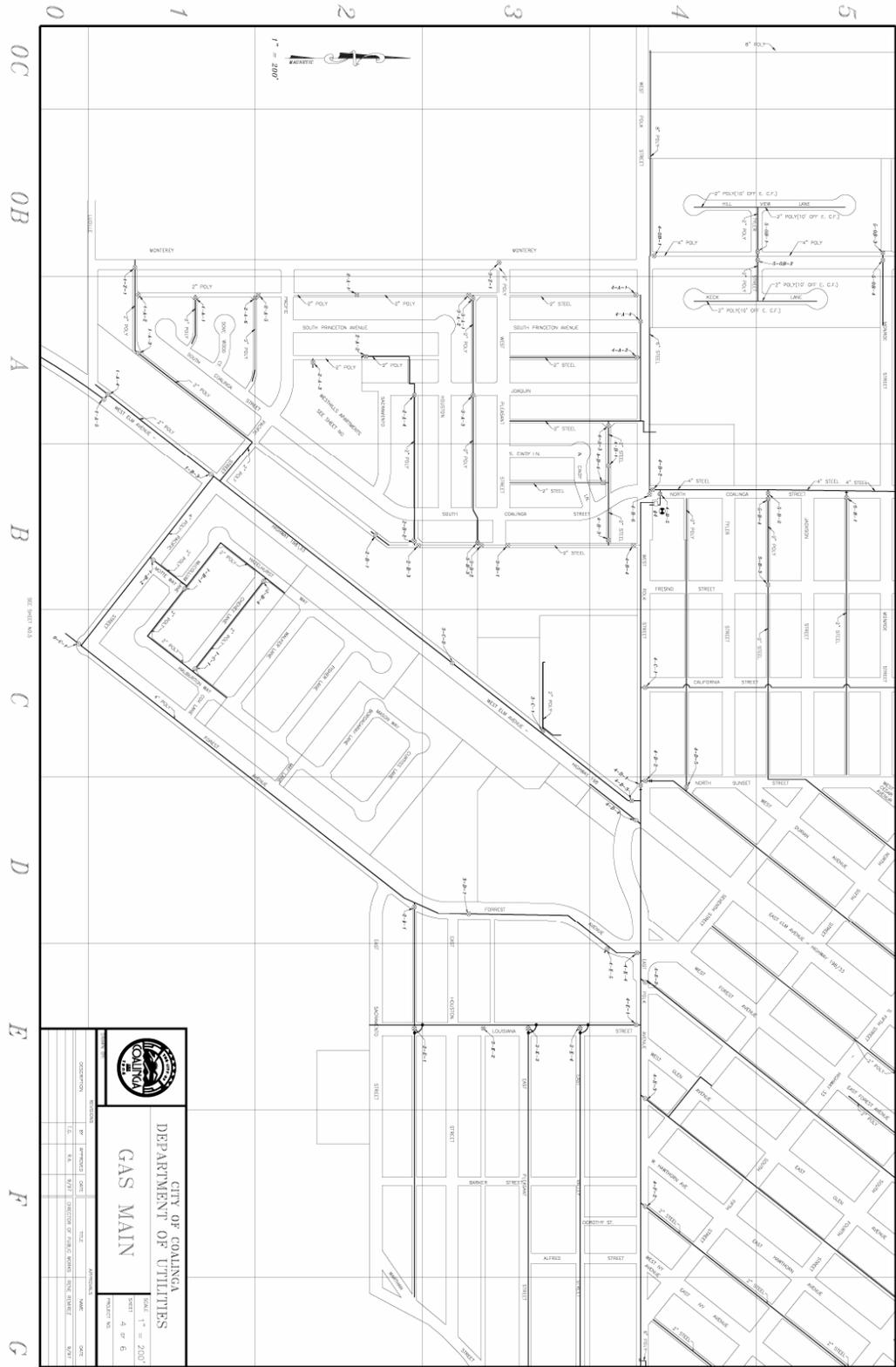
Map 11
City of Coalinga
Park Locations

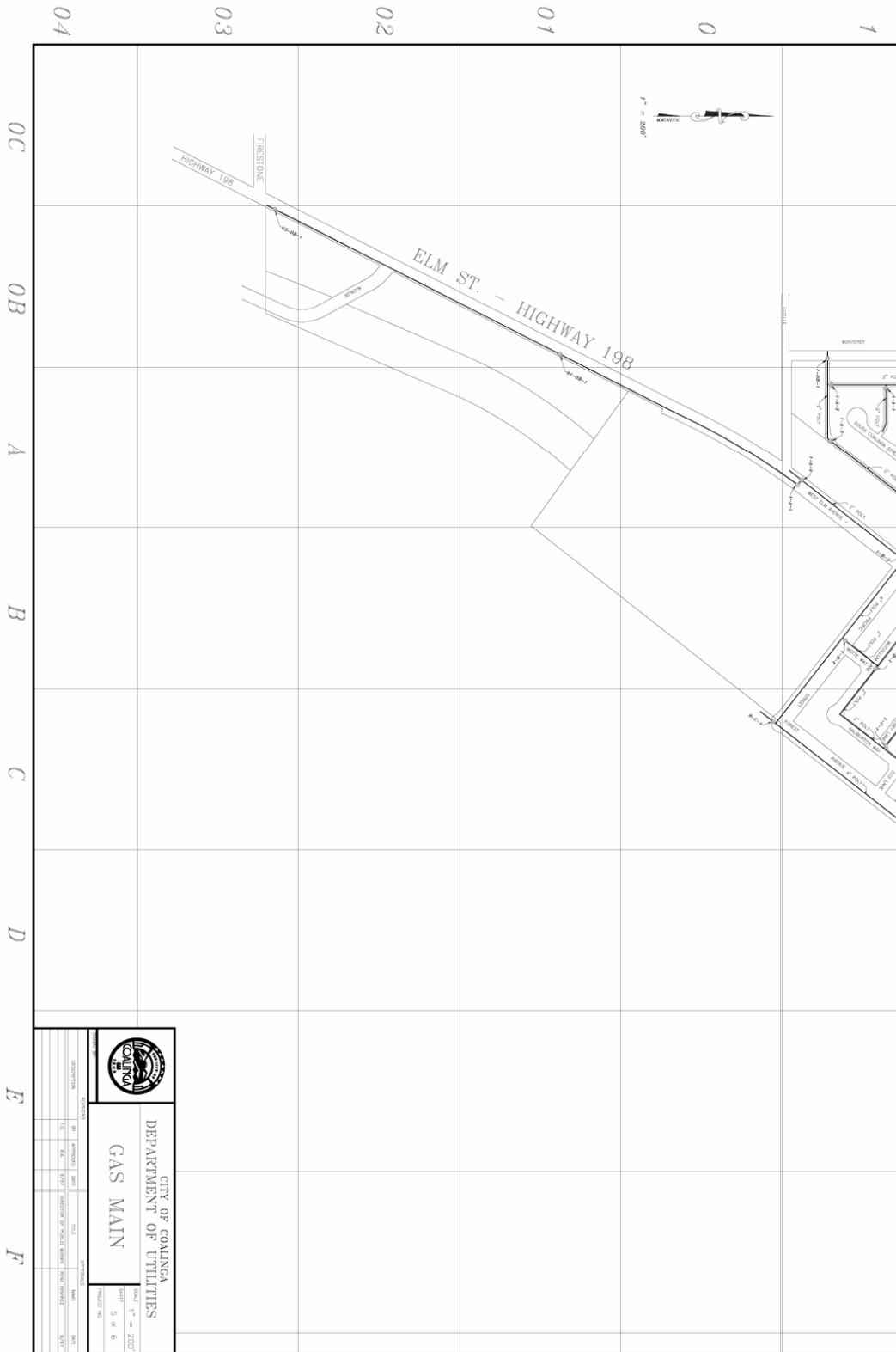
Map 12
City of Coalinga
Gas Mains

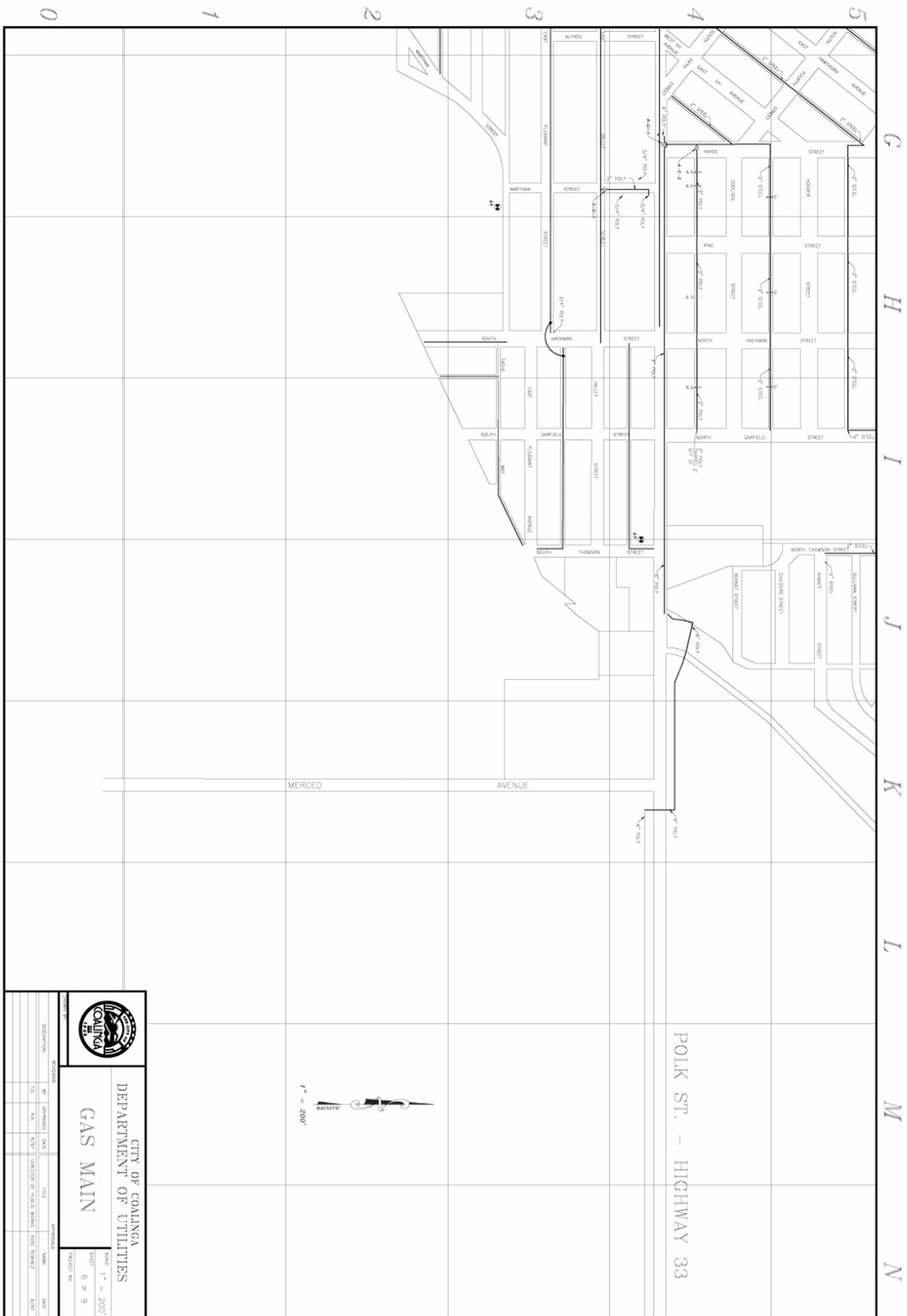








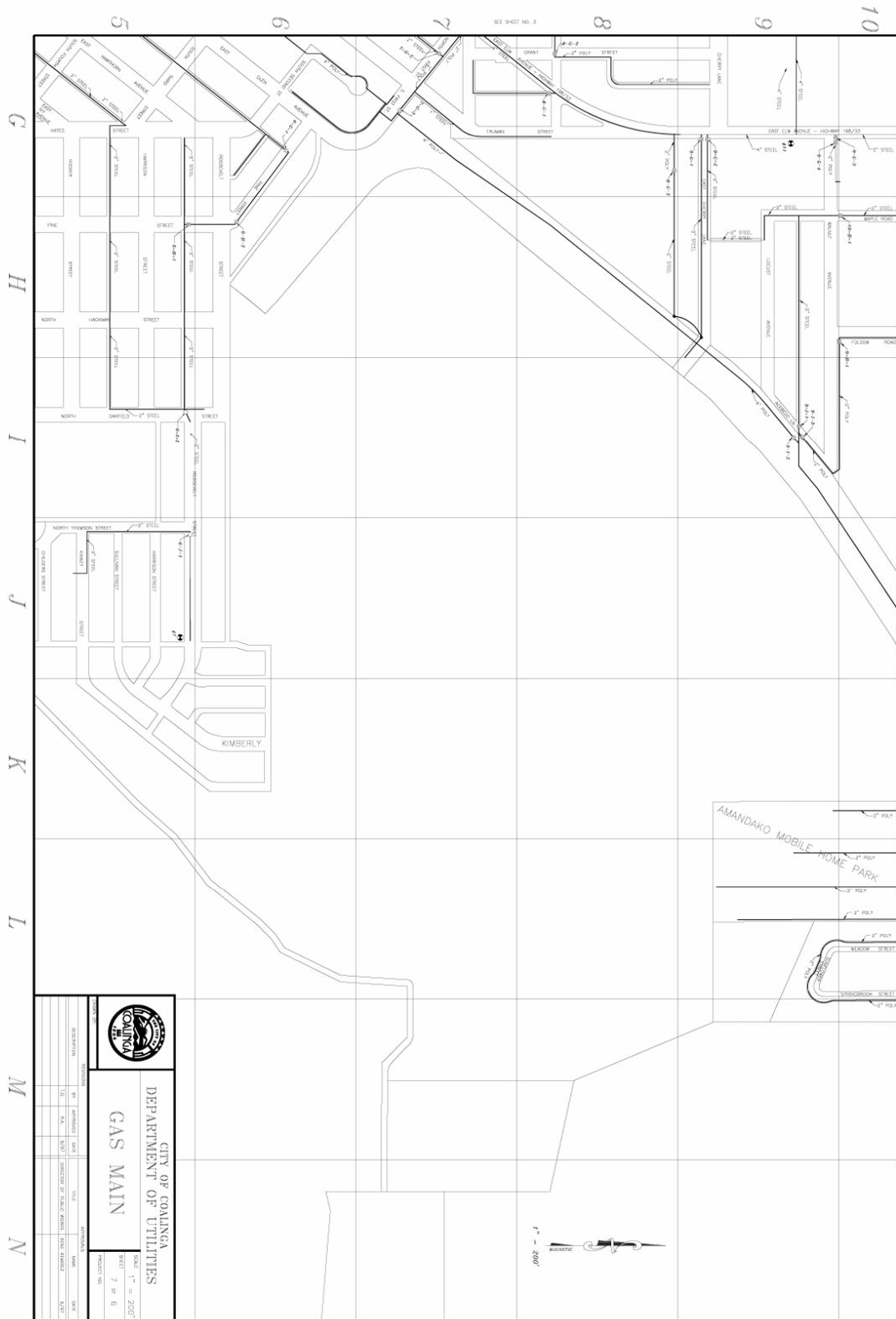


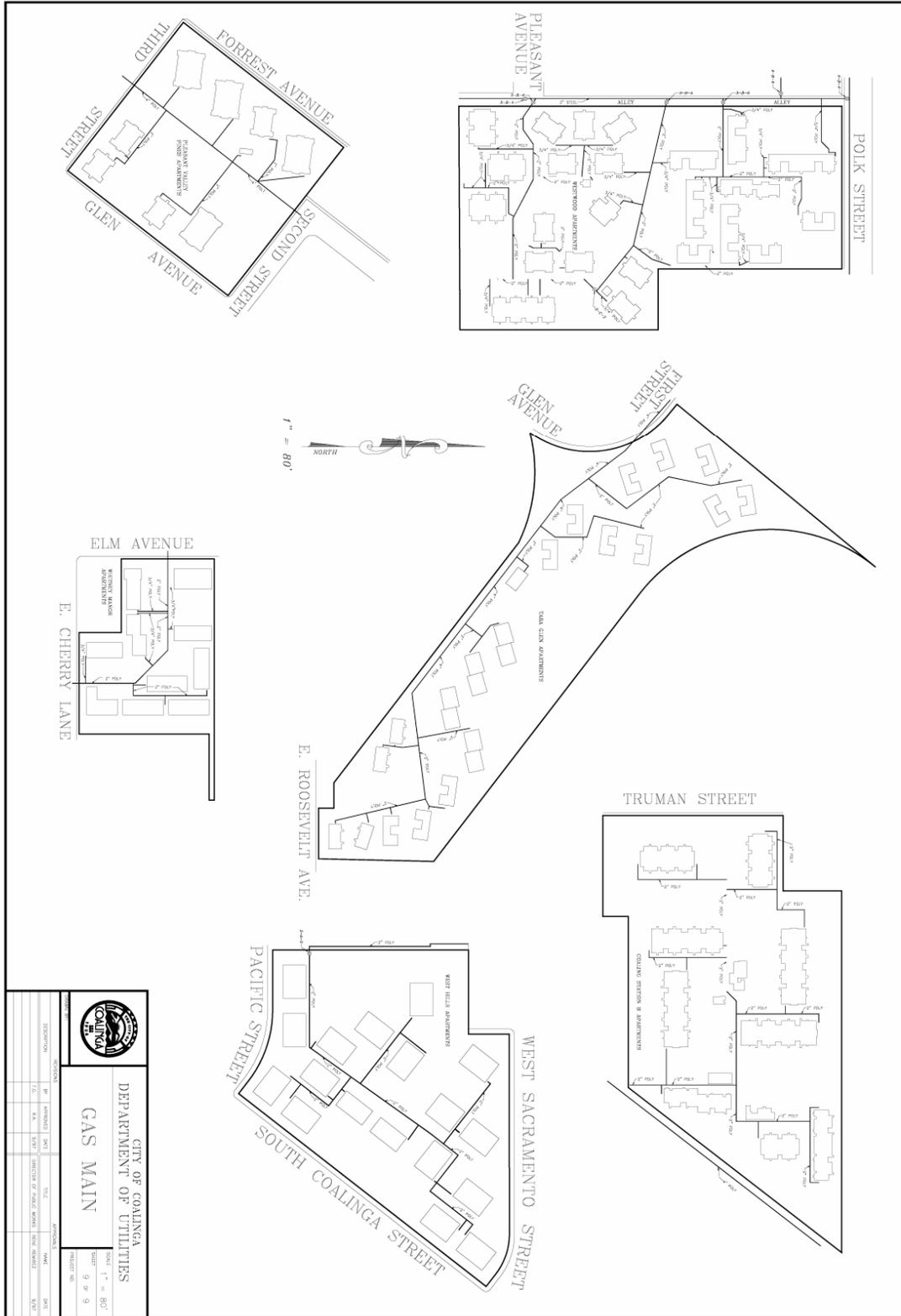


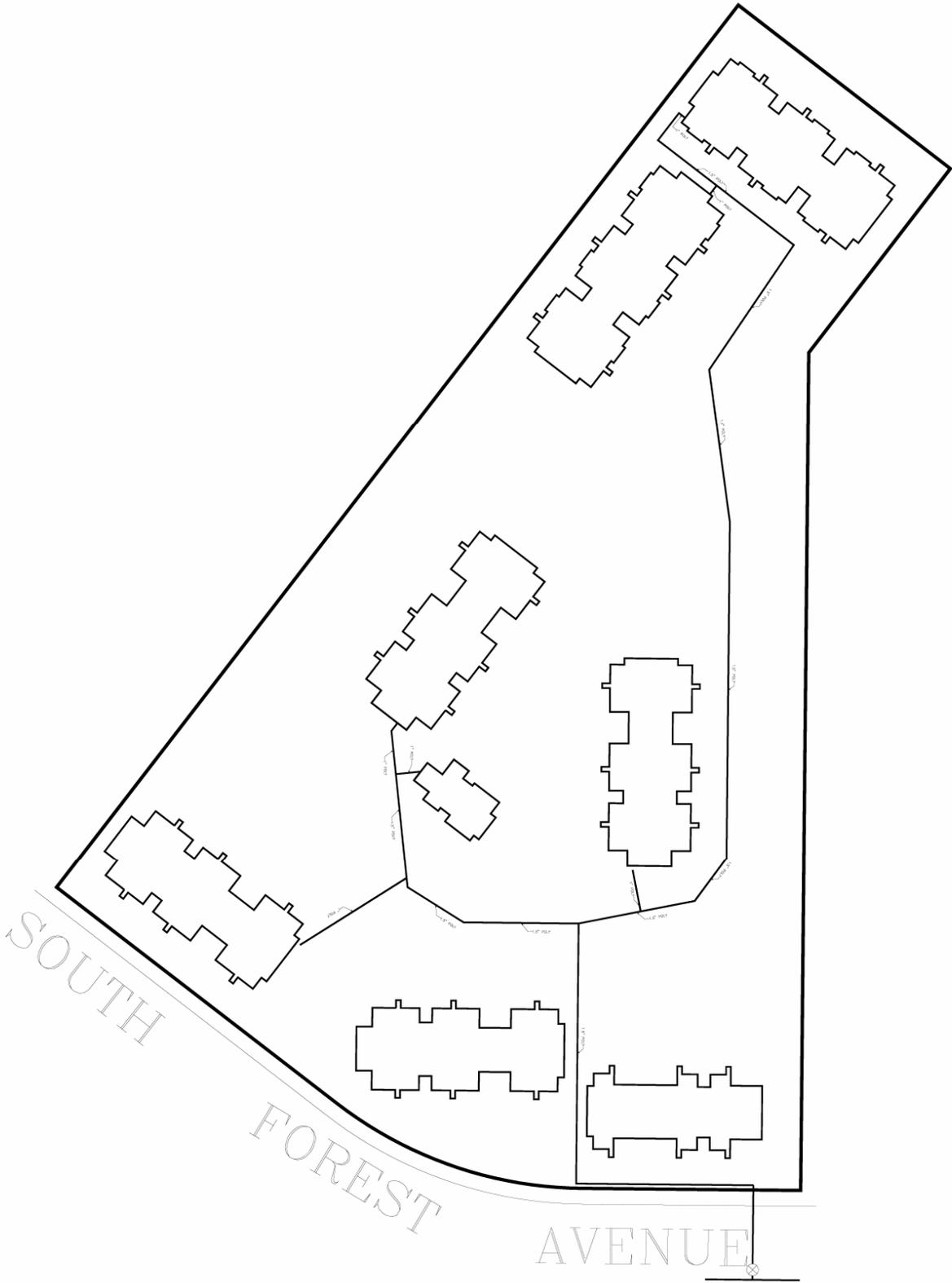


 CITY OF COALINGA
 DEPARTMENT OF UTILITIES
GAS MAIN
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 SHEET: 6 OF 9
 PROJECT NO.:

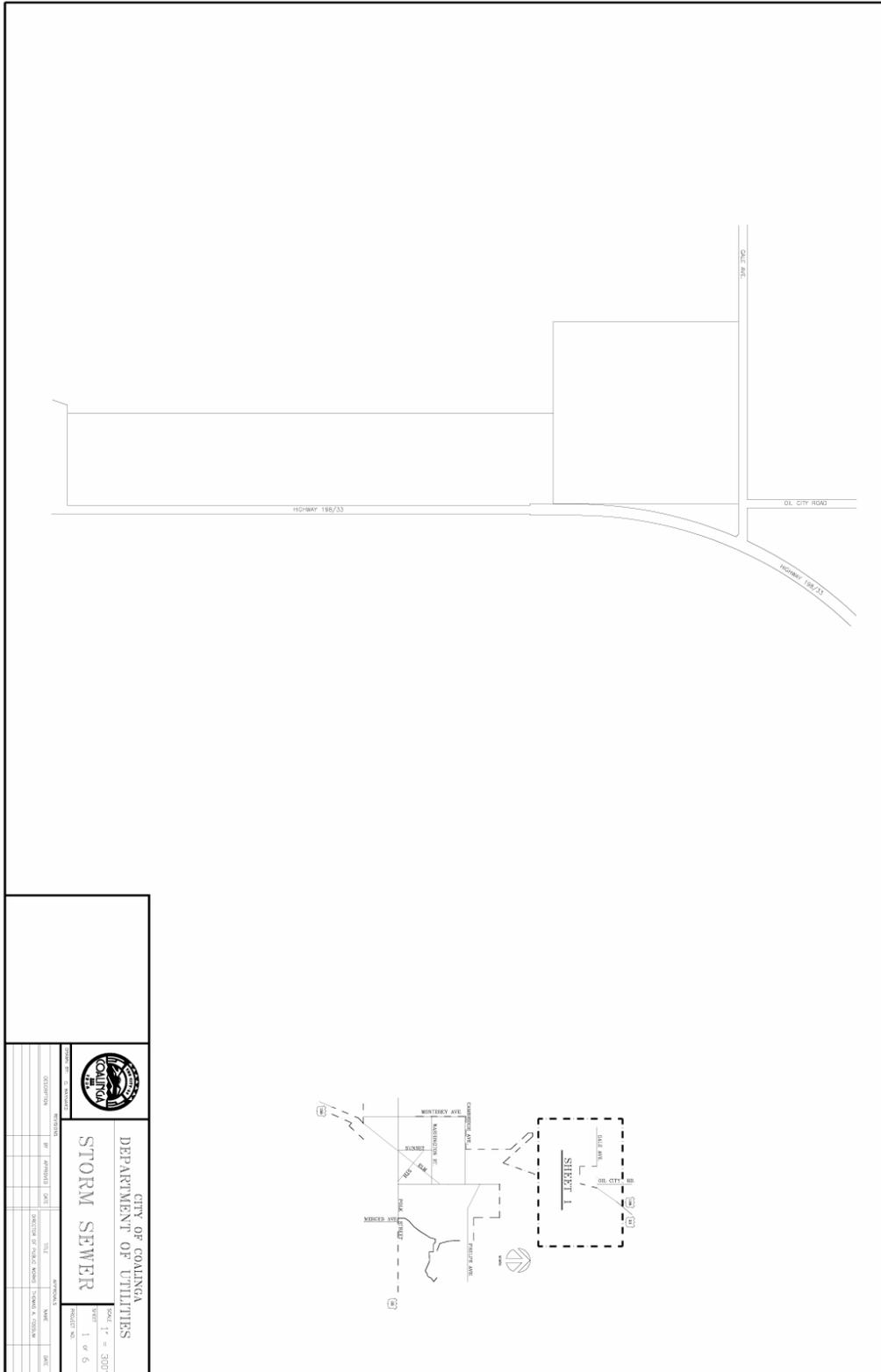


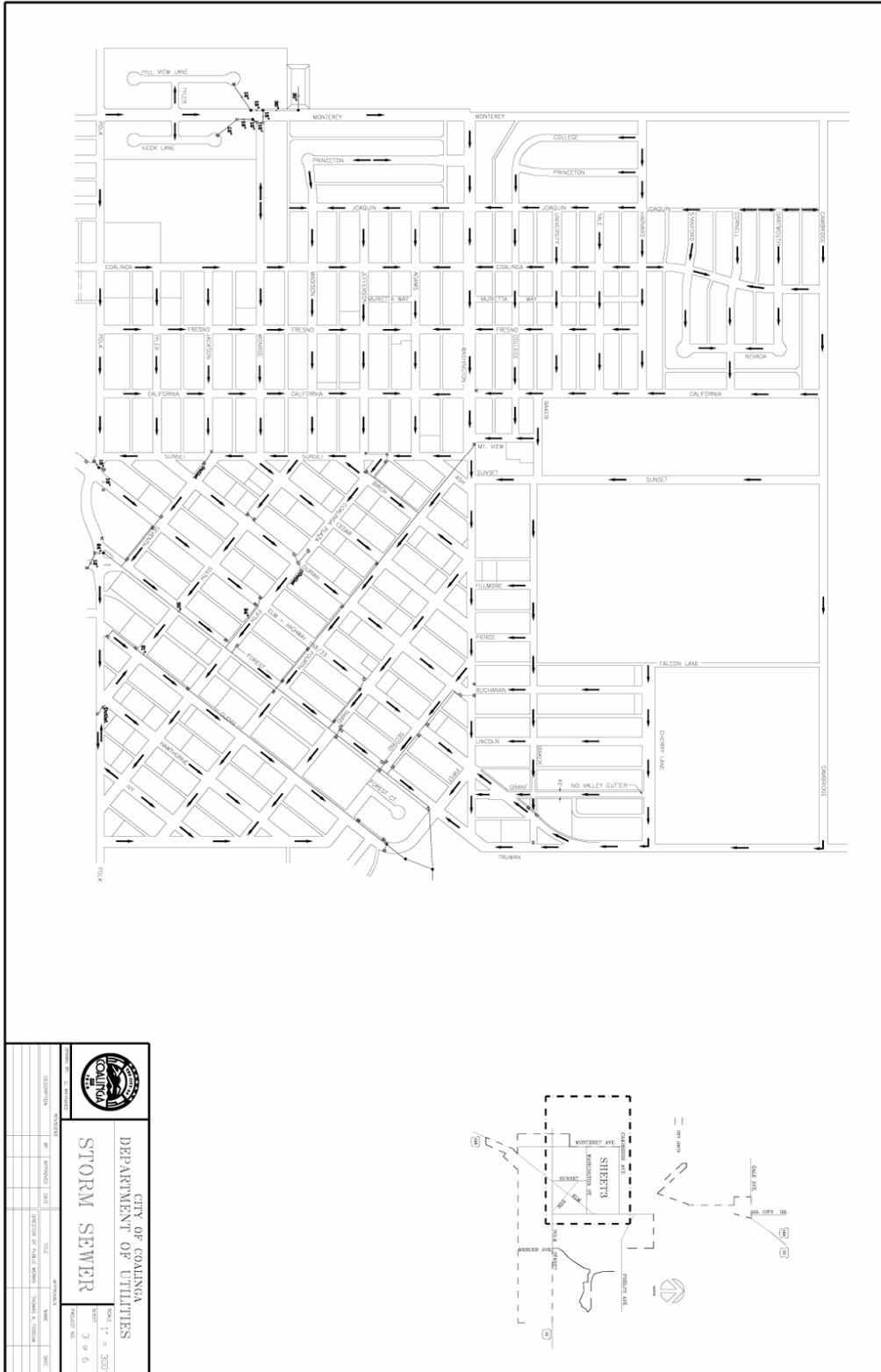


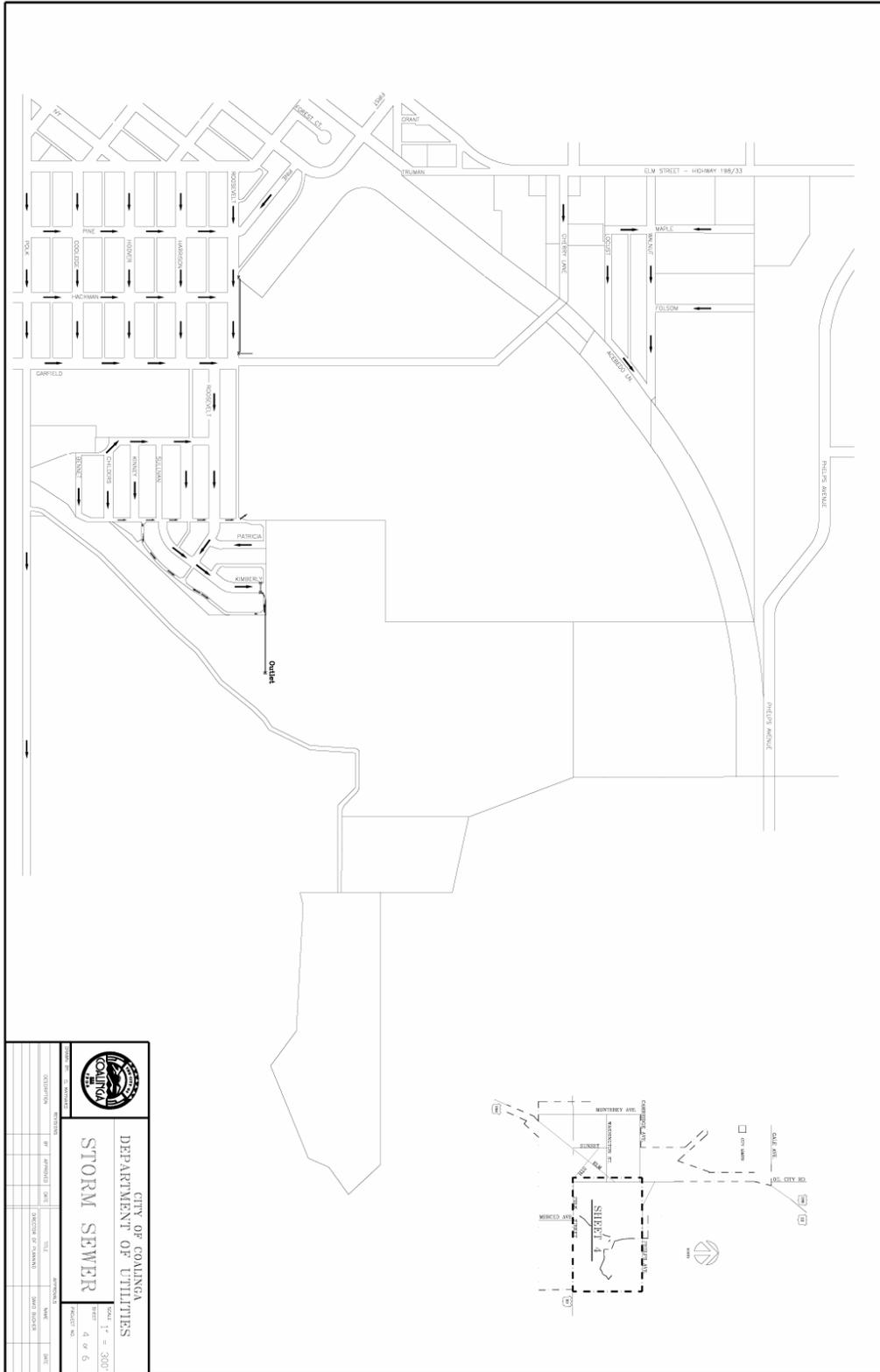




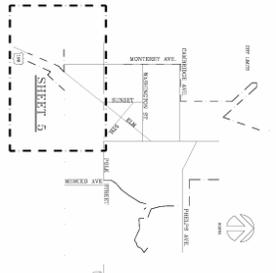
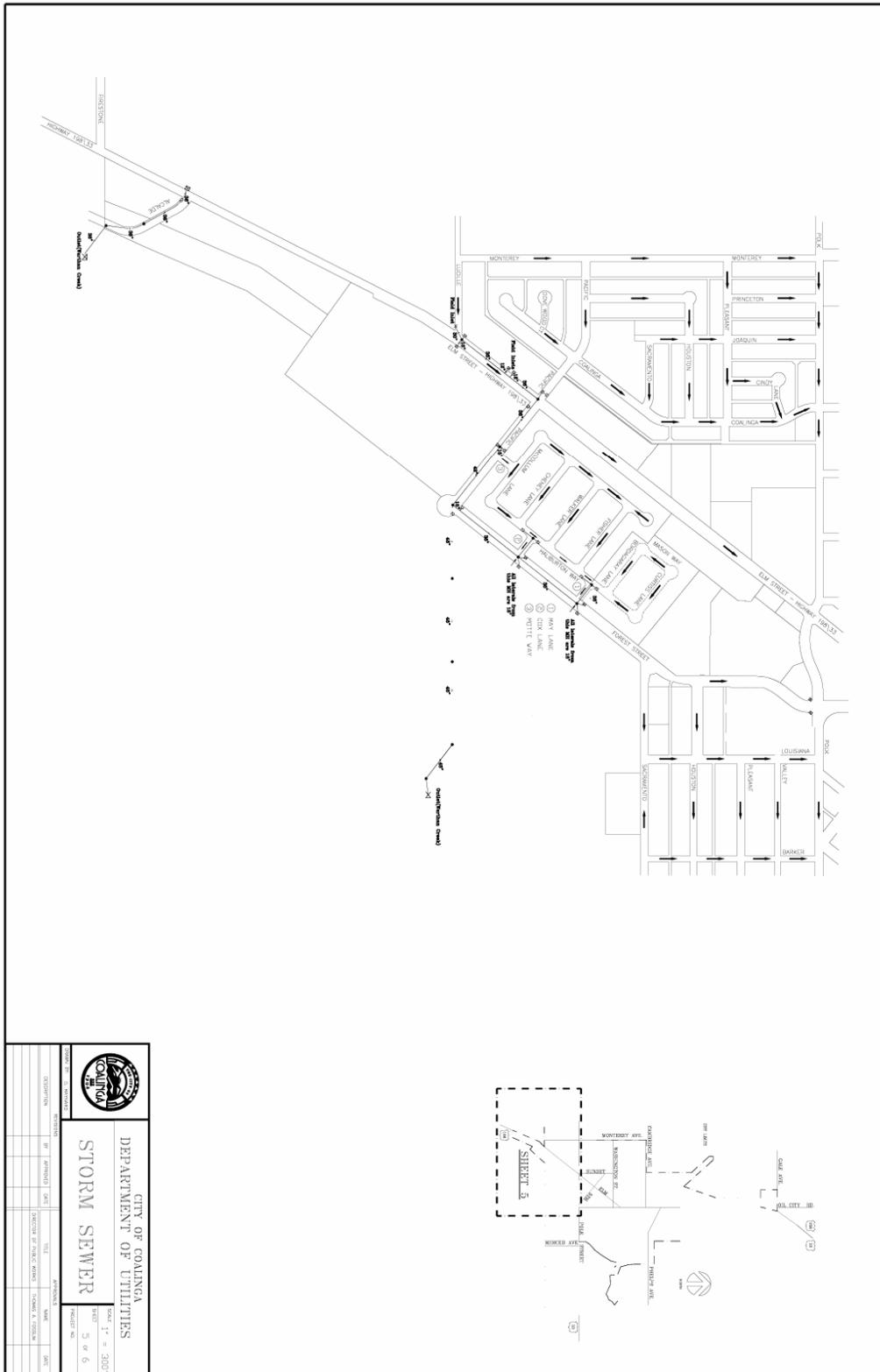
Map 13
City of Coalinga
Storm Sewer





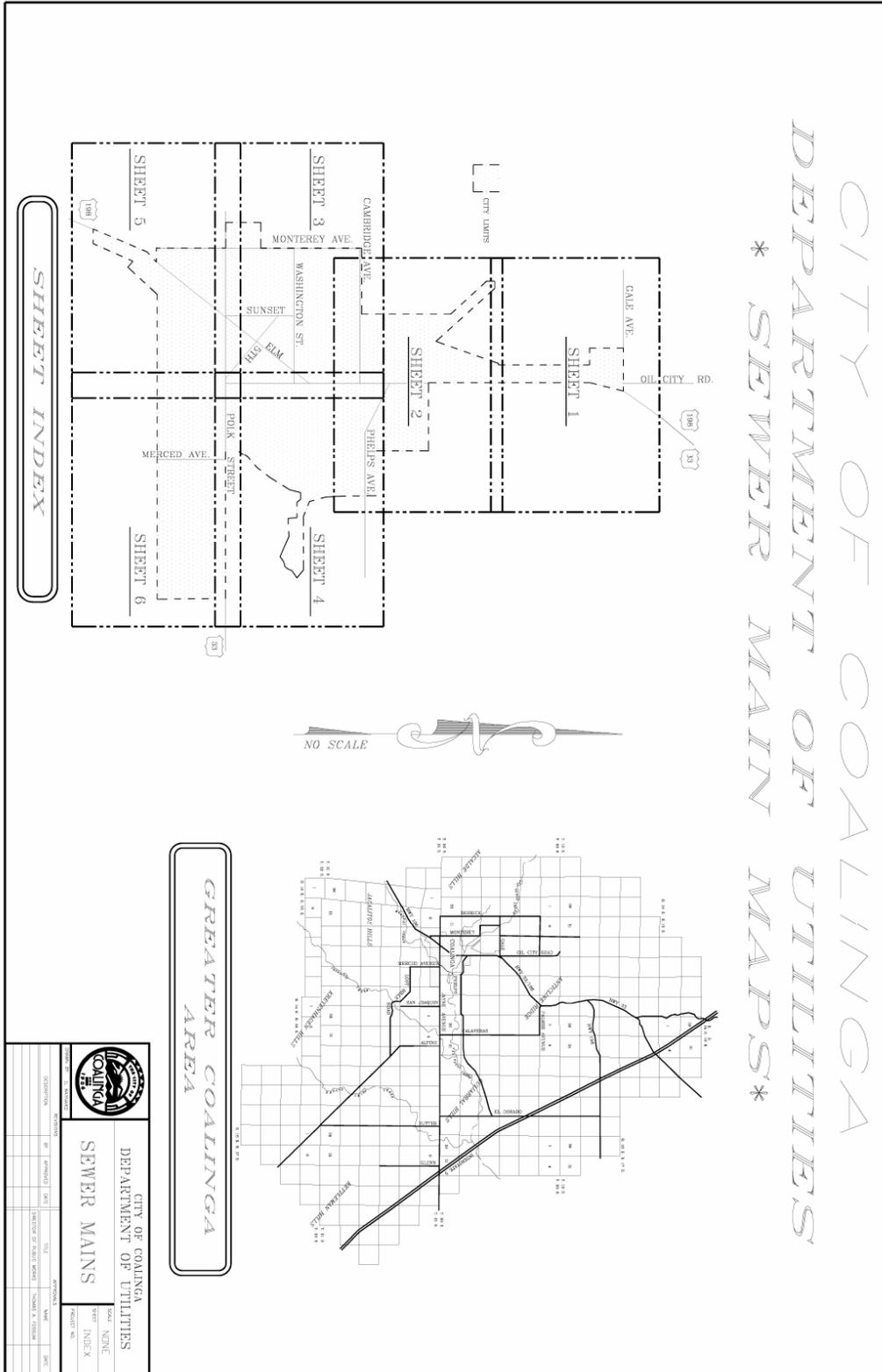


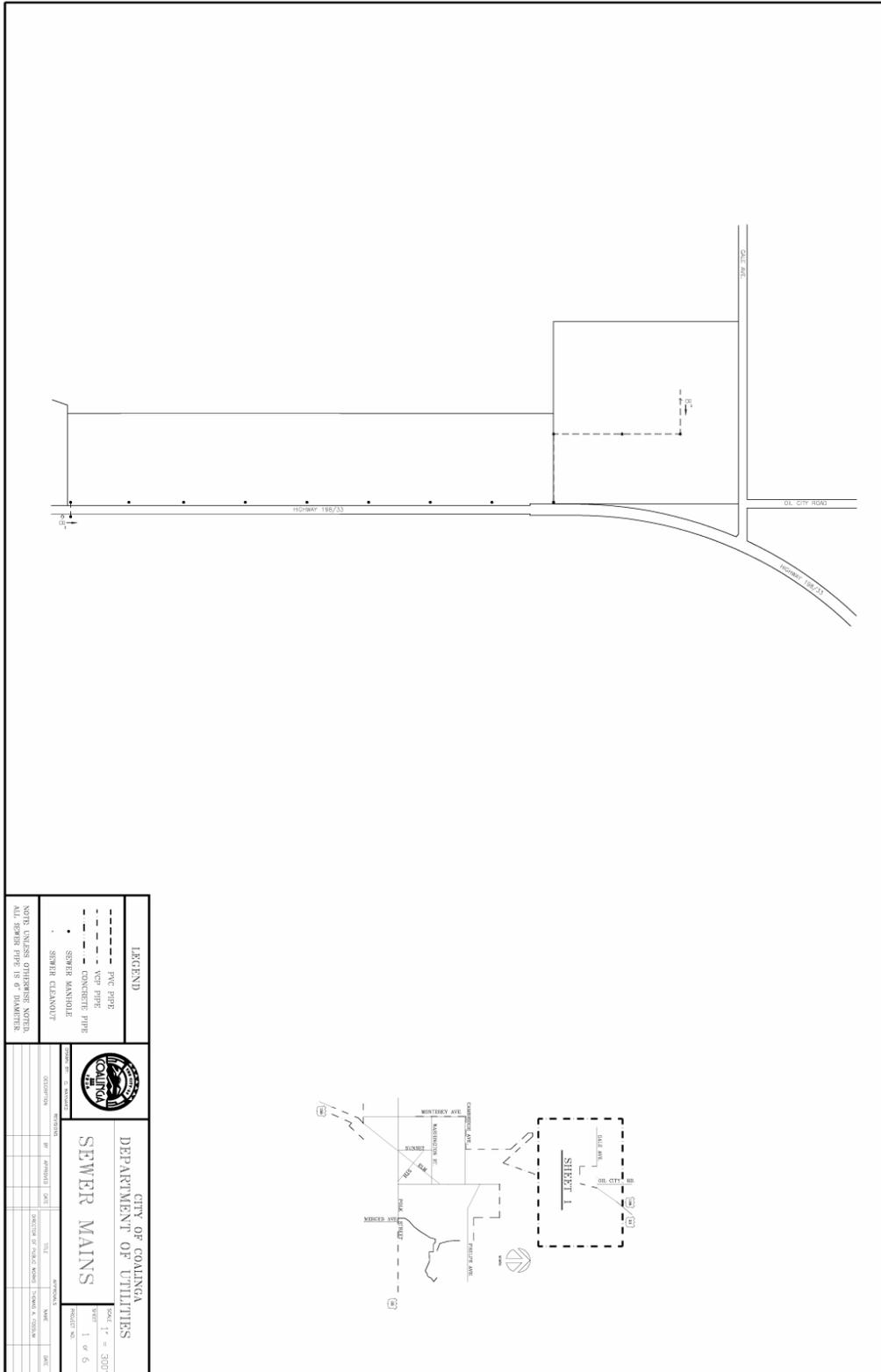
	
CITY OF COALINGA DEPARTMENT OF UTILITIES STORM SEWER	
SHEET NO. 4 OF 6 PROJECT NO.	SCALE: 1" = 300' DATE:
DESIGNED BY:	CHECKED BY:
DRAWN BY:	DATE:
PROJECT NAME:	SHEET:
PROJECT LOCATION:	DATE:

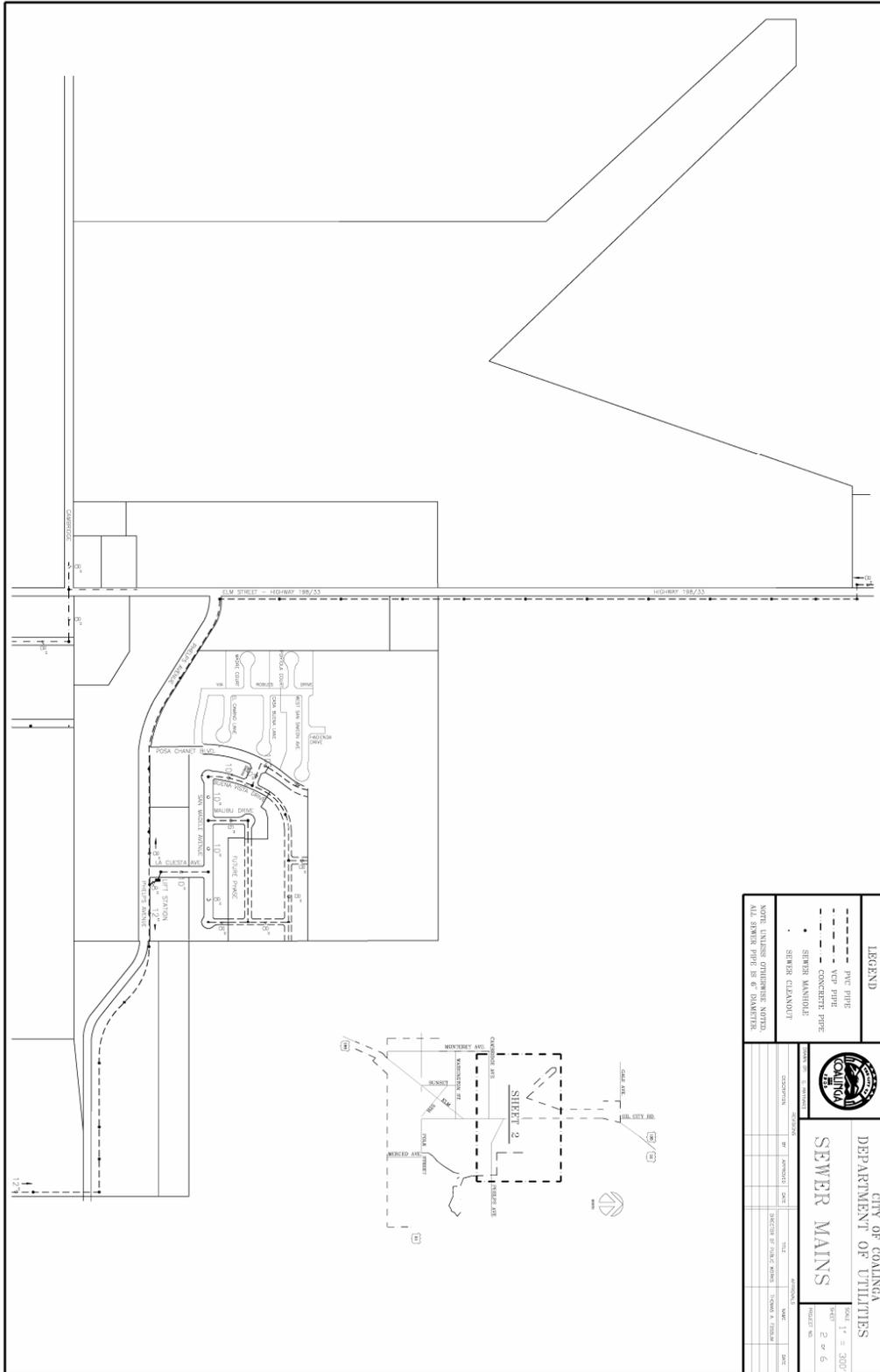


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		STORM SEWER	
PROJECT NO.	SHEET NO.	DATE	SCALE
DESIGNER	CHECKER	TITLE	PROJECT NAME
DRAWN BY	REVIEWED BY	PROJECT NO.	SHEET NO.
PROJECT NO.	SHEET NO.	DATE	SCALE

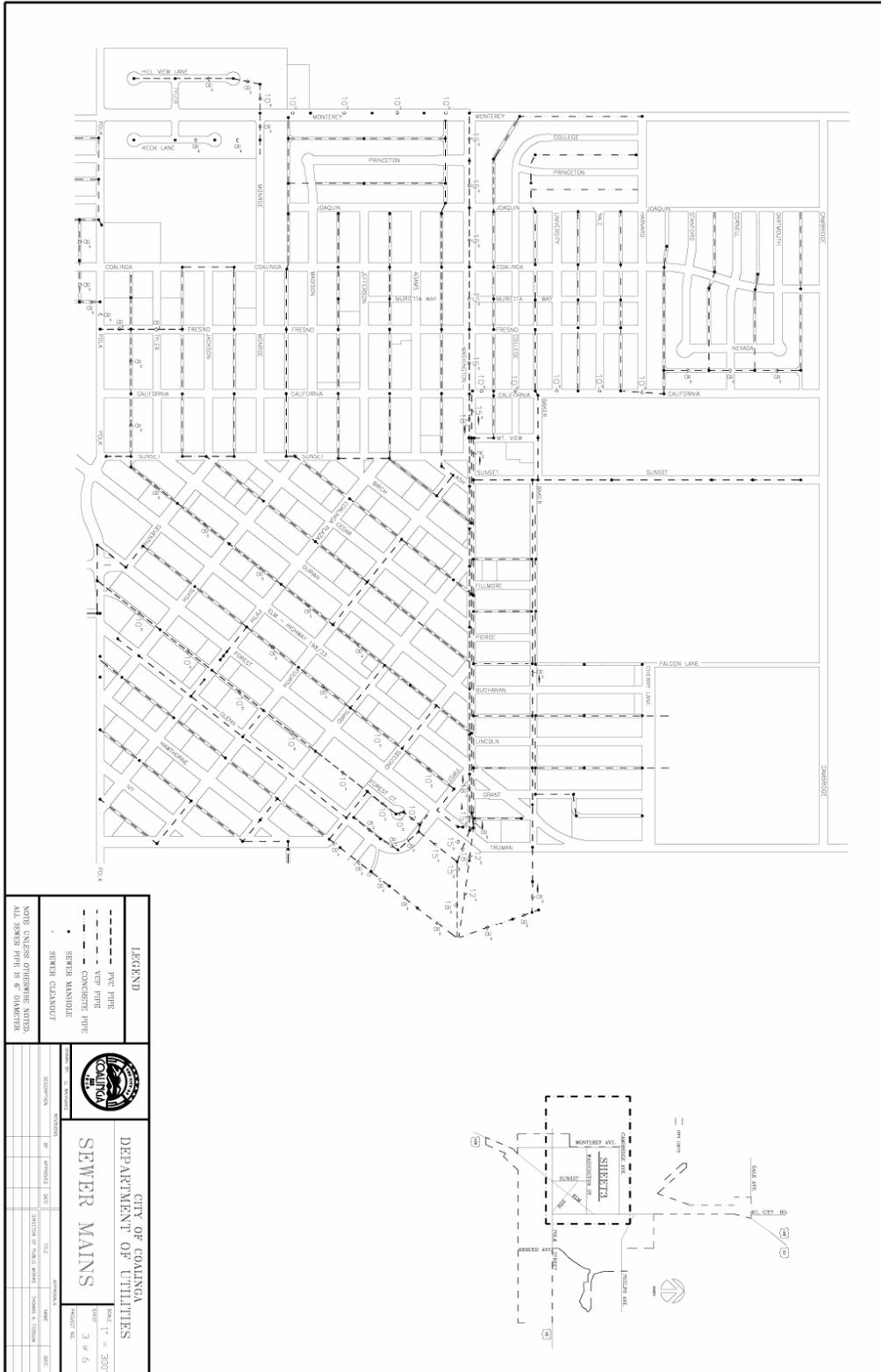
Map 14
City of Coalinga
Sewer

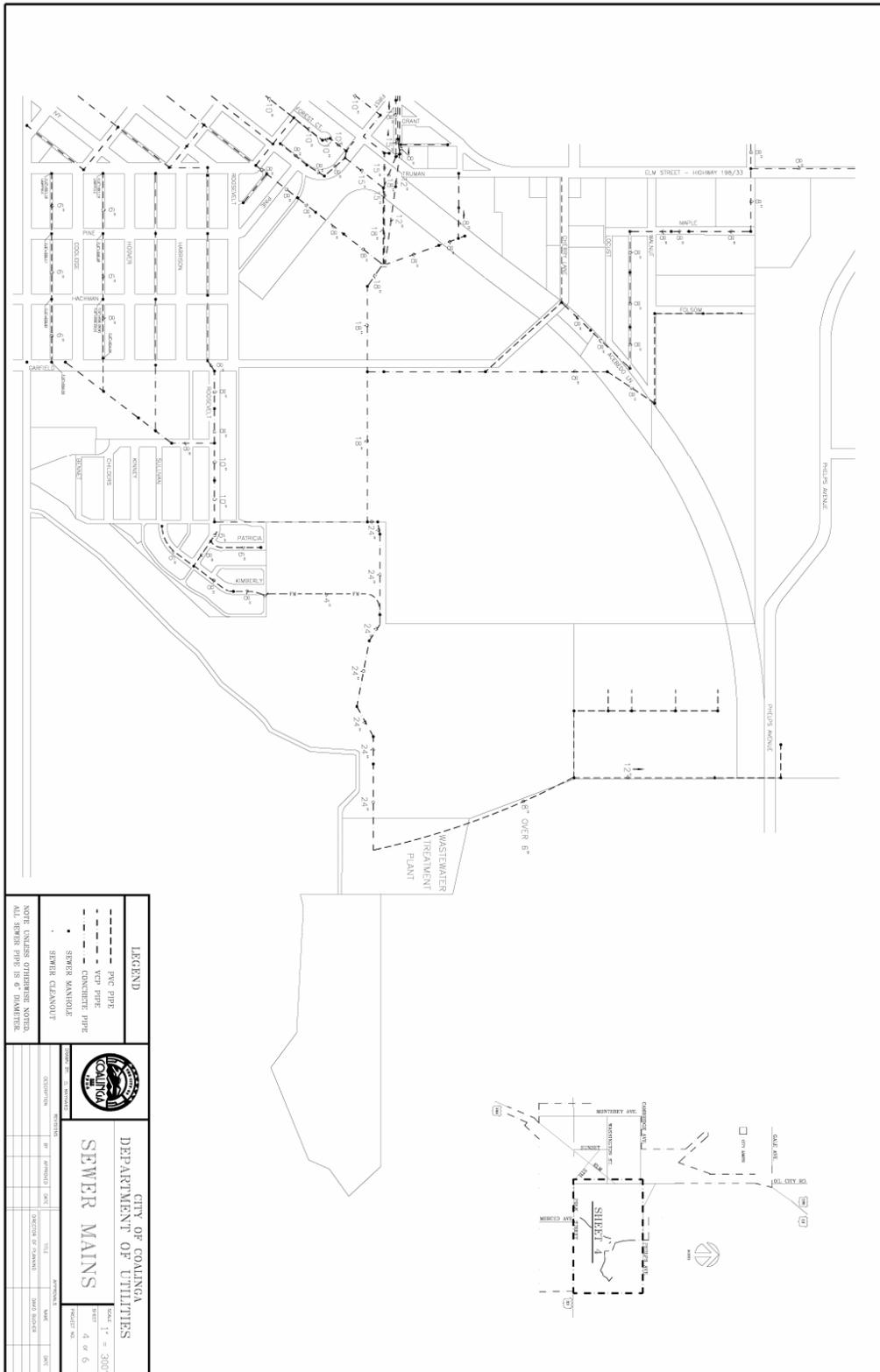


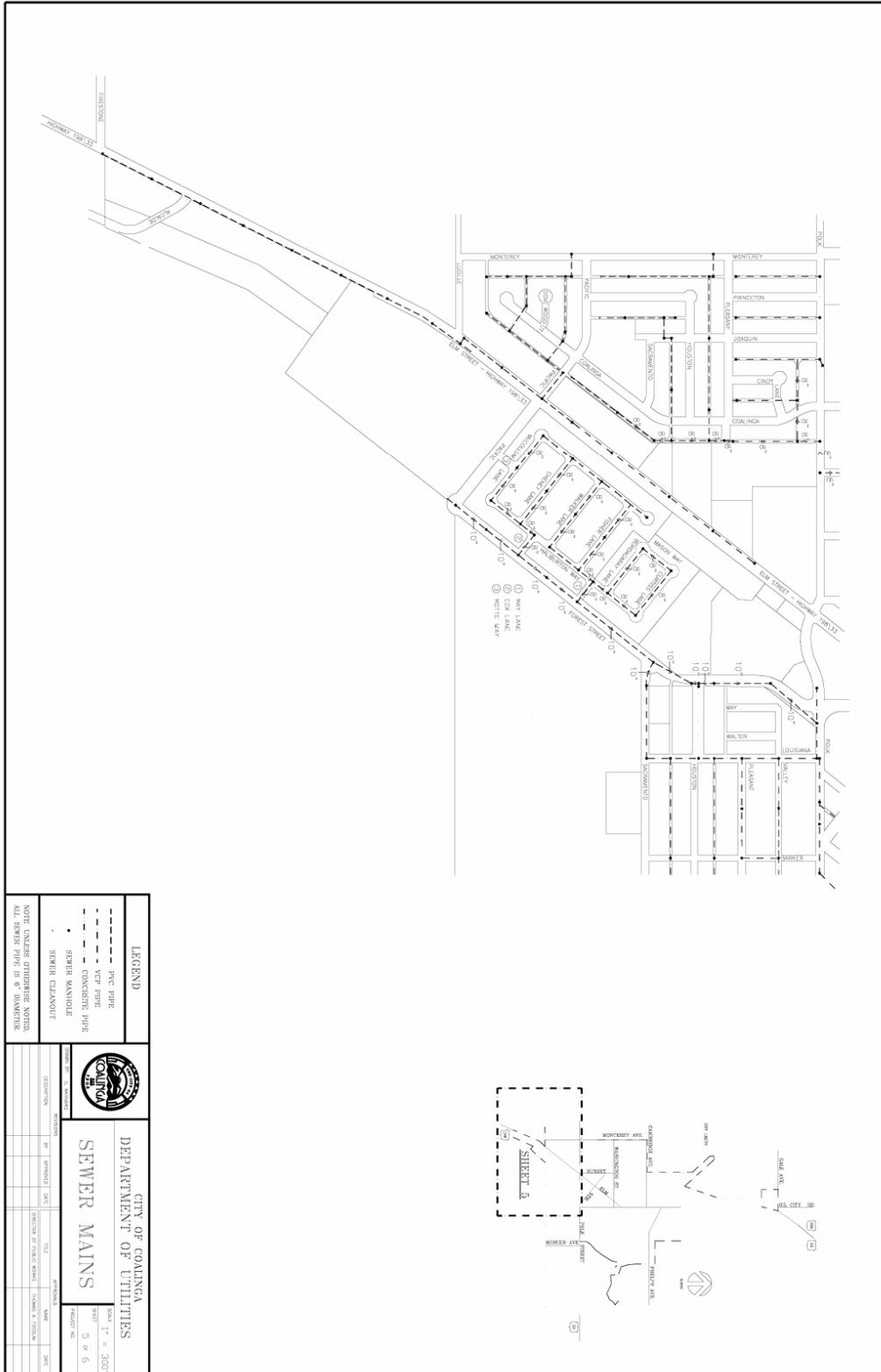


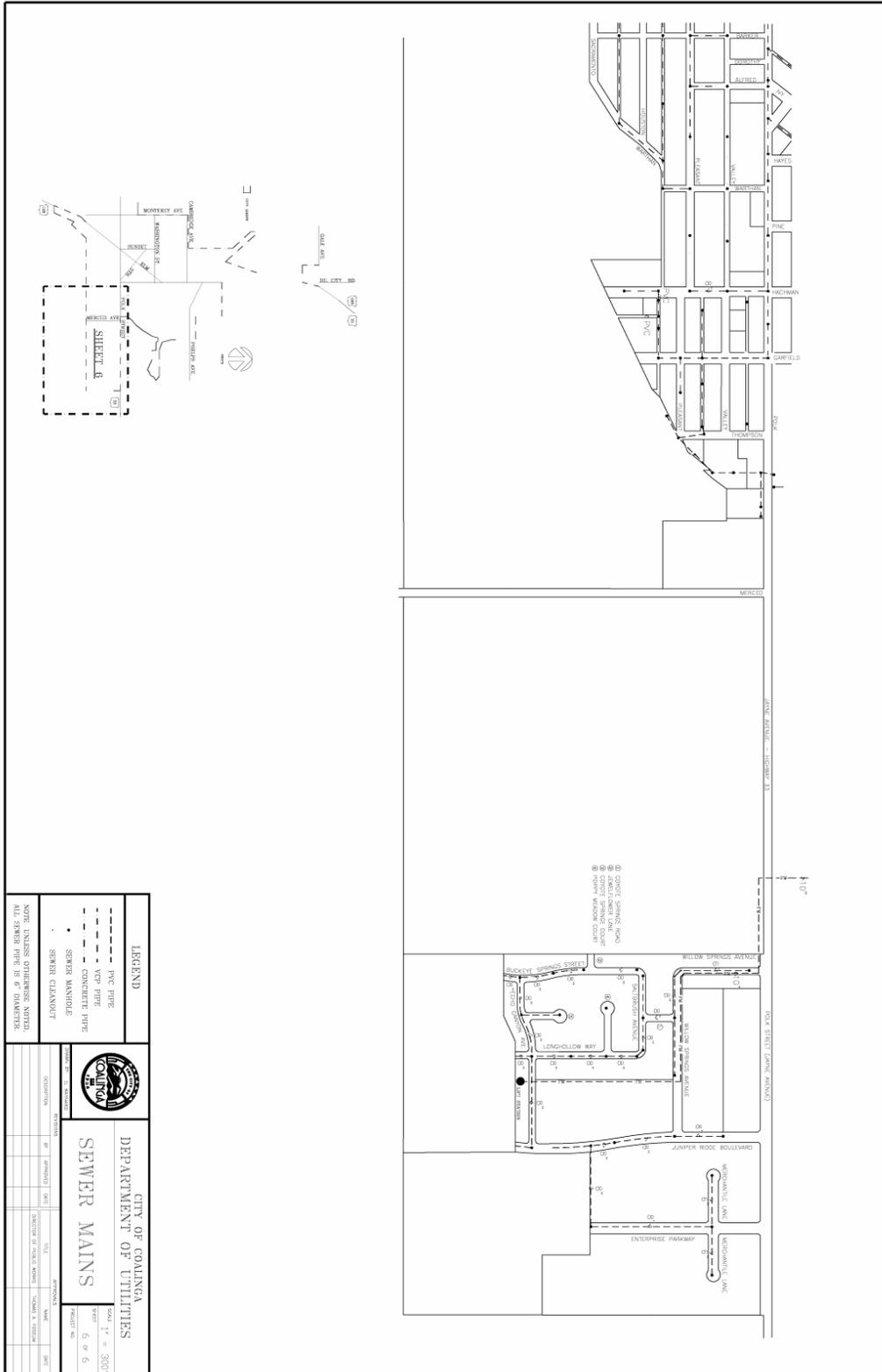


City of Coalinga and Coalinga-Huron Unified School District – Natural Hazard Mitigation Plan

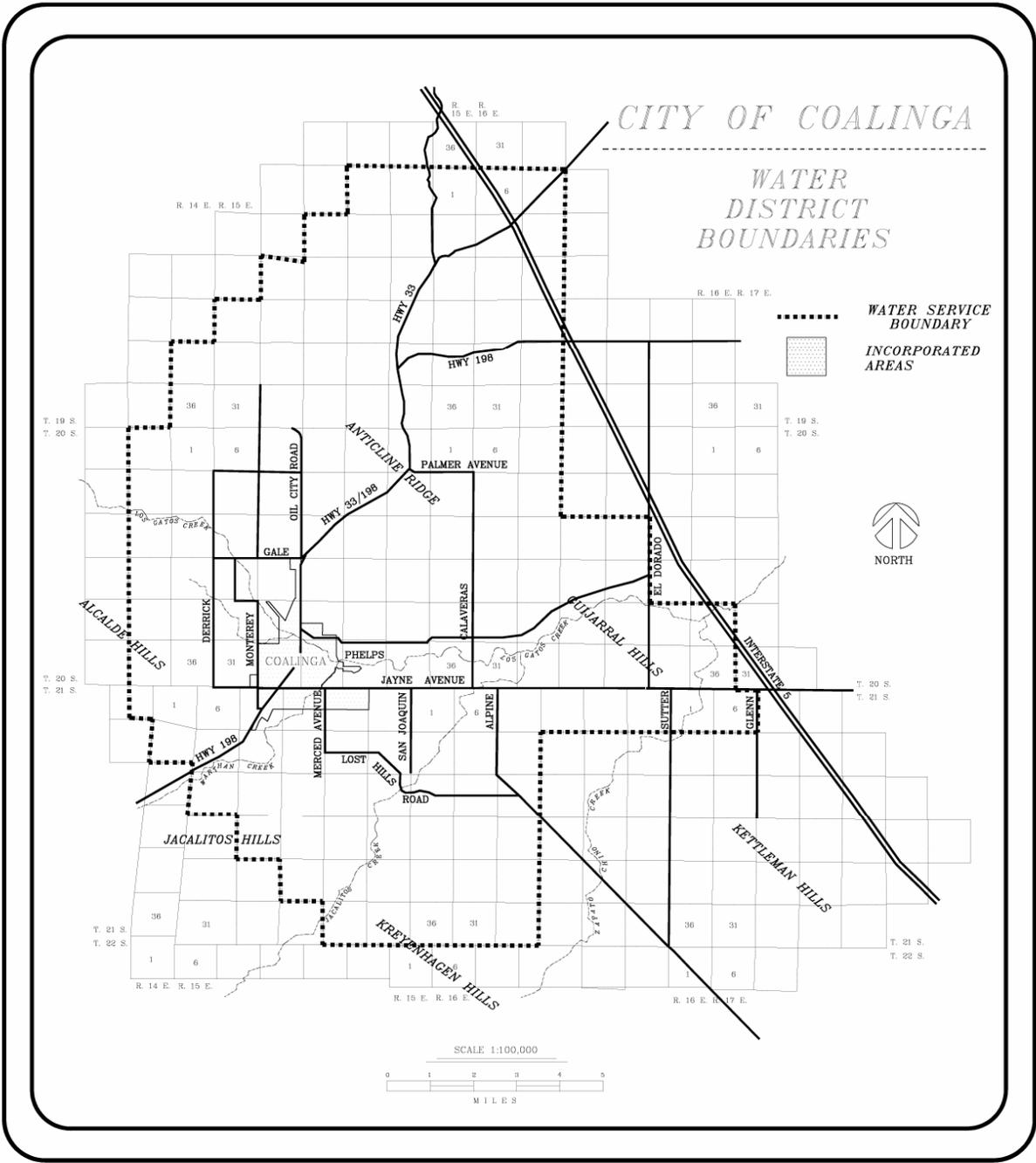




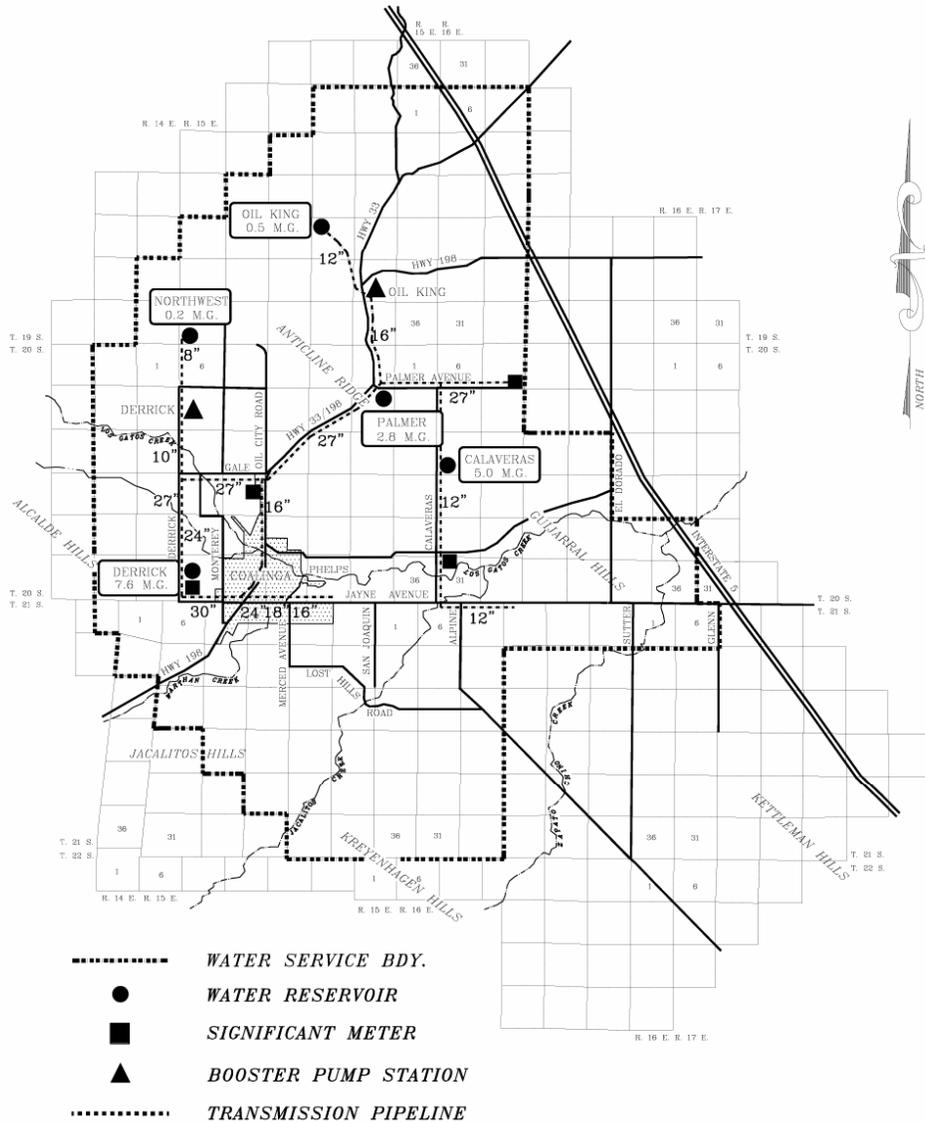




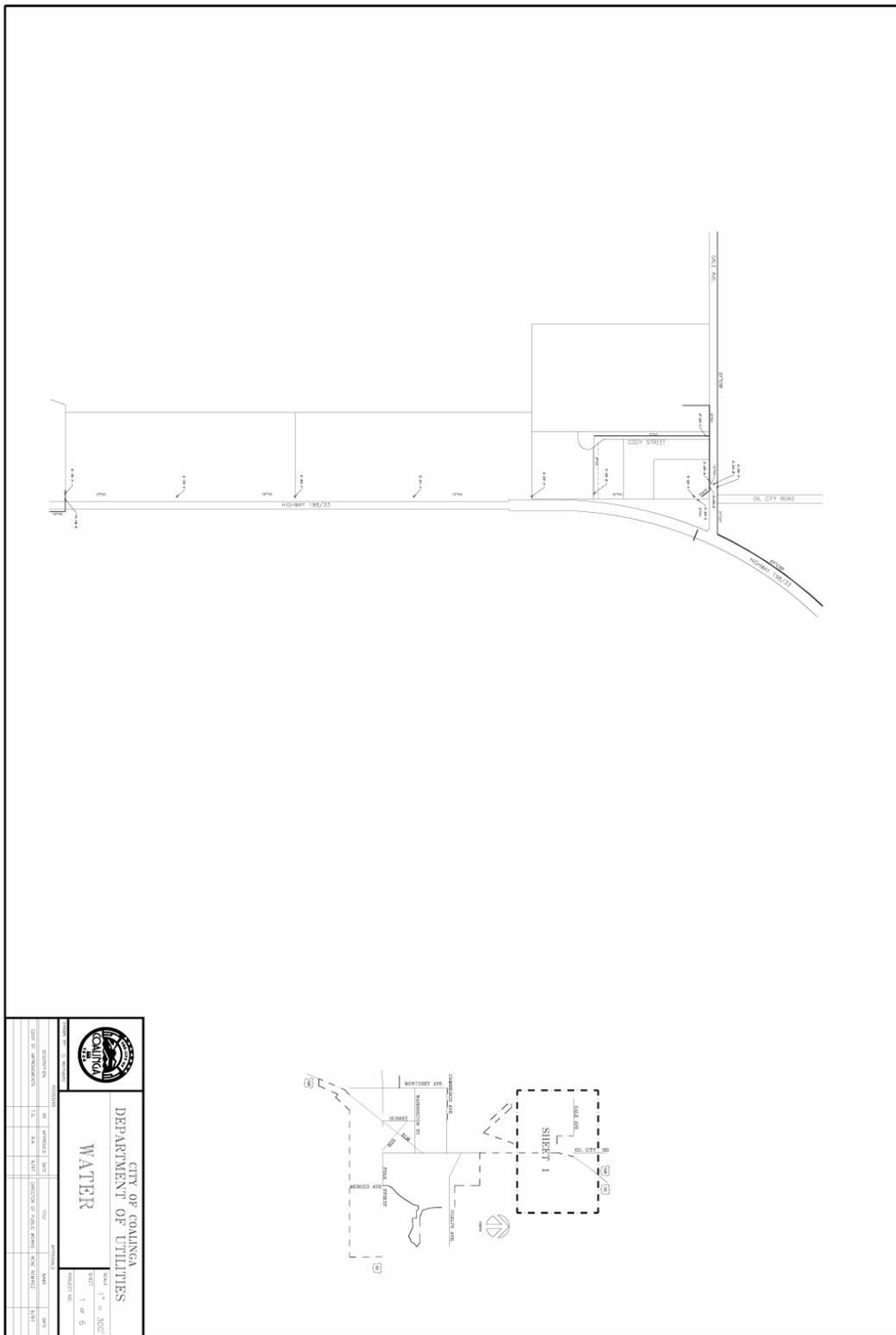
Map 15
City of Coalinga
Water

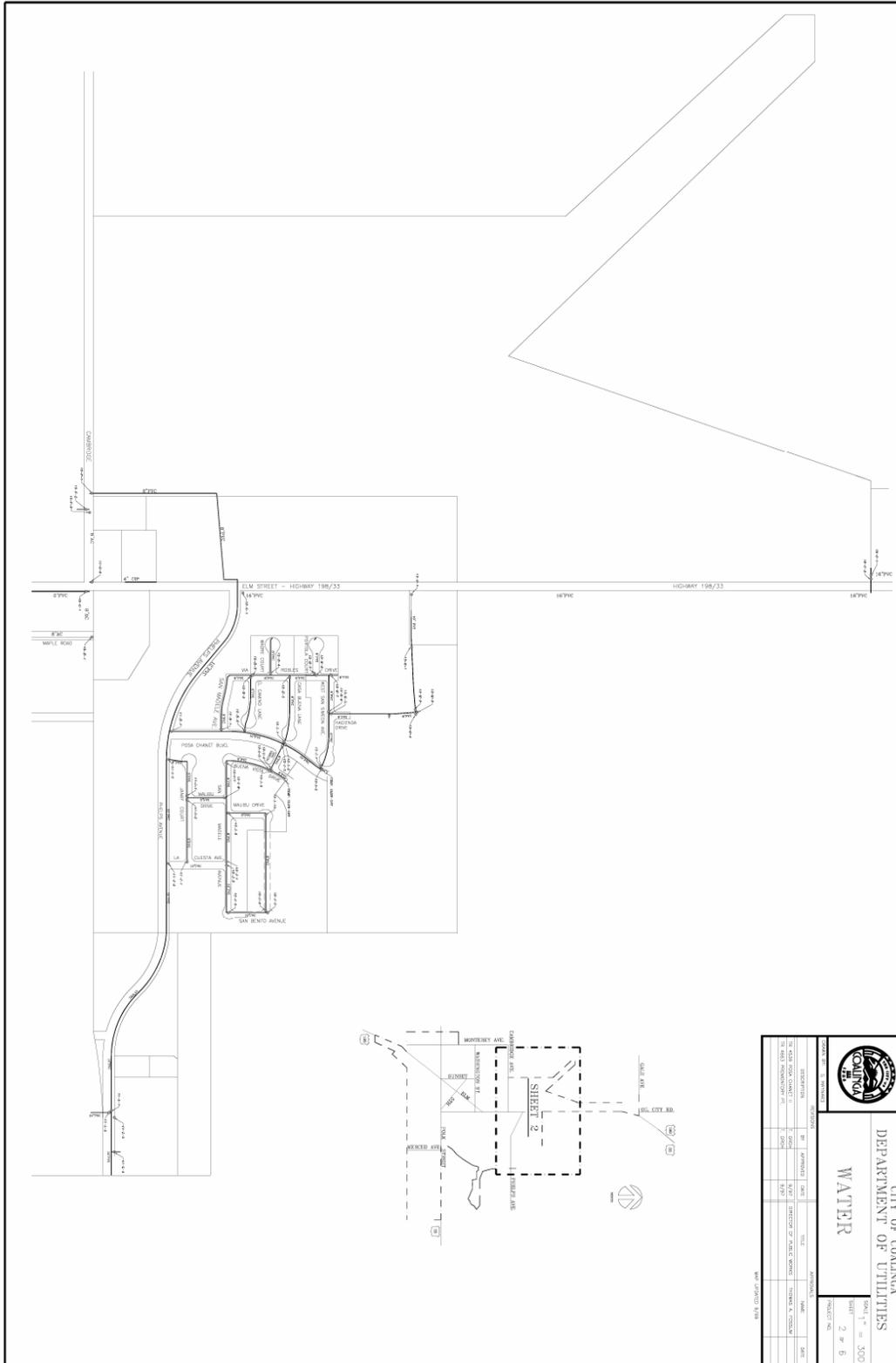


COALINGA WATER STORAGE AND SIGNIFICANT METERING

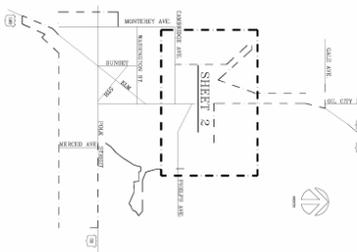


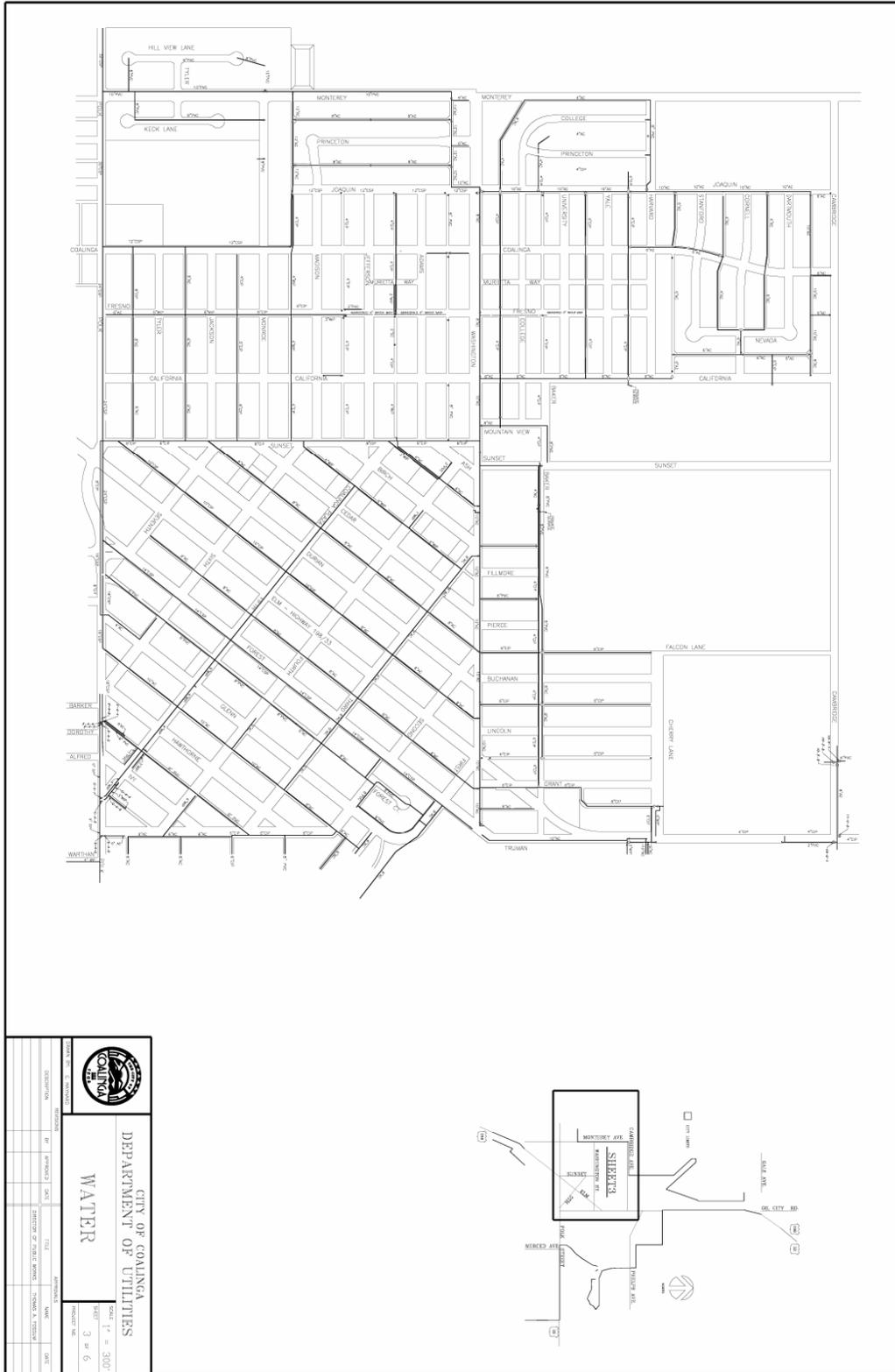
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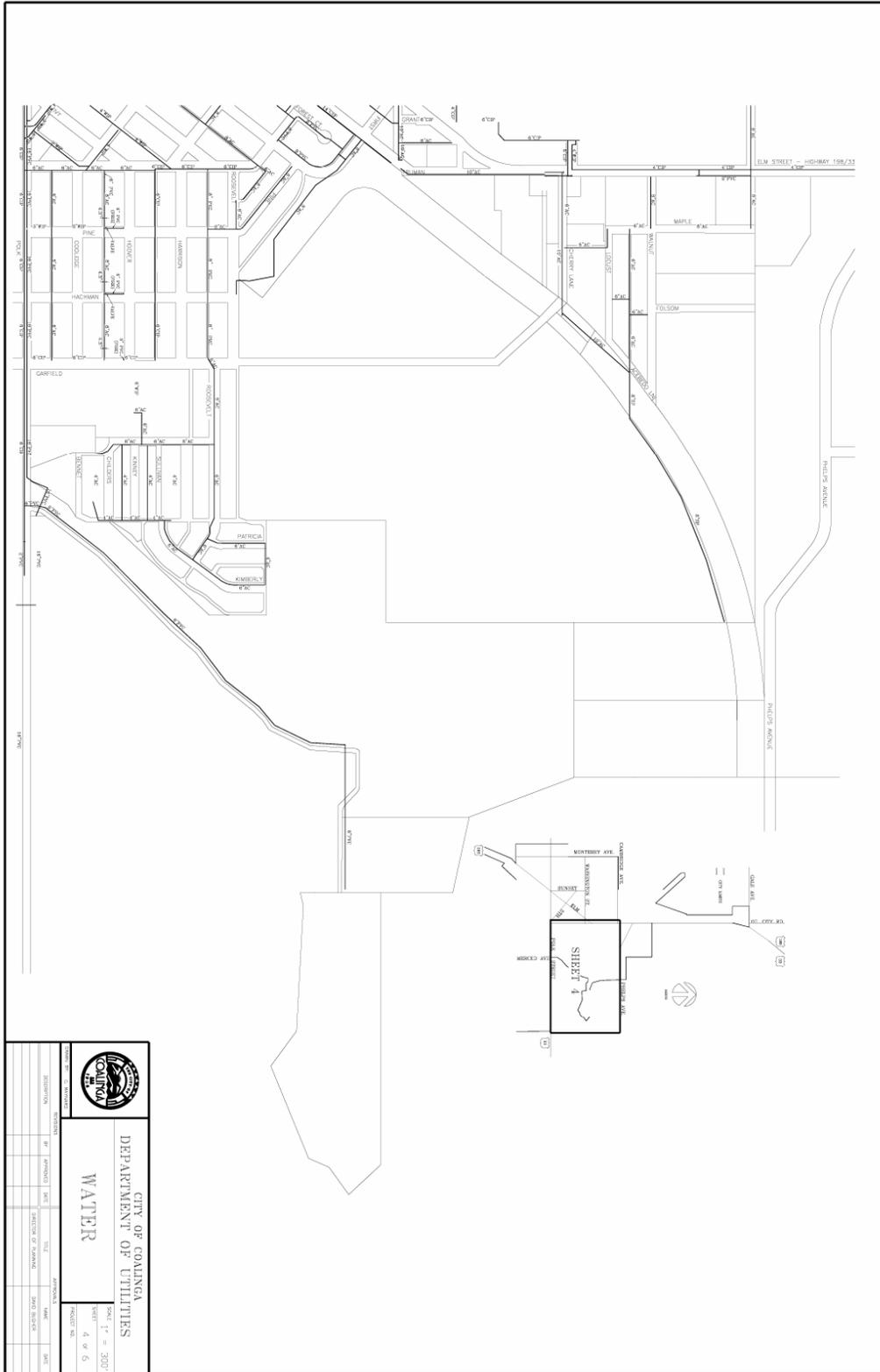


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DATE	BY	APPROVED	DATE	DATE	DATE
DESIGNED	BY	CHECKED	DATE	DATE	DATE
DRAWN	BY	IN CHARGE	DATE	DATE	DATE
CHECKED	BY	ENGINEER	DATE	DATE	DATE
APPROVED	BY	CITY ENGINEER	DATE	DATE	DATE
APPROVED	BY	CITY MANAGER	DATE	DATE	DATE

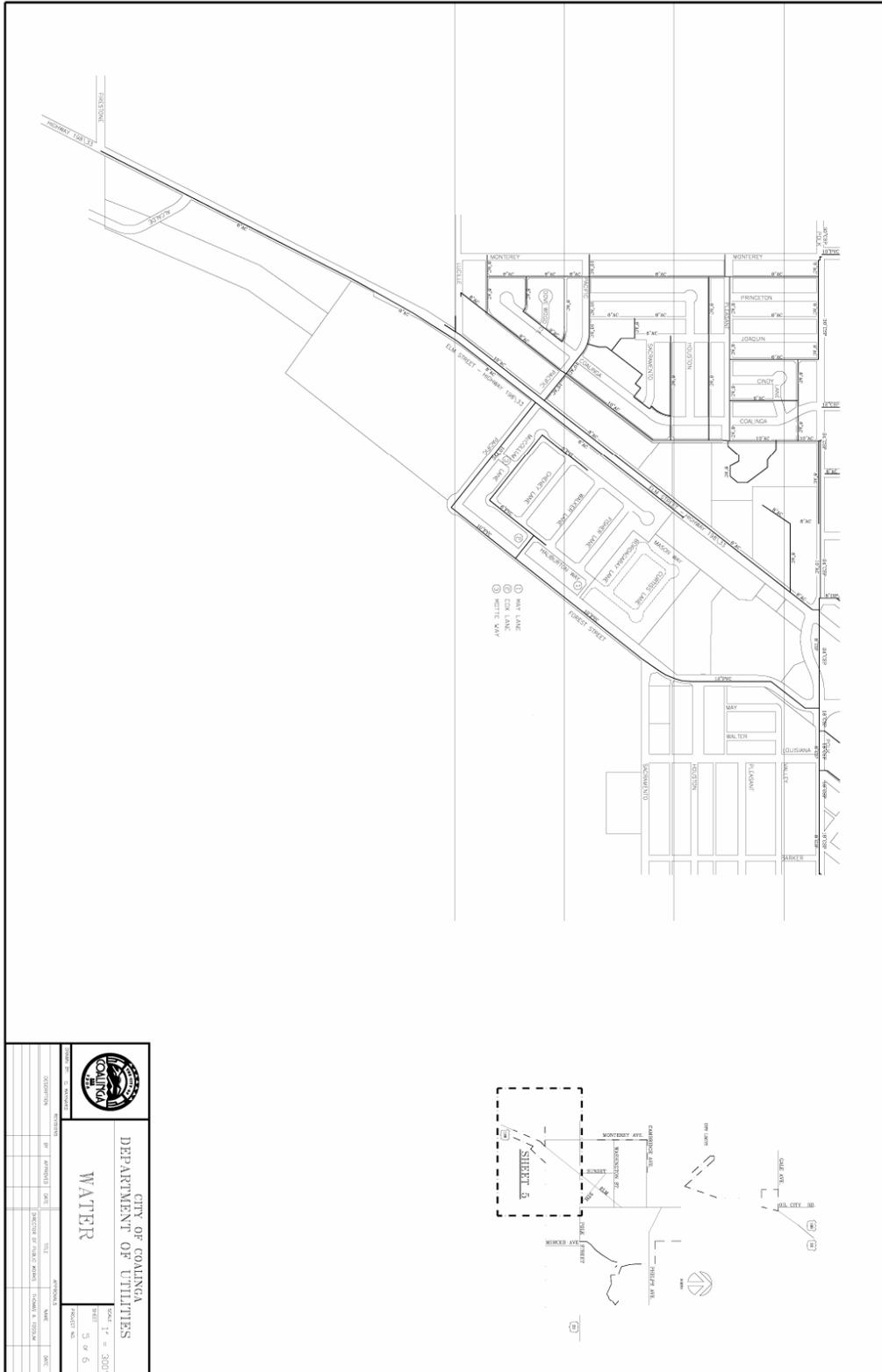




City of Coalinga and Coalinga-Huron Unified School District – Natural Hazard Mitigation Plan



		CITY OF COALINGA DEPARTMENT OF UTILITIES WATER	
		SHEET 4 OF 6 DATE: 11/15/2007	
PROJECT NO.: DRAWING NO.:	DATE: TIME:	DRAWN BY: CHECKED BY:	APPROVED BY: TITLE:



Appendix F
City of Coalinga and
Coalinga-Huron Unified School District Site
Non-Structural Action Item List

IDENTIFIED HAZARD #1	Unsecured contents may fall off shelves used to store chemicals
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Contents could strike nearby occupants • Contents could release dangerous chemicals or cause a hazardous reaction to occur.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Install wood or Plexiglas strips across open face of shelves. • Shelves must be secured. • Install shelf with a lip to prevent objects from falling. • Relocate heavy items or volatile chemicals to floor mounted cabinets when possible.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #2	Unsecured wall-mounted cabinets, lockers and metal storage cabinets.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Contents could strike nearby occupants. • Contents could block hallways and exit areas.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • For single unit, secure each unit to wall studs or blocking with screws. • For multiple units, fasten each unit to a clip angle with metal screws. Fasten clip angle to wall studs or blocking with screws. • Relocate cabinets, lockers, or metal storage cabinets away from hallways and exit ways.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #3	Unsecured aquariums or terrariums.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Aquariums or terrariums could fall striking nearby occupants. • Aquariums or terrariums could fall and block hallways and exit areas.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Fasten clip angle to tabletop against each side of the unit. • Locate these units away from doors and exit ways.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #4	Unsecured ceiling-height interior walls.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Damage pipes and electrical wiring. • Wall may fall and could strike nearby occupants. • Wall may fall and could block hallways and exit areas.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Secure ceiling-height walls with diagonal bracing. • Consult a qualified architect or structural engineer for seismic requirements. • Walls are usually not fire-rated.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #5	Unsecured TV monitors or speakers.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Units may fall off the mounting brackets, striking occupants below. • Units could block exit ways for evacuation during an emergency. • A fallen unit may damage electrical wirings, exposing nearby occupants to electrical shock or start a fire.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Secure each TV or monitor to mounting bracket with adjustable straps. • Follow the recommendation provided by the manufacturer for mounting bracket for TV, monitors or speakers. • Locate units mounting brackets away from doors or exit ways. • Consider using a pre-approved mounting bracket from the Office of Statewide Health Planning and Development (OSHDP). • Consult a qualified architect or structural engineer for seismic bracing requirements.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #6	Unsecured wall hung items such as pictures, decorations or signs.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Contents could strike nearby occupants. • Contents could block hallways and exit areas.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Install hook into wall stud. Close hook with pliers after hanging item. • Alternatively, use hook with closed loop or spring-back retention bar. • Use specialized earthquake hooks (Hook™ brand) that retain wire hung items. • Do not hang an item that weighs more than recommended by the hook manufacturer.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #7	Unsecured fire extinguishers.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Unit may fall off wall and damage the shut-off valve or hose, releasing its content. • Unit could strike nearby occupants. • A damaged fire extinguisher may not be functional in an emergency.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Secure fire extinguisher mounting bracket or cabinet to wall framing. • Retention straps can be used for further security. • Cabinets must be accessible either through breakable glass or latched door.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #8	Glass windows and doors at entryways.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Glass may fall or shatter injuring nearby occupants. • Fallen glass could block doors and exits during an emergency.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Replace glass on door and glass surrounding the door with safety glazing (glass) or safety film. • Safety glass has permanent identification label etched or ceramic fired on the glass and readable from the inside of the building.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #9	Unsecured free standing and cubical partitions.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Cubical partitions could strike nearby occupants. • Fallen cubical partitions could block hallways and exit areas.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Screw clip angle to intermediate and end panels at each end. • Secure clip angle to concrete floor with concrete drill-in anchor bolt at each leg. Lag bolt must be installed into floor joists or blocking. • Clip angle must be screwed into the metal frame portion of the cubical partition. • Maximum distance between intermediate or end panels is 10 feet. • Panel joint must be rigid. • If panels are hinged together or joints were not rigid, reinforce the top with steel flat plate across the joint and secure the bottom with clip angle.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #10	Unsecured file cabinets.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • File cabinets could fall over striking nearby occupants. • Contents could block hallways and exit areas.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • When the cabinet depth or width is less than two-thirds the height, the cabinet should be secured to an adjacent wall or fastened to adjacent cabinets. • Cabinets should have latching drawers. • Heavier contents should be stored in lower drawers of a file cabinet. • Locate cabinets away from exits and hallways. • Metal clips should be provided for attachments at cabinets and at walls. • Metal clip attachments at the wall should utilize screws that are properly installed into wall studs or blocking.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #11	Unsecured bookcases 6 feet or more in height.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Bookcases could fall over striking nearby occupants. • Bookcases could block hallways and exit areas.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Install cross bracing in back of bookcases. Use cable or metal strap for bracing. • If bookcases were located back-to-back, tie them together with steel plates. • Secure bookcases to wall or floor using clip angles. • Alternatively, secure bookcases with anti-tip struts at top. • For bookcases standing next to a wall, secure them to wall framing with clip angles. • Relocate heavy books to lower levels.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #12	Unsecured bookcases less than 6 feet in height.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Bookcases could fall over striking nearby occupants. • Bookcases could block hallways and exit areas.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Tie back-to-back bookcases together with clips and bolts or screws. • Fasten bookcases to floor if the length or combined width is less than two-thirds the height to prevent tipping over. • Fasten isolated bookcases to floor or wall. • Relocate heavy books to lower levels.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #13	Unsecured desktop/countertop equipment.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Equipment could fall off desk or countertop striking nearby occupants. • Fallen desktop equipment may damage electric wiring, causing power interruption, electrical shock to nearby occupants or fire.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Secure with heavy-duty hook-and-loop fasteners. Attach self-adhering hook-and-loop pads to base of desktop equipment case and the matting pads to desktop. • Secure with cable with self-adhering anchor pads to equipment and desktop. • Relocate desktop to heavy equipment away from doors and exit ways. • Consult a qualified structural engineer or architect for heavy countertop equipment.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #14	Unsecured equipment on carts.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Equipment may fall off cart or topple cart striking nearby occupants.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Secure equipment to cart with adjustable straps. Tighten strap to remove any slack. • Relocate carts away from doors and exit ways. • Cart should have locking wheels or casters. • If the height of the cart exceeds two-thirds the depth or width of the cart, secure the cart to the wall with rope, chain or cable. Rope, chain or cable should be attached to eyebolts or other closed loop fasteners, which should be installed into wall studs or blocking.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #15	Unsecured display cases/art objects.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Awards, trophies and art objects could fall striking nearby occupants. • Awards, trophies and art objects could fall and block hallways and exit areas.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Secure display case to floor. Shelves in display case must also be secured. • Use angle bracket if needed. • Secure contents to shelves using hook-and-loop or museum was or a combination of both. • Consult a qualified structural engineer or architect for heavy countertop equipment.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #16	Unsecured equipment on wheels.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Wheel-mounted furniture may roll or fall striking nearby occupants. • Wheel-mounted furniture may roll or fall blocking doors and exit ways for evacuation during an emergency.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Install eyescrews to wall and secure furniture to eyescrews with cable, chain or rope. • Replace free rolling wheels with lockable wheels. • If wheels are not lockable, install eyescrews to floor and secure furniture to eyescrews with cable, chain or rope. • Eyescrews must be installed into wall studs or blocking.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #17	Unsecured office equipment.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Office equipment may fall striking nearby occupants. • Fallen office equipment may damage electric wiring, exposing occupants to electrical shock or start a fire.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Secure office equipment to the floor. • Use concrete drill-in anchor bolts for concrete floor. • Use lag bolts for wood floor. Install them into floor beams or blocking. • Bolts must be installed through metal framing of office equipment. Do not install through thin gauge housing panels. • If clip angles are used, attach clip angle to metal framing of the equipment. Do not attach to thin gauge housing panels.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #18	Unsecured refrigerators and vending machines.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Refrigerators and vending machines may fall striking nearby occupants. • Refrigerators and vending machines may damage electric wiring, exposing occupants to electrical shock or start a fire. • Refrigerators and vending machines could fall and block hallways and exit areas.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Secure refrigerators and vending machines to floor with slotted z-clips or clip angles. • Slotted z-clip must have a minimum of two bolts to the floor. • Relocate refrigerators and vending machines away from doors and exit ways.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #19	Unsecured shop equipment.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Shop equipment may fall striking nearby occupants. • Shop equipment could fall and block hallways and exit areas.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Secure shop equipment to concrete floor with concrete drill-in anchor bolt at each leg. • Secure shop equipment to wood floor with a lag bolt at each leg. Lag bolt must be installed into floor joists or blocking. • When clip angle is required, screw angle to equipment and fasten to floor with either concrete drill-in anchor or lag bolts.
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #20	Unsecured gas cylinders/tanks.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Gas cylinders or tanks may fall over and damage the shut-off valve, releasing hazardous or flammable contents. • A cylinder with a damaged shut-off valve may result in the tank or valve becoming a projectile. • Cylinders may fall over, striking or rolling and striking nearby occupants.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Secure each cylinder or tank to a wall with two restraints. • Alternatively, to providing wall restraints, cylinders or tanks may be kept within a storage rack or compartment that is secured to a wall or floor. • Store gas cylinders or tanks in non-occupied areas, and away from exit routes or exit doors. • Chain, cable or rope restraints must be attached to eyebolts or other closed hook structural fasteners. • Eyebolts or other fasteners must be attached to wall framing (studs or blocking).
TIMELINE	<ul style="list-style-type: none"> • Ongoing

IDENTIFIED HAZARD #21	Unsecured water heaters.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • Plumbing equipment or water heaters may slide or fall striking nearby occupants. • Plumbing equipment or water heaters may slide or fall spilling hot water on floor or nearby occupants, or rupture gas lines.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Secure base of water heater by bolting to floor. • Secure water heater to wall with plumber’s tapes, or other methods recommended by the Department of General Services – Division of the State Architect (DSA). • Use concrete drill-in anchor bolts for concrete floor and wall. • Use lag bolts for wood floor and wall. Lag bolts must be installed into floor beams, wall studs or blocking. • When clip angle is required, screw angle to equipment and fasten to floor with either concrete drill-in anchor or lag bolts. • Space between wall and water heater must be shimmed tight with non-combustible material at the locations of the plumber’s tape. • Consult a qualified architect or professional engineer for seismic anchorage requirements.
TIMELINE	<ul style="list-style-type: none"> • Ongoing.

IDENTIFIED HAZARD #22	Gas Shut-off Valves.
WHAT COULD HAPPEN	<ul style="list-style-type: none"> • When an earthquake of significant magnitude occurs, gas lines may rupture, release natural gas and ignite to cause fires and explosions.
ACTION TO BE TAKEN	<ul style="list-style-type: none"> • Install natural gas earthquake automatic shut-off valves at all City and District sites.
TIMELINE	<ul style="list-style-type: none"> • Ongoing.

Appendix G
City Structures and Contents
Replacement Values

Appendix G

City Structures and Contents Replacement Values

By release of Statement 34 on June 30, 1999, the Government Accounting Standards Board, (GASB), a national non-profit organization, now requires that states, local governments and other public agencies annually report (full disclosure) the net value of all capital assets, including infrastructure assets, in order to achieve GAAP (generally accepted accounting principles). GASB 34 defines infrastructure assets as “...long-lived capital assets that are stationary in nature and normally can be preserved for a significantly greater number of years than most capital assets. Examples of infrastructure assets include roads, bridges, tunnels, drainage systems, water and sewer systems, dams and lighting systems...” In addition, land to be valued at original cost without depreciation. The following is a summary of the net value of those capital assets.

Total Values at Risk from Hazards

The total values at risk from specified Natural Hazards are presented as a worst-case baseline. Like other values presented in this plan, these are deceptively low because they do not include the values of all infrastructure, churches, or the local economy.

There are few events that would destroy an entire community, so, in any given disaster such as earthquake or wildfire, the entire City of Coalinga and School District damages would be less than the below total indicated.

Total Value, Property and Contents Replacement	
City of Coalinga	\$1,421,543
Coalinga-Huron Unified School District	\$5,457,016
Total	\$6,878,559

Property and Contents Replacement Values as of September 3, 2004

Agency: City of Coalinga										
Hazard: Losses from an Earthquake										
Name or Description of Asset	Sources of Information*	Critical Facility	Vulnerable Population	Economic Assets	Special Considerations	Historic/Other Considerations	Building Size (sq. ft.)	Structure Replacement Value (in dollars)**	Contents Value (in dollars)**	100% Structure + Content Total Losses (in dollars)
City Hall Building, 160 W. Elm Avenue	Property Schedule						15,791	\$1,637,636	\$287,512	\$1,925,148
City Hall Building (Building Expansion), 155 W. Durlan Avenue.	Property Schedule						21,060	4,901,358	0	4,901,358
Claremont Custody Center, 185 W. Gale	Property Schedule						71,820	14,146,072	57,502 2,500,000 (BI/Rents)	\$16,703,574
Claremont Custody Center, 185 W. Gale (Tree Farm)	Property Schedule							134,646	0	\$134,646
Corporation Yard, 135 Sacramento (Equipment Storage)	Property Schedule						1,600	33,101	0	33,101
Corporate Yard, 135 Sacramento (Parts Storage)	Property Schedule						160	36,526	0	36,526
Corporate Yard, 135 Sacramento (Parts Storage)	Property Schedule						1,820	0	5,773	5,773
Corporate Yard, 135 Sacramento (Meeting Room/Office)	Property Schedule						1,770	53,307	5,773	59,080
Corporate Yard, 135 Sacramento (Equipment in Yard)	Property Schedule						5,100	0	69,002	69,002

Agency: **City of Coalinga**

Hazard: **Losses from an Earthquake**

Name or Description of Asset	Sources of Information*	Critical Facility	Vulnerable Population	Economic Assets	Special Considerations	Historic/Other Considerations	Building Size (sq. ft.)	Structure Replacement Value (in dollars)**	Contents Value (in dollars)**	100% Structure + Content Total Losses (in dollars)
Airport, Waiting Room	Property Schedule							11,818	0	11,818
Airport, Restroom	Property Schedule							5,660	0	5,660
New Airport Weather	Property Schedule							0	9,198	9,198
New Airport Runways and Lighting System	Property Schedule							6,575,451	0	6,575,451
Sewer Farm Control Building	Property Schedule							72,852	0	72,852
Digester	Property Schedule							97,963	0	97,963
Clarifier	Property Schedule							95,466	0	95,466
Clarifier Equipment	Property Schedule							0	73,204	73,204
Water System, Palmer Avenue	Property Schedule						250,000 Tank	188,515	0	188,515
Water System, Oil King	Property Schedule						500,000 Tank	377,029	0	377,029
Water System, Derrick Avenue	Property Schedule						8,000,000 Tank	3,198,468	0	3,198,468

Agency: **City of Coalinga**

Hazard: **Losses from an Earthquake**

Name or Description of Asset	Sources of Information*	Critical Facility	Vulnerable Population	Economic Assets	Special Considerations	Historic/Other Considerations	Building Size (sq. ft.)	Structure Replacement Value (in dollars)**	Contents Value (in dollars)**	100% Structure + Content Total Losses (in dollars)
Water System, Palmer Avenue	Property Schedule						3,000,000 Tank	1,421,543	0	1,421,543
Water System, Calaveras Avenue	Property Schedule						5,000,000 Tank	1,444,290	0	1,444,290
Water Filtration Plant, 25034 W. Palmer Avenue	Property Schedule							1,646,741	0	1,646,741
Water Filtration Plant (Expansion), 250334 W. Palmer Avenue	Property Schedule							5,194,591	0	5,194,591
Water Filtration Plan (Equipment), 25034 W. Palmer Avenue	Property Schedule							0	373,131	373,131
Chemical Plant, 25034 W. Palmer Avenue	Property Schedule							754,059	0	754,059
Chemical Plant, Equipment, 25034 W. Palmer Avenue	Property Schedule							0	287,512	287,512
Mixer Building, 25034 W. Palmer Avenue	Property Schedule							754,059	0	754,059
Mixer Building Equipment, 25034 W. Palmer Avenue	Property Schedule							0	287,512	287,512
Chemical Storage Tank, 25034 W. Palmer Avenue	Property Schedule							41,067	0	41,067
Chemical Storage Tank (Equipment), 25034 W. Palmer Avenue	Property Schedule							0	1,724	1,724

Agency: **City of Coalinga**

Hazard: **Losses from an Earthquake**

Name or Description of Asset	Sources of Information*	Critical Facility	Vulnerable Population	Economic Assets	Special Considerations	Historic/Other Considerations	Building Size (sq. ft.)	Structure Replacement Value (in dollars)**	Contents Value (in dollars)**	100% Structure + Content Total Losses (in dollars)
Chemical Storage Tank, 25034 W. Palmer Avenue	Property Schedule							41,067	0	41,067
Chemical Storage Tank, 25034 W. Palmer Avenue	Property Schedule							41,067	0	41,067
Chemical Storage Tank (Equipment), 25034 W. Palmer Avenue	Property Schedule							0	1,724	1,724
Chemical Storage Tank, 25034 W. Palmer Avenue	Property Schedule							41,067	0	41,067
Chemical Storage Tank, 25034 W. Palmer Avenue	Property Schedule							0	1,724	1,724
Water Pump House, 25034 W. Palmer Avenue	Property Schedule						2,250	353,652	0	353,652
Water Pump House (Equipment), 25034 W. Palmer Avenue	Property Schedule							0	331,009	331,009
Wash Water Pipe, 25034 W. Palmer Avenue	Property Schedule							226,791	0	226,791
Filter Control Building, 25034 W. Palmer Avenue	Property Schedule							389,156	0	389,156
Distributed Control System Upgrade, 25034 W. Palmer Avenue	Property Schedule							0	679,676	679,676
Fencing, 25034 W. Palmer Avenue	Property Schedule							0	23,460	23,460

Agency: **City of Coalinga**

Hazard: **Losses from an Earthquake**

Name or Description of Asset	Sources of Information*	Critical Facility	Vulnerable Population	Economic Assets	Special Considerations	Historic/Other Considerations	Building Size (sq. ft.)	Structure Replacement Value (in dollars)**	Contents Value (in dollars)**	100% Structure + Content Total Losses (in dollars)
Mobile Home, 25034 W. Palmer Avenue	Property Schedule						684	16,158	0	16,158
Transit Building, 195 W. Elm Avenue	Property Schedule							305,706	0	305,706
Transit Building, Equipment	Property Schedule							0	40,251	40,251
Bus Barn	Property Schedule							61,230	0	61,230
Bus Barn Equipment	Property Schedule							0	5,749	5,749
380-390 Coalinga Plaza & 100-166 E. Cedar	Property Schedule						6,427	477,783	0	477,783
265-299 Coalinga Plaza	Property Schedule						10,277	637,044	0	637,044
Clock Tower and Equipment, Fifth and Cedar	Property Schedule							0	85,224	85,224
Palmer Avenue, Repeater Station	Property Schedule							0	9,198	9,198
Fire Station, 300 W. Elm Avenue	Property Schedule						12,254	1,421,543	0	1,421,543
Business Personal Property (Misc. Equipment)	Property Schedule							0	183,087	183,087

Agency: **City of Coalinga**

Hazard: **Losses from an Earthquake**

Name or Description of Asset	Sources of Information*	Critical Facility	Vulnerable Population	Economic Assets	Special Considerations	Historic/Other Considerations	Building Size (sq. ft.)	Structure Replacement Value (in dollars)**	Contents Value (in dollars)**	100% Structure + Content Total Losses (in dollars)
Storage	Property Schedule							55,076	0	55,076
Business Personal Property (Misc. Equipment)	Property Schedule							0	17,250	17,250
Fire Hydrants & Alarms Boxes	Property Schedule							0	97,753	97,753
Radio Antenna Mast on Buildings	Property Schedule							0	5,749	5,749
Gas Meters and Regulators	Property Schedule							0	40,251	40,251
Recycling Center, 1255 E. Elm Avenue	Property Schedule							119,835	0	119,835
Recycling Center Mat. (Material Storage Yard), 155 Alcalde Avenue	Property Schedule							0	57,502	57,502
Electronic Data Processing Equipment (Various)	Property Schedule							0	523,960	523,960
Oil & Water Paintings on Exhibition, Various	Property Schedule							0	86,252	86,252
Airplane Hangers, Airport	Property Schedule							574,707	0	574,707
Maintenance Hanger, Airport	Property Schedule						3,000	114,942	0	114,942

Agency: **City of Coalinga**

Hazard: Losses from an Earthquake

Name or Description of Asset	Sources of Information*	Critical Facility	Vulnerable Population	Economic Assets	Special Considerations	Historic/Other Considerations	Building Size (sq. ft.)	Structure Replacement Value (in dollars)**	Contents Value (in dollars)**	100% Structure + Content Total Losses (in dollars)
Flight Service Center, Airport	Property Schedule						2,800	57,470	0	57,470
Fuel System Above Ground, Airport	Property Schedule							114,942	0	114,942
Mobile & Contractors, Various	Property Schedule							0	260,000	260,000
Vehicles, Various Locations	Property Schedule							0	2,687,000	2,687,000

*PEPIP-CA Property Schedule, City of Coalinga (PARSAC), Prepared by Driver Alliant Insurance Services

**Data has been provided by City of Coalinga.

Appendix H
School District Structures and Contents
Replacement Values

Appendix G

District Structures and Contents Replacement Values

By release of Statement 34 on June 30, 1999, the Government Accounting Standards Board, (GASB), a national non-profit organization, now requires that states, local governments and other public agencies annually report (full disclosure) the net value of all capital assets, including infrastructure assets, in order to achieve GAAP (generally accepted accounting principles). GASB 34 defines infrastructure assets as “...long-lived capital assets that are stationary in nature and normally can be preserved for a significantly greater number of years than most capital assets. Examples of infrastructure assets include roads, bridges, tunnels, drainage systems, water and sewer systems, dams and lighting systems...” In addition, land to be valued at original cost without depreciation. The following is a summary of the net value of those capital assets.

Total Values at Risk from Hazards

The total values at risk from specified Natural Hazards are presented as a worst-case baseline. Like other values presented in this plan, these are deceptively low because they do not include the values of all infrastructure, churches, or the local economy.

There are few events that would destroy an entire community, so, in any given disaster such as earthquake or wildfire, the entire City of Coalinga and School District damages would be less than the below total indicated.

Total Value, Property and Contents Replacement	
City of Coalinga	\$1,421,543
Coalinga-Huron Unified School District	\$5,457,016
Total	\$6,878,559

Property and Contents Replacement Values

Agency: Coalinga-Huron Unified School District										
Hazard: Losses from an Earthquake										
Name or Description of Asset	Sources of Information	Critical Facility	Vulnerable Population	Economic Assets	Special Considerations	Historic/Other Considerations	Building Size (sq. ft.)	Structure Replacement Value (in dollars)**	Contents Value (in dollars)**	100% Structure + Content Total Losses (in dollars)
Bishop Elementary School	Appraisal Report						28,559	\$4,313,686	\$139,707	\$4,453,393
Cheney Elementary School	Appraisal Report						16,060	\$1,854,972	\$32,991	\$1,887,963
Dawson Elementary School	Appraisal Report						48,056	\$8,510,372	\$236,034	\$8,746,406
Huron Elementary School	Appraisal Report						84,416	\$10,443,492	\$374,565	\$10,818,057
Sunset Elementary School	Appraisal Report						58,596	\$12,295,919	\$373,188	\$12,669,107
Coalinga Middle School	Appraisal Report						66,446	\$13,944,000	\$341,121	\$14,285,121
Huron Middle School	Appraisal Report						46,142	\$10,824,345	\$314,442	\$11,138,787
Coalinga High School	Appraisal Report						213,892	\$37,534,162	\$1,028,000	\$38,562,162
Cambridge Continuation School	Appraisal Report						37,173	\$5,370,252	\$86,764	\$5,457,016

Agency: **Coalinga-Huron Unified School District**

Hazard: **Losses from an Earthquake**

Name or Description of Asset	Sources of Information	Critical Facility	Vulnerable Population	Economic Assets	Special Considerations	Historic/Other Considerations	Building Size (sq. ft.)	Structure Replacement Value (in dollars)**	Contents Value (in dollars)**	100% Structure + Content Total Losses (in dollars)
Chesnut Continuation School	Appraisal Report						2,360	\$223,266	\$33,954	\$257,220
Community Day School	Appraisal Report						3,003	\$404,800	\$75,000	479,800

*GASB Statement 34. Implementation Valuations 2004

**Data has been provided by Coalinga-Huron Unified School District.

Appendix I
STAPLEE Analysis of
Proposed Mitigation Strategies
City of Coalinga

Project Evaluation Worksheet

Jurisdiction:	California, City of Coalinga	Contact:	Steve Julian
Project Title	Integrate goals and action items	Phone:	(559) 935-1533
Agency:	City of Coalinga	E-mail:	sjulian@coalinga.com
Hazard(s):	Earthquake; Secondary Flooding; Severe Weather; Wildland Fires		
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, and Public Awareness		
Environmental Impact:		Historic Preservation Impact:	
High	X	Medium	Low
High	X	Medium	Low
Importance to Protection of Life/Property and Disaster Recovery		Risk of Hazard Impact:	
High	X	Medium	Low
High		Medium	X
Estimated Cost:		Project Duration:	Ongoing
Value of Facility:	Appendix G	Value of Contents:	Appendix G
Source(s) of Financing:	Internal Funding; Limited to time available from Coalinga staff		
Project Objectives:	Integrate the goals and action items from the Coalinga Natural Hazard Mitigation Plan into existing regulatory documents and programs where appropriate.		
Project Description:	Partnerships and Implementation		
Proposal Date:	Short Term Activity defined as one to two years.		

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Will work aggressively with other agencies to promote sound mitigation concepts at all levels.
	Adversely Affects Segments of the Population Limited; Score: 2	No significant impact to our service population
Technical	Technical Feasibility Yes; Score: 3	
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 3	
Political	Political Support Yes, Score: 2	Understand the importance of fostering strong, proactive working relationships
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 1	
Legal	Authority Yes, Score: 3	
	Action Subject to Legal Challenge No, Score: 1	
Economic	Benefit Yes, Score: 1	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 3	
	Outside Funding Required Potentially, Score: 3	

Evaluation Category	Considerations	Comments
Environmental	Affects Land / Water Bodies Potentially, Score: 2	
	Affects Endangered Species Potentially, Score: 1	All construction must be within state of California environmental codes
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 3	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 43	High Priority	

Project Evaluation Worksheet

Jurisdiction:	City of Coalinga	Contact:	Steve Julian		
Project Title	Identify and pursue funding opportunities to promote hazard mitigation.	Phone:	(559) 935-1533		
Agency:	City of Coalinga	E-mail:	sjulian@coalinga.com		
Hazard(s):	Earthquake; Secondary Flooding; Severe Weather; Wildland Fires				
Flood Zone:	N/A	Base Flood Elevation:	N/A	Erosion Rate:	N/A
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, and Public Awareness				
Environmental Impact:			Historic Preservation Impact:		
High		Medium	X	Low	
High		Medium		Low	X
Importance to Protection of Life/Property and Disaster Recovery			Risk of Hazard Impact:		
High	X	Medium		Low	
High		Medium	X	Low	
Estimated Cost:			Project Duration:	Ongoing	
Value of Facility:	Appendix G		Value of Contents:	Appendix G	
Source(s) of Financing:	Internal Funding; Limited to time available from Coalinga staff				
Project Objectives:	Identify and pursue funding opportunities to develop and implement Coalinga Mitigation Activities.				
Project Description:	Identify Funding Opportunities				
Proposal Date:	Immediate and ongoing				

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Partner with other organizations and agencies in the City of Coalinga to identify grant programs and foundations that may support mitigation activities.
	Adversely Affects Segments of the Population Limited; Score: 3	No significant impact to our service population.
Technical	Technical Feasibility Yes; Score: 3	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 3	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 3	
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	
Legal	Authority Yes, Score: 3	
	Action Subject to Legal Challenge No, Score: 1	

Evaluation Category	Considerations	Comments
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 3	
	Outside Funding Required Potentially, Score: 3	
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	All construction must be within state of California environmental codes
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 45	High Priority	

Project Evaluation Worksheet

Jurisdiction:	City of Coalinga	Contact:	Steve Julian		
Project Title	Mitigation Process Oversight and Control.	Phone:	310325-7110		
Agency:	City of Coalinga	E-mail:	sjulian@coalinga.com		
Hazard(s):	Earthquake; Secondary Flooding; Severe Weather; Wildland Fires.				
Flood Zone:	N/A	Base Flood Elevation:	N/A	Erosion Rate:	N/A
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, and Public Awareness				
Environmental Impact:			Historic Preservation Impact:		
High		Medium	X	Low	
High		Medium		Low	X
Importance to Protection of Life/Property and Disaster Recovery			Risk of Hazard Impact:		
High	X	Medium		Low	
High		Medium	X	Low	
Estimated Cost:		Project Duration:	Ongoing		
Value of Facility:	Appendix G	Value of Contents:	Appendix G		
Source(s) of Financing:	Internal Funding; Limited to time and resources available from Coalinga staff.				
Project Objectives:	Develop a sustainable process for implementing, monitoring and evaluating.				
Project Description:	Coordination and implementation of Coalinga Mitigation Activities.				
Proposal Date:	Immediate and ongoing.				
Evaluation Category	Considerations		Comments		
Social	Community Acceptance Yes, Score: 3		Establish clear roles for participants, meeting regularly to pursue and evaluate implementation strategies.		
	Adversely Affects Segments of the Population Limited; Score: 3		Monitor hazard mitigation implementation through surveys and other reporting methods.		
Technical	Technical Feasibility Yes; Score: 3		Will pursue Federal Grant opportunities.		
	Long Term Solution Dynamic Process, Score: 3				
	Secondary Impacts Yes, Score: 2		As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.		
Administrative	Staffing Yes, Score: 1		Efforts will be limited to availability of staff time.		
	Funding Allocated Yes, Score: 1		Limited by availability of existing capital budget for 2005 and 2006		
	Maintenance / Operations Yes, Score: 1				
Political	Political Support Yes, Score: 3		Establish measurable standards to evaluate mitigation policies and provide a mechanism to update and revise the mitigation plan.		
	Plan Proponent Yes, Score: 2				
	Public Support Limited Involvement, Score: 2				
Legal	Authority Yes, Score: 3				
	Action Subject to Legal Challenge No, Score: 1				

Evaluation Category	Considerations	Comments
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 3	
	Outside Funding Required Potentially, Score: 3	
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 45	High Priority	

Project Evaluation Worksheet

Jurisdiction:	City of Coalinga	Contact:	Steve Julian		
Project Title	Public Awareness, Protect Life and Property	Phone:	(559) 935-1533		
Agency:	City of Coalinga	E-mail:	sjulian@coalinga.com		
Hazard(s):	Earthquake; Secondary Flooding; Severe Weather; Wildland Fires.				
Flood Zone:	N/A	Base Flood Elevation:	N/A	Erosion Rate:	N/A
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, and Public Awareness				
Environmental Impact:			Historic Preservation Impact:		
High		Medium	X	Low	
High		Medium		Low	X
Importance to Protection of Life/Property and Disaster Recovery:			Risk of Hazard Impact:		
High		Medium	X	Low	
High		Medium	X	Low	
Estimated Cost:		Project Duration:	Ongoing		
Value of Facility:	Appendix G	Value of Contents:	Appendix G		
Source(s) of Financing:	Internal Funding; Limited to time and resources available from Coalinga staff.				
Project Objectives:	Develop public and private relationships to foster natural hazard mitigation program coordination and collaboration in the City of Coalinga.				
Project Description:	Develop inventories of at-risk buildings and facilities and prioritize mitigation projects that will reduce risk, facilitate recovery and resumption to prevent the loss of Coalinga funding.				
Proposal Date:	Immediate and ongoing.				

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Make the Coalinga Natural Hazards Mitigation Plan available to the public by publishing the plan electronically on the Cities web.
	Adversely Affects Segments of the Population Limited; Score: 2	Conduct natural hazards awareness programs for employees and citizens residing in or near the City of Coalinga.
Technical	Technical Feasibility Yes; Score: 2	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 3	Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare employees, and citizens for all disasters.
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	

Evaluation Category	Considerations	Comments
Legal	Authority Yes, Score: 3	
	Action Subject to Legal Challenge No, Score: 1	
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 2	
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 40	Medium Priority	

Project Evaluation Worksheet

Jurisdiction:	City of Coalinga	Contact:	Steve Julian		
Project Title	Develop Inventories of at-risk buildings	Phone:	(559) 935-1533		
Agency:	City of Coalinga	E-mail:	sjulian@coalinga.com		
Hazard(s):	Earthquake; Secondary Flooding; Severe Weather; Wildland Fires.				
Flood Zone:	N/A	Base Flood Elevation:	N/A	Erosion Rate:	N/A
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, and Public Awareness				
Environmental Impact:			Historic Preservation Impact:		
High	X	Medium		Low	
High		Medium	X	Low	
Importance to Protection of Life/Property and Disaster Recovery:			Risk of Hazard Impact:		
High		Medium	X	Low	
High		Medium	X	Low	
Estimated Cost:			Project Duration:	Ongoing	
Value of Facility:	Appendix G		Value of Contents:	Appendix G	
Source(s) of Financing:	Internal Funding; Limited to time and resources available from Coalinga staff.				
Project Objectives:	Develop inventories of at-risk buildings and facilities and prioritize mitigation projects that will reduce risk, facilitate recovery and resumption to prevent the loss of City funding.				
Project Description:	Coordinate with the City of Coalinga, and neighboring jurisdictions to identify available resources should any part of a jurisdictions infrastructure be overwhelmed or fail that could impact the city.				
Proposal Date:	Immediate and ongoing.				

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare employees and citizens for all disasters.
	Adversely Affects Segments of the Population Limited; Score: 3	Conduct natural hazards awareness programs at employees and citizens residing in or near the City.
Technical	Technical Feasibility Yes; Score: 2	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 3	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	

Evaluation Category	Considerations	Comments
Political	Political Support Yes, Score: 3	Identify opportunities for partnering with citizens, private contractors, and other jurisdictions to increase availability of equipment and manpower for efficiency of response efforts.
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	
Legal	Authority Yes, Score: 3	Familiarize public officials of requirements regarding public assistance for disaster response.
	Action Subject to Legal Challenge No, Score: 1	
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 3	
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 43	High Priority	

Project Evaluation Worksheet

Jurisdiction:	City of Coalinga	Contact:	Steve Julian		
Project Title	Improve internal facility non-structural to resist damage due to earthquakes.	Phone:	(559) 935-1533		
Agency:	City of Coalinga	E-mail:	sjulian@coalinga.com		
Hazard(s):	Earthquake; Secondary Flooding; Severe Weather; Wildland Fires.				
Flood Zone:	N/A	Base Flood Elevation:	N/A	Erosion Rate:	N/A
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, and Public Awareness				
Environmental Impact:			Historic Preservation Impact:		
High	X	Medium		Low	
High		Medium	X	Low	
Importance to Protection of Life/Property and Disaster Recovery:			Risk of Hazard Impact:		
High	X	Medium		Low	
High		Medium	X	Low	
Estimated Cost:		Project Duration:	Ongoing		
Value of Facility:	Appendix G	Value of Contents:	Appendix G		
Source(s) of Financing:	Internal Funding; Limited to time and resources available from Coalinga staff.				
Project Objectives:	Secure all items in buildings to prevent movement due to seismic activity.				
Project Description:	Improve internal facility non-structural resistance to damage and injury due to earthquakes.				
Proposal Date:	Immediate and ongoing.				

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	No barriers other than financial and time to complete this project.
	Adversely Affects Segments of the Population Limited; Score: 3	
Technical	Technical Feasibility Yes; Score: 2	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 3	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time and financial resources.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 3	Develop strategies to mitigate risk to City facilities.
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	
Legal	Authority Yes, Score: 3	Familiarize public officials of requirements.
	Action Subject to Legal Challenge No, Score: 1	

Evaluation Category	Considerations	Comments
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 3	
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 43	High Priority	

Project Evaluation Worksheet

Jurisdiction:	City of Coalinga	Contact:	Steve Julian		
Project Title:	Educational Programs	Phone:	(559) 935-1533		
Agency:	City of Coalinga	E-mail:	sjulian@coalinga.com		
Hazard(s):	Earthquake; Secondary Flooding; Severe Weather; Wildland Fires.				
Flood Zone:	N/A	Base Flood Elevation:	N/A	Erosion Rate:	N/A
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, and Public Awareness				
Environmental Impact:			Historic Preservation Impact:		
High		Medium	X	Low	
High		Medium	X	Low	
Importance to Protection of Life/Property and Disaster Recovery:			Risk of Hazard Impact:		
High		Medium	X	Low	
High		Medium	X	Low	
Estimated Cost:		Project Duration:	Ongoing		
Value of Facility:	Appendix G		Value of Contents:	Appendix G	
Source(s) of Financing:	Internal Funding; Limited to time and resources available from Coalinga staff.				
Project Objectives:	Develop a complete baseline survey to gather perceptions of private citizens, employees and any interested party regarding natural hazard risks and identify mitigation needs.				
Project Description:	Develop, enhance and implement education programs aimed at mitigating natural hazards, and reducing the risk to employees, and citizens residing near or within the city.				
Proposal Date:	Immediate and ongoing. Long Term Activity				

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 2	Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare employees and citizens for all disasters.
	Adversely Affects Segments of the Population Limited; Score: 2	Conduct natural hazards awareness programs at sites for employees and citizens residing at or near the City.
Technical	Technical Feasibility Yes; Score: 2	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	This is a long-term project that will require continuous evaluation.
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 2	Make the City of Coalinga Natural Hazards Mitigation Plan available to the public by publishing the plan electronically on the cities web site.
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 1	

Evaluation Category	Considerations	Comments
Legal	Authority Yes, Score: 3	Familiarize public officials of requirements regarding public assistance for disaster response.
	Action Subject to Legal Challenge No, Score: 1	
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 2	This will require a tremendous commitment from City of Coalinga resources.
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 37	Medium Priority	

Appendix J
STAPLEE Analysis of
Proposed Mitigation Strategies
Coalinga-Huron Unified
School District

Project Evaluation Worksheet

Jurisdiction:	Coalinga-Huron Unified School District	Contact:	William Baker
Project Title	Integrate goals and action items	Phone:	(559) 935-7500
Agency:	CHUSD	E-mail:	bbaker@chusd.k12.ca.us
Hazard(s):	Earthquake; Flooding; Severe Weather; Wildland Fires		
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness		
Environmental Impact:		Historic Preservation Impact:	
High	Medium	X	Low
High	Medium	X	Low
Importance to Protection of Life/Property and Disaster Recovery:		Risk of Hazard Impact:	
High	X	Medium	Low
High	Medium	X	Low
Estimated Cost:		Project Duration:	Ongoing
Value of Facility:	Appendix G	Value of Contents:	Appendix H
Source(s) of Financing:	Internal Funding; Limited to time available from CHUSD staff		
Project Objectives:	Integrate the goals and action items from the CHUSD Natural Hazard Mitigation Plan into existing regulatory documents and programs where appropriate.		
Project Description:	Partnerships and Implementation		
Proposal Date:	Short Term Activity defined as one to two years.		

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 2	Will work aggressively with other agencies to promote sound mitigation concepts at all levels.
	Adversely Affects Segments of the Population Limited; Score: 2	No significant impact to our service population
Technical	Technical Feasibility Yes; Score: 3	
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 2	Understand the importance of fostering strong, proactive working relationships
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 1	
Legal	Authority Yes, Score: 2	
	Action Subject to Legal Challenge No, Score: 1	
Economic	Benefit Yes, Score: 1	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 1	
	Outside Funding Required Potentially, Score: 1	

Evaluation Category	Considerations	Comments
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	All construction must be within state of California environmental codes
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 3	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 34	Medium Priority	

Project Evaluation Worksheet

Jurisdiction:	Coalinga-Huron Unified School District	Contact:	William Baker
Project Title:	Identify and pursue funding opportunities to promote hazard mitigation.	Phone:	(559) 935-7500
Agency:	CHUSD	E-mail:	bbaker@chusd.k12.ca.us
Hazard(s):	Earthquake; Flooding; Severe Weather; Wildland Fires		
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness		
Environmental Impact:		Historic Preservation Impact:	
High	Medium X Low	High	Medium Low X
Importance to Protection of Life/Property and Disaster Recovery		Risk of Hazard Impact:	
High X Medium Low	High Medium X Low		
Estimated Cost:		Project Duration:	Ongoing
Value of Facility:	Appendix G	Value of Contents:	Appendix H
Source(s) of Financing:	Internal Funding; Limited to time available from CHUSD staff		
Project Objectives:	Identify and pursue funding opportunities to develop and implement District Mitigation Activities.		
Project Description:	Identify Funding Opportunities		
Proposal Date:	Immediate and ongoing		

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Partner with other organizations and agencies in the City of Coalinga to identify grant programs and foundations that may support mitigation activities.
	Adversely Affects Segments of the Population Limited; Score: 3	No significant impact to our service population.
Technical	Technical Feasibility Yes; Score: 3	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 3	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 3	
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	
Legal	Authority Yes, Score: 3	
	Action Subject to Legal Challenge No, Score: 1	
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 3	
	Outside Funding Required Potentially, Score: 3	

Evaluation Category	Considerations	Comments
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	All construction must be within state of California environmental codes
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 45	High Priority	

Project Evaluation Worksheet

Jurisdiction:	Coalinga-Huron Unified School District	Contact:	William Baker
Project Title	Mitigation Process Oversight and Control.	Phone:	(559) 935-7500
Agency:	CHUSD	E-mail:	bbaker@chusd.k12.ca.us
Hazard(s):	Earthquake; Flooding; Severe Weather; Wildland Fires.		
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness		
Environmental Impact:		Historic Preservation Impact:	
High	Medium	X	Low
High	Medium		Low
Importance to Protection of Life/Property and Disaster Recovery:		Risk of Hazard Impact:	
High	X	Medium	Low
High		Medium	X
Estimated Cost:		Project Duration:	Ongoing
Value of Facility:	Appendix G	Value of Contents:	Appendix H
Source(s) of Financing:	Internal Funding; Limited to time and resources available from CHUSD staff.		
Project Objectives:	Develop a sustainable process for implementing, monitoring and evaluating.		
Project Description:	Coordination and implementation of District Mitigation Activities.		
Proposal Date:	Immediate and ongoing.		

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Establish clear roles for participants, meeting regularly to pursue and evaluate implementation strategies.
	Adversely Affects Segments of the Population Limited; Score: 3	Monitor hazard mitigation implementation by school site through surveys and other reporting methods.
Technical	Technical Feasibility Yes; Score: 3	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 3	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 3	Establish measurable standards to evaluate mitigation policies and provide a mechanism to update and revise the mitigation plan.
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	
Legal	Authority Yes, Score: 3	
	Action Subject to Legal Challenge No, Score: 1	

Evaluation Category	Considerations	Comments
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 3	
	Outside Funding Required Potentially, Score: 3	
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 45	High Priority	

Project Evaluation Worksheet

Jurisdiction:	Coalinga-Huron Unified School District	Contact:	William Baker
Project Title:	Public Awareness, Protect Life and Property	Phone:	(559) 935-7500
Agency:	CHUSD	E-mail:	bbaker@chusd.k12.ca.us
Hazard(s):	Earthquake; Flooding; Severe Weather; Wildland Fires.		
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness		
Environmental Impact:		Historic Preservation Impact:	
High	Medium	X	Low
High	Medium	X	Low
Importance to Protection of Life/Property and Disaster Recovery:		Risk of Hazard Impact:	
High	Medium	X	Low
High	Medium	X	Low
Estimated Cost:		Project Duration:	Ongoing
Value of Facility:	Appendix G	Value of Contents:	Appendix H
Source(s) of Financing:	Internal Funding; Limited to time and resources available from CHUSD staff.		
Project Objectives:	Develop public and private relationships to foster natural hazard mitigation program coordination and collaboration in the CHUSD.		
Project Description:	Develop inventories of at-risk school buildings and facilities and prioritize mitigation projects that will reduce risk, facilitate recovery and resumption to prevent the loss of District funding.		
Proposal Date:	Immediate and ongoing.		

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Make the CHUSD Natural Hazards Mitigation Plan available to the public by publishing the plan electronically on the District web.
	Adversely Affects Segments of the Population Limited; Score: 2	Conduct natural hazards awareness programs at school sites for students, parents, employees and citizens residing in or near the District..
Technical	Technical Feasibility Yes; Score: 2	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 3	Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare students, parents and employees for all disasters..
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	
Legal	Authority Yes, Score: 3	
	Action Subject to Legal Challenge No, Score: 1	

Evaluation Category	Considerations	Comments
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 2	
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 40	Medium Priority	

Project Evaluation Worksheet

Jurisdiction:	Coalinga-Huron Unified School District	Contact:	William Baker
Project Title	Develop Inventories of at-risk school buildings	Phone:	(559) 935-7500
Agency:	CHUSD	E-mail:	bbaker@chusd.k12.ca.us
Hazard(s):	Earthquake; Flooding; Severe Weather; Wildland Fires.		
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness		
Environmental Impact:		Historic Preservation Impact:	
High	X	Medium	Low
High		Medium	X
Importance to Protection of Life/Property and Disaster Recovery		Risk of Hazard Impact:	
High		Medium	X
Estimated Cost:		Project Duration:	
		Ongoing	
Value of Facility:		Value of Contents:	
Appendix G		Appendix H	
Source(s) of Financing:		Internal Funding; Limited to time and resources available from CHUSD staff.	
Project Objectives:		Develop inventories of at-risk school buildings and facilities and prioritize mitigation projects that will reduce risk, facilitate recovery and resumption to prevent the loss of District funding.	
Project Description:		Coordinate with the City of Coalinga, and neighboring jurisdictions to identify available resources should any part of a jurisdictions infrastructure be overwhelmed or fail that could impact the District.	
Proposal Date:		Immediate and ongoing.	

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 3	Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare students, parents, and employees for all disasters..
	Adversely Affects Segments of the Population Limited; Score: 3	Conduct natural hazards awareness programs at school sites for students, parents, employees and citizens residing in or near the District..
Technical	Technical Feasibility Yes; Score: 2	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 3	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	Limited by availability of existing capital budget for 2005 and 2006
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 3	Identify opportunities for partnering with citizens, private contractors, and other jurisdictions to increase availability of equipment and manpower for efficiency of response efforts..
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 2	
Legal	Authority Yes, Score: 3	Familiarize public officials of requirements regarding public assistance for disaster response.
	Action Subject to Legal Challenge No, Score: 1	

Evaluation Category	Considerations	Comments
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 3	
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 43	High Priority	

Project Evaluation Worksheet

Jurisdiction:	Coalinga-Huron Unified School District	Contact:	William Baker
Project Title	Educational Programs	Phone:	(559) 935-7500
Agency:	CHUSD	E-mail:	bbaker@chusd.k12.ca.us
Hazard(s):	Earthquake; Flooding; Severe Weather; Wildland Fires.		
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness		
Environmental Impact:		Historic Preservation Impact:	
High	Medium	X	Low
High	Medium	X	Low
Importance to Protection of Life/Property and Disaster Recovery:		Risk of Hazard Impact:	
High	Medium	X	Low
High	Medium	X	Low
Estimated Cost:		Project Duration:	Ongoing
Value of Facility:	Appendix G	Value of Contents:	Appendix H
Source(s) of Financing:	Internal Funding; Limited to time and resources available from CHUSD staff.		
Project Objectives:	Develop a complete baseline survey to gather perceptions of private citizens, employees and any interested party regarding natural hazard risks and identify mitigation needs.		
Project Description:	Develop, enhance and implement education programs aimed at mitigating natural hazards, and reducing the risk to students, their parents, employees, and citizens residing near or within the District		
Proposal Date:	Immediate and ongoing. Long Term Activity		

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 2	Develop outreach materials for mitigation, preparedness, response and recovery that will educate and prepare students, parents, and employees for all disasters..
	Adversely Affects Segments of the Population Limited; Score: 2	Conduct natural hazards awareness programs at school sites for students, parents employees and citizens residing at or near the District
Technical	Technical Feasibility Yes; Score: 2	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	This is a long-term project that will require continuous evaluation.
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 2	Make the CHUSD Natural Hazards Mitigation Plan available to the public by publishing the plan electronically on the District we site.
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 1	

Evaluation Category	Considerations	Comments
Legal	Authority Yes, Score: 3	Familiarize public officials of requirements regarding public assistance for disaster response.
	Action Subject to Legal Challenge No, Score: 1	
Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 2	This will require a tremendous commitment from CHUSD resources.
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 3	
Final Score: 37	Medium Priority	

Project Evaluation Worksheet

Jurisdiction:	Coalinga-Huron Unified School District	Contact:	William Baker				
Project Title:	Complete Capital Improvement Plan Requirements	Phone:	(559) 935-7500				
Agency:	CHUSD	E-mail:	bbaker@chusd.k12.ca.us				
Hazard(s):	Earthquake; Flooding; Severe Weather; Wildland Fires.						
Critical Facility/Population At Risk:	Property Protection; Structural Protection; Prevention Measure; Staff, Student and Public Awareness						
Environmental Impact:			Historic Preservation Impact:				
High	Medium	Low	X	High	Medium	Low	X
Importance to Protection of Life/Property and Disaster Recovery:			Risk of Hazard Impact:				
High	Medium	Low	X	High	Medium	X	Low
Estimated Cost:				Project Duration:		Ongoing	
Value of Facility:		Appendix G		Value of Contents:		Appendix H	
Source(s) of Financing:		Internal Funding; Limited to time and resources available from CHUSD staff.					
Project Objectives:		Replace, repair, and/or upgrade all utility systems identified in the Capital Improvement Plan. Overall objective is to protect Life and Property.					
Project Description:		Complete all work needed listed in the Capital Improvement Plan that reduces hazards to students, employees, and protects facilities.					
Proposal Date:		Immediate and ongoing. Long Term Activity					

Evaluation Category	Considerations	Comments
Social	Community Acceptance Yes, Score: 2	Involve the community to the fullest extent possible.
	Adversely Affects Segments of the Population Limited; Score: 2	
Technical	Technical Feasibility Yes; Score: 2	Will pursue Federal Grant opportunities.
	Long Term Solution Dynamic Process, Score: 2	
	Secondary Impacts Yes, Score: 2	As opportunities for improvement are identified will impact on level of funding necessary to make corrective changes.
Administrative	Staffing Yes, Score: 1	Efforts will be limited to availability of staff time.
	Funding Allocated Yes, Score: 1	This is a long-term project that will require continuous evaluation.
	Maintenance / Operations Yes, Score: 1	
Political	Political Support Yes, Score: 2	
	Plan Proponent Yes, Score: 2	
	Public Support Limited Involvement, Score: 1	
Legal	Authority Yes, Score: 1	
	Action Subject to Legal Challenge No, Score: 1	

Economic	Benefit Yes, Score: 3	
	Cost of Action Yes, Must be budgeted for, Score: 1	Research and seek out funding sources to meet any identified short fall to complete all projects identified in the Capital Improvement Plan.
	Contributes to Economic Goals Yes, Score: 2	
	Outside Funding Required Potentially, Score: 2	This will require a tremendous commitment from CHUSD resources.
Environmental	Affects Land / Water Bodies Potentially, Score: 1	
	Affects Endangered Species Potentially, Score: 1	
	Affects Hazardous Materials and Waste Sites N/A	Insure that all new construction meets or exceeds standards set by the State Office of Architects.
	Consistent with Community Environmental Goals Yes, Score: 2	
	Consistent with Federal Laws Yes, Score: 1	
Final Score: 37	Low Priority	