

Appendix A: Planning Process





Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Glenn County MJHMP Steering Committee Meeting #1 Agenda

Date: Thursday, 7 May 2015
Time: 2.00pm to 4.00pm
Location: Glenn County Agricultural/Air Department Conference Room
720 North Colusa Street
Willows CA 95988

- Welcome and Introductions
- Project Overview
- Multi-Jurisdiction Hazard Mitigation Planning Process
- Project Schedule

{SESSION BREAK}

- Hazard Identification
- Community Engagement Strategy Brainstorm
- Next Steps

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Glenn County, CA Multi-Jurisdiction Hazard Mitigation Plan



Steering Committee #1
May 7, 2015

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Agenda



- Welcome and Introductions
- Project Overview
- Multi-Jurisdiction Hazard Mitigation Planning Process
- Project Schedule

{SESSION BREAK}

- Hazard Identification
- Community Engagement Strategy Brainstorm
- Next Steps

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Project Overview



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Project Team



Project Team Member	Project Team Role
Wynne Kwan, AICP, LEED AP (BD+C)	Project Manager
Emma Reed	Hazard Mitigation Planner
Lisa Messano, CFM	Community Engagement Specialist
Jim McPherson, GISP	GIS Specialist
Richard Harmon	GIS/Hazus Specialist
Carver Struve, CFM	Hazard Mitigation Technical Advisor
Michael Skowronek, GISP, CFM, AICP	Principal in Charge


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Michael Baker INTERNATIONAL **Project Overview**

- Disaster Mitigation Act of 2000 (DMA 2000)
 - Amended Federal Stafford Act providing the legal basis for FEMA mitigation planning requirements for State, local, and Indian Tribal governments as a condition of mitigation grant assistance.
 - Hazard Mitigation Plans must be updated, resubmitted, and approved every 5 years.

- What is Hazard Mitigation?
 - Any sustained action taken to reduce or eliminate long-term risk to life and property resulting from natural hazards.




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Michael Baker INTERNATIONAL **Project Overview**

- What is a Hazard Mitigation Plan?
 - Official statement of the County's (and participating jurisdictions') hazards, vulnerability analysis, and mitigation strategy.
 - Living document that guides implementation activities to achieve the greatest reduction of vulnerability, resulting in saved lives, reduced injuries, reduced property damages, and protection for the environment.

- Why have a Hazard Mitigation Plan?
 - Ensure public consensus through a planning process on mitigation actions that best suits the County and participating jurisdictions.
 - Focus efforts and limited resources on the most highly desirable mitigation projects.
 - Vehicle to apply for and receive mitigation grants which can augment local mitigation activities already being done.
 - Reduce vulnerability and enable communities to recover more quickly from disasters.

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Michael Baker INTERNATIONAL **Project Overview** 

Beyond FEMA Compliance: A Call to Action – Moving toward Successful Mitigation Action Implementation

- County- and Participating Jurisdiction-specific MJHMP with detailed implementation information
 - Baseline for mitigation grant submittals
- Community-driven, transparent, and collaborative planning process that is fully documented
 - Legitimacy for County and Participating Jurisdiction decision-making
 - Keeps everyone on the same page moving forward
- Integrated with other existing planning mechanisms
 - Open channels of interdepartmental and interagency communication
 - Capitalize on all available hazard mitigation and risk reduction implementation opportunities
- Public outreach and awareness to communicate risks from hazards

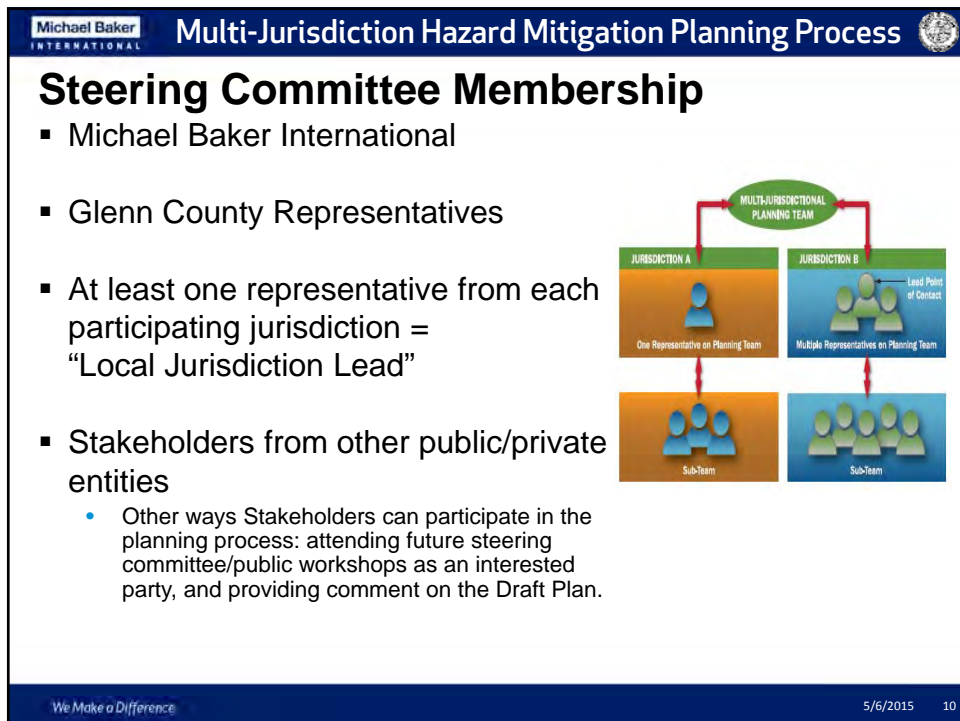
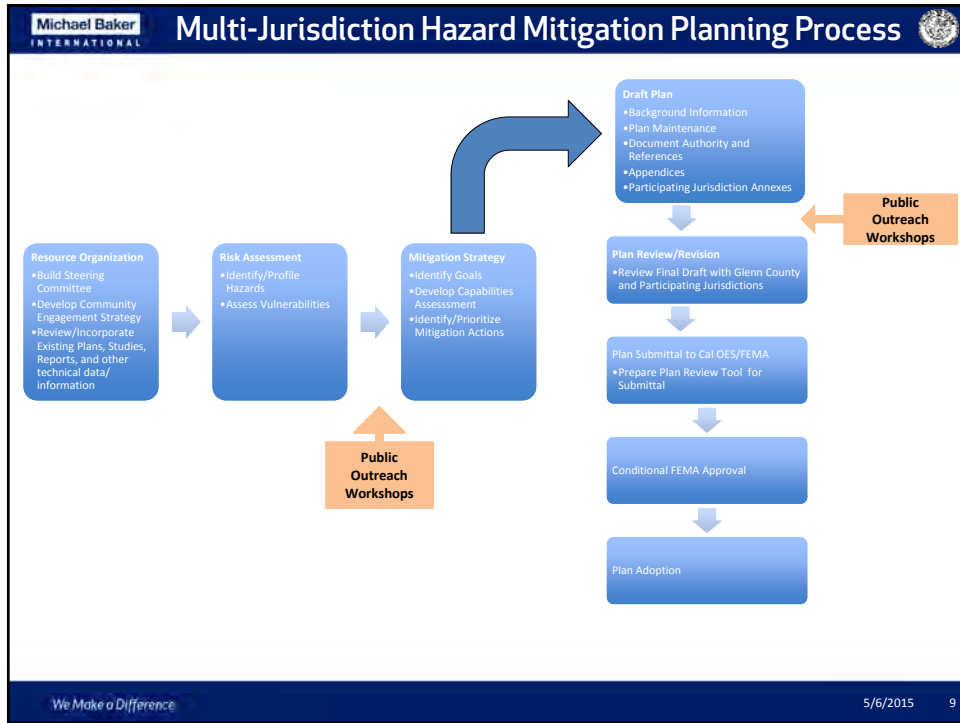
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Multi-Jurisdiction Planning Process



The collage consists of three rectangular images. The left image shows a close-up of parched, cracked soil. The middle image shows a branch with several green, unripe fruits. The right image shows a night scene of a town with a large fire burning on a hillside, with bright orange and yellow flames and smoke.



Michael Baker INTERNATIONAL **Multi-Jurisdiction Hazard Mitigation Planning Process** 

Roles and Responsibilities


Baker

- Oversee, manage, and document completion of all project tasks in coordination with Glenn County
- Facilitate Steering Committee Meetings and Community Engagement Activities
- Facilitate concurrent, localized planning process for each participating jurisdiction via conference call, as necessary

Glenn County

- Serve as lead coordinating agency Provide guidance and leadership for MJHMP development
- Assist with collection of documents, GIS data, and other information
- Coordinate logistics for all project meetings
- Host/manage project website
- Respond to general inquiries from the public, stakeholders, etc.
- Coordinate with all participating jurisdictions
- Coordinate plan adoption procedures to ensure plan adoption in a timely manner
- Commit to Plan Maintenance Process after FEMA plan approval and adoption, including the Plan Update process every 5 years (as required by FEMA to remain eligible for FEMA grant funding)

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Michael Baker INTERNATIONAL **Multi-Jurisdiction Hazard Mitigation Planning Process** 

Roles and Responsibilities

Participating Jurisdictions

- Designate a Local Jurisdiction Lead who will attend all Steering Committee meetings
- Provide guidance and leadership for MJHMP development
- Coordinate logistics for concurrent, localized planning process
- Coordinate with and report back to supporting members and other local staff from his/her jurisdiction at various points throughout the planning process
- Assist with data collection and information sharing in support of MJHMP development*
- Assist with community and stakeholder engagement efforts
- Develop jurisdiction-specific mitigation action plans in coordination with other local staff*
- Review/comment on draft plan materials*
- Coordinate local plan adoption procedures to ensure plan adoption in a timely manner
- Commit to Plan Maintenance Process after FEMA plan approval and adoption, including the Plan Update process every 5 years (as required by FEMA to remain eligible for FEMA grant funding)

** Denotes roles and responsibilities of Participating Jurisdiction Supporting Members*

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Community Engagement: Transparency and Consensus Building for Decision Making and Ultimate Success of the MJHMP

- Develop Community Engagement Strategy that is appropriate in scale with consistent communication and project messaging
 - Foundation for future outreach to communicate risks
- Various mediums and venues to communicate the planning process and obtain feedback, including web-based participation
- Two Workshops/Open Houses → opportunity to be part of the planning process, learn about hazard risks, and share personal stories and pictures of hazard events
- Community Engagement process will be documented throughout

□ Brainstorm as a group other Community Engagement Ideas to finalize Community Engagement Strategy

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Data Collection

- Use best available and readily useable data
 - Glenn County and participating jurisdictions will help assemble and provide local data to Baker
 - Will be used in combination with other data/information made available through the State of California, Federal Agencies, and other reliable sources
- Data Collection Guide will also be used to collect data/information from participating jurisdictions and assist in making decisions during the planning process
 - Provides supporting documentation of the planning process and participation
- Community engagement efforts will provide helpful input for the plan process


□ Gather critical documents/studies/data/information required for MJHMP development

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Data Collection: Compilation/Review of Existing Resource Documents and Mapping

- **County/City General Plans** and Area/Specific Plans
- Special District Long-Term Planning Documents
- **Glenn County Community Wildfire Protection Plan**
- **Hazard Mitigation Plans of Neighboring Communities**
- Flood Insurance Rate Maps (FIRMs)
- **CA DWR Flood Futures**
- Parks, Recreation, and Open Space Plans
- USGS Earthquake Shake Maps
- Stormwater Management Plans
- Agricultural Water Management Plans
- Regional Utility Systems
- County/City Parcel Information
- **County/City Zoning Ordinances/Municipal**
- Codes County/City Development Regulations
- Economic Development Plans
- Urban Water Management Plans
- **2013 CA State Hazard Mitigation Plan**
- GIS Data
- **CalOES MyPlan, GIS Hazard Mapping Tool**



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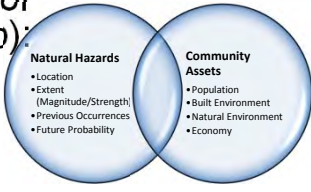
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Risk Assessment

- **Hazard Profiles for (but not limited to):**
 - Wildfires
 - Flood
 - Drought
 - Extreme Temperatures
 - Levee Failure
 - Dam Failure
 - Earthquake

Natural Hazards

- Location
- Extent (Magnitude/Strength)
- Previous Occurrences
- Future Probability



Community Assets

- Population
- Built Environment
- Natural Environment
- Economy

RISK

- **Vulnerability Assessment**
 - Impacts
 - Asset Inventory
 - Vulnerable Populations and Structures
 - Vulnerability of Future Land Uses and Development Trends

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Mitigation Action Strategy

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    graph TD
      A[Identify Goals] --> B[Develop Capabilities Assessment]
      B --> C[Identify/Prioritize Mitigation Actions]
      C --> D[Develop Implementation Strategy]
      D --> A
    
```

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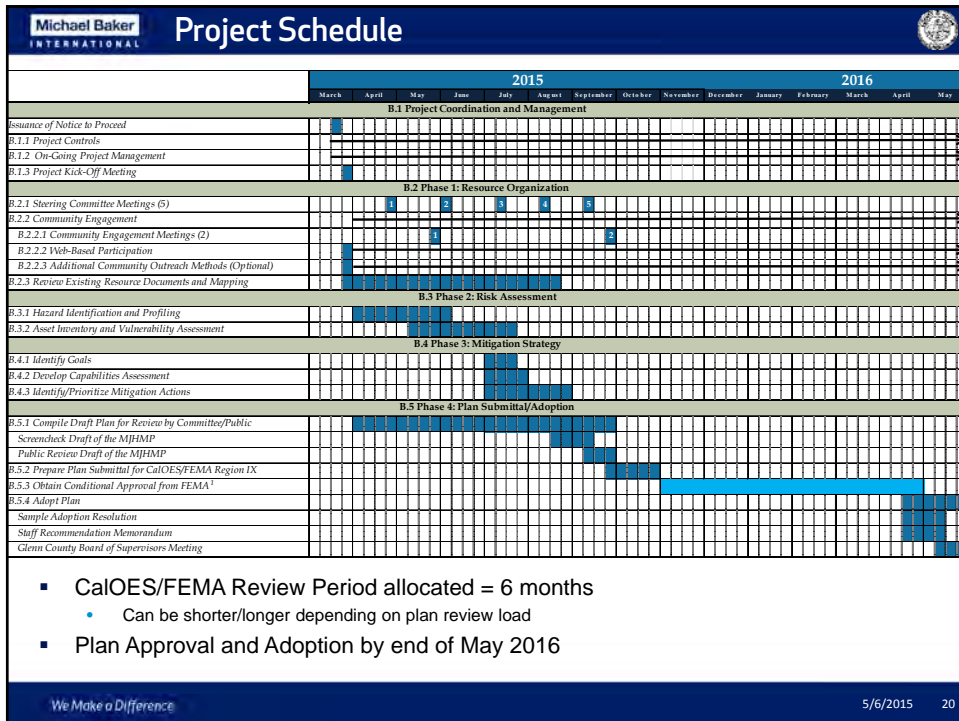
Plan Compilation for Submittal

- Community Profile
 - Geography/Environment
 - Community Facts
 - Population and Demographics
 - Land Use/Development Trends
- Planning Process
- Risk Assessment
- Mitigation Action Strategy
- Plan Maintenance for the Next 5 Years
 - Process for Monitoring, Evaluating, and Updating the MJHMP
 - Incorporation into Other Planning Mechanisms
 - Continued Public Involvement
- Appendices of supporting documentation, etc.
- Jurisdiction Annexes for each participating jurisdiction


```

    graph TD
      A[Submit plan to CalOES for State Review] --> B[CalOES submits plan to FEMA Region IX for review]
      B --> C[FEMA issues "Approval Pending Adoption"]
      C --> D[Participating Jurisdictions adopt plan and submit resolutions]
      D --> E[FEMA issues approval letter and final plan]
    
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Questions?

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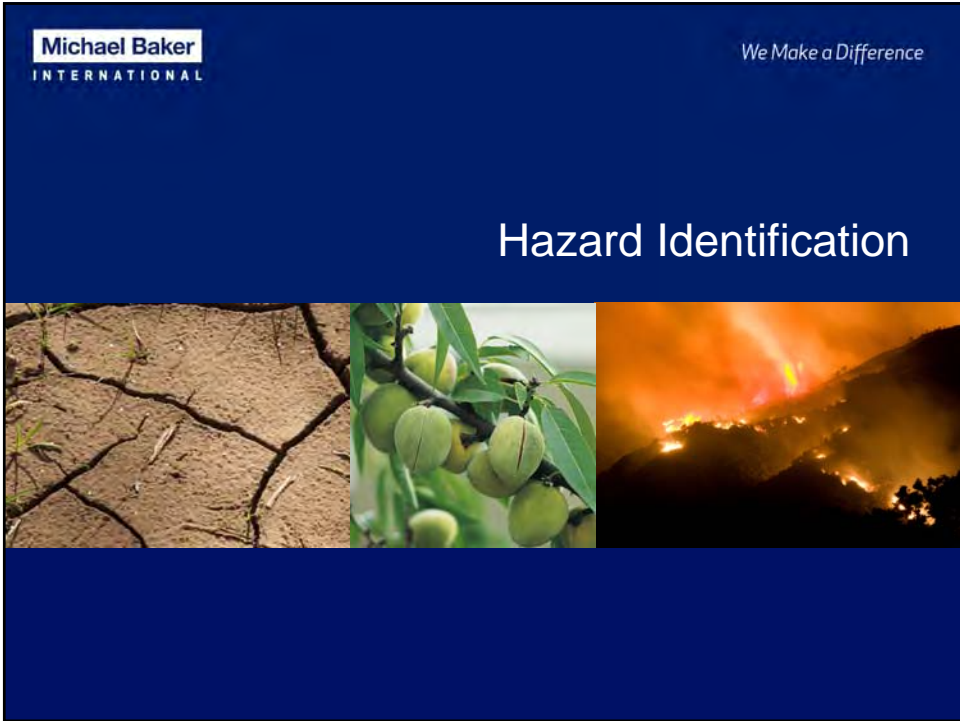
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TIME FOR A BREAK


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Michael Baker INTERNATIONAL **Hazard Identification** 

- Focus is on natural hazards
 - Human-induced/man-made hazards can be addressed in EOPs and SOPs
- Which hazards have the potential to impact Glenn County? Consider:
 - Past occurrences, disaster declarations, and other sources for historical occurrences and impacts from those events
 - Review hazards that are of concern to California and neighboring communities
 - Mapped hazard information showing location/spatial extent and magnitude/extent
 - Community priorities/assets (population, economy, structures, infrastructure, critical facilities, natural environment, etc.) and how they can be potentially impacted by hazard events
- Risk Assessment section of the MJHMP must assess each participating jurisdiction's risks where they vary from the risks facing the entire planning area.



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CA State Declarations: 1950 to Present

Declaration Date	Incident Type	Explanation
CAL OES Emergency and Disaster Proclamations/Executive Orders		
5/10/2006	Severe Storms	Roadway Damage
1/5/2008 to 1/14/2008	Winter Storms	
2/27/2009	Drought	3-year State-wide Drought
1/17/2014	Drought	State of Emergency Declaration
Other Disasters		
11/21/1950	Flood	Statewide Floods
5/20/1957	Heavy Rains	State of Emergency for producing areas of Northern California
2/26/1958	Flood	Heavy rains & Flooding
9/18/1965	Wildfire	Major and Widespread Fires
2/1973	Storms/ Floods	
1973	Drought	Drought conditions declared for Glenn, San Benito, and Santa Clara Counties; \$8M agricultural loss
2/9/1976	Drought	1976/1977 were two of the driest years in CA history. Most severe in northern 2/3 of CA.
3/5/1980	Severe Storms	Rain, Winds, Mudslides, & Flooding
10/26/1982	Severe Storms	Rains causing agricultural losses

- 4 Emergency/ Disaster Proclamations/ Executive Orders
- 9 Other Disaster Events
- Floods, Severe Storms, and Droughts are the major hazard events
- Currently in a State of Emergency Drought situation

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Storm Event Databases: 1953 to 2014

HAZARD/ EVENT TYPE	NCEI (1953-2014)	SHELDUS (1960-2013)
Blizzard	1	
Cold/Wind Chill	2	
Dense Fog	1	
Flood	11	8
Frost/Freeze	4	
Funnel Cloud	1	
Lightning		4
Hail	5	2
Heat	9	1
Heavy Rain	3	
Heavy Snow	2	
High Surf	1	
Wind	31	23
Thunderstorm Wind	3	
Tornado	11	5
Wildfire	8	1
Winter Storm	45	
Winter Weather	4	11
Multiple Hazards Event		35

- NCEI = National Centers for Environmental Information (formerly National Climatic Data Center) of the National Oceanic and Atmospheric Administration (NOAA)
 - Flood
 - Wind
 - Tornado
 - Winter Storm
- SHELDUS = Spatial Hazard Events and Losses for the United States from the Hazards & Vulnerability Research Institute at the University of South Carolina
 - Wind
 - Winter Weather
 - Multiple Hazard Events (i.e., Severe Storm/Thunder Storm – Wind/Winter Weather, Flooding – Severe Storm/Thunder Storm, Flooding – Winter Weather)

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Hazard Identification

Data Collection Guide: Historic Hazard Events in Glenn County

Historic Hazard Event	
Type of event	
Nature and magnitude of event	
Location	
Date of event	
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	
Other damage	
Insured losses	
Federal/state disaster relief funding	
Opinion on likelihood of occurring again	
Source of information	
Comments	

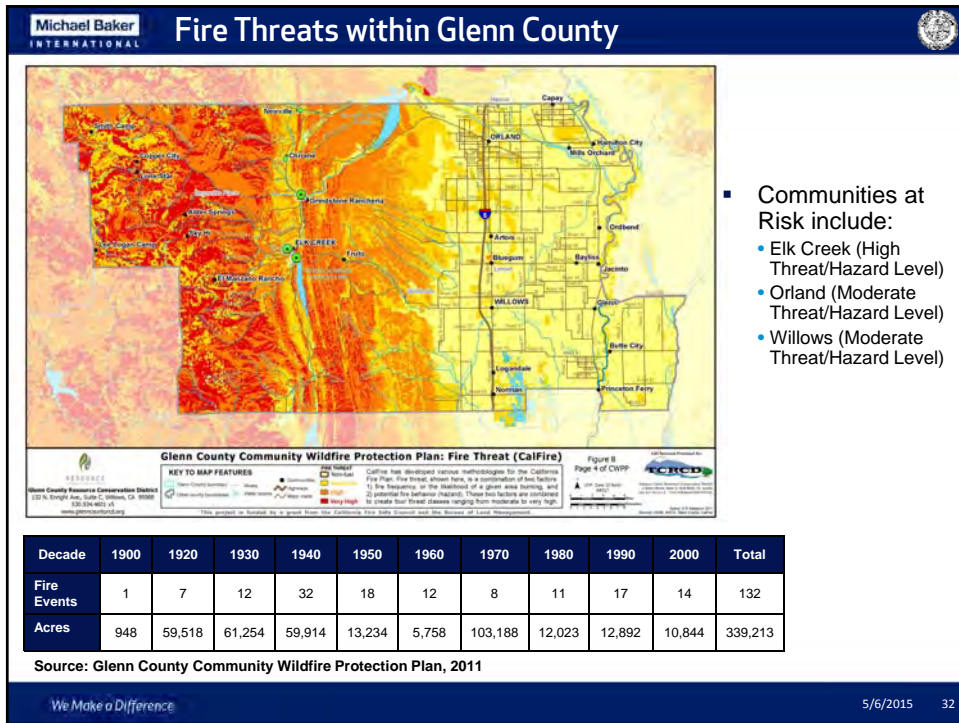
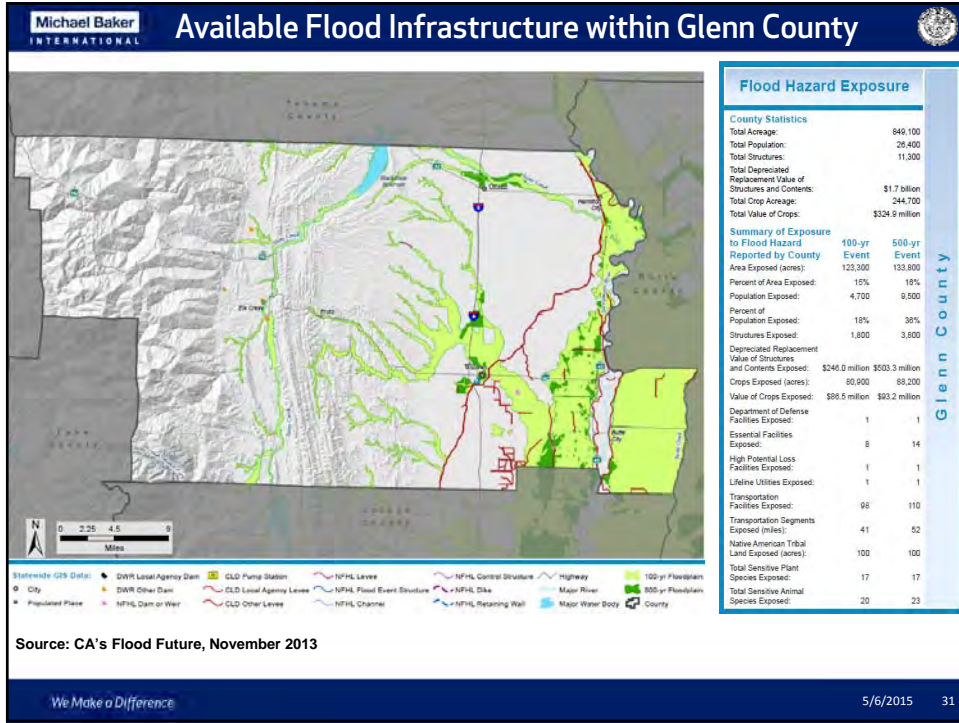
- Record other hazard events in Glenn County not already identified

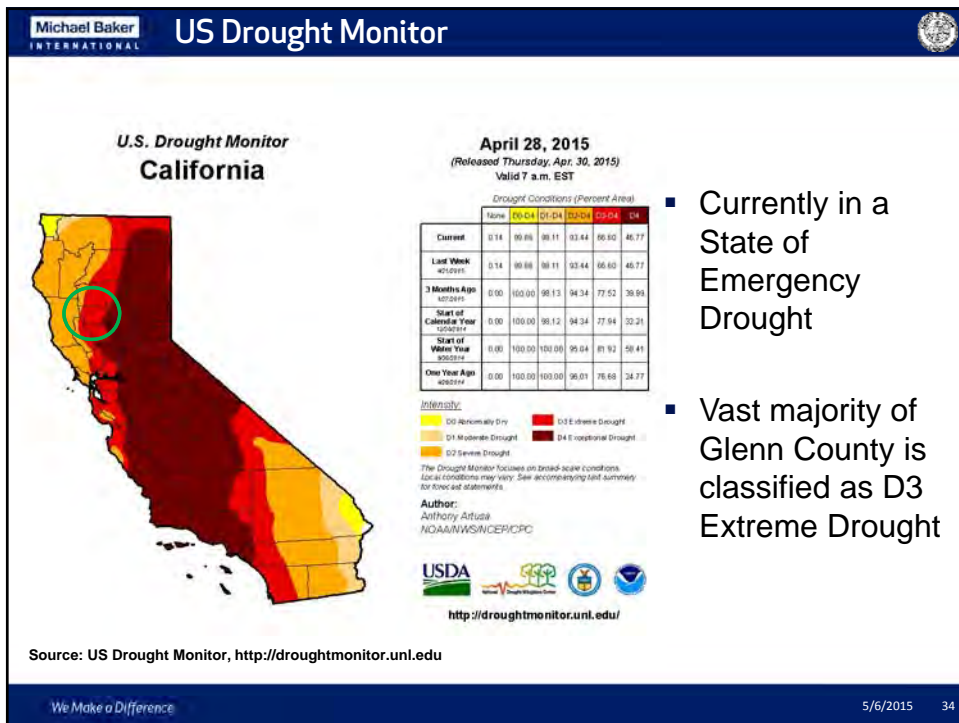
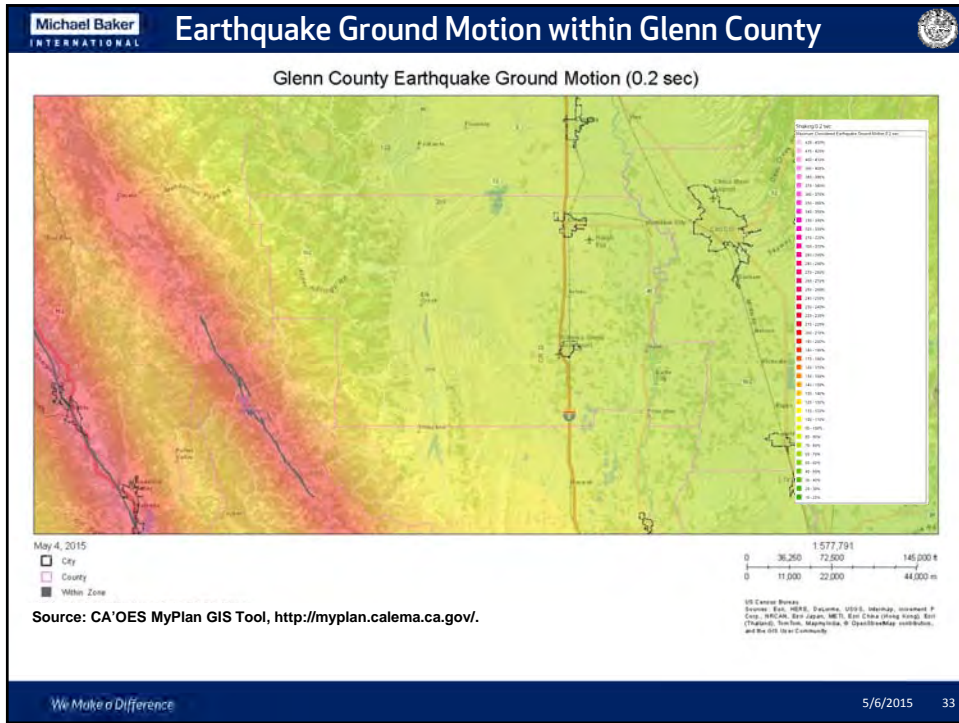
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Hazards in Various Planning Documents

Hazards	CA State HMP (2013)	Glenn County General Plan	Glenn County EOP	City of Oland General Plan	City of Willows Initial LHMP	Butte County (2014)	Lake County (2005)	Mendocino County (2014)	Tehama County (2012)	Plumas County	Colusa County (2005)
Severe Weather	■		■		■	■	■		■	■	
<i>Extreme Heat</i>	■				■	■					
<i>Freeze/Winter Storm</i>	■				■	■					
<i>Heavy Rain/Hail/Lightning</i>						■					
<i>Tornado</i>					■	■					
<i>Windstorm</i>						■					
Avalanche	■								■		
Dam Failure	■		■		■	■	■	■	■	■	
Drought	■	■			■	■	■	■	■	■	
Climate Change											■
Earthquake	■	■	■	■	■	■	■	■	■	■	■
Erosion		■		■	■	■					
Expansive Soils		■		■							
Flooding	■	■	■	■	■	■	■	■	■	■	■
Landslides	■	■			■	■	■	■	■	■	
Levee Failure	■				■	■					
Subsidence		■		■							
Tsunami	■										
Volcano	■		■		■	■	■			■	
Wildfire	■	■	■		■	■	■	■	■	■	■

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Congratulations! You've been elected Mayor!!!
You have limited Hazard Mitigation Funding...
Which hazards do you focus planning efforts on?

- Use the sticky dots provided to identify the hazards that present the most significant risks and for which mitigation is possible
- Consider potential impacts on community assets (people, buildings, infrastructure, critical facilities, natural and historic resources, and economic assets)



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Michael Baker INTERNATIONAL Hazard Identification

Data Collection Guide:
Hazard Identification Worksheet

Hazard	Frequency of Occurrence	Spatial Extent	Potential Magnitude	Overall Significance	Hazard Map? (Paper/GIS Source)
Avalanche					
Dam Failure					
Drought					
Climate Change					
Earthquake					
Erosion					
Expansive Soils					
Flooding					
Landslides					
Levee Failure					
Subsidence					
Severe Weather					
Extreme Heat					
Freeze/Winter Storm					
Heavy Rain/Hail/Lightning					
Tornado					
Windstorm					
Tsunami					
Volcano					
Wildfire					

- What hazards can be eliminated (i.e., tsunami) because of no anticipated impacts to Glenn County and participating jurisdictions?
- Identify and rank possible hazards that may impact Glenn County and participating jurisdictions, if different from the County

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Michael Baker INTERNATIONAL **Vulnerability Assessment**

Data Collection Guide: Vulnerability Assessment Worksheet

- Need to identify populations, buildings, critical facilities, infrastructure, and other important assets in Glenn County and participating jurisdictions
 - Critical Facilities
 - Natural, Cultural, and Historical Assets
 - Economic Assets
- Include future buildings, critical facilities, infrastructure, etc., if possible

Essential Facilities	High Potential Loss Facilities	Transportation and Lifeline
Hospitals and other medical facilities	Power plants	Highways, bridges, and tunnels
Police stations	Dams/levees	Railroads and facilities
Fire station	Military installations	Bus facilities
Emergency Operations Centers	Hazardous material sites	Airports
	Schools	Water treatment facilities
	Shelters	Natural gas facilities and pipelines
	Day care centers	Oil facilities and pipelines
	Nursing homes	Communications facilities
	Main government buildings	

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Community Engagement Strategy Brainstorm

The collage consists of three distinct images. The left image shows a close-up of parched, cracked soil, symbolizing drought or environmental stress. The middle image shows a branch with several green, unripe fruits, possibly representing agriculture or natural resources. The right image shows a night scene of a town with a large, bright fire or explosion in the background, suggesting a natural disaster or emergency situation.

Michael Baker INTERNATIONAL **Community Engagement Strategy Brainstorm**

- What mediums/methods have worked in the past?
- What are current methods of community engagement about natural hazards and risks?
- What are available resources for community engagement?
- What are current and/or potential challenges of community engagement in Glenn County and participating jurisdictions?
- Are there identified community representatives and/or Community-based Organizations that can assist with the community engagement process?
- Opportunities for Steering Committee members to attend other meetings/community events to communicate about natural hazards and risks/the hazard mitigation planning process, and obtain feedback?



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Michael Baker INTERNATIONAL **Next Steps**

Baker


- Finalize contact list for Steering Committee members
- Develop/finalize Community Engagement Strategy
- Work with Glenn County to develop webpage for the MJHMP
- Initiate data and information collection efforts
- Send out electronic copy of Data Collection Guide
- Develop Hazard Profiles and Vulnerability Assessments
- Prepare for next Steering Committee meeting and first Public Workshops

Glenn County

- Work with appropriate personnel to identify MJHMP presence on County website
- Assist with data and information collection efforts
- Complete and submit Hazard Identification, Historic Hazard Event, and Vulnerability Assessment Worksheets
- Assist with logistics for next Steering Committee meeting and first Public Workshop


Participating Jurisdictions

- Designate Local Jurisdiction Lead
- Complete and submit Letter of Intent to participate to Glenn County POC
- Assist with data and information collection efforts
- Complete and submit Hazard Identification, Historic Hazard Event, and Vulnerability Assessment Worksheets



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Questions?

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Thank You for Your Participation!

Project Contacts:

Glenn County Andy Popper, Associate Planner 530-934-6540 apopper@countyofglenn.net	Michael Baker International Wynne Kwan, Project Manager 510-879-0959 wkwan@mbakerintl.com
	Emma Reed, Hazard Mitigation Planner 510-879-0952 Emma.reed@mbakerintl.com

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Glenn County Multi-Jurisdiction Hazard Mitigation Plan

JURISDICTION AND STAKEHOLDER (INITIAL) PLANNING PROCESS MEETING

SUMMARY: Glenn County is beginning the process of developing a Local Hazard Mitigation Plan. The project will result in a countywide Multi-Jurisdiction Hazard Mitigation Plan, which will assess natural hazards and vulnerabilities, and identify mitigation actions that can be taken to reduce future losses from hazard events. A Steering Committee will be formed to support this project. Glenn County is inviting the incorporated Cities of Orland and Willows, as well as Special Districts, to join the Steering Committee as a participating jurisdiction. An approved hazard mitigation plan ensures that Glenn County is eligible for FEMA Pre-Disaster Mitigation (PDM) and Post-Disaster Hazard Mitigation Grant Programs (HMGP), as well as Flood Management Assistance (FMA) grants.

LOCATION: Glenn County Agricultural Department, Conference Room; 720 North Colusa Street, Willows

DATE/TIME: Thursday, May 7, 2015, from 2:00 to 4:00 P.M.

PRESENTERS: Wynne Kwan, Senior Planner and Emma Reed, Associate Planner; Michael Baker International

TOPICS:

- Hazard Mitigation Planning 101
- Introduction to Hazard Mitigation Planning and the Process
- Explanation of Roles and Responsibilities
- Community Engagement Strategy Overview
- Potential Hazard Overview
- Preliminary Data Collection

Invitee Representatives from Contributing Glenn (County) Departments/Agencies:

Glenn County:

Planning & Public Works Agency:

- Hazard Plan Primary Point of Contact (POC): Andy Popper, Associate Planner
- Hazard Plan Secondary Point of Contact: Joe Bettencourt, Administrative Analyst
- PPWA Supervisory: Di Aulabaugh, Deputy Director
- Fixed Transportation/GIS: Mardy Thomas, Principal Planner
- Roads/Public Works/Flood Control: Todd Murray and/or Marty Hansen
- Building Inspection: Dean Miller, Senior Building Inspector
- Airports: Ken Dunn, Airport Site Worker

Office of Emergency Services (OES): Amy Travis, Emergency Preparedness Coordinator

Sheriff's Office: Sean Arlin, Lieutenant

Agricultural Department: Jason Beauchamp, Interim Agricultural Commissioner

Air Pollution: Ian Ledbetter, Air Pollution Specialist

Certified Unified Program Agency (CUPA): Eric Scott, Environmental Program Manager

Environmental Health: Kevin Backus, Director

Health and Human Services Agency (HHS): Grinnell Norton, Deputy Director Public Health



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

JURISDICTION AND STAKEHOLDER (INITIAL) PLANNING PROCESS MEETING (continued)

Potential Participating Jurisdictions: Jurisdictions looking to acquire FEMA plan approval from the Multi-Jurisdiction Plan, and agreeable to a localized planning process, in which the jurisdictional representative on the planning committee communicates and gathers input from those within their own jurisdiction. A Chart of Key Personnel, which should be consulted during the development of the plan for the participating jurisdiction, has been included.

Each participating jurisdiction will appoint a project point of contact (POC). If interested in participating, please RSVP to Andy Popper (apopper@countyofglenn.net) and provide the POC information. Additionally, each participating jurisdiction must provide the County POC a Letter of Intent to Participate. A Sample Letter has been provided.

Invitee Representatives from Incorporated Cities within Glenn County:

City of Orland:

City Manager: Peter R. Carr

Possible Supporting Members

Planning: Scott Friend, City Planner

Roads/Public Works: Forrest Marston, Public Works Supervisor

Fire (Volunteer FD): Bart Caster, Fire Chief

Police: J.C. Tolle, Chief of Police

City of Willows:

City Manager: Steve Holsinger

Possible Supporting Members

Planning: Karen Mantele, City Planner

Police: Jason Dahl, Chief of Police

Fire: Wayne Peabody, Fire Chief

Roads/Public Works: Steve Soeth, Interim Public Works Director

Invitee Representatives from Community Service Districts (CSD):

Hamilton City: Jose Puenta, General Manager

Elk Creek: Roberta H. Hunt, Director/Secretary

Artois: Jack F. Cavier, Jr., Director and President

Butte City: Joseph H. Shockley, President

Additional Invitees Contributing Districts and Agencies (provided support letters):

Resource Conservation District (RCD): Kandi Manhart, Executive Director

Capay Fire District: Ian Turnbull, Fire Chief

Hamilton City (HCFD): Dan James, Fire Chief

Willows Rural Fire Protection District: Larry Maben, Board Chairman

Other Special District Representatives, with repetitive loss from a Natural Hazard



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Example Chart of Planning Team Members and/or Stakeholders

Mitigation planning team base	Agencies involved in hazard mitigation activities	Agencies with the authority to regulate development	Other agencies and offices that may be affected
<ul style="list-style-type: none"> • Comprehensive Planning • Land Use • Transportation • Public Facilities • Local Emergency Planning Committee 	<ul style="list-style-type: none"> • Building Code Enforcement • Emergency Management • Fire Departments/ Districts • Floodplain Administration • Geographic Information Systems • Parks And Recreation • Public Information Office • Public Works • Stormwater Management • Transportation (Roads/Bridges) • CalOES • ABAG 	<ul style="list-style-type: none"> • City Council/ Board Of Commissioners • Planning Commission • Planning/ Community Development • Special Districts 	<ul style="list-style-type: none"> • Economic Development • Housing • Health and Social Services • Infrastructure • Natural and Cultural Resources



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Glenn County MJHMP Project Roles and Responsibilities

Michael Baker, International (Consultant):

- Oversee, manage, and document completion of all project tasks in coordination with Glenn County
- Facilitate Steering Committee Meetings and Community Engagement Activities
- Facilitate concurrent, localized planning process for each participating jurisdiction via conference call, as necessary

Glenn County:

- Serve as lead coordinating agency (Andy Popper, Associate Planner, designated County Lead POC and MJHMP Project Lead POC)
- Provide guidance and leadership for MJHMP development
- Assist with collection of documents, GIS data, and other information
- Coordinate logistics for all project meetings
- Host/manage project website
- Respond to general inquiries from the public, stakeholders, etc.
- Coordinate with all participating jurisdictions
- Coordinate plan adoption procedures to ensure plan adoption in a timely manner(*see Footnote 1*)
- Commit to Plan Maintenance Process after FEMA plan approval and adoption, including the Plan Update process every 5 years (as required by FEMA to remain eligible for FEMA grant funding)

Participating Jurisdictions:

A Glenn County MJHMP participating jurisdiction is one that is seeking mitigation plan approval from FEMA to become eligible for FEMA mitigation grant funding. The term “jurisdiction” means “local government.” Title 44 Part 201 Mitigation Planning in the CFR defines a “local government” as “any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity.”

At least one representative from each participating jurisdiction shall serve on the MJHMP Steering Committee. Each participating jurisdiction will designate a “Local Jurisdiction Lead”, who will be the primary POC. A concurrent, localized planning process at the participating jurisdiction level will be undertaken throughout the course of MJHMP development and facilitated by Baker, via conference call, as necessary. Other participating jurisdiction representatives/staff will serve as “Supporting Members.”



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Participating Jurisdictions (continued):

- Responsibilities of the Local Jurisdiction Leads
 - Attend all Steering Committee meetings
 - Provide guidance and leadership for MJHMP development
 - Coordinate logistics for concurrent, localized planning process
 - Coordinate with and report back to supporting members and other local staff from his/her jurisdiction at various points throughout the planning process
 - Assist with data collection and information sharing in support of MJHMP development
 - Assist with community and stakeholder engagement efforts
 - Develop jurisdiction-specific mitigation action plans in coordination with other local staff
 - Review/comment on draft plan materials
 - Coordinate local plan adoption procedures to ensure plan adoption in a timely manner (*see Footnote 1*)
 - Commit to Plan Maintenance Process after FEMA plan approval and adoption, including the Plan Update process every 5 years (as required by FEMA to remain eligible for FEMA grant funding)

- Supporting Members for participating jurisdictions provide support to the Local Jurisdiction Leads, as necessary, including:
 - Assist with data collection and information sharing
 - Assist with community and stakeholder engagement efforts
 - Develop jurisdiction-specific mitigation action plans
 - Review/comment on draft plan materials

Stakeholders:

Stakeholders can include any “local government” entity (see definition under Participating Jurisdictions) within Glenn County that chooses not to seek mitigation plan approval from FEMA (and thus, would not be eligible for FEMA mitigation grant funding) but would still like to participate in the planning process to ensure its concerns and issues are heard and incorporated into the Glenn County MJHMP. Additional stakeholders can include other interested parties, such as Federal Agencies, State Agencies, businesses/chambers of commerce, academia, private and non-profit organizations/community organizations, etc. These are usually individuals or groups that affect or can be affected by a mitigation action or policy.

- Assist with data collection and information sharing in support of MJHMP development, as appropriate
- Assist with the development of mitigation actions, as appropriate
- Provide input/comment on draft plan materials

¹ In order for FEMA to approve a multi-jurisdictional plan, at least one participating jurisdiction must formally adopt the plan within one calendar year of FEMA’s designation of the plan as APA. Participants of a multi-jurisdictional plan will assume the expiration date five years from the first jurisdiction’s approval date regardless of the other participant’s subsequent adoption date(s). The five-year approval period does not get “re-set” each time another participating jurisdiction adopts the plan

Instructions for Statement of Intent to Participate

For the local government¹ entity seeking to be the Lead Jurisdiction on the Multi-Jurisdictional plan, a “Statement of Intent to Participate” **must be** executed by each participating jurisdiction and submitted to the Lead Jurisdiction. A sample letter of intent is provided for guidance and includes requirements identified in 44 CFR §201.6 for Local Mitigation Plans.

In order to insure the accurate tracking of jurisdictions and approved Multi-Jurisdictional Local Hazard Mitigation Plans (LHMPs), Cal OES requires that the Lead **Jurisdiction provide a copy of all the fully executed** “Statement of Intent to Participate”² to Cal OES in the grant application.

This is required because in the past, some local agencies were unsure if they were actually included in a completed FEMA approved LHMP. By completing this form, all participating jurisdictions will be able to have a full understanding of their responsibilities that they must accept in order to be recognized as being a participating member of an approved Multi-Jurisdictional LHMP. Being recognized as a participating jurisdiction of an approved LHMP, documents eligibility for potential hazard mitigation project grant funds, if they meet the participation criteria set forth in the letter.

It is recommended that the Lead Agency use the Sample Letter of Intent provided by Cal EMA as a tool to fulfill this requirement. If the Lead Agency chooses to use a different format, it must include the requirements specified in the Sample Letter of Intent.

¹ **Local governments** are defined at 44 CFR §201.2 as:
any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity.

² **“Statement of Intent to Participate”**, in conformance with FEMA’s *Hazard Mitigation Assistance Unified Guidance Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, Flood Mitigation assistance Program, Repetitive Flood Claims Program, Severe Repetitive Loss Program* dated June 1, 2010, page 31.

EXAMPLE LETTER OF INTENT

PARTICIPATING JURISDICTION LETTERHEAD

[Date]

Andy Popper, Associate Planner
Glenn County Planning & Public Works Agency
777 North Colusa Street
Willows, CA 95988

Re: "Statement of Intent to Participate" as participating jurisdiction in the Glenn County Multi-jurisdictional Hazard Mitigation Planning

To whom it may concern,

In accordance with the Federal Emergency Management Agency's (FEMA) Local Mitigation Plans requirements, under 44 CFR §201.6, which specifically identify criteria that allow for multi-jurisdictional mitigation plans, the [Participating Jurisdiction] is submitting this letter of intent to confirm that [Participating Jurisdiction] has agreed to participate in the Glenn County Multi-jurisdictional Hazard Mitigation Planning effort.

Further, as a condition to participating in the mitigation planning; [Participating Jurisdiction] agrees to meet the requirements for mitigation plans identified in 44 CFR §201.6 and to provide such cooperation as is necessary and in a timely manner to Glenn County to complete the plan in conformance with FEMA requirements.

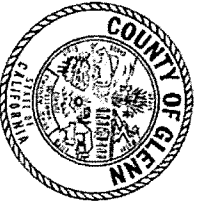
[Participating Jurisdiction] understands that it must engage in the following planning process, as more fully described in FEMA's Local Multi-Hazard Mitigation Planning Guidance dated July 1, 2008, including, but not limited to:

- Identification of hazards unique to the jurisdiction and not addressed in the master planning document;
- The conduct of a vulnerability analysis and an identification of risks, where they differ from the general planning area;
- The formulation of mitigation goals responsive to public input and development of mitigation actions complementary to those goals. A range of actions must be identified specific for each jurisdiction;
- Demonstration that there has been proactively offered an opportunity for participation in the planning process by all community stakeholders (examples of participation include relevant involvement in any planning process, attending meetings, contributing research, data, or other information, commenting on drafts of the plan, etc.);
- Documentation of an effective process to maintain and implement the plan;
- Formal adoption of the Multi-jurisdictional Hazard Mitigation Plan by the jurisdiction's governing body (each jurisdiction must officially adopt the plan); and
- Documentation of participation in the NFIP, continued compliance with NFIP requirements, and address NFIP insured structures that have been repetitively damaged by floods.

Therefore, with a full understanding of the funding obligations incurred by an agreement between Glenn County and the Participating Jurisdiction, I [Name of authorized jurisdiction official], commit [Name of Participating Jurisdiction] to the Glenn County Multi-jurisdictional Hazard Mitigation Planning effort.

Executed this ___ day of _____

[Jurisdiction official's signature]



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Name	Title	Jurisdiction/Organization	Mailing Address	Email/Telephone
Joe Bethen court	Admin Services Analyst II	COLONY PRWA		934-6530
W. Thomas	Principal Planner	County / RTAA PRWA	WThomas@countyofglenn.net	934-6530
Andy Poppes	Associate Planner	County PRWA		



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Meeting: Steering Committee / Stakeholders #1
 Date/Time: May 7, 2015 2-4pm
 Page of

Name	Title	Jurisdiction/Organization	Mailing Address	Email/Telephone
Wynne Kwan	Surv. Planner/ Project Mgr.	Michael Baker Int'l	1 Krise Plaza, Suite 1150 Oakland, CA 94612	wkw@mbakerintl.com 510.879.0959
Emma Reed	Planning Associate	"	"	emma.reed@mbakerintl.com 510.879.0952



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Meeting: Steering Committee / #1
 STAKEHOLDERS
 Date/Time: MAY 7, 2015 2-4pm
 Page of

Name	Title	Jurisdiction/Organization	Mailing Address	Email/Telephone
ERIC SCOTT	ENV. Program Manager	Air Pollution CUPA		escott@co.rteofglenn.ca
Dixi Anlaufburg	Dep Dir	PHUA	POB 1570 WILLOWS	publicworks@countygofglenn.net
Kevin Backus	Director	ENV. HEALTH		
Natalie Butler	Clerk	WILLOWS		
Steve Holsinger	City Mgr	WILLOWS		
Kandi Marhart	Exec. Officer	Glenn Co PCD.		Kandi.Marhart@ca.nacdn.net
Jason Beauchamp	Interim Ag Mgmt	Glenn Co Ag	720 N. Calusa	jbeauchamp@countyofglenn.net
Matt Gates	DEPT DIRECTOR	FFWA	777 N. Calusa	mrgates@countyofglenn.net
BRUCE CARPENTER	LT. Commander	CH&WILLOWS	464 N. Humboldt WILLOWS	bcarpenter@chp.ca.gov



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Name	Title	Jurisdiction/Organization	Mailing Address	Email/Telephone
Sean Arlin	LT	Glenn CO SO Glenn CO. HHA- PH	5415 W. Oak St. Willows, CA 95688 2400 Dilla Ave Willows	sarlin@countyofglenn.net 530-534-6317 aravis@glenncountyha.com 934-6588
Amy Travis	Emerg. Rep. Coordinator General Manager	HCCSD	hccsdgm@27t.net	538 820-3208
Jose Puente	HCCSD	HCCSD	hccsdgm@27t.net	538 820-3208
Ken Dunn	Glenn County PRD Airport	Glenn County PRD	kdunn@countyofglenn.net	530-624-0836
Todd Myerly	ESTAR	GCPW		934-6580
Dawn Miller	BZ	GCPW	dmiller@countyofglenn.net	
Mindy Hausen	Road Supervisor	GCPW		934-6530
Steve Sork	Director PRD	City of Willows		934-7041
Mike Markin	Planner	City of Orland	mmarkin@pucworld.com	
Eugene J. Cinger	President	Butte Co. SO	BOE 1921 Butte City 95920	909 720 2664

Glenn County
Multi-Jurisdictional Hazard Mitigation Plan
Steering Committee Meeting #1 Notes

- Who is the deciding body for FEMA grants?
 - There are three mitigation grant programs, so it depends
 - CalOES
- Can we have two community/public engagement meetings going on simultaneously in different jurisdictions (i.e., Willows and Orland)?
 - Yes, would be a good idea
 - Useful for several reasons
- What will open houses/community workshops consist of?
 - Looping presentation
 - Stations categorized by hazard
- Does each city in Glenn County have an EOP?
 - Yes, but not necessarily up-to-date
- ACTION ITEM: Research Grindstone tribe
- Earthquake faults
 - CalOES map only shows major California faults
 - There are several minor fault lines that affect Glenn County
 - Minor fault lines run along Interstate-5
 - Amy Travis will search for GIS data of minor fault lines
- Participating jurisdictions do not need any kind of cash match
 - Just need the time commitment to participate in the MJHMP



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Glenn County MJHMP Steering Committee Meeting #2 Agenda

Date: Thursday, 30 July 2015
Time: 2.00pm to 4.00pm
Location: Glenn County Office of Education, Conference Room
311 South Villa Avenue
Willows CA 95988

- Welcome and Introductions
- Preliminary Results and Findings of Risk Assessment

{SESSION BREAK}

- Community Asset Inventory Review
- Group Analysis and Risk Factor Development
- Next Steps

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Glenn County, CA Multi-Jurisdiction Hazard Mitigation Plan



Steering Committee Meeting #2
July 30, 2015

Michael Baker INTERNATIONAL Agenda

- Welcome and Introductions
- Preliminary Results and Findings of Risk Assessment
- {SESSION BREAK}**
- Community Asset Inventory Review
- Group Analysis and Risk Factor Development
- Next Steps

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Risk Assessment



Michael Baker CORPORATION Risk Assessment

Flooding: Overview

- 8 Federal Declared Events since 1950
- 100-year events largely in southeastern portion of County
- Repetitive loss properties
 - 11 in unincorporated Glenn County
 - 9 in the City of Willows
 - 0 in the City of Orland
- Associated hazards: repetitive flooding, coastal flooding, levee failure, and erosion

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Michael Baker CORPORATION Risk Assessment

Flooding

- Past Occurrences
 - Seasonal flooding common in lowlands
 - 8 Federal/6 State Emergency Disaster Proclamations since 1950
- Location/Extent
 - 2 major watershed basins of Sacramento River that extend across Glenn County
 - Colusa-Glenn
 - Shasta-Tehama
- Magnitude/Severity
 - 20 Repetitive Loss Properties
 - All are seasonal in nature

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Michael Baker CORPORATION Risk Assessment

Flooding

Major Flood Disaster Declarations

Year	Hazard	Cause of Hazard	Date of Event	Declaration Number
1998	SEVERE WINTER STORMS AND FLOODING	WEATHER	9-Feb-98	1203
1997	SEVERE STORMS/FLOODING	WEATHER	4-Jan-97	1155
1995	SEVERE WINTER STORMS, FLOODING, LANDSLIDES, MUD FLOWS	WEATHER	12-Mar-95	1046
1995	SEVERE WINTER STORMS, FLOODING, LANDSLIDES, MUD FLOWS	WEATHER	10-Jan-95	1044
1986	SEVERE STORMS, FLOODING	WEATHER	21-Feb-86	758
1983	COASTAL STORMS, FLOODS, TORNADOES	WEATHER	9-Feb-83	677
1974	SEVERE STORMS, FLOODING	WEATHER	25-Jan-74	412
1964	HEAVY RAINS & FLOODING	WEATHER	24-Dec-64	183

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Flooding: Willows



Glenn County
Multi-Jurisdictional
Hazard Mitigation Plan
City of Willows Flood Hazard

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Dam Failure: Overview

- No officially declared dam failure events in the past
- Glenn County impacted by dams within the County and also outside of the County
- Eastern portion of County would be impacted by Black Butte Dam failure
- Limited quantitative probability information exists for dam failure for Glenn County

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Michael Baker CORPORATION Risk Assessment

Dam Failure

- **Past Occurrences**
 - A dam failure event has never occurred in Glenn County
- **Location/Extent**
 - 7 dams in the county; 1 classified as "high hazard"
 - 8 dams outside county limits but could have impacts on Glenn County
- **Magnitude/Severity**
 - Black Butte Dam inundation zone impacts eastern portion of Glenn County, including the City of Orland
 - Inundation zone data for Stony Gorge Dam not available

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Michael Baker CORPORATION Risk Assessment

Levee Failure: Overview

- **Past Occurrences**
 - Portions of Hamilton City and surrounding area flooded in 1974
 - Residents of the town were evacuated 6 times in the past 20 years
- **Location/Extent**
 - Various locations along Sacramento River
 - Most significantly along west bank in the vicinity of Hamilton City
- **Magnitude/Severity**
 - DHS identifies and retrofits levees that present greatest risk to the nation

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Levee Failure

	Protected by Levee	Not Protected by Levee
Medical Facilities		9
Education Facilities	2	28
Fire Depts/Protection Districts	2	10
Police/Sheriff's Depts		3
Airports		2
Dams		5
Water Treatment Plant		1
Cell Towers	1	6
County/City Facilities ORLAND		13
County/City Facilities WILLOWS		16

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Levee Failure

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Risk Assessment

Drought: Overview

- 4 Declared Events since 1950
- Drought cycles occur every 7-11 years
- Potential to impact entire County
- No impact to life or property, but can impact agricultural sector and water supplies/water supply infrastructure

U.S. Drought Monitor
California
July 21, 2015
Minimum Period: Jul 01 - 2015
Data as of: 07/21/2015

USDA
NOAA

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Risk Assessment

Drought

- Past Occurrences**
 - 1972: worst drought to impact county in 33 years
 - 1976-77: statewide drought
 - 1991: Tulare Lake and San Joaquin Valley areas suffered significantly from limited precipitation
- Location/Extent**
 - Drought can affect the entire State
 - Can occur in any part of the country at any time
- Magnitude/Severity**
 - No commonly accepted return period probability
 - Magnitude measured by time and severity of hydrologic deficit
 - Glenn County largely in an Extreme Drought

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Risk Assessment

Drought

Vegetation Drought Response Index
Complete: California, Quad 1

June 1, 2015

Vegetation Condition

- Extreme Drought
- Severe Drought
- Moderate Drought
- Mid-Drought
- Pre-Drought
- Near Normal
- Unusually Moist
- Very Moist
- Extremely Moist
- Optimal Season
- Water

USGS
RM

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Severe Weather and Storms: Overview

- 18 Federal/Cal EMA Declared Events since 1950 resulting in flooding, landslides, and other hazards
- Localized events have been categorized as weather-related flooding events
- Past/existing weather patterns imply higher probability of occurring
- Impacts to all of Glenn County, and can result in injury/loss of life, property damage, and agricultural impacts/losses

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Michael Baker CORPORATION Risk Assessment

Severe Weather and Storms

- Past Occurrences**
 - 12 federally declared major severe weather events have occurred in the county since 1950
 - Flooding
 - Heavy Rains
 - Severe Storms
- Location/Extent**
 - Affects all areas of Glenn County
- Magnitude/Severity**
 - Approximately 90% of annual precipitation occurs in about 4 months
 - Difficult to capture severity, but could base it on fatalities and damage caused

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Severe Weather and Storms

Disaster Number	Declaration Date	Disaster Type	Incident Type	Explanation
Federal Declarations				
47	12/23/1955	DR	Flood	Statewide Flooding
82	4/4/1958	DR	Flood	Heavy rains & Flooding
155	2/26/1963	DR	Flood	Flooding & Rainstorms
183	12/24/1964	DR	Flood	Heavy rains & Flooding
283	1/27/1970	DR	Flood	Heavy winds, storms, & Flooding
677	2/9/1983	DR	Coastal Storm	Coastal Storms, Floods, Slides, & Tornadoes
758	2/23/1986	DR	Flood	Severe Storms & Flooding
854	2/11/1991	DR	Snow	Severe Freeze
1044	1/10/1995	DR	Severe	Severe Winter Storms, Flooding, Landslides, & Mud Flows Storm(s)
1046	3/12/1995	DR	Severe	Severe Winter Storms, Flooding, Landslides, & Mud Flows Storm(s)
1155	1/4/1997	DR	Severe	Severe Winter Storms, Flooding, Landslides, & Mud Flows Storm(s)
1203	2/9/1998	DR	Severe	Severe Winter Storms & Flooding Storm(s)
Emergency Declarations				
3023	1/20/1977	EM	Drought	Drought
3248	9/13/2005	EM	Hurricane	Hurricane Katrina Evacuation &
Cal EMA Emergency and Disaster Proclamations / Executive Orders				
	5/10/2006		Severe	Roadway Damage Storms
	1/5/2008 to 1/14/2008		Winter	Storms
	2/27/2009		Drought	3-year State-wide Drought
	1/17/2014		Drought	State of Emergency Declaration

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Michael Baker CORPORATION Risk Assessment

Wildfire: Overview

- Glenn County has varying fire hazard risks
 - Eastern and central portion of County along Elk Creek corridor have extreme, very high, and high fire threats and fire hazard severity
- 6 events greater than 10 acres since 1878
- Grindstone Fire was largest
 - Occurred in 1953
 - Burned more than 1,300 acres
- Seasonal, but occur annually

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Michael Baker CORPORATION Risk Assessment

Wildfire

- Past Occurrences
 - 306 Wildfire in 2013 burned over 200 acres
 - Daves Wildfire in 2013 burned 226 in eastern Mendocino National Forest
- Location/Extent
 - Western portions of the county at highest risk
- Magnitude/Severity
 - Measured by number of acres burned

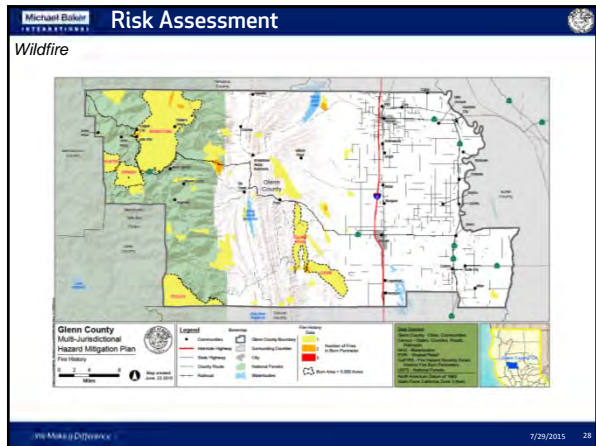
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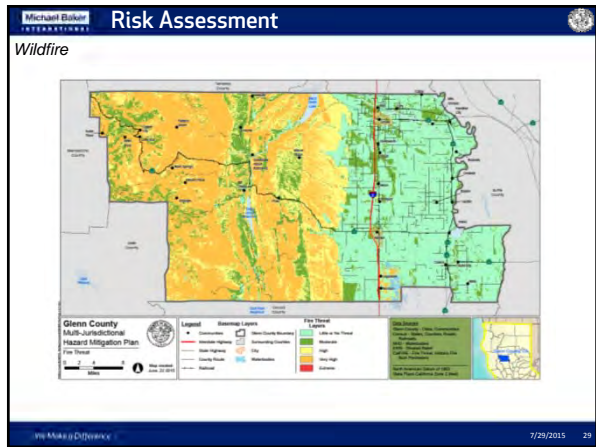
Michael Baker CORPORATION Risk Assessment

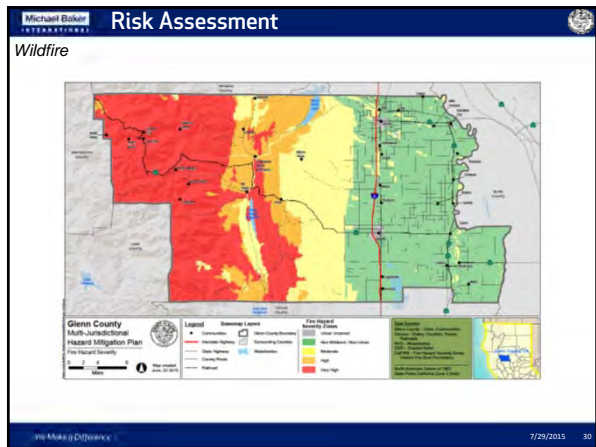
Wildfire

	Urban Unsoned	Non-Wildland/Non-Urban	None/Not Mapped	Moderate	High	Very High
Medical Facilities	8	1				
Education Facilities	23	4	2		1	
Fire Depts/Protection Districts	4	4	1	1		2
Police/Sheriff's Depts	3					
Airports	2					
Dams		1		1	2	1
Water Treatment Plant		1				
Cell Towers		3	1	1		2
County/City Facilities ORLAND	11	2				
County/City Facilities WILLOWS	16					

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Risk Assessment
 Earth Movements: Earthquakes/Seismic Shaking: Overview

- EQ activity in Glenn County is significantly below CA state average but 724% greater than US average
- No federally declared EQs in Glenn County since 1950
- Largest EQ to occur within 30 miles of Glenn County: a 5.0 magnitude in 1995
- 60.91% chance of a moderate EQ occurring within 30 miles of Glenn County within next 50 years
- Higher seismic shaking in the western portion of County
- Associated hazards: faulting and liquefaction



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Risk Assessment
 Earth Movements: Earthquakes/Seismic Shaking

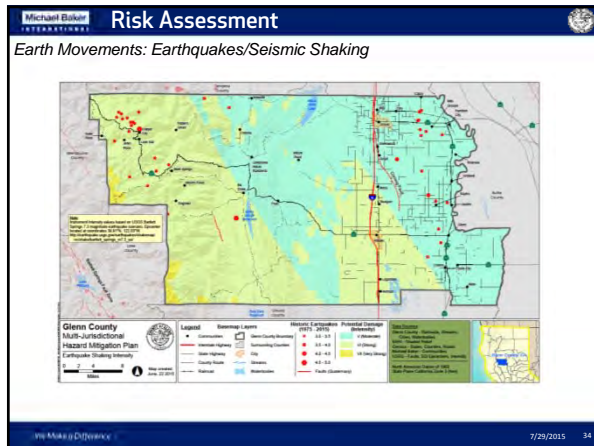
- Past Occurrences**
 - No federally declared earthquake event since 1950
 - Magnitude 5.8 earthquake occurred 48 miles away in 1975
 - Magnitude 5.0 earthquake occurred within 30 miles in 1995
- Location/Extent**
 - 6 fault systems within Glenn County area including
 - Bartlett Springs (Coastal Range)
 - Great Valley (Willows)
- Magnitude/Severity**
 - Richter Scale
 - Mercalli Scale

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Risk Assessment
 Earth Movements: Earthquakes/Seismic Shaking

	Not Felt	Moderate	Strong
Medical Facilities		4	5
Education Facilities	2	19	9
Fire Depts/Protection Districts	1	7	4
Police/Sheriff's Depts		1	2
Airports		1	1
Dams		3	2
Water Treatment Plant			1
Cell Towers	1	3	3
County/City Facilities ORLAND		13	
County/City Facilities WILLOWS			16

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-
- Michael Baker CORPORATION Risk Assessment
Expansive Soils: Overview
- No hazard events have occurred
 - Majority of the County is underlain by soils with a high shrink-swell potential
 - Removing the top layer of soil and/or preconstruction design and engineering are enough to prevent the costly problems associated with expansive soils in most cases
 - Low probability of occurrences with adherence to Glenn County building codes and best practices
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-
- Michael Baker CORPORATION Risk Assessment
Expansive Soils
- Past Occurrences
 - Have been known to cause problems to building foundations
 - No specific data on past damages available
 - Location/Extent
 - Southeastern portion of Glenn County contains soils with higher expansive potential
 - Magnitude/Severity
 - Fairly widespread hazard across the county but unlikely to cause loss of life
 - Standard building practices used to mitigate damage
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Michael Baker CORPORATION Risk Assessment

Expansive Soils

	Little/None	Slight	Moderate
Medical Facilities		8	1
Education Facilities	2	21	7
Fire Depts./Protection Districts	1	8	3
Police/Sheriff's Depts		3	
Airports		2	
Dams		4	1
Water Treatment Plant		1	
Cell Towers	1	3	3
County/City Facilities ORLAND		13	
County/City Facilities WILLOWS		16	

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Expansive Soils

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Subsidence


- Past Occurrences
 - Extensive groundwater pumping from San Joaquin Valley aquifers affects Northern Sacramento Valley region
 - Exact data on past damages is not available
 - Any local knowledge/resources on subsidence available?
- Location/Extent
 - Loose soil in southern, central, and eastern portions of the county has high potential for subsidence displacement
- Magnitude/Severity
 - Has lessened since the 1970s when subsidence was first recognized, but still places stress on aquifer systems and likely will continue

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Michael Baker INTERNATIONAL Risk Assessment

Historical Disaster Events in Glenn County Data Collection Worksheet

- Record other disaster events that occurred in Glenn County not identified already
- Provide as much information as possible
- Include supporting documentation, newspaper articles, or other original sources
- Contact for questions/send additional information:
 - Wkwan@mbakerintl.com
 - Emma.Reed@mbakerintl.com



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Community Asset Inventory Review



Michael Baker INTERNATIONAL Community Asset Inventory Review

- Based on County-provided data, internet research, and other database resources
- Includes:
 - Government facilities and infrastructure
 - Schools
 - Fire Protection Districts
 - Hospitals and other Medical Facilities
- Review Community Asset Inventory and Vulnerability Assessment Data Tables Packet
 - Revise/correct addresses, etc., as necessary
 - Identify additional assets to be included
- Contact for questions/send additional information:
 - Wkwan@mbakerintl.com
 - Emma.Reed@mbakerintl.com

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Risk Factor (RF) Development



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Risk Factor (RF) Development

Prioritizing the Identified Hazards

- Combines historical data, local knowledge, and consensus opinions to produce numerical values that allow identified hazards to be ranked against one another
- Assign varying degrees of risk (1 to 4) to five (weighted) categories for each hazard for each participating jurisdiction:
 - Probability
 - Impact
 - Spatial Extent
 - Warning time
 - Duration
- Each category weights can be adjusted as necessary
- RF Value calculated based on the following formula:

$$RF\ Value = [(Probability \times .30) + (Impact \times .30) + (Spatial\ Extent \times .20) + (Warning\ Time \times .10) + (Duration \times .10)]$$

- RF Value Designation:

Risk Factor Value Designation
HIGH RISK (3.0 – 4.0)
MODERATE RISK (2.0 – 2.9)
LOW RISK (0.1 – 1.9)

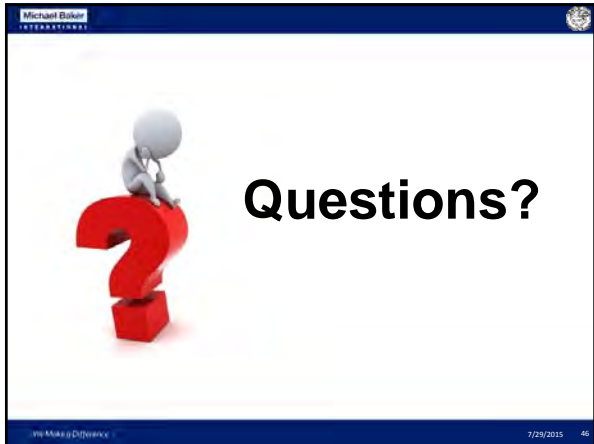
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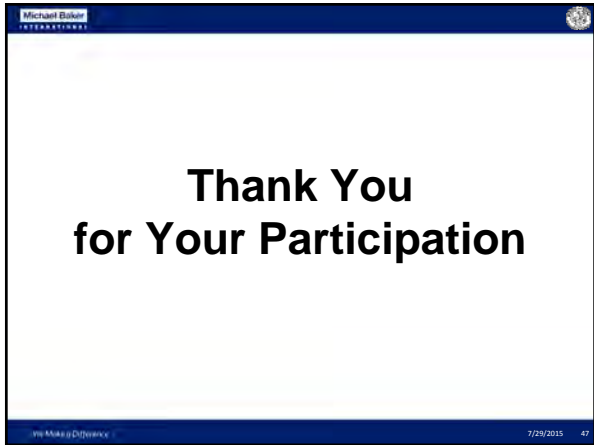
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Next Steps

- First Public Workshop scheduled for TODAY: 5:00P.M. to 7:30P.M.
- Finalize hazard profiles and vulnerability assessments based on comments/feedback from today's Steering Committee meeting and Public Workshop
- Next MJHMP Steering Committee meeting September 2015 (Date/Location: TBD)
 - MJHMP Goals Development/Identification
 - Capabilities Assessment
 - Mitigation Actions Development/Identification

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Flood

Flood		None/Not Mapped	Minimal Hazard	500-Year Flood Plain	100-Year Flood Plain
Asset Type	Asset Name				
Medical Facilities	Glenn Medical Center		X		
	Ampla Health Orland		X		
	Glenn Medical Center-Family Care Clinic		X		
	Glenn Family Medical Group		X		
	Willows Care Center		X		
	Northern Valley Indian Health			X	
	Westside Ambulance		X		
	West Haven Assisted Living		X		
	Ampla Health Hamilton			X	
Education Facilities	Orland Unified School District		X		
	North Valley High School		X		
	Fairview Elementary School		X		
	Price Intermediate School		X		
	Orland Community Day School		X		
	Mill Street School		X		
	Capay Joint Union Elementary School		X		
	Hamilton Elementary School		X		
	Hamilton High School		X		
	Hamilton Community Day School			X	
	Lake District School		X		
	Plaza Elementary School		X		
	Elk Creek High School		X		
	Office of Education		X		
	Princeton High School			X	
	Murdock Elementary School		X		
	Willows High School		X		
	Willows Intermediate School		X		
	Willows Community High School		X		
	Butte College		X		
	Glenn County Office of Education		X		
	Princeton Elementary School			X	
	Elk Creek Elementary School		X		
	Learning Center South		X		
	Walden Academy		X		
	Hamilton State Preschool		X		
	Hamilton Adult School		X		
Ella Barkley Highschool			X		
North Valley High (Continuation)		X			
	Success One! Charter School/Glenn Adult Program		X		
Fire Departments/ Protection Districts	Ord Fire Department		X		
	Willows Fire Department				X
	Hamilton Fire Department			X	
	Glenn-Colusa Fire Department	X			X
	Glenn-Codora Fire Department	X			X
	Elk Creek Fire Department		X		
	Artois Fire Fire Department			X	
	Orland Fire Department		X		
	Capay Fire Department		X		
	Bayliss Fire Department		X		
	Kanawha Fire Department		X		
	Elk Creek Fire Station Cal Fire		X		
Police/Sheriff's Departments	Willows Police Department			X	
	Orland Police Department		X		
	Sheriff's Department		X		

Flood

Flood		None/Not Mapped	Minimal Hazard	500-Year Flood Plain	100-Year Flood Plain
Asset Type	Asset Name				
Airports	Willows Glenn County Airport			X	
	Orland Haigh Field Airport		X		
Dams	E A Wright		X		
	Sanhedrin Ranch		X		
	Hamilton		X		
	Stony Creek Gravel		X		
	Stony Gorge				X
Waste Water Treatment Plant	Willows Waste Water Treatment Plant		X		
Cell Towers	Chrome	X			
	Hamilton City		X		
	Butte City				X
	Orland		X		
	Willows		X		
	Princeton			X	
	Elk Creek		X		
County/City Government Facilities Located within the City of Orland	Glenn County Superior Court		X		
	Road Division		X		
	Community Recovery Wellness Center		X		
	Orland Veterans' Memorial Hall		X		
	Transition Age Youth Center		X		
	Harmony House		X		
	Glenn County Health Service Agency (WIC)		X		
	Recreation Department		X		
	Orland Library		X		
	Orland City Hall		X		
	Carnegie Community Center		X		
	Transitional Age Youth (Dept of Beh. Health)		X		
Glenn County Sheriff's Posse		X			
County/City Government Facilities Located within the City of Willows	Glenn County Agricultural Commissioner			X	
	Planning & Public Works Agency			X	
	Fleet Services			X	
	Road Department			X	
	Health and Human Services Agency				X
	Assessor - Department of Finance		X		
	County Court		X		
	District Attorney		X		
	Child Support Service		X		
	Planning & Public Works Agency		X		
	Facilities Shop		X		
	Civic Memorial Building		X		
	Adult & Juvenile Probation Services		X		
	County Jail		X		
	City of Willows Civic Center			X	
	Museum			X	
GRAND TOTALS		3	74	17	6

Dam Inundation

Dam Inundation		Within Inundation Area	Outside Inundation Area
Asset Type	Asset Name		
Medical Facilities	Glenn Medical Center		X
	Ampla Health Orland	X	
	Glenn Medical Center-Family Care Clinic		X
	Glenn Family Medical Group		X
	Willows Care Center		X
	Northern Valley Indian Health		X
	Westside Ambulance	X	
	West Haven Assisted Living	X	
	Ampla Health Hamilton	X	
Education Facilities	Orland Unified School District	X	
	North Valley High School	X	
	Fairview Elementary School	X	
	Price Intermediate School	X	
	Orland Community Day School	X	
	Mill Street School	X	
	Capay Joint Union Elementary School		X
	Hamilton Elementary School	X	
	Hamilton High School	X	
	Hamilton Community Day School	X	
	Lake District School	X	
	Plaza Elementary School	X	
	Elk Creek High School		X
	Office of Education		X
	Princeton High School	X	
	Murdock Elementary School		X
	Willows High School		X
	Willows Intermediate School		X
	Willows Community High School		X
	Butte College	X	
	Glenn County Office of Education	X	
	Princeton Elementary School	X	
	Elk Creek Elementary School		X
	Learning Center South		X
	Walden Academy		X
	Hamilton State Preschool	X	
	Hamilton Adult School	X	
Ella Barkley Highschool	X		
North Valley High (Continuation)	X		
Success One! Charter School/Glenn Adult Program		X	
Fire Departments/ Protection Districts	Ord Fire Department	X	
	Willows Fire Department		X
	Hamilton Fire Department	X	
	Glenn-Colusa Fire Department	X	
	Glenn-Codora Fire Department	X	
	Elk Creek Fire Department		X
	Artois Fire Fire Department		X
	Orland Fire Department	X	
	Capay Fire Department		X
	Bayliss Fire Department	X	
	Kanawha Fire Department		X
	Elk Creek Fire Station Cal Fire		X

Dam Inundation

Dam Inundation		Within Inundation Area	Outside Inundation Area
Asset Type	Asset Name		
Police/Sheriff's Departments	Willows Police Department		X
	Orland Police Department	X	
	Sheriff's Department		X
Airports	Willows Glenn County Airport		X
	Orland Haigh Field Airport	X	
Dams	E A Wright	No Value	
	Sanhedrin Ranch		X
	Hamilton		X
	Stony Creek Gravel	X	
	Stony Gorge		X
Waste Water Treatment Plant	Willows Waste Water Treatment Plant		X
Cell Towers	Chrome		X
	Hamilton City	X	
	Butte City	X	
	Orland		X
	Willows		X
	Princeton	X	
	Elk Creek		X
County/City Government Facilities Located within the City of Orland	Glenn County Superior Court	X	
	Road Division	X	
	Community Recovery Wellness Center	X	
	Orland Veterans' Memorial Hall	X	
	Transition Age Youth Center	X	
	Harmony House	X	
	Glenn County Health Service Agency (WIC)	X	
	Recreation Department	X	
	Orland Library	X	
	Orland City Hall	X	
	Carnegie Community Center	X	
	Transitional Age Youth (Dept of Beh. Health)	X	
	Glenn County Sheriff's Posse		X
	County/City Government Facilities Located within the City of Willows	Glenn County Agricultural Commissioner	
Planning & Public Works Agency			X
Fleet Services			X
Road Department			X
Health and Human Services Agency			X
Assessor - Department of Finance			X
County Court			X
District Attorney			X
Child Support Service			X
Planning & Public Works Agency			X
Facilities Shop			X
Civic Memorial Building			X
Adult & Juvenile Probation Services			X
County Jail			X
City of Willows Civic Center			X
Museum		X	
GRAND TOTALS		47	50

Levee Failure

Levee Failure		Protected by Levees	Not Protected by Levees
Asset Type	Asset Name		
Medical Facilities	Glenn Medical Center		X
	Ampla Health Orland		X
	Glenn Medical Center-Family Care Clinic		X
	Glenn Family Medical Group		X
	Willows Care Center		X
	Northern Valley Indian Health		X
	Westside Ambulance		X
	West Haven Assisted Living		X
	Ampla Health Hamilton		X
Education Facilities	Orland Unified School District		X
	North Valley High School		X
	Fairview Elementary School		X
	Price Intermediate School		X
	Orland Community Day School		X
	Mill Street School		X
	Capay Joint Union Elementary School		X
	Hamilton Elementary School		X
	Hamilton High School		X
	Hamilton Community Day School		X
	Lake District School		X
	Plaza Elementary School		X
	Elk Creek High School		X
	Office of Education		X
	Princeton High School	X	
	Murdock Elementary School		X
	Willows High School		X
	Willows Intermediate School		X
	Willows Community High School		X
	Butte College		X
	Glenn County Office of Education		X
	Princeton Elementary School	X	
	Elk Creek Elementary School		X
	Learning Center South		X
	Walden Academy		X
	Hamilton State Preschool		X
Hamilton Adult School		X	
Ella Barkley Highschool		X	
North Valley High (Continuation)		X	
Success One! Charter School/Glenn Adult Program		X	
Fire Departments/ Protection Districts	Ord Fire Department		X
	Willows Fire Department		X
	Hamilton Fire Department		X
	Glenn-Colusa Fire Department	X	
	Glenn-Codora Fire Department	X	
	Elk Creek Fire Department		X
	Artois Fire Fire Department		X
	Orland Fire Department		X
	Capay Fire Department		X
	Bayliss Fire Department		X
	Kanawha Fire Department		X
	Elk Creek Fire Station Cal Fire		X

Levee Failure

Levee Failure		Protected by Levees	Not Protected by Levees
Asset Type	Asset Name		
Police/Sheriff's Departments	Willows Police Department		X
	Orland Police Department		X
	Sheriff's Department		X
Airports	Willows Glenn County Airport		X
	Orland Haigh Field Airport		X
Dams	E A Wright		X
	Sanhedrin Ranch		X
	Hamilton		X
	Stony Creek Gravel		X
	Stony Gorge		X
Waste Water Treatment Plant	Willows Waste Water Treatment Plant		X
Cell Towers	Chrome		X
	Hamilton City		X
	Butte City		X
	Orland		X
	Willows		X
	Princeton	X	
	Elk Creek		X
County/City Government Facilities Located within the City of Orland	Glenn County Superior Court		X
	Road Division		X
	Community Recovery Wellness Center		X
	Orland Veterans' Memorial Hall		X
	Transition Age Youth Center		X
	Harmony House		X
	Glenn County Health Service Agency (WIC)		X
	Recreation Department		X
	Orland Library		X
	Orland City Hall		X
	Carnegie Community Center		X
	Transitional Age Youth (Dept of Beh. Health)		X
	Glenn County Sheriff's Posse		X
County/City Government Facilities Located within the City of Willows	Glenn County Agricultural Commissioner		X
	Planning & Public Works Agency		X
	Fleet Services		X
	Road Department		X
	Health and Human Services Agency		X
	Assessor - Department of Finance		X
	County Court		X
	District Attorney		X
	Child Support Service		X
	Planning & Public Works Agency		X
	Facilities Shop		X
	Civic Memorial Building		X
	Adult & Juvenile Probation Services		X
	County Jail		X
	City of Willows Civic Center		X
Museum		X	
GRAND TOTALS		5	93

Wildfire

Wildfire		Urban Unzoned	Non-Wildland/ Non-Urban	None/Not Mapped	Moderate	High	Very High
Asset Type	Asset Name						
Medical Facilities	Glenn Medical Center	X					
	Ampla Health Orland	X					
	Glenn Medical Center-Family Care Clinic	X					
	Glenn Family Medical Group	X					
	Willows Care Center	X					
	Northern Valley Indian Health	X					
	Westside Ambulance	X					
	West Haven Assisted Living			X			
Ampla Health Hamilton	X						
Education Facilities	Orland Unified School District	X					
	North Valley High School	X					
	Fairview Elementary School	X					
	Price Intermediate School	X					
	Orland Community Day School	X					
	Mill Street School	X					
	Capay Joint Union Elementary School			X			
	Hamilton Elementary School	X					
	Hamilton High School	X					
	Hamilton Community Day School	X					
	Lake District School			X			
	Plaza Elementary School			X			
	Elk Creek High School						
	Office of Education	X					
	Princeton High School				X		
	Murdock Elementary School	X					
	Willows High School	X					
	Willows Intermediate School	X					
	Willows Community High School	X					
	Butte College	X					
	Glenn County Office of Education	X					
	Princeton Elementary School				X		
	Elk Creek Elementary School						X
	Learning Center South	X					
	Walden Academy	X					
	Hamilton State Preschool	X					
Hamilton Adult School	X						
Ella Barkley Highschool	X						
North Valley High (Continuation)			X				
Success One! Charter School/Glenn Adult Program	X						
Fire Departments/ Protection Districts	Ord Fire Department			X			
	Willows Fire Department	X					
	Hamilton Fire Department	X					
	Glenn-Colusa Fire Department				X		
	Glenn-Codora Fire Department			X			
	Elk Creek Fire Department						X
	Artois Fire Fire Department	X					
	Orland Fire Department	X					
	Capay Fire Department				X		
	Bayliss Fire Department			X			
Kanawha Fire Department			X				
Elk Creek Fire Station Cal Fire						X	
Police/Sheriff's Departments	Willows Police Department	X					
	Orland Police Department	X					
	Sheriff's Department	X					
Airports	Willows Glenn County Airport	X					
	Orland Haigh Field Airport	X					
Dams	E A Wright						X
	Sanhedrin Ranch					X	
	Hamilton					X	
	Stony Creek Gravel			X			
	Stony Gorge				X		

Wildfire

Wildfire		Urban Unzoned	Non-Wildland/ Non-Urban	None/Not Mapped	Moderate	High	Very High
Asset Type	Asset Name						
Waste Water Treatment Plant	Willows Waste Water Treatment Plant		X				
Cell Towers	Chrome						X
	Hamilton City		X				
	Butte City		X				
	Orland				X		
	Willows			X			
	Princeton				X		
	Elk Creek						X
County/City Government Facilities Located within the City of Orland	Glenn County Superior Court	X					
	Road Division	X					
	Community Recovery Wellness Center		X				
	Orland Veterans' Memorial Hall	X					
	Transition Age Youth Center	X					
	Harmony House	X					
	Glenn County Health Service Agency (WIC)	X					
	Recreation Department	X					
	Orland Library	X					
	Orland City Hall	X					
	Carnegie Community Center	X					
	Transitional Age Youth (Dept of Beh. Health)	X					
	Glenn County Sheriff's Posse		X				
County/City Government Facilities Located within the City of Willows	Glenn County Agricultural Commissioner	X					
	Planning & Public Works Agency	X					
	Fleet Services	X					
	Road Department	X					
	Health and Human Services Agency	X					
	Assessor - Department of Finance	X					
	County Court	X					
	District Attorney	X					
	Child Support Service	X					
	Planning & Public Works Agency	X					
	Facilities Shop	X					
	Civic Memorial Building	X					
	Adult & Juvenile Probation Services	X					
	County Jail	X					
	City of Willows Civic Center	X					
		Museum	X				
GRAND TOTALS		67	16	4	3	3	5

Earthquake_Seismic Shaking

Earthquake/Seismic Shaking		Not Felt	Moderate	Strong
Asset Type	Asset Name			
Medical Facilities	Glenn Medical Center			X
	Ampla Health Orland		X	
	Glenn Medical Center-Family Care Clinic			X
	Glenn Family Medical Group			X
	Willows Care Center			X
	Northern Valley Indian Health			X
	Westside Ambulance		X	
	West Haven Assisted Living		X	
	Ampla Health Hamilton		X	
Education Facilities	Orland Unified School District		X	
	North Valley High School		X	
	Fairview Elementary School		X	
	Price Intermediate School		X	
	Orland Community Day School		X	
	Mill Street School		X	
	Capay Joint Union Elementary School		X	
	Hamilton Elementary School		X	
	Hamilton High School		X	
	Hamilton Community Day School		X	
	Lake District School		X	
	Plaza Elementary School		X	
	Elk Creek High School			X
	Office of Education			X
	Princeton High School	X		
	Murdock Elementary School			X
	Willows High School			X
	Willows Intermediate School			X
	Willows Community High School			X
	Butte College		X	
	Glenn County Office of Education		X	
	Princeton Elementary School	X		
	Elk Creek Elementary School		X	
	Learning Center South			X
	Walden Academy			X
Hamilton State Preschool		X		
Hamilton Adult School		X		
Ella Barkley Highschool		X		
North Valley High (Continuation)		X		
Success One! Charter School/Glenn Adult Program			X	
Fire Departments/ Protection Districts	Ord Fire Department		X	
	Willows Fire Department			X
	Hamilton Fire Department		X	
	Glenn-Colusa Fire Department		X	
	Glenn-Codora Fire Department		X	
	Elk Creek Fire Department			X
	Artois Fire Fire Department		X	
	Orland Fire Department		X	
	Capay Fire Department	X		
	Bayliss Fire Department		X	
	Kanawha Fire Department			X
	Elk Creek Fire Station Cal Fire			X

Earthquake_Seismic Shaking

Earthquake/Seismic Shaking		Not Felt	Moderate	Strong
Asset Type	Asset Name			
Police/Sheriff's Departments	Willows Police Department			X
	Orland Police Department		X	
	Sheriff's Department			X
Airports	Willows Glenn County Airport			X
	Orland Haigh Field Airport		X	
Dams	E A Wright		X	
	Sanhedrin Ranch			X
	Hamilton		X	
	Stony Creek Gravel		X	
	Stony Gorge			X
Waste Water Treatment Plant	Willows Waste Water Treatment Plant			X
Cell Towers	Chrome			X
	Hamilton City		X	
	Butte City		X	
	Orland		X	
	Willows			X
	Princeton	X		
	Elk Creek			X
County/City Government Facilities Located within the City of Orland	Glenn County Superior Court		X	
	Road Division		X	
	Community Recovery Wellness Center		X	
	Orland Veterans' Memorial Hall		X	
	Transition Age Youth Center		X	
	Harmony House		X	
	Glenn County Health Service Agency (WIC)		X	
	Recreation Department		X	
	Orland Library		X	
	Orland City Hall		X	
	Carnegie Community Center		X	
	Transitional Age Youth (Dept of Beh. Health)		X	
	Glenn County Sheriff's Posse		X	
County/City Government Facilities Located within the City of Willows	Glenn County Agricultural Commissioner			X
	Planning & Public Works Agency			X
	Fleet Services			X
	Road Department			X
	Health and Human Services Agency			X
	Assessor - Department of Finance			X
	County Court			X
	District Attorney			X
	Child Support Service			X
	Planning & Public Works Agency			X
	Facilities Shop			X
	Civic Memorial Building			X
	Adult & Juvenile Probation Services			X
	County Jail			X
City of Willows Civic Center			X	
	Museum			X
GRAND TOTALS		4	51	43

Expansive Soils

Expansive Soils		Little/None	Slight	Moderate
Asset Type	Asset Name			
Medical Facilities	Glenn Medical Center		X	
	Ampla Health Orland		X	
	Glenn Medical Center-Family Care Clinic		X	
	Glenn Family Medical Group		X	
	Willows Care Center		X	
	Northern Valley Indian Health		X	
	Westside Ambulance		X	
	West Haven Assisted Living		X	
	Ampla Health Hamilton			X
Education Facilities	Orland Unified School District		X	
	North Valley High School		X	
	Fairview Elementary School		X	
	Price Intermediate School		X	
	Orland Community Day School		X	
	Mill Street School		X	
	Capay Joint Union Elementary School			X
	Hamilton Elementary School			X
	Hamilton High School			X
	Hamilton Community Day School			X
	Lake District School		X	
	Plaza Elementary School		X	
	Elk Creek High School		X	
	Office of Education		X	
	Princeton High School	X		
	Murdock Elementary School		X	
	Willows High School		X	
	Willows Intermediate School		X	
	Willows Community High School		X	
	Butte College		X	
	Glenn County Office of Education		X	
	Princeton Elementary School	X		
	Elk Creek Elementary School		X	
	Learning Center South		X	
	Walden Academy		X	
	Hamilton State Preschool			X
	Hamilton Adult School			X
	Ella Barkley Highschool			X
North Valley High (Continuation)		X		
Success One! Charter School/Glenn Adult Program		X		
Fire Departments/ Protection Districts	Ord Fire Department			X
	Willows Fire Department		X	
	Hamilton Fire Department			X
	Glenn-Colusa Fire Department			X
	Glenn-Codora Fire Department		X	
	Elk Creek Fire Department		X	
	Artois Fire Fire Department		X	
	Orland Fire Department		X	
	Capay Fire Department	X		
	Bayliss Fire Department		X	
	Kanawha Fire Department		X	
	Elk Creek Fire Station Cal Fire		X	

Expansive Soils

Expansive Soils		Little/None	Slight	Moderate
Asset Type	Asset Name			
Police/Sheriff's Departments	Willows Police Department		X	
	Orland Police Department		X	
	Sheriff's Department		X	
Airports	Willows Glenn County Airport		X	
	Orland Haigh Field Airport		X	
Dams	E A Wright		X	
	Sanhedrin Ranch		X	
	Hamilton		X	
	Stony Creek Gravel			X
	Stony Gorge		X	
Waste Water Treatment Plant	Willows Waste Water Treatment Plant		X	
Cell Towers	Chrome		X	
	Hamilton City			X
	Butte City			X
	Orland	X		
	Willows		X	
	Princeton			X
County/City Government Facilities Located within the City of Orland	Elk Creek		X	
	Glenn County Superior Court		X	
	Road Division		X	
	Community Recovery Wellness Center		X	
	Orland Veterans' Memorial Hall		X	
	Transition Age Youth Center		X	
	Harmony House		X	
	Glenn County Health Service Agency (WIC)		X	
	Recreation Department		X	
	Orland Library		X	
	Orland City Hall		X	
	Carnegie Community Center		X	
	Transitional Age Youth (Dept of Beh. Health)		X	
Glenn County Sheriff's Posse		X		
County/City Government Facilities Located within the City of Willows	Glenn County Agricultural Commissioner		X	
	Planning & Public Works Agency		X	
	Fleet Services		X	
	Road Department		X	
	Health and Human Services Agency		X	
	Assessor - Department of Finance		X	
	County Court		X	
	District Attorney		X	
	Child Support Service		X	
	Planning & Public Works Agency		X	
	Facilities Shop		X	
	Civic Memorial Building		X	
	Adult & Juvenile Probation Services		X	
	County Jail		X	
	City of Willows Civic Center		X	
Museum		X		
GRAND TOTALS		4	79	15



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

HAZARD PRIORITY WORKSHEET

The Risk Factor (RF) approach combines historical data, local knowledge, and consensus opinions to produce numerical values that allow identified hazards to be ranked against one another. These criteria will be used to evaluate hazards and identify the highest risk hazards for Glenn County and the Cities of Orland and Willows.

The RF approach produces numerical values that allow identified hazards to be ranked against one another (the higher the RF value, the greater the hazard risk). RF values are obtained by assigning varying degrees of risk to five categories for each hazard: *probability*, *impact*, *spatial extent*, *warning time*, and *duration*. Each degree of risk is assigned a value ranging from 1 to 4 and a weighing factor for each category. Based upon any unique concerns for the planning area, the Steering Committee may adjust the RF weighting scheme. To calculate the RF value for a given hazard, the assigned risk value for each category is multiplied by the weighting factor. The sum of all five categories equals the final RF value, as demonstrated in the example equation below:

$$\text{RF Value} = [(Probability \times .30) + (Impact \times .30) + (Spatial \text{ Extent} \times .20) + (Warning \text{ Time} \times .10) + (Duration \times .10)]$$

According to the default weighting scheme applied, the highest possible RF value is 4.0.

The conclusions drawn from the qualitative and quantitative assessments, combined with final Risk Factor Value determinations from the Steering Committee, will be fitted into three categories for a final summary of hazard risk based on *High*, *Moderate*, or *Low* risk designations.

Risk Factor Value Designation
<i>HIGH RISK (3.0 – 4.0)</i>
<i>MODERATE RISK (2.0 – 2.9)</i>
<i>LOW RISK (0.1 – 1.9)</i>

Risk Factor Criteria

Risk Assessment Category	Level	Degree of Risk Criteria	Index	Weight Value
PROBABILITY <i>What is the likelihood of a hazard event occurring in a given year?</i>	UNLIKELY	LESS THAN 1% ANNUAL PROBABILITY	1	30%
	POSSIBLE	BETWEEN 1 & 10% ANNUAL PROBABILITY	2	
	LIKELY	BETWEEN 10 & 100% ANNUAL PROBABILITY	3	
	HIGHLY LIKELY	100% ANNUAL PROBABILITY	4	
IMPACT <i>In terms of injuries, damage, or death, would you anticipate impacts to be minor, limited, critical, or catastrophic when a significant hazard event occurs?</i>	MINOR	VERY FEW INJURIES, IF ANY. ONLY MINOR PROPERTY DAMAGE & MINIMAL DISRUPTION ON QUALITY OF LIFE. TEMPORARY SHUTDOWN OF CRITICAL FACILITIES.	1	30%
	LIMITED	MINOR INJURIES ONLY. MORE THAN 10% OF PROPERTY IN AFFECTED AREA DAMAGED OR DESTROYED. COMPLETE SHUTDOWN OF CRITICAL FACILITIES FOR MORE THAN ONE DAY.	2	
	CRITICAL	MULTIPLE DEATHS/INJURIES POSSIBLE. MORE THAN 25% OF PROPERTY IN AFFECTED AREA DAMAGED OR DESTROYED. COMPLETE SHUTDOWN OF CRITICAL FACILITIES FOR MORE THAN ONE WEEK.	3	
	CATASTROPHIC	HIGH NUMBER OF DEATHS/INJURIES POSSIBLE. MORE THAN 50% OF PROPERTY IN AFFECTED AREA DAMAGED OR DESTROYED. COMPLETE SHUTDOWN OF CRITICAL FACILITIES FOR 30 DAYS OR MORE.	4	
SPATIAL EXTENT <i>How large of an area could be impacted by a hazard event? Are impacts localized or regional?</i>	NEGLIGIBLE	LESS THAN 1% OF AREA AFFECTED	1	20%
	SMALL	BETWEEN 1 & 10% OF AREA AFFECTED	2	
	MODERATE	BETWEEN 10 & 50% OF AREA AFFECTED	3	
	LARGE	BETWEEN 50 & 100% OF AREA AFFECTED	4	
WARNING TIME <i>Is there usually some lead time associated with the hazard event? Have warning measures been implemented?</i>	MORE THAN 24 HRS	SELF-DEFINED	1	10%
	12 TO 24 HRS	SELF-DEFINED	2	
	6 TO 12 HRS	SELF-DEFINED	3	
	LESS THAN 6 HRS	SELF-DEFINED	4	
DURATION <i>How long does the hazard event usually last?</i>	LESS THAN 6 HRS	SELF-DEFINED	1	10%
	LESS THAN 24 HRS	SELF-DEFINED	2	
	LESS THAN 1 WEEK	SELF-DEFINED	3	
	MORE THAN 1 WEEK	SELF-DEFINED	4	



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Meeting: Steering Committee Mtg # 2
 Date/Time: July 30, 2015 - 2:00-4:00 pm
 Page 2 of 3

Name	Title	Jurisdiction/Organization	Mailing Address	Email/Telephone
Wurtky Hansen	F.O.M.	Roads	777 north Colusa	624-0314
Todd Murray		Roads	11	934-3370
Don Guy	SR	CHP	464 N. Humboldt Ave Willows 95988	934-5424
Mardy Thomas	Principal Planner	POWA / etc	777 W. Plumas St.	934-6530
Steve Seth	Director Public Works	City of Colusa		
Jose Juente	HCCSD GM.	Hamilton N.Y.	P.O. Box 114	826-3208
Andy Popper	Associate Planner	Glenn County	777 N. Lucasa St.	
D. Amborough	Deputy PWA	n	n	5309346530
Matt Gomes	n	n	n	n



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Meeting: Steering Committee Mtg #2
 Date/Time: July 30, 2015 - 2:00 - 4:00 pm
 Page 3 of 3

Name	Title	Jurisdiction/Organization	Mailing Address	Email/Telephone
Kevin Backus	Director Director	ENV. HEALTH	247 N. V. LA AVE	Backus & Glenn County Health 934-6102
Jack Caniere	District Manager	Glenn Co. MWD	165 E/R B. Willows CA 95488	gcmwd@nwd2000.com 934-4025
Ken Dunn	Airports	PRUDA	777 N. Colusa	
Keth Conum	BOs	4th District	925 Sycamore 925 Sycamore	keith@countyof glenn.net
Joe Bethencourt	PPWA	PPWA	777 N. Colusa	Joe Bethencourt County of Glenn, not at all's @ glenn county with 934 6588
Amy Travis	Emergency Preparedness Board.	Public Health	240 Villa Ave	
Dean Miller	Building	PPWA PPWA	777 N Colusa St	
AN LESSTER	Airport Services	APD/CPA	920 N Colusa	
Kathryn McDonald	" "	" "	" "	kmcdaniell@ countyofglenn.net



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Name	Title	Jurisdiction/Organization	Mailing Address	Email/Telephone
Wynne Kusum	Project Manager	Michael Baker International	1 Kaiser Plaza, Ste. 1150 Oakland, CA 94612	wkusum@mikesintl.com 510.879.0959
Emma Reed	Plang. Assoc.	Michael Baker Intl	1 Kaiser Plaza, Ste 1150 Oakland, CA 94612	emma.reed@mikesintl.com 510-879-0959



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Glenn County MJHMP Steering Committee Meeting #3 Agenda

Date: Thursday, 8 October 2015
Time: 2.00pm to 4.00pm
Location: Glenn County Office of Education, Conference Room
311 South Villa Avenue
Willows CA 95988

- Welcome and Introductions
- Hazard Risk Factor Development Results
- Capabilities Assessment
- Goals Identification

{SESSION BREAK}

- Development of Mitigation Actions
- Development/Confirmation of Mitigation Action Evaluation Criteria
- Next Steps

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Glenn County, CA Multi-Jurisdiction Hazard Mitigation Plan




Steering Committee Meeting #3
October 8, 2015

Michael Baker INTERNATIONAL Agenda

- Welcome and Introductions
- Hazard Risk Factor Development Results
- Capabilities Assessment
- Goals Identification

{SESSION BREAK}

- Development of Mitigation Actions
- Development/Confirmation of Mitigation Action Evaluation Criteria
- Next Steps

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Michael Baker INTERNATIONAL Hazard Risk Factor Development Results

Prioritizing the Identified Hazards

- Combines historical data, local knowledge, and consensus opinions to produce numerical values that allow identified hazards to be ranked against one another
- Varying degrees of risk (1 to 4) assigned to five categories for each hazard for each participating jurisdiction
- RF Value calculated based on the following formula:

$$RF\ Value = [(Probability \times .30) + (Impact \times .30) + (Spatial\ Extent \times .20) + (Warning\ Time \times .10) + (Duration \times .10)]$$


- RF Value Designation:

Risk Factor Value Designation
HIGH RISK (3.0 – 4.0)
MODERATE RISK (2.0 – 2.9)
LOW RISK (0.1 – 1.9)

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Michael Baker CORPORATION Capabilities Assessment

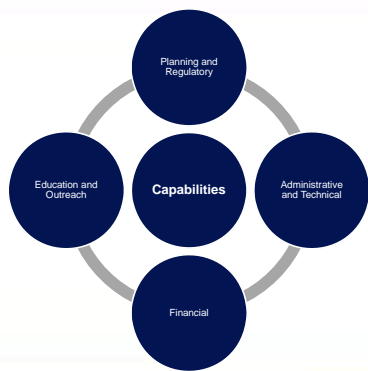
- Current capabilities to reduce disaster losses or could be used to reduce losses in the future
- Current capabilities that inadvertently increase risks in the community
- Ability to expand and improve upon these existing tools



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Michael Baker CORPORATION Capabilities Assessment

Types of Capabilities



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Planning and Regulatory

- Implementation and enforcement of ordinances, policies, local laws, and State statutes
- Plans and programs related to guiding and managing growth and development


Regulatory Item (Ordinances, Codes, Plans)	Yes/No	Comments
General Plan		
Comprehensive/Master Plan		
Capital Improvements Plan		
Zoning Ordinance		
Subdivision Ordinance		
Floodplain Ordinance		
Other special purpose ordinance (stormwater, steep slope wildfire)		
Building Code		Version:
IRCS Rating		Rating:
Fire Department ISO Rating		Rating:
Site plan review requirements		
Erosion or Sediment Control Program		
Transportation Plan		
Community Wildfire Protection Plan		
Other special plans		
Stormwater Management Program		
Site Plan Review Requirements		
Capital Improvements Plan		
Economic Development Plan		
Local Emergency Operation Plan		
Other special plans		
Flood Insurance Study or other engineering study for streams		
Elevation certificates		
Other		

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Michael Baker INTERNATIONAL Capabilities Assessment

National Floodplain Insurance Program (NFIP)

- Floodplain management program
- Continued compliance activities



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Michael Baker INTERNATIONAL Mitigation Action Strategy

- Heart of the Hazard Mitigation Plan
- Long-term blueprint for communities to take action to reduce the risk of/losses from hazard events



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Michael Baker INTERNATIONAL Mitigation Goals

What does the community want to achieve through mitigation plan implementation?

- Long-term broad policy statements
- Community's vision for reducing/avoiding losses from identified hazards
- Alignment/consistency with:
 - Risk assessment findings
 - Outreach findings
 - Community values and goals in other plans and policy documents
 - State hazard mitigation goals



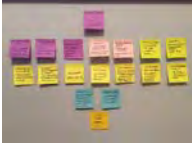
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Mitigation Goal Development Process

What do you think are the goals for the Glenn County MJHMP?

- Example goals have been provided
- Use the 3 sticky notes
 - one note per goal
- Consensus on mitigation goals
 - Review goals and arrange by category
 - Combine and reword into 3-4 goals for the plan



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Mitigation Actions

Mitigation Actions

Specific project, action, activity, or process taken to reduce or eliminate long-term risk to identified hazards and achieve the goals identified

- Emphasis on risk reduction to existing buildings and infrastructure, as well as limit any risk to new development and redevelopment



Bridge replacement project reduces flooding in Downtown Napa

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Mitigation Action Types

- **Local planning and regulations**
 - Government authorities, policies, or codes that influence the way land and buildings are developed and built
- **Natural systems protection**
 - Actions that minimize damage/losses and also preserve/restore the functions of natural systems
- **Structure and infrastructure projects**
 - Modification of existing structures/infrastructure
 - Construction of manmade structures
- **Education and awareness programs**
 - Actions to inform/educate citizens, public officials, and property owners about hazards and potential ways to mitigate them

Actions to prepare for or respond to hazard events are NOT considered mitigation actions by FEMA

Local Planning and Regulations

- Comprehensive/General Plans
- Building codes and enforcement
- Land use, zoning, and subdivision ordinances and regulations
- Development reviews
- Capital improvement programs
- Stormwater management regulations and master plans
- Integrating Natural Hazards into other Planning Mechanisms
- Established Funds for Risk Reduction
- Incentives for Risk Reduction



Natural Systems Protection

- Sediment and erosion control
- Forest/vegetation management
- Fuel reduction
- Open space preservation
- Protection/restoration of natural functions
- Stream maintenance
- Tree Management



Structure and Infrastructure Projects

- Acquisition and elevation of structures in flood-prone or other hazard prone areas
- Flood control/management
 - Floodwall/retaining walls
 - Detention/retention structures
 - culverts
- Soil stabilization or erosion control
- Structural retrofit
- Safe room construction
- Utility undergrounding
- Urban heat island albedo enhancement

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Education and Awareness Programs

- Radio/television spots
- Websites with maps/information
- Real estate disclosures
- Presentations to school groups or neighborhood organizations
- Mailings to residents in hazard-prone areas
- StormReady
- Firewise communities

CalOES MyHazards
<http://myhazards.calema.ca.gov/>

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Eligible Mitigation Projects

FEMA Hazard Mitigation Assistance Grant Programs


- Hazard Mitigation Grant Program (HMGP)**
 - Funding for eligible mitigation projects following a major disaster
- Pre-Disaster Mitigation (PDM) Program**
 - Funding for hazard mitigation planning and projects on an annual basis
- Flood Mitigation Assistance (FMA) Program**
 - Funding for projects to reduce/eliminate risk of flood damage to buildings insured under the NFIP on an annual basis

Mitigation Projects	HMGP	PDM	FMA
Property Acquisition and Structure Demolition	✓	✓	✓
Property Acquisition and Structure Relocation	✓	✓	✓
Structure Elevation	✓	✓	✓
Mitigation Reconstruction	✓	✓	✓
Dry Floodproofing of Historic Residential Structures	✓	✓	✓
Dry Floodproofing of Non-residential Structures	✓	✓	✓
Localized Flood Risk Reduction Projects	✓	✓	✓
Non-localized Flood Risk Reduction Projects	✓	✓	✓
Structural Retrofitting of Existing Buildings	✓	✓	✓
Non-structural Retrofitting of Existing Buildings and Facilities	✓	✓	✓
Safe Room Construction	✓	✓	✓
Wood Frame for One- and Two-Family Residences	✓	✓	✓
Infrastructure Retrofit	✓	✓	✓
Soil Stabilization	✓	✓	✓
Wildfire Mitigation	✓	✓	✓
Post-Disaster Code Enforcement	✓	✓	✓
Advance Assistance	✓	✓	✓
5 Percent Initiative Projects	✓	✓	✓
Miscellaneous/Other	✓	✓	✓


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Integrating Mitigation: Multi-Benefit



Nashville



Chicago

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Integrating Mitigation: Multi-Benefit




Shelby, Ohio



San Antonio, Texas



Napa, California




Cemetery Creek, Washington

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Michael Baker CORPORATION **Mitigation Action Implementation Plan**

Evaluation and prioritization of mitigation actions

- **Evaluation criteria**
 - Tool used to develop a balanced hazard mitigation plan to help achieve community goals
 - Identified and agreed upon by Steering Committee
- **Robust set of evaluation criteria provide perspective on how different strategies affect various aspects of the community**
 - Helpful in garnering political, community, and financial support as it helps decision-makers and community members understand the tradeoffs and consequences of different strategies
- **Determine which strategies are high priority for implementation to direct limited resources**




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Michael Baker CORPORATION **Mitigation Action Implementation Plan**

Evaluation Criteria

- **One methodology is STAPLEE**
- **Other criteria to include?**
 - Local champion?
 - Can be done with existing/expected funding sources?
 - Social benefits
 - Economic benefits
 - Environmental improvement
 - Alignment with other community plans/objectives
 - Easy win = easy to achieve, high benefit
 - Unlocking = opens the door to other action
- **Benefit-cost review criteria must be part of the evaluation and prioritization process**



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Michael Baker CORPORATION **Mitigation Action Implementation Plan**

Mitigation Action Implementation Strategy

- **Identify for each mitigation action, at a minimum:**
 - Responsible agency/department
 - Potential funding resources
 - Implementation timeframe
- **Other implementation elements to consider:**
 - Goals addressed
 - Partner agencies
 - Steps for implementation
 - Estimated budget

The more detailed the strategy, the easier it will be to develop project scopes of work, schedules, and budgets.

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Plan Implementation

- FEMA is increasing efforts to work with communities to identify AND implement mitigation actions
- FEMA and CalOES are resources for communities and can provide information on:
 - FEMA Hazard Mitigation Assistance Programs
 - Other Federal and State Funding Sources
- FEMA can also provide communities with Technical Assistance
 - Benefit Cost Analysis for grant applications
 - Tools and Job Aids
 - Grants management principles and practices
- Coordination across agencies/departments and other organizations
 - Identify synergies between hazard mitigation planning/resilience planning with other funding sources

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Immediate Next Steps

- Finalize hazard profiles and vulnerability assessments based on comments/feedback from previous meeting and new available data (*MBI*)
- Finalize Capabilities Assessment and submit to MBI 1 week prior to the next Steering Committee meeting (*County and Cities*)
- Finalize list of mitigation actions and submit to MBI 1 week prior to the next Steering Committee meeting (*County and Cities*)
- Next MJHMP Steering Committee meeting: 29 October 2015 (tentative)
 - Evaluation/Prioritization of Mitigation Actions
 - Development of Implementation Strategy for Mitigation Actions
 - Development/Confirmation of Plan Maintenance Process

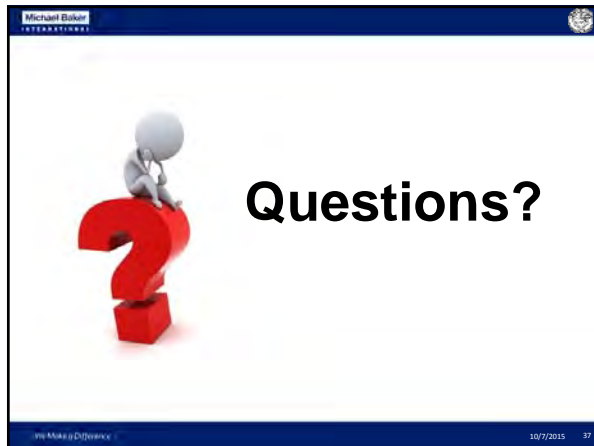
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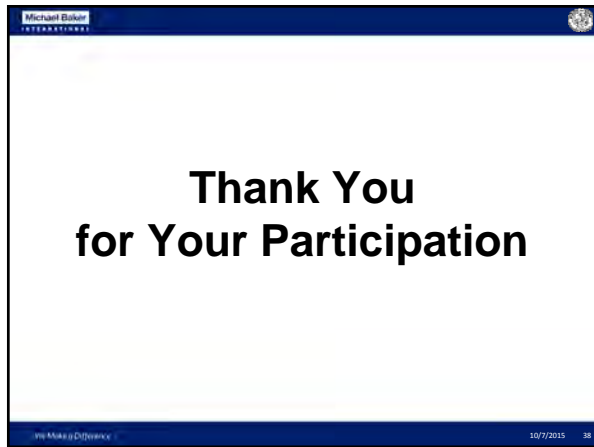
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Next Steps: Looking Ahead

- Prepare Initial Draft Plan for Steering Committee Review
 - Mid-November 2015
- Steering Committee Meeting #5
 - End November 2015
- Prepare Public Review Draft
 - Mid-December 2015
- Public Workshop #2
 - Mid-January 2015
- Prepare Plan Submittal to CalOES/FEMA Region IX
 - End January 2016
- Obtain Conditional Approval from FEMA
 - January through April 2016
- Adopt the Plan
 - End of May 2016

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Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Hazard Priority – Risk Factor Development Results

Glenn County												
Natural Hazards	Probability		Impact		Spatial Extent		Warning Time		Duration		RF Factor	Hazard Priority
Flood	3.03	0.91	2.00	0.6	2.86	0.57	1.86	0.19	3.43	0.34	2.61	Moderate Risk
Dam Failure	1.03	0.31	3.14	0.94	2.29	0.46	3.43	0.34	2.43	0.24	2.29	Moderate Risk
Levee Failure	2.00	0.6	3.00	0.9	2.57	0.51	3.57	0.36	3.00	0.3	2.67	Moderate Risk
Drought	2.93	0.88	1.57	0.47	3.71	0.74	1.00	0.1	4.00	0.4	2.59	Moderate Risk
Severe Weather/Storms	2.71	0.81	2.00	0.6	3.29	0.66	1.43	0.14	2.57	0.26	2.47	Moderate Risk
Wildfire	2.64	0.79	2.14	0.64	2.43	0.49	2.86	0.29	3.57	0.36	2.56	Moderate Risk
Geologic Hazards	1.07	0.32	1.86	0.56	2.43	0.49	3.71	0.37	1.14	0.11	1.85	Low Risk

City of Orland												
Natural Hazards	Probability		Impact		Spatial Extent		Warning Time		Duration		RF Factor	Hazard Priority
Flood	2.86	0.86	2.14	0.64	2.57	0.51	2.00	0.2	3.00	0.3	2.51	Moderate Risk
Dam Failure	1.14	0.34	3.57	1.07	3.29	0.66	3.43	0.34	2.71	0.27	2.69	Moderate Risk
Levee Failure	1.14	0.34	1.57	0.47	1.71	0.34	2.86	0.29	2.14	0.21	1.66	Low Risk
Drought	2.57	0.77	1.57	0.47	3.29	0.66	1.00	0.1	4.00	0.4	2.40	Moderate Risk
Severe Weather/Storms	2.86	0.86	2.00	0.6	3.14	0.63	1.29	0.13	2.86	0.29	2.50	Moderate Risk
Wildfire	2.43	0.73	2.00	0.6	2.00	0.4	2.71	0.27	3.14	0.31	2.31	Moderate Risk
Geologic Hazards	1.00	0.3	1.86	0.56	2.57	0.51	3.86	0.39	1.57	0.16	1.91	Low Risk



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

City of Willows												
Natural Hazards	Probability		Impact		Spatial Extent		Warning Time		Duration		RF Factor	Hazard Priority
Flood	3.14	0.94	2.29	0.69	2.86	0.57	1.71	0.17	3.14	0.31	2.69	Moderate Risk
Dam Failure	1.00	0.3	2.00	0.6	2.00	0.4	3.00	0.3	2.29	0.23	1.83	Low Risk
Levee Failure	1.29	0.39	1.57	0.47	1.71	0.34	3.00	0.3	2.67	0.27	1.77	Low Risk
Drought	2.57	0.77	1.43	0.43	3.00	0.6	1.00	0.1	4.00	0.4	2.30	Moderate Risk
Severe Weather/Storms	2.86	0.86	2.14	0.64	2.86	0.57	1.29	0.13	2.86	0.29	2.49	Moderate Risk
Wildfire	1.71	0.51	1.43	0.43	1.71	0.34	2.57	0.26	3.00	0.3	1.84	Low Risk
Geologic Hazards	1.00	0.3	1.71	0.51	2.71	0.54	3.86	0.39	1.57	0.16	1.90	Low Risk

- Glenn County**
Prioritized Hazards of Concern
1. Levee Failure
 2. Flood
 3. Drought
 4. Wildfire
 5. Severe Weather/Storms
 6. Dam Failure
 7. Geologic Hazards

- City of Orland**
Prioritized Hazards of Concern
1. Dam Failure
 2. Flood
 3. Severe Weather/Storms
 4. Drought
 5. Wildfire
 6. Geologic Hazards
 7. Levee Failure

- City of Willows**
Prioritized Hazards of Concern
1. Flood
 2. Severe Weather/Storms
 3. Drought
 4. Geologic Hazards
 5. Wildfire
 6. Dam Failure
 7. Levee Failure



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Goal Development Process

You will each be given 3 sticky notes. On each note you will write what you think the goals for this mitigation planning effort should be. To get you started, provided below are possible goals for this mitigation plan. You may reword these or develop your own. These goal statements should serve as examples.

- Minimize risk and vulnerability from natural hazards
- Increase communities' awareness of vulnerability to hazards
- Increase the use of shared resources
- Improve communities' capabilities to mitigate losses
- Maintain coordination of disaster plans with changing DHS/FEMA needs
- Maintain FEMA eligibility/position jurisdictions for grant funding
- Maintain/enhance the flood mitigation program to provide 200/500-year flood protection
- Maintain current service levels
- Provide protection for existing buildings from hazards
- Provide protection for future development from hazards
- Provide protection for natural and cultural resources from hazard impacts
- Provide protection for people's lives from hazards
- Provide protection for public health
- Provide protection for critical services (fire, police, etc.) from hazard impacts
- Provide protection for critical lifeline utilities from hazard impacts
- Reduce exposure to hazard related losses
- Reduce the number of emergency incidents
- Make better use of technology

It is vital that Steering Committee establish its own goals. Use one note for each goal. The purpose of the goal development is to reach a consensus on plan goals.

When done, we will:

- Pin/tape them to the wall/easel-chart and arrange them by category
- Combine and reword them into 3-4 goals for the plan.



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

The Mitigation Action Strategy

The most important element of the Glenn County Multi-Jurisdiction Hazard Mitigation Plan (MJHMP) is the resulting mitigation action strategy which serves as the long-term blueprint for reducing potential losses identified in the risk assessment. The mitigation action strategy is comprised of three components:

- Mitigation Goals
- Mitigation Actions
- Action Implementation Plan

Mitigation Goals

Up to this point, the Steering Committee has assisted in the collection and provision of data and insight for identifying the hazards for the Glenn County MJHMP. A Risk Assessment has been developed to describe risk and vulnerability in Glenn County and its incorporated cities. Capabilities for Glenn County and the incorporated cities will also be assessed, with areas for improvement identified.

Mitigation planning goals should provide direction for what loss reduction activities can be undertaken to make Glenn County and its incorporated cities more disaster-resistant. Mitigation goals are general guidelines

Mitigation Goals are general guidelines that represent the community's vision for reducing or avoiding losses from identified hazards. Goals are stated without regard for achievement, that is, implementation cost, schedule, and means are not considered. Goals are public policy statements that:

- Represent basic desires of the jurisdiction;
- Encompass all aspects of planning area, public and private;
- Are nonspecific, in that they refer to the quality (not the quantity) of the outcome;
- Are future-oriented, in that they are achievable in the future; and
- Are time-independent, in that they are not scheduled events.

While goals are not specific (quantitative), they should not be so general as to be meaningless or unachievable. Goals statements will form the basis for identifying mitigation actions, along with information from the Risk Assessment and Capabilities Assessment. They should be stated in such a way as to develop one or more objectives related to each goal. The key point in writing goals is to remember that they must deal with results, not the activities that produce those results.



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

A discussion of other planning area goals from other regional/county/city programs and priorities is a good starting point for developing goals for the Glenn County MJHMP. This allows for alignment and consistency with other planning efforts in Glenn County and provides efficiency by combining projects/needs that are similar in nature or location. Aligning goals effectively can result in identifying multiple sources of funding that can be “packaged” and broadening the supporting constituency base by including “outcomes” desired by various stakeholder groups.

Types/Sources of other area mitigation plans and programs include:

- Emergency Operations Plans
- General Plans
- Stormwater Program and Plans
- Flood/Watershed Management Plans and Studies
- Drought Plans
- Community Wildfire Protection Plans
- Dam Failure Plans
- Other?

Sample Goals from other Plans

Goals from the 2013 California State Hazard Mitigation Plan

1. Significantly reduce life loss and injuries
2. Minimize damage to structures and property, as well as minimizing interruption of essential services and activities
3. Protect the environment
4. Promote hazard mitigation as an integrated public policy and as a standard business practice

Glenn County 1993 General Plan

Natural Resources Element

- NRG-1 Preservation of agricultural land
- NRG-2 Protection and management of local water resources
- NRG-3 Preservation and enhancement of the County’s biological resources in a manner compatible with a sound local economy
- NRG-4 Preservation, maintenance, and restoration of forestry resources
- NRG-5 Conservation and protection of non-renewable mineral and energy resources
- NRG-6 Identification and preservation of cultural resources within the County
- NRG-7 Preservation of aesthetic resources and values



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Public Safety Element

- PSG-2 Protection and enhancement of the quality of life by reducing the loss of life and personal property due to fire.
- PSG-3 Protection and enhancement of the quality of life by reducing the loss of life and personal property due to geologic hazards.
- PSG-4 Protection and enhancement of air quality.
- PSG-5 Protection and reduction of loss of life and personal property due to flooding.
- PSG-6 Protection and enhancement of water quality.
- PSG-7 Protection of county residents from the harmful and annoying effects of exposure to excessive noise and preservation of the rural noise environment in Glenn County.

Community Development Element

- CDG-1 Preservation of agricultural land.
- CDG-2 Avoidance of land use conflicts in agricultural: land use conflicts areas.
- CDG-3 Appropriate distribution and regulation of land uses.
- CDG-4 Establishment and maintenance of formal lines of communication between the County and the cities.
- CDG-5 Development and maintenance of an efficient and effective road system.
- CDG-6 Provision of a safe transportation system.
- CDG-9 Transportation/circulation decision-making which supports economic development and adopted land use plans.
- CDG-10 Establishment of alternative transportation modes consistent with demand and available resources.
- CDG-13 Maintenance and improvement of the quality of the existing housing stock and the neighborhoods in which it is located.
- CDG-15 Promote energy conservation activities in all residential areas.
- CDG-17 Provision of adequate and cost-effective public services.
- CDG-18 Adequate financing for existing and planned service delivery systems.
- CDG-19 Preserve agriculture while increasing the stability of, and diversifying, the county's economy.
- CDG-20 Retain and undergo expansion of existing businesses and industries in Glenn County.
- CDG-21 Attract new business and industry to locate in Glenn County.
- CDG-22 Capture new, or underutilized, market potentials and attract business dollars from outside Glenn County.
- CDG-23 Create new employment opportunities for county residents.



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

- CDG-27 Expand and diversify the County's tax base and fiscal stability by achieving economic growth without offsetting environmental, social, and fiscal cost impacts.

City of Orland 2010 General Plan Update

Land Use Element

- Goal 2.1: Maintain and promote the qualities that make Orland a desirable community.
- Goal 2.3: Create and maintain neighborhoods that ensure a high quality of life in Orland.
- Goal 2.4: Promote the expansion and retention of existing commercial establishments and encourage new commercial development in the city.
- Goal 2.5: Promote economic growth in the city of Orland through attraction and retention of industry in order to enhance employment opportunity and maximize the availability of goods and services within the community.

Transportation Element

- Goal 3.1: Plan for, provide and maintain a circulation system that permits the safe and efficient movement of people and goods throughout the city and Orland planning area.
- Goal 3.2: Establish a system of safe and efficient local, collector, and arterial roads to reduce travel time and improve traffic safety that is consistent with the land use patterns of the city.
- Goal 3.3: Formulate and adopt circulation design and improvement standards that require a level of service consistent with the demands generated by proposed development, public safety, and the efficient use of public and private resources and which are uniformly applied in the Orland planning area.
- Goal 3.4: Achieve a coordinated regional and local transportation system that minimizes traffic congestion and efficiently serves users.
- Goal 3.6: Encourage transportation alternatives to the automobile.
- Goal 3.7: A non-vehicular circulation system linking important public places within the community.
- Goal 3.8: A safe sidewalk system which provides maximum opportunities for pedestrian traffic throughout the city.
- Goal 3.9: Contribute toward improving the air quality of the region through more efficient use of private vehicles and increased use of alternative transportation modes.
- Goal 3.10: Provide the highest level of roadway maintenance for city residents.



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Safety Element

- Goal 4.2: Minimize the risk of personal injury and property damage resulting from flooding.
- Goal 4.3: Protect people and property within the city of Orland against fire-related loss and damage.
- Goal 4.6: Minimize the threat of personal injury and property damage due to seismic and geologic hazards.

Open Space, Conservation, and Public Facilities Element

- Goal 5.1: Promote and protect the continued viability of agriculture surrounding Orland.
- Goal 5.2: Ensure that all mining activity is appropriately permitted and that mines are effectively reclaimed.
- Goal 5.3: Minimize impacts to wildlife and wildlife habitat as new development occurs within the Orland planning area.
- Goal 5.4: Maintain and protect air quality within the city of Orland at acceptable levels as defined by state and federal standards.
- Goal 5.5: Reduce the contribution of greenhouse gases from existing sources and minimize the contribution of greenhouse gases from new construction and sources.
- Goal 5.6: Conserve, enhance, and manage water resources, protect their quality, and ensure an adequate long-term supply of water for domestic, agricultural, industrial, and recreational use.
- Goal 5.7: Protect the quantity and quality of community water supplies.
- Goal 5.8: Provide quality wastewater service to all existing and future city residents.
- Goal 5.9: Provide for the collection, transport, and stormwater in a safe manner to protect people and property from damage arising from storm drainage.
- Goal 5.10: Develop and sustain an integrated and cohesively designed park system that is complementary to existing and proposed development as well as the natural environment. This shall include development and maintenance of a network of recreational trails, bicycle lanes and bikeways.

Housing Element (2014-2019)

- Goal HE-1: Housing Quality – promote the development of new housing that meets safety standards, offers a variety of housing types in a variety of locations, and enhances existing neighborhoods, services, and the environment
- Goal HE-5: Natural Resources and Energy Conservation – promote the conservation of natural resources and energy in housing production.



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Mitigation Actions

Mitigation Actions are specific actions, projects, activities or processes taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve Glenn County MJHMP's mission and goals and accomplish risk reduction in the County.

Each participating jurisdiction is required to identify and analyze a comprehensive range of specific mitigation actions and projects to reduce the impacts of the hazards identified in the risk assessment. A comprehensive range means that communities analyze, or evaluate, different types of mitigation actions. For example, building retrofits, infrastructure protection, and changes in local ordinances represent a mix of structural and non-structural approaches. In addition, each jurisdiction must consider actions that reduce risk to existing buildings and infrastructure, as well as limit risk to new development and redevelopment.

Low-cost mitigation actions that can be readily implemented, such as developing an outreach program to encourage homeowners to secure furnishings and utilities to prevent injuries and damage during an earthquake can be identified. Other actions may depend on available funding, such as retrofitting critical infrastructure. Though funding and support may not be immediately available for every action, including the actions in the plan may lead to future opportunities for implementation. For example, some actions can be implemented following a disaster when additional funding and political and public support are available, such as acquiring homes in a flood hazard area. Additionally, if actions are not included in the plan, securing funding may be more difficult once it becomes available.

Types of Mitigation Action

The primary types of mitigation actions to reduce long-term vulnerability include:

- Local plans and regulations
- Structure and infrastructure projects
- Natural systems protection
- Education and awareness programs

Actions taken to prepare for or respond to hazard events are not considered mitigation actions. Mitigation activities lessen or eliminate the need for preparedness or response resources in the future. Examples of emergency response or operational preparedness actions include:

- Creating mutual aid agreements with neighboring communities to meet emergency response needs.
- Purchasing radio communications equipment for the fire department.



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

- Developing procedures for notifying citizens of available shelter locations during and following an event.

Definitions and Examples of Mitigation Action Types

Mitigation Type	Description	Examples
Local Plans and Regulations	These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.	<ul style="list-style-type: none"> • Comprehensive plans • Land use ordinances • Subdivision regulations • Development review • Building codes and enforcement • NFIP Community Rating System • Capital improvement programs • Open space preservation • Stormwater management regulations and master plans
Structure and Infrastructure Projects	<p>These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure.</p> <p>This type of action also involves projects to construct manmade structures to reduce the impact of hazards.</p> <p>Many of these types of actions are projects eligible for funding through the FEMA Hazard Mitigation Assistance program.</p>	<ul style="list-style-type: none"> • Acquisitions and elevations of structures in flood prone areas • Utility undergrounding • Structural retrofits. • Floodwalls and retaining walls • Detention and retention structures • Culverts • Safe rooms
Natural Systems Protection	These are actions that minimize damage and losses and also preserve or restore the functions of natural systems.	<ul style="list-style-type: none"> • Sediment and erosion control • Stream corridor restoration • Forest management • Conservation easements • Wetland restoration and preservation
Education and Awareness Programs	These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady or Firewise Communities. Although this type of mitigation reduces risk less directly than structural projects or regulation, it is an important foundation. A greater understanding and awareness of hazards and risk among local officials, stakeholders, and the public is more likely to lead to direct actions.	<ul style="list-style-type: none"> • Radio or television spots • Websites with maps and information • Real estate disclosure • Presentations to school groups or neighborhood organizations • Mailings to residents in hazard-prone areas. • StormReady • Firewise Communities



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

It is also helpful to look at the eligible mitigation projects for FEMA Hazard Mitigation Grant Assistance Program in developing a comprehensive range of mitigation actions. The three grant programs under the FEMA Hazard Mitigation Grant Assistance Program include:

- **Hazard Mitigation Grant Program (HMGP)** – Funding for eligible mitigation projects following a major disaster
- **Pre-Disaster Mitigation (PDM) Program** – Funding for hazard mitigation planning and projects on an annual basis
- **Flood Mitigation Assistance (FMA) Program** – Funding for projects to reduce/eliminate risk of flood damage to buildings insured under the NFIP on an annual basis

Mitigation Projects	HMGP	PDM	FMA
Property Acquisition and Structure Demolition	✓	✓	✓
Property Acquisition and Structure Relocation	✓	✓	✓
Structure Elevation	✓	✓	✓
Mitigation Reconstruction	✓	✓	✓
Dry Floodproofing of Historic Residential Structures	✓	✓	✓
Dry Floodproofing of Non-residential Structures	✓	✓	✓
Localized Flood Risk Reduction Projects	✓	✓	✓
Non-localized Flood Risk Reduction Projects	✓	✓	
Structural Retrofitting of Existing Buildings	✓	✓	✓
Non-structural Retrofitting of Existing Buildings and	✓	✓	✓
Safe Room Construction	✓	✓	
Wind Retrofit for One- and Two-Family Residences	✓	✓	
Infrastructure Retrofit	✓	✓	✓
Soil Stabilization	✓	✓	✓
Wildfire Mitigation	✓	✓	
Post-Disaster Code Enforcement	✓		
Advance Assistance	✓		
5 Percent Initiative Projects	✓		
Miscellaneous/Other	✓	✓	✓



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Other resources for mitigation action ideas include:

- FEMA Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards
http://www.fema.gov/media-library-data/20130726-1904-25045-0186/fema_mitigation_ideas_final508.pdf
- San Francisco Planning and Urban Research Resilient City Initiative
<http://www.spur.org/featured-project/resilient-city>

Action Implementation Plan

The Action Implementation Plan lays the groundwork for implementation by describing how the mitigation plan will be incorporated into existing planning mechanisms and how the mitigation and how the mitigation actions will be prioritized, implemented, and administered by each participating jurisdiction.

Evaluation Criteria

Not all identified mitigation actions are implementable in the 5-year plan cycle, due to technical feasibility, political acceptance, lack of funding, or other constraints. Once a range of mitigation actions has been identified for each participating jurisdiction, it is helpful to evaluate and prioritize the mitigation action to identify the most suitable mitigation actions for the participating jurisdictions to implement. The prioritized mitigation actions will be further detailed with implementation strategy elements outlined.

The Steering Committee will work together to determine agreed upon evaluation criteria that will be used to evaluate and prioritize the mitigation actions. One suggested method is STAPLEE, as identified below.

- **Social.** Will the proposed action adversely affect one segment of the population? Will the action disrupt established neighborhoods, break up voting districts, or cause the relocation of lower income people?
- **Technical.** Is the mitigation action technically feasible? Is it a long-term solution? Eliminate actions that, from a technical standpoint, will not meet the goals.
- **Aministrative.** Does the community have the personnel and administrative capabilities to implement the action and maintain it, or will outside help be necessary?
- **Political.** Does the public support the mitigation action? Is there the political will to support it?



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

- **Legal.** Does the community have the authority to implement the action?
- **Economic.** What are the benefits that would result from the mitigation action versus the cost? *This criterion must be part of the evaluation and prioritization process is benefit-cost review. A full benefit-cost analysis is not required.*
- **Environmental.** What are the potential environmental impacts of the action? Will it comply with environmental regulations?

Other criteria may include:

- **Property protection.** How significant will the action be at eliminating or reducing damage to structures and infrastructure?
- **Life safety.** How effectively will the action protect lives and prevent injuries?
- **Local champion.** Is there a strong advocate for the action or project among local departments and agencies who will support the action's implementation?
- **Other community objectives.** Does the action advance other community objectives, such as capital improvements, economic development, environmental quality, or open space preservation? Does it support the policies of the comprehensive plan?

Action Implementation Elements

The Action Implementation Plan identifies how specific mitigation actions will be implemented. At a minimum, per FEMA requirements, for each mitigation the following elements must be described in the Glenn County MJHMP.

- **Responsible Agency** – Which department or agency is most appropriate to lead each mitigation action?
- **Potential funding resources** – What funding mechanisms and other resources are available or will be pursued to implement each mitigation action? Sources of local funding may include the general operating budget, capital improvement budgets, staff time, impact fees, special assessment districts, and more.
- **Timeframe** – When will each mitigation be completed? When will the mitigation action be started, interim steps, and fully implemented?

Other action implementation elements to consider identifying for each mitigation included:

- Goals addressed
- Partner agencies
- Steps for Implementation
- Estimated budget



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

The more information that can provide for the implementation strategy for each mitigation, the easier it will be to develop project scopes of work, schedules, and budgets for FEMA mitigation grant applications.



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Mitigation Strategy

One of the planning process last activities will be for MJHMP Planning Committee members to prepare brief descriptions of proposed mitigation projects that would effectively reduce future disaster losses. This section provides guidance on the categories of mitigation measures to be considered and a mitigation project outline with one example project.

Categories of Mitigation Actions

Mitigation actions can be summarized into four types, as shown in the table below.

Type of Mitigation Action	Examples of Mitigation Actions
Local Planning and Regulations	Land development regulations that limit/restrict development in hazard areas; adoption/enforcement of building codes and development standards; stormwater management planning; fuels management and fire breaks standards/setbacks
Structure and Infrastructure Projects	Acquisition/relocation of structures located in hazard areas; retrofit/disaster proof structures; detention/retention structures; culvert resizing/replacement/maintenance; levees and floodwalls; anchoring, grading, and debris basins (for landslides); fencing (for snow, sand, wind); drainage system maintenance; reservoirs (for flood control, water storage, recreation, agriculture); diversions; storm sewers
Natural Systems Protection	Wetlands/riparian area/habitat protection; recreational and aesthetic opportunities; erosion/sediment control; landscape management; open space preservation
Education and Awareness Programs	Hazard education and risk awareness programs; outreach projects (mailings, media, web, speakers bureau, displays); real estate disclosures; environmental education; programs that encourage private mitigation efforts that address multiple hazards

Additional mitigation actions ideas can be found in FEMA's "Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards, January 2013," available at this website: <https://www.fema.gov/media-library/assets/documents/30627>.



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Capability Assessment Worksheet

Participating agency/organization: _____

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete this worksheet and provide supporting documentation if possible.

Regulatory

The following planning and land management tools are typically used by local jurisdictions to implement hazard mitigation activities. Please indicate which of the following your jurisdiction has in place. If your jurisdiction does not have this capability or authority, please indicate in the comments column if a higher level of government has the authority. Also use the comments column to indicate how we can obtain a copy of the plan or document (i.e. available on the web, will put on ftp, will email or mail).

Regulatory Tool (Ordinances, Codes, Plans)	Yes/No	Comments
General Plan		
Comprehensive/Master Plan		
Capital Improvements Plan		
Zoning Ordinance		
Subdivision Ordinance		
Floodplain Ordinance		
Other special purpose ordinance (stormwater, steep slope wildfire)		
Building Code		Version:
(BCEGS Rating		
Fire Department ISO Rating		Rating:
Site plan review requirements		
Erosion or Sediment Control Program		
Transportation Plan		
Community Wildfire Protection Plan		
Other special plans		
Stormwater Management Program		
Site Plan Review Requirements		
Capital Improvements Plan		
Economic Development Plan		
Local Emergency Operation Plan		
Other special plans		
Flood Insurance Study or other engineering study for streams		
Elevation certificates		
Other		



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Administrative/Technical

Identify the technical and personnel resources responsible for activities related to hazard mitigation/loss prevention within your jurisdiction. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, please indicate so in the comments column.

Personnel Resources	Yes/No	Department/Position	Comments
Planning Commission			
Mitigation Planning Committee			
Maintenance programs to reduce risk (e.g. tree trimming, clearing drainage systems)			
Mutual aid agreements			
Hazard data and information			
Grant writing			
HAZUS analysis			
Planner/Engineer with knowledge of land development/land management practices			
Engineer/Professional trained in construction practices related to building and/or infrastructure			
Planner/Engineer/Scientist with an understanding of natural hazards			
Personnel skilled in GIS			
Full time building official			
Floodplain Manager			
Emergency Manager			
Grant writer			
Other personnel			
GIS Data – Hazard Areas			
GIS Data – Critical facilities			
GIS Data – Building footprints			
GIS Data – Land Use			
GIS Data – Links to Assessor’s data			
Warning Systems/Services (Reverse 9-11, cable override, outdoor warning signals)			
Other			



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Fiscal

Identify whether your jurisdiction has access to or is eligible to use the following financial resources for hazard mitigation.

Financial Resources	Accessible/Eligible to use (Y/N)	Comments
Community Development Block Grants		
Capital improvements project funding		
Authority to levy taxes for specific purposes		
Fees for water, sewer, gas, or electric services		
Impact fees for new development		
Stormwater utility fee		
Incur debt through general obligation bonds		
Incur debt through special tax bonds		
Incur debt through private activities		
Other federal funding programs		
State funding programs		
Withhold spending in hazard prone area		
Other		

Self-Assessment of Capability

Please provide an approximate measure of your jurisdiction's capability to effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "X" in the box marking the most appropriate degree of capability (Limited, Moderate or High) based upon best available information and the responses provided in Sections 1-5 of this survey.

Area	Degree of Capability		
	Limited	Moderate	High
Planning and Regulatory Capability			
Administrative and Technical Capability			
Fiscal Capability			
Community Political Capability			
Community Resiliency Capability			



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Additional Capabilities Questions

1. Does your community have any hazard-related certifications, such as Storm Ready Certification or Firewise Communities Certification?
2. List any past or ongoing public education or information programs, such as for responsible water use, earthquake or fire safety, household preparedness, or environmental education.
3. List any other past or ongoing projects or programs designed to reduce disaster losses. These may include projects to protect critical facilities.

Prepared By: _____
Title: _____
Phone: _____
Email: _____
Date: _____

Please return worksheets by mail, email, or fax to:
Wynne Kwan/Emma Reed, Michael Baker Jr., Inc
One Kaiser Plaza, Suite 1150
Oakland, CA 94612
Email: WKwan@mbakerintl.com or
Emma.Reed@mbakerintl.com
Fax: 510-879-0969



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Mitigation Action Worksheet

Instructions: Use this guide to record potential mitigation projects (1 page per project) identified during the planning process. Provide as much detail as possible and use additional pages as necessary. These will be collected following MJHMP Planning Committee meetings on mitigation goals and measures and included in the plan.

Mitigation Project Title:

Issue/Background:

Other Alternatives:

Existing Planning Mechanism(s) through which Action Will Be Implemented:

Responsible Office:

Priority (High, Medium, Low)

Cost Estimate:

Benefits (Losses Avoided):

Potential Funding:

Schedule:

Prepared By: _____
Phone: _____
Email: _____
Date: _____

Please return worksheets by mail, email, or fax to:
Wynne Kwan/Emma Reed, Michael Baker Jr., Inc
One Kaiser Plaza, Suite 1150
Oakland, CA 94612
Email: WKwan@mbakerintl.com or
Emma.Reed@mbakerintl.com
Fax: 510-879-0969



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Mitigation Action Worksheet – XXX County Example

Action #12: Elevate Remaining 95 Homes in the Dry Creek Watershed

Issue/Background: Historically, flooding in the Dry Creek watershed has been a major concern. The February 1986 flood caused widespread damage in most of the Dry Creek watershed. Nearly all bridges and culverts were overtopped, with 30 sustaining embankment damages and one crossing washing out; two bridges over Dry Creek were damaged, street cave-ins occurred at a number of locations, and over 125 homes flooded. Of the 145 homes subject to historical flooding within the Watershed, 95 structures remain non-elevated. Of these 95 remaining homes, 25-30 declined initial grant money for elevation as did the three repetitive loss structures. XXX County is not only concerned with existing flooding problems, but with future problems resulting from increased growth and development in the area. According to the 1992 Dry Creek Watershed, Flood Control Plan, substantial flood damages will occur with the 100-year flood under existing conditions. Areas with the most extensive and frequent damages include areas in the location of the 95 homes. The report indicates that some of these areas are susceptible to flooding from storms as frequent as the 10-year storm. Elevating the remaining 95 homes will reduce future flood-related losses.

Other Alternatives: No Action

Responsible Office: XXX County Flood Control and Water Conservation District, in conjunction with its member agencies.

Priority (H, M, L): Medium

Cost Estimate: The cost to elevate is estimated at \$40 per square foot. Homes need to be elevated anywhere from one to six feet. Of the 95 homes where elevating is feasible, it is estimated to cost \$6 million or \$50 to \$60 K per home.

Benefits (Losses Avoided): Life Safety; Reduction in Property Loss.

Potential Funding: HGMP, PDM, Dry Creek Trust Fund

Schedule: Within three years



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Meeting: Steering Committee Mtg #3
 Date/Time: 8 October 2015 - 2pm - 4 pm
 Page 1 of 3

Name	Title	Jurisdiction/Organization	Mailing Address	Email/Telephone
Di Aulabaugh	Clerk of the Board	Co. of Glenn	525 W Sycamore Willows CA 95598	530-934-6400
Matt Gomes	Dep. Dir.	Planning/Publicworks Co. of Glenn	P.O. Box 1070, Willows	530-934-6530
Andy Popper	ASSOCIATE PLANNER	FPWA	"	"
Jeebelton	Admin services Analyst	PPWA	"	"
Wynne Kwan	Snr. Planner/ Project Manager	Michael Baker INTL	1 Kaiser Plaza, Ste 1150 Oakland, CA 94612	510 879-0959 W.Kwan@ mikebakerintl.com
Emma Reed	Planning & Asses.	Michael Baker INTL	"	510 879-0952
Kan Dunn	PPW		P.O. Box 1070 Willows	530-624-0836
Kevin Backus	Env. HEALTH	DIRECTOR	247 N. V. UCA Willows	934-6102
ERIC SCOTT	Env. Program Manager	APCD/CUPA	720 N. Colgate St	escott@countyofglenn.net



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Meeting: Steering Committee Mtg #3
 Date/Time: 8 October 2015 - 2pm - 4pm
 Page 2 of 3

Name	Title	Jurisdiction/Organization	Mailing Address	Email/Telephone
M. Thomas	Principal Planner	GC PART GC TC	PO Box 1070 Willows, CA 95988	MThomas@ Countyofglenn.net 530-937-6536
STAYLOR	CITY MGR	Willows	201 CASSIDY WILLOWS PO BOX 822	STAYLOR@ CITYOFWILLOWS.ORG Havulthancity.APD @gmail.com
Don James	Chief	AC Fire	Havulthancity 95951	scarpenter@ cap.ca.gov ssoeth@cityofwillows.org
BRUCE CARPENTER	Chief LT	CIFD	464 N. HUMBOLDT WILLOWS, CA 95988	
Steve Soeth	Dir. Pow. City of Willows	City of Willows	201 N. Lassen St. Willows CA. 95988	



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Glenn County MJHMP Steering Committee Meeting #4 Agenda

Date: Thursday, 19 November 2015
Time: 2.00pm to 4.00pm
Location: Glenn County Agricultural Department, Conference Room
720 North Colusa Street
Willows CA 95988

- Welcome and Introductions
- Review of Mitigation Goals and Mitigation Actions
- Evaluation/Prioritization of Mitigation Actions

{SESSION BREAK}

- Development of Implementation Strategy for Mitigation Actions
- Development/Confirmation of Plan Maintenance Process
- Next Steps

Michael Baker INTERNATIONAL *We Make a Difference*

Glenn County, CA Multi-Jurisdiction Hazard Mitigation Plan




Steering Committee Meeting #4
November 19, 2015

Michael Baker INTERNATIONAL **Agenda**

- Welcome and Introductions
- Review of Mitigation Goals and Mitigation Actions
- Evaluation/Prioritization of Mitigation Actions
- {SESSION BREAK}**
- Development of Implementation Strategy for Mitigation Actions
- Development/Confirmation of Plan Maintenance Process
- Next Steps

We Make a Difference 11/18/2015 2

Michael Baker INTERNATIONAL **Mitigation Action Strategy**

- Heart of the Hazard Mitigation Plan
- Long-term blueprint for communities to take action to reduce the risk of/losses from hazard events



We Make a Difference


Mitigation Goals

- Reduce or eliminate hazard-related loss of life and injuries
- Reduce or eliminate hazard-related damage to critical/essential facilities and public services, infrastructure, and property
- Promote collaboration/coordination amongst jurisdictions and agencies within Glenn County to reduce or eliminate the impacts of natural hazards
- Improve and maintain Glenn County and incorporated Cities' capabilities (i.e., planning/regulatory, personnel capacity, funding accessibility, etc.) to implement mitigation activities

Mitigation Actions

Specific project, action, activity, or process taken to reduce or eliminate long-term risk to identified hazards and achieve the goals identified

- **Emphasis on risk reduction to existing buildings and infrastructure, as well as limit any risk to new development and redevelopment**



Bridge replacement project reduces flooding in Downtown Napa

Mitigation Actions

Create Mitigation Actions for ALL identified Hazards **OR** Identified High and Moderate Risk Hazards

	Glenn County	City of Orland	City of Willows
High Risk	None	None	None
Moderate Risk	<ul style="list-style-type: none"> • Levee Failure • Flood • Drought • Wildfire • Severe Weather/Storms • Dam Failure 	<ul style="list-style-type: none"> • Dam Failure • Flood • Severe Weather/Storms • Drought • Wildfire 	<ul style="list-style-type: none"> • Flood • Severe Weather/Storms • Drought
Low Risk	<ul style="list-style-type: none"> • Geologic Hazards 	<ul style="list-style-type: none"> • Geologic Hazards • Levee Failure 	<ul style="list-style-type: none"> • Geologic Hazards • Wildfire • Dam Failure • Levee Failure

****Hazards denoted in red = action has been identified**

Michael Baker CORPORATION **Mitigation Actions**

Glenn County – Preliminary Mitigation Actions

Mitigation ID	Mitigation Project Title
GC-1	New Slip Liner in 42" Pipe Trunk Line that Runs from Glenwood Pump Station to Cemetery Pump Station
GC-2	Stream Cleaning/Debris Removal throughout the County
GC-3	Replace Box Culvert with A Bridge or Larger Culvert
GC-4	Fill in the Road Dip on County Road Y, South of County Road 50
GC-5	Public Notification of Natural Disasters
HC-1	Hamilton City Flood Control and Ecosystem Restoration Project

WE MAKE DIFFERENCES

Michael Baker CORPORATION **Mitigation Actions**

City of Orland – Preliminary Mitigation Actions

Mitigation ID	Mitigation Project Title
OR-1	Wildfire Reduction Potential - Eradicate Arundo in Stony Creek
OR-2	Flood Potential Reduction
OR-3	Dam Inundation Hazard
OR-4	Severe Storms
OR-5	Drought Hazard Reduction

WE MAKE DIFFERENCES

Michael Baker CORPORATION **Mitigation Actions**

City of Willows – Preliminary Mitigation Actions


Mitigation ID	Mitigation Project Title
WI-1	Natural Disaster Public Notification (Dam Failure, Levee Failure, Geologic Hazards)
WI-2	Public Notification Severe Weather/Storms
WI-3	Wildfire Awareness
WI-4	Drought Awareness
WI-5	Slip Liner in 42" Storm Drain Pipe Glenwood to GCID Canal (Cemetery Pump Station) 8500 Linear Feet
WI-6	Siphon Under GCID Canal at Sacramento Street (Co Rd 51) Storm Pump Station

WE MAKE DIFFERENCES

Michael Baker INTERNATIONAL Mitigation Action Implementation Plan

Evaluation and prioritization of mitigation actions

- **Robust set of evaluation criteria provide perspective on how different strategies affect various aspects of the community**
 - Helpful in garnering political, community, and financial support
 - Helps decision-makers and community members understand the tradeoffs and consequences of different strategies
- **Determine which strategies are high priority for implementation to direct limited resources**



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Michael Baker INTERNATIONAL Mitigation Action Implementation Plan

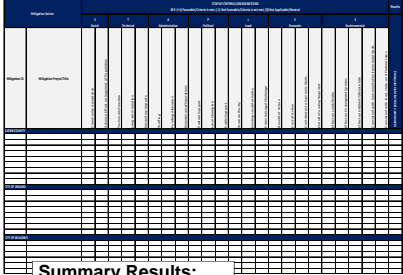
Evaluation Criteria: STAPLEE

Evaluation Category	Discussion "It is important to consider..."	Considerations
Social	The public support for the overall mitigation strategy and specific mitigation actions.	Community acceptance Adversely affects population
Technical	If the mitigation action is technically feasible and if it is the whole or partial solution.	Technical feasibility Long-term solutions Secondary impacts
Administrative	If the community has the personnel and administrative capabilities necessary to implement the action or whether outside help will be necessary.	Staffing Funding allocation Maintenance/operations
Political	What the community and its members feel about issues related to the environment, economic development, safety, and emergency management.	Political support Local champion Public support
Legal	Whether the community has the legal authority to implement the action, or whether the community must pass new regulations.	Local, State, and Federal authority Potential legal challenge
Economic	If the action can be funded with current or future internal and external sources, and if enough information is available to complete a FEMA Benefit-Cost Analysis.	Benefit/cost of action Contributes to other economic goals Outside funding required FEMA Benefit-Cost Analysis
Environmental	The impact on the environment because of public desire for a sustainable and environmentally healthy community.	Effect on local flora and fauna Consistent with community environmental goals Consistent with local, state, and federal laws

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Michael Baker INTERNATIONAL Mitigation Action Implementation Plan

Evaluation/Prioritization Activity



Scoring Key

- **+1: Favorable/ Criteria is met**
- **-1: Not Favorable/ Criteria is not met**
- **0: Not Applicable/ Neutral**

Summary Results:


- 0-7 Low Priority
- 8-16 Medium Priority
- 17-23 High Priority

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Plan Implementation

- Mitigation Funding Sources
 - Local funding
 - State government funding
 - Federal government funding

**State and Federal agencies may have funds that can be used to reduce hazard risks, as well as meet other community objectives



- FEMA Programs
 - Hazard Mitigation Assistance Grants
- **2013 CA Multi-Hazard Mitigation Plan: Annex 4** provides a good listing of public sector sources

Plan Implementation


Local Funding Sources

Local resources can often be leveraged as grant matching funds and used to mitigation projects

- Requires coordination with cities and County government

Examples:

- General Fund
- Capital Improvement Budget
- Special Revenue Sources



Plan Implementation

State Funding Sources

Caltrans	• Bridge Retrofit
CEA	• Residential Retrofit, Brace and Bolt
Flood Hazard	• Various state sources for flood mitigation
Wildfire Hazard	• CalFIRE and California Fire Safe Councils Program
Other	• Various other departments have grants available

- Leveraged as grant matching funds

Michael Baker CORPORATION Plan Implementation

Federal Funding Sources

- EPA** • Water quality, wetlands protection
- USACE** • Water resource issues
- HUD** • Community Development Block Grant, Neighborhood Stabilization Program Grant
- BLM** • Wildfire safety and prevention
- USDA** • Various grants
- DHS** • Emergency preparedness

▪ Leveraged as grant matching funds

We Make a Difference

Michael Baker CORPORATION Plan Implementation

FEMA Hazard Mitigation Assistance Grants

- Hazard Mitigation Grant Program (HMGP)
- Pre-Disaster Mitigation (PDM) Program
- Flood Mitigation Assistance (FMA) Program
- Specific funding availability may vary from year to year
- Program requirements vary



Local governments are considered sub-applicants and must apply to CalOES, the applicant State

We Make a Difference

Michael Baker CORPORATION Plan Implementation


FEMA Hazard Mitigation Assistance Grants

Grant Program	Purpose	Eligible	Non-Federal Share	Application Timeline
HMGP	Post-Disaster All Hazards Plans/Projects	Broad	25%	Available through CalOES following disaster declaration Generally due to CalOES 12 months after declaration State application process/priorities may vary each disaster
PDM	Pre-Disaster All Hazards Plans/Projects		10% - 25%	Annual national competition, contingent on Congressional appropriation Application period general 90 days each spring/summer
FMA	Post-Disaster Flood Hazard Only Projects Only	NFIP participating communities NFIP-insured properties	10% - 25%	Annual national competition, contingent on Congressional appropriation Application period general 90 days each spring/summer

We Make a Difference

Mitigation Action Plan Integration

- Existing planning mechanisms and agencies/departments in which hazard mitigation information and actions may be incorporated
 - Governance structures used to manage local land use development and community decision-making
- Process to integrate data, analysis, and mitigation goals and actions into other existing planning mechanisms and agencies/departments



We Make a Difference

Mitigation Action Plan Integration

Integration across Agencies and Departments

- Opportunity for collaboration and coordination
 - Identify and highlight mitigation activities and opportunities
 - Foster interdisciplinary idea-sharing
 - Partnerships to maximize resources and avoid duplication of efforts
- Monitoring of agendas, attendance at meetings, and distribution of memos
- Monitoring of funding opportunities that can be leveraged to implement the mitigation actions



We Make a Difference

Mitigation Action Plan Integration

Integration with Other Local Planning Mechanisms/Documents

- Identify/review existing planning mechanisms
 - Highlight areas of overlap with hazard mitigation planning
 - Highlight inconsistencies between plans and make recommendations to address potential gap
- Updating existing and developing new planning mechanisms
 - Coordination with hazard mitigation plan to implement mitigation goals, objectives, policies, and actions



During the 5-year plan cycle, please keep track of plan integration activities/efforts

We Make a Difference

Mitigation Action Plan Integration

Integration with Other Local Planning Mechanisms/Documents

- General Plans
- Other Planning Mechanisms
 - Building codes
 - CIPs/Budgets
 - Emergency Management/Operations Plans
 - Continuity of Operations Plans
 - Subdivision/Land Development/Zoning Ordinances
 - Floodplain Ordinances
 - Long-Range Transportation Plans
 - Parks/Opens Space/Greenways/Recreation Plans
 - Post-Disaster Development Plans
 - Stormwater Management Plans




We Make a Difference

Plan Maintenance

Monitoring, Evaluating, and Updating the Plan

- Process established to track the Plan's implementation progress to:
 - Ensure mitigation strategy is implemented according to Plan
 - Provide the foundation for an ongoing mitigation program in the community
 - Standardize long-term monitoring of hazard-related activities
 - Integrate mitigation principles into community officials' daily job responsibilities and department roles
 - Maintain momentum through continued engagement and accountability in the Plan's progress
 - Inform the Plan update



We Make a Difference

Plan Maintenance

Monitoring, Evaluating, and Updating the Plan

- WHAT** are the processes the County and Cities will undertake?
- WHEN** will the County and Cities undergo these processes?
- WHO** in the County and Cities will take the lead? Who else will be involved?
- HOW** will the County and Cities continue to seek public participation during plan implementation, monitoring, and evaluation?

- ✓ **Monitoring:** Tracking the implementation of the Plan over time
- ✓ **Evaluating:** Assessing the effectiveness of the Plan at achieving its stated purposes and goals
- ✓ **Updating:** Review and revising the Plan at least once every 5 years.


We Make a Difference

Plan Maintenance			
Monitoring, Evaluating, and Updating the Plan			
	Monitoring	Evaluating	Updating
WHO	Steering Committee, with Glenn County PPWA Planner as Lead	Steering Committee, with Glenn County PPWA Planner as Lead	Steering Committee, with Glenn County PPWA Planner as Lead
WHEN	Bi-Annually	<ul style="list-style-type: none"> Annually After a disaster event 	<ul style="list-style-type: none"> Every 5 years Update process to start at least one year prior to plan expiration After a disaster event
HOW	<ul style="list-style-type: none"> Responsible agencies/organizations to monitor/evaluate progress of mitigation actions Report to Steering Committee using Mitigation Action Progress Report worksheet 	<ul style="list-style-type: none"> Use information culled from bi-annual meetings to monitor mitigation actions Evaluate process and implementation Identify lessons learned Annual Plan Review Questionnaire worksheet Report to elected officials 	<ul style="list-style-type: none"> Develop scope of work Coordinate participating jurisdictions Apply for funding/budget cost Review/revise Plan accounting for <ul style="list-style-type: none"> new hazard vulnerabilities special circumstances new information new priorities issues from monitoring/evaluation progress in mitigation efforts

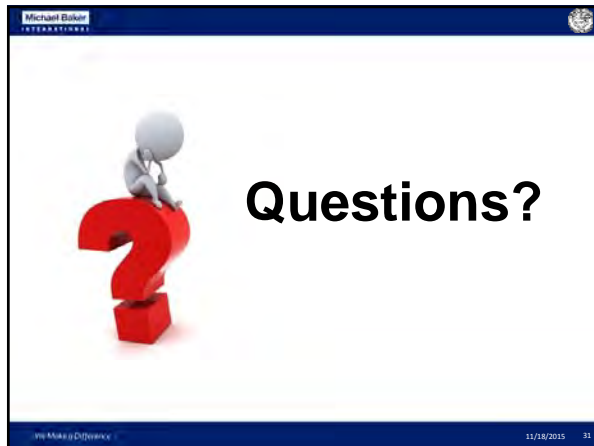
Plan Maintenance

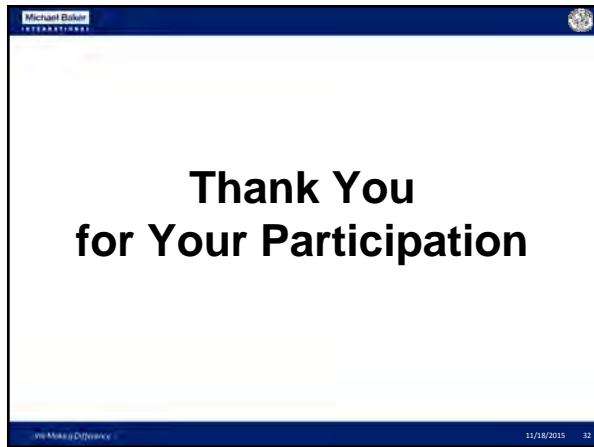
Continued Public Involvement

- Open up Annual Review Meetings to the Public
- Website with a copy of the Plan and supporting documentation
- Hard copies of Plan available at different sites within the County and Cities
- Collaborate with public service clubs, places of worship, and other civic groups to get information out to the public
- Distribute postcards/mailers to residents about hazard mitigation
- Piggy back on other existing local community meetings and events
- Distribute information through schools











Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Mitigation Goals

The following provides a record of the input received from the Mitigation Goals Development exercise conducted at Steering Committee Meeting #3 on Thursday, 8 October 2019. It provides 4 general goal categories in which each bullet below represents an individual post-it note from a Steering Committee member. Based on this, Draft Mitigation Goals are identified at the end of this document for review and refinement, as necessary by the Steering Committee.

General Goal Category: Collaboration

- Increase the use of shared resources
- Shared resources
- Promote joint powers cooperation between levels of government
- As funding permits, integrate mitigation projects into maintenance projects; increase use of shared resources

General Goal Category: Maintain Grant Eligibility – Access Funding

- Maintain FEMA eligibility for grant funding
- Maintain/Increase cities' ability to receive funding
- Maintain FEMA position jurisdictions for grant funding
- Improve capabilities awareness/capability to mitigate losses

General Goal Category: Reducing Exposure to Losses, Life, and Personal Property

- Prevent relative losses of property and essential services
- Reduce exposure to hazard related losses
- Reduce future risk of current and repeat hazards
- Mitigation of losses both financial and physical as result of natural disaster
- Minimize risk and vulnerability from natural hazards
- Reduction of future risk to life and property due to natural disaster
- Reducing number of emergency incidents
- Reducing loss of life and personal property due to flooding
- Minimize risk and vulnerability from natural hazards
- Provide protection for future development



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

General Goal Category: *Infrastructure, Critical Facilities, Public Services, Transportation – Prevent*

- Provide protection for existing structures (and roads)
- Reduce exposure to losses
- Provide protection for existing buildings from hazards
- Maintain an operational transportation system
- Minimize risk and vulnerability from natural hazards
- Reduce exposure to hazard related losses

Draft Mitigation Goals:

- Reduce or eliminate hazard-related loss of life and injuries
- Reduce or eliminate hazard-related damage to critical/essential facilities and public services, infrastructure, and property
- Promote collaboration/coordination amongst jurisdictions and agencies within Glenn County to reduce or eliminate the impacts of natural hazards
- Improve and maintain Glenn County and incorporated Cities' capabilities (i.e., planning/regulatory, personnel capacity, funding accessibility, etc.) to implement mitigation activities



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Action Implementation Plan

The Action Implementation Plan lays the groundwork for implementation by describing how the mitigation plan will be incorporated into existing planning mechanisms and how the mitigation and how the mitigation actions will be prioritized, implemented, and administered by each participating jurisdiction.

Evaluation Criteria

Not all identified mitigation actions are implementable in the 5-year plan cycle, due to technical feasibility, political acceptance, lack of funding, or other constraints. Once a range of mitigation actions has been identified for each participating jurisdiction, it is helpful to evaluate and prioritize the mitigation action to identify the most suitable mitigation actions for the participating jurisdictions to implement. The prioritized mitigation actions will be further detailed with implementation strategy elements outlined.

STAPLEE Method for Evaluating and Prioritizing Mitigation Actions

Evaluation Category	Discussion "It is important to consider..."	Considerations
<u>S</u> ocial	The public support for the overall mitigation strategy and specific mitigation actions.	Community acceptance Adversely affects population
<u>T</u> echnical	If the mitigation action is technically feasible and if it is the whole or partial solution.	Technical feasibility Long-term solutions Secondary impacts
<u>A</u> ministrative	If the community has the personnel and administrative capabilities necessary to implement the action or whether outside help will be necessary.	Staffing Funding allocation Maintenance/operations
<u>P</u> olitical	What the community and its members feel about issues related to the environment, economic development, safety, and emergency management.	Political support Local champion Public support
<u>L</u> egal	Whether the community has the legal authority to implement the action, or whether the community must pass new regulations/	Local, State, and Federal authority Potential legal challenge
<u>E</u> conomic	If the action can be funded with current or future internal and external sources, and if enough information is available to complete a FEMA Benefit-Cost Analysis.	Benefit/cost of action Contributes to other economic goals Outside funding required
<u>E</u> nvironmental	The impact on the environment because of public desire for a sustainable and environmentally healthy community.	Effect on local flora and fauna Consistent with community environmental goals Consistent with local, state, and Federal laws



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Action Implementation Elements

The Action Implementation Plan identifies how specific mitigation actions will be implemented. At a minimum, per FEMA requirements, for each mitigation the following elements must be described in the Glenn County MJHMP.

- **Responsible Agency** – Which department or agency is most appropriate to lead each mitigation action?
- **Potential funding resources** – What funding mechanisms and other resources are available or will be pursued to implement each mitigation action? Sources of local funding may include the general operating budget, capital improvement budgets, staff time, impact fees, special assessment districts, and more.
- **Timeframe** – When will each mitigation be completed? When will the mitigation action be started, interim steps, and fully implemented?

Other action implementation elements to consider identifying for each mitigation included:

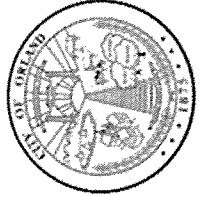
- Goals addressed
- Partner agencies/organizations
- Estimated budget /Cost Estimates
- Steps for Implementation

The more information that can provide for the implementation strategy for each mitigation, the easier it will be to develop project scopes of work, schedules, and budgets for FEMA mitigation grant applications.

Glenn County Steering Committee Meeting #4

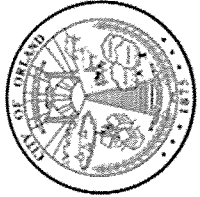
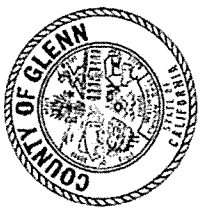
November 19th, 2015

- Change language for “jurisdictions” to “Glenn County, Orland and Willows”
- Leave levee failure hazard as low-risk for City of Orland (no levee risk in Orland but hazard is high-risk for rest of the county)
- Wildfire really is no threat to the City of Willows; wildfire is high risk for City of Orland
- Resend out hazard priority-risk factor development for second go-around
- Glenn County wishes to participate in CRS
- Directly send invitations to City of Orland in the future for upcoming meetings
- Monitoring/Evaluating annually or bi-annually?
 - Could piggy-back on other meetings like annual EOP updates to gain increased participation
 - This would give us more leverage
 - Steering Committee members would prefer annual meetings for monitoring/evaluating
 - Report out to elected officials as appropriate/once a year at Planning Commission meetings
- Remove mailers/postcards language
- Distribute information to school administrators not necessarily through schools
- Collaborate with other local agencies, community service districts
- Ian requested copy of grant funds
- Andy requested electronic copy of presentation



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Name	Title	Jurisdiction/Organization	Mailing Address	Email/Telephone
MATT GOMES	DEP. DIRECTOR	GLENN CO PPWA	P.O. Box 1070	(530) 934-6530
Kevin Backus	Env. HEALTH Director	GLENN CO ENV. HEALTH	247 N. VILVA AVE	530 934-6102
Mardy Thomas	Principle Planner	Glenn Co. PPWA	PO Box 1070	530 934-6530
BRUCE CARPENTER	LT.	CHS- WILLOWS	464 N. HUMBOLDT WILLOWS	530 934-5424



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Meeting: Steering Committee Meeting #4
 Date/Time: 19 November 2015, 2pm - 4pm
 Page 1 of 2

Name	Title	Jurisdiction/Organization	Mailing Address	Email/Telephone
Emma Reed	Plng. Assoc.	Michael Baker Intl	1 Kaiser Plaza Ste. 1150 Oakland, CA	emma.reed@mbakerintl.com 510-879-0952
Wynne Kwan	Proj. Manager	Michael Baker Intl	1 Kaiser Plaza Ste. 1150 Oakland, CA	wkwan@mbakerintl.com 510-879-0959
Andy Popper	Assoc. Planner	Glenn County PPWA	777 N. Colusa St. Willows, CA 95988	530-984-6548 apopper@countyofglenn.net
AN LOEBETTER	Assoc. Planner	Glenn County APCD	720 N Colusa Willows CA 95988	loebetter@countyofglenn.net 530 984-6500
Mike Martin	Planner	Oakland		mmartin@mbakerintl.com 530-572-3478
Steve Soeth	Director Public Works	Willows		
Don Guay	SGT	CHP-Willows	464 N. Humboldt Ave 95988	934-5424
Joe Bettenhall	Admin Analyst	Glenn County	777 N. Colusa IF	934-6530
Jose Puente	General Manager	Hemlock City Com Ser	211 Main St	321-4310

Appendix B: Stakeholder/Public Involvement





Officers & Directors:
Mike Landini, President, Gilbert Goedhart, Vice President, Kandi Manhart, Secretary, Bruce Roundy, Treasurer
Shannon Douglass, Jim Giachino, Mike Yalow

Associate-Directors:
Peter Carley, Spring Groteguth, Kathy Landini, Candis Woods

Staff:
Kandi Manhart, Executive Officer ~ Ritta Martin, Program Coordinator

Meeting Notice & Agenda

Date: Monday, May 18, 2015
Time: 9:00 a.m. to Noon
Location: USDA Service Center
132 North Enright Avenue, Suite C
Willows, CA 95988

- | | | | |
|---------------------|------|---|---------|
| 9:00 | I. | CALL TO ORDER, WELCOME & INTRODUCTIONS | Landini |
| 9:05 | II. | PLEDGE OF ALLEGIANCE | Landini |
| 9:10 | III. | PUBLIC COMMENT (limit 5 minutes): Any person wishing to address the Board on items not on the agenda may do so at this time. The Board will not make decisions or determinations on items brought up during Public Comment. | Landini |
| 9:15 | IV. | CONSENT CALENDAR | Landini |
| ACTION ITEMS | | <ul style="list-style-type: none"> A. Approve RCD meeting minutes for March 16, 2015 B. Approve RCD special meeting minutes for April 13, 2015 C. Approve RCD financial/budget committee meeting minutes for April 20, 2015 D. Approve Agreement for Payroll Services with Kelly A. Kampschmidt Payroll and Accounting Services E. Approve monthly financial reports and cash disbursements journals (RCD and Final GCCFM) | |
| 9:20 | V. | RCD REPORTS | Landini |
| | | <ul style="list-style-type: none"> A. Directors and Associate-Directors <ul style="list-style-type: none"> 1. One Director Seat Available B. Executive Officer <ul style="list-style-type: none"> 1. RCD received Orland FFA's Blue and Gold Award C. Program Coordinator | |
| 9:45 | VI. | PARTNER REPORTS (limit 5 minutes, unless previously scheduled) | Landini |
| | | <ul style="list-style-type: none"> A. Glenn County Multi-Jurisdiction Hazard Mitigation Plan
<i>Special Presentation by Andy Popper, Associate Planner
Glenn County Planning & Public Works Agency</i> <ul style="list-style-type: none"> 1. Discussion and possible action to authorize RCD staff or appoint an RCD Director to participate in development of the Glenn County Multi-Jurisdiction Hazard Mitigation Plan | |
| | | ACTION ITEM | |

- 10:10 **VII. OPERATIONAL AGREEMENT WITH NRCS** Manhart
ACTION ITEM
 A. Discussion and possible action to renew Operational Agreement between NRCS and RCD
 B. Possible USDA Service Center office re-location with Forest Service
- 10:30 **VIII. RCD PROJECTS & PROGRAMS** Manhart/Martin
ACTION ITEM
 A. Glenn County Certified Farmers' Market
 B. Colusa Glenn Subwatershed Program Outreach and Education Services
 C. Highway 162 Fuel Break
 1. Discussion and possible action to authorize Executive Officer to execute State of California Department of Forestry and Fire Protection Conservation Camp Program – Memorandum of Understanding/Agreements to perform implementation of fuel break per CAL FIRE Agreement, Number 5GS14103
 D. RCD *Connects with Kids*
 1. Review 4th Annual “Run Your Tail Off... through the Watershed” 5K/10K Trail Run-Walk
 2. Natural Resources & Range Camp Sponsorships – Update
 E. Nesting Habitat Products: Bat, Owl, Song Bird and Wood Duck
 F. Wildlife Escape Ramps for Livestock Troughs
 G. Working Lands Conservation Partners Project
 H. Grant Application(s) Update / Possible Future Projects
 1. Glenn County Community Wildfire Protection Plan
 2. Lower Stony Creek Watershed Restoration Plan
 3. Others: Prop 1 Funding Opportunities
- 11:00 **IX. FORUM PARTNERSHIP WITH RCDS** Manhart
ACTION ITEM
 A. Discussion and possible action to approve support letter for Sacramento River Conservation Area Forum (Forum) efforts to seek planning funding to develop additional details for a private lands habitat restoration and enhancement program in partnership with RCDs
- 11:30 **X. RCD ACTIVITIES & EVENTS** Manhart
 A. Day-in-the-District & Goedhart Dairy Tour – May 28, 2015
 B. RCD Planning for the Future – A Statewide Pathway to Excellence!
 1. Review draft and update as needed
- 11:45 **XI. FINANCIAL/BUDGET COMMITTEE** Roundy
 A. DRAFT FY 2015-2016 Budget
- Noon **XII. ADJOURNMENT** Landini

Please note that times are approximate.

CORRESPONDENCE: Mail is distributed for review.

DATE OF NEXT MEETING: MONDAY, JULY 20, 2015, USDA Service Center, 132 N. Enright Avenue, Suite C, Willows, CA 95988.

NOTIFICATION REQUESTS: If you would like to be notified of future meetings and events, please call Kandi Manhart, Executive Officer at (530) 934-4601 x120 or email Kandi.Manhart@ca.nacdnet.net.

In compliance with the Americans with Disabilities Act, if you need special assistance or accommodations to participate in this meeting, please contact Kandi Manhart, Executive Officer at (530) 934-4601 x120. Notification at least 48 hours prior to the meeting will enable the RCD to make reasonable arrangements to ensure accessibility to this meeting. This is to include agendas in alternative formats. (28 CFR 35.101-35.164 ADA Title II.)

PROOF OF PUBLICATION

No. 2661

In the Matter of

Glenn Co. Planning & Public Works Agency

Legal: Notice of Public Meeting/Open House, Multi-

Jurisdiction Hazard Mitigation Plan

P.O.Box 1070, Willows, CA 95988

State of California)
County of Glenn) ss

The undersigned resident of the County of Glenn,
State of California, says:

That I am, and at all time herein mentioned was
a citizen of the United States and not a party to
nor interested in the above entitled matter; that
I am the principal clerk of the publisher of:

The Sacramento Valley Mirror

That said newspaper is one of general circulation
as defined by Section 6000 Government Code of
the State of California, Case No. 27,207 by the
Superior Court of the State of California, in and
for the County of Glenn, Case #02CV00614; that
said newspaper at all times herein mentioned was
published twice a week (on Wednesdays and
Saturdays) in the town of Willows and County
of Glenn; that the notice of which the annexed
is a true printed copy, was published in said
newspaper on the following days:

July 18, 2015

I certify (or declare), under penalty of perjury, that
the foregoing is true and correct, at the County
of Glenn, Willows, California.

Dated July 27, 2015
at Willows, California.



Tim Crews, Publisher

LEGAL NOTICES

NOTICE OF PUBLIC MEETING/OPEN HOUSE

Multi-Jurisdiction Hazard Mitigation Plan

Glenn County, along with the Incorporated Cities of Orland and Willows, is in the process of preparing a Multi-Jurisdiction Hazard Mitigation Plan (MJHMP). This planning project involves identifying local natural hazards and possible mitigation actions to reduce risk and future losses. The MJHMP also serves to meet key federal planning regulations that require local governments to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for hazard mitigation projects. Public involvement in the planning process is vital to the successful implementation of the MJHMP.

Everyone is welcome and encouraged to attend; public input into to the hazard plan is a valued contribution. Please join us at the upcoming public meeting/open house to learn more about the hazards that impact Glenn County and suggest possible mitigation strategies to reduce the impacts of these hazards on citizens, businesses, and critical facilities and infrastructure. If you have any questions or would like to submit written comments/suggestions, you may contact Andy Popper, Associate Planner, apopper@countyofglenn.net, P.O. Box 1070, Willows, CA 95988, 530-(934-6540) DATE/TIME: Thursday, **July 30, 2015, 5:00 p.m. to 7:30 p.m.** LOCATION: **Glenn County Office of Education, Conference Room;** 311 S. Villa Ave, Willows, CA

PROOF OF PUBLICATION

No. 2678

In the Matter of
Planning & Public Works Agency

Notice of Public Meeting/Open House for the Glenn

Co. Multi--Jurisdiction Hazard Mitigation Plan...

P.O.Box 1070, Willows, CA 95988

State of California)
County of Glenn) ss

The undersigned resident of the County of Glenn,
State of California, says:

That I am, and at all time herein mentioned was
a citizen of the United States and not a party to
nor interested in the above entitled matter; that
I am the principal clerk of the publisher of:

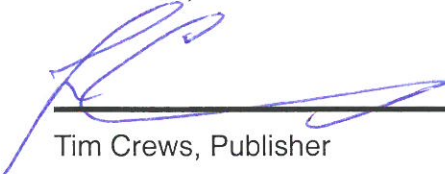
The Sacramento Valley Mirror

That said newspaper is one of general circulation
as defined by Section 6000 Government Code of
the State of California, Case No. 27,207 by the
Superior Court of the State of California, in and
for the County of Glenn, Case #02CV00614; that
said newspaper at all times herein mentioned was
published twice a week (on Wednesdays and
Saturdays) in the town of Willows and County
of Glenn; that the notice of which the annexed
is a true printed copy, was published in said
newspaper on the following days:

July 29, 2015

I certify (or declare), under penalty of perjury, that
the foregoing is true and correct, at the County
of Glenn, Willows, California.

Dated August 4, 2015
at Willows, California.



Tim Crews, Publisher

NOTICE OF PUBLIC MEETING/OPEN HOUSE for the
Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Thursday, July 30, 2015, from 5:00 p.m. to 7:30 p.m.

Office of Education Conference Room; 311 S. Villa Ave, Willows

Please join us at a public meeting/open house regarding the hazards that affect Glenn County. **Everyone is welcome and encouraged to attend.** The County, along with the Incorporated Cities of Orland and Willows, is in the process of preparing a Multi-Jurisdiction Hazard Mitigation Plan (MJHMP). Public involvement in the planning process is vital to the successful implementation of the MJHMP. Introductory orientations will be at approximately 5:15 and 6:15 p.m., however, please feel free to stop by anytime during the open house and comment about local natural hazards and possible mitigation solutions. If you have any questions or would like to provide comments/suggestions, you may contact Andy Popper, Associate Planner, apopper@countyofglenn.net, P.O. Box 1070, Willows, CA 95988, 530-(934-6540).

RECEIVED
AUG 05 2015
Glenn County
PPWA



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Project Summary

Glenn County, in coordination with the incorporated Cities of Orland and Willows, is in the process of preparing its first Multi-Jurisdiction Hazard Mitigation Plan (MJHMP).

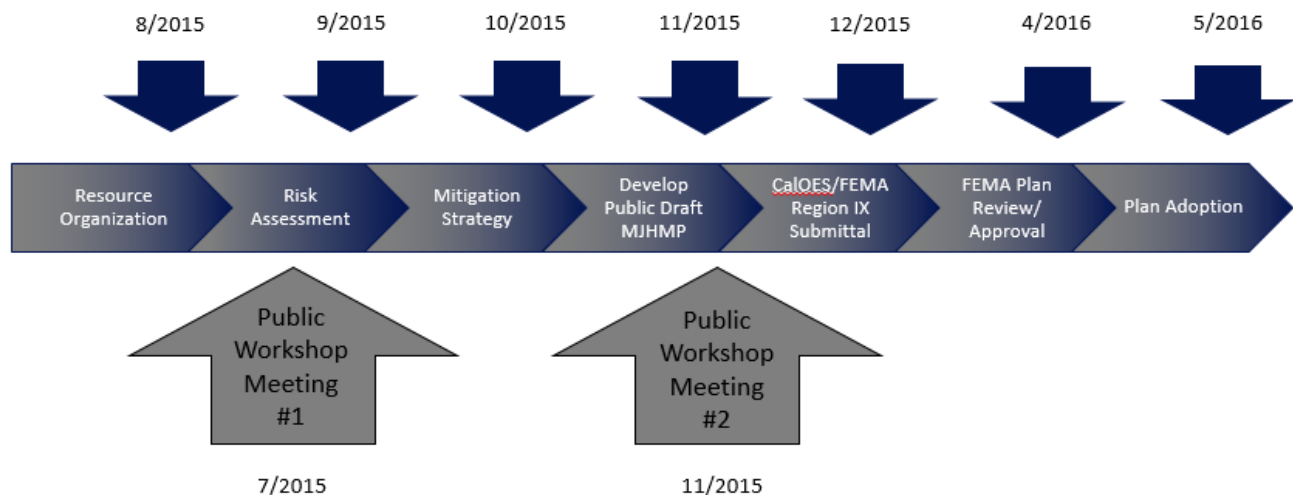
What is Hazard Mitigation?

Natural hazards have the potential to cause property damage, loss of life, economic hardship, and threats to public health and safety. Hazard mitigation actions are the things you do today to be more protected in the future. They are actions taken before a disaster happens to reduce the impact that future disasters will have on people and property in the community. Mitigation reduces the risk of loss and creates a more disaster-resistant and sustainable community. Hazard mitigation actions are essential to breaking the typical disaster cycle of damage, reconstruction, and repeated damage.

What is a Hazard Mitigation Plan?

Hazard mitigation plans are developed BEFORE a disaster strikes. The Glenn County MJHMP will identify and assess the natural hazards and their associated impacts on the County and the Cities. The MJHMP outlines community policies, actions, and tools for long-term implementation to reduce risk and potential for future losses. Adopted, implemented, and maintained on an ongoing basis, the MJHMP will gradually, but steadily, lessen the impacts associated with hazard events.

The planning process for the Glenn County MJHMP, as shown below, is being guided by a multi-jurisdictional Steering Committee that includes representation from Glenn County and the Cities of Orland and Willows, as well as other key stakeholders. Opportunities for public involvement are provided throughout the planning process to ensure stakeholder and public consensus on the official statement of the County's and Cities' hazards, vulnerability analysis, and mitigation strategy. The MJHMP is anticipated to be submitted to the California Office of Emergency Services (CalOES)/FEMA Region IX in December 2015 for review and approval. Glenn County and the Cities of Orland and Willows anticipate adopting the MJHMP in May 2016.





Glenn County Multi-Jurisdiction Hazard Mitigation Plan

What are the Benefits of a Hazard Mitigation Plan?

Development and adoption of a hazard mitigation plan is a requirement for certain benefits from CalOES and FEMA. These benefits include:

- ❖ Eligibility for federal funds for pre-disaster mitigation planning before disaster strikes, such as FEMA's Hazard Mitigation Assistance Programs, including Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA) and Severe Repetitive Loss (SRL) grant programs
- ❖ Waiver of the 6.25% local match for Public Assistance money after a disaster

Further benefits of a multi-jurisdiction approach to hazard mitigation planning include:

- ❖ An increased understanding of the natural hazards the County and Cities face
- ❖ Combined use of resources and expertise and the ability to address items on a large scale
- ❖ Reduced long-term impacts and damages to human health and structures, and reduced repair costs
- ❖ A more disaster-resistant and resilient community and region.

How to Participate Further

Public involvement in the planning process is vital to the successful implementation of the MJHMP. Glenn County and the Cities of Orland and Willows welcome your comments and feedback about the MJHMP. Opportunities for further participation include attending the future Public Workshop in which a Draft of the MJHMP will be presented and Steering Committee meetings. You may also provide comments and feedback at any time to the project points of contact.

For more information about the Glenn County Multi-Jurisdiction Hazard Mitigation Plan and/or to provide comments and feedback, please contact the Glenn County Project Lead:

[Glenn County](#)

Andy Popper, Associate Planner

530-934-6540

apopper@countyofglenn.net



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Public Workshop Comment Sheet

Thank you for attending tonight's Public Workshop/Open House for the Glenn County Multi-Jurisdiction Hazard Mitigation Plan (MJHMP). The intent of the Public Workshop/Open House is to introduce the project and present the natural hazards that have the potential to occur in Glenn County and their impacts on Glenn County's population and community assets. We would greatly appreciate your feedback and comments on the Glenn County MJHMP.

Please share your comments or concerns on the below project-related topics by filling out this comment sheet and turning it in at the Sign-in Table. Alternatively, comments and questions can be directed to Andy Popper, Glenn County Associate Planner and Project Lead, by email (apopper@countyofglenn.net), fax (530-934-6533), or mail (c/o Glenn County Planning and Public Works Agency, 777 North Colusa Street, Willows, CA 95988).

Comments on the Planning Process:

Comments on the Identified Hazards and Associated Risk Assessments:

Comments on the Mitigation Action Ideas:

Other Comments:

(Please note other side)



Glenn County Multi-Jurisdiction Hazard Mitigation Plan

To get a better understanding of how Glenn County and the Cities of Orland and Willows can better communicate hazards and associated risks to its constituents, we would appreciate if you can answer the following questions.

Which of the following methods do you think are the best ways to provide information about preparing for and responding to natural hazard events? (Choose all that apply.)

- | | |
|--|--|
| <input type="radio"/> Government websites with emergency preparedness information | <input type="radio"/> Public meetings/events on disaster preparedness topics |
| <input type="radio"/> Government sponsored public awareness campaigns | <input type="radio"/> Social Media (Twitter/Feedback) |
| <input type="radio"/> Locally provided news or other media information (Radio, TV, Newspapers) | <input type="radio"/> Schools or other academic institutions |
| <input type="radio"/> Non-governmental Organizations, such as faith-based institutions | <input type="radio"/> Public library and other community facilities |
| <input type="radio"/> Community Emergency Response Team (CERT) training classes | <input type="radio"/> None |
| <input type="radio"/> Informational brochures or other print materials | <input type="radio"/> Other (please specify): _____ |

For which hazards should information be more readily available? (Choose all that apply.)

- | | |
|-------------------------------------|---|
| <input type="radio"/> Flood | <input type="radio"/> Severe Weather and Storms |
| <input type="radio"/> Dam Failure | <input type="radio"/> Wildfire |
| <input type="radio"/> Levee Failure | <input type="radio"/> Geologic Hazards |
| <input type="radio"/> Drought | <input type="radio"/> Other (please specify): _____ |

(Optional) Name: _____

Address: _____

Phone: _____

Email: _____

Michael Baker INTERNATIONAL We Make a Difference

Glenn County, CA Multi-Jurisdiction Hazard Mitigation Plan




Public Workshop #1
July 30, 2015


Michael Baker INTERNATIONAL Project Team

- **Spearheaded by the Glenn County Planning and Public Works Agency**
 - Project Lead: Andy Popper, Associate Planner
- **Cities of Orland and Willows are participating jurisdictions**
 - City of Orland POC: Peter Carr, City Manager
 - City of Willows POC: Steve Holsinger, City Manager
- **Michael Baker International contracted to facilitate planning process**
 - Project Manager: Wynne Kwan, AICP, LEED AP (BC+D)
 - Hazard Mitigation Planner: Emma Reed
 - Public Outreach Specialist: Lisa Messano, CFM

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Michael Baker INTERNATIONAL Project Overview

- **Disaster Mitigation Act of 2000 (DMA 2000)**
 - Legal basis for FEMA mitigation planning requirements for State, local, and Indian Tribal governments as a condition of mitigation grant assistance.
 - Hazard Mitigation Plans must be updated, resubmitted, and approved every 5 years.
- **What is Hazard Mitigation?**
 - Any sustained action taken to reduce or eliminate long-term risk to life and property resulting from natural hazards.

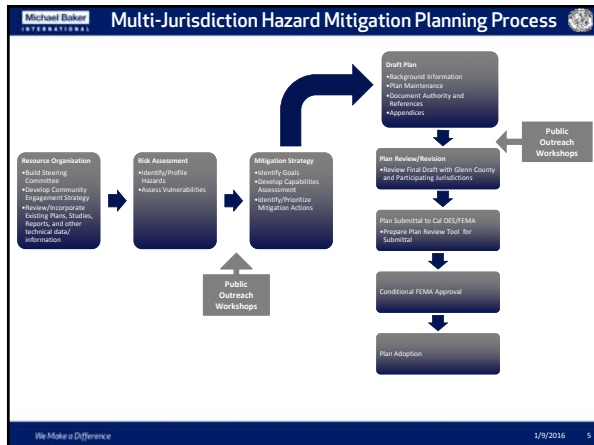


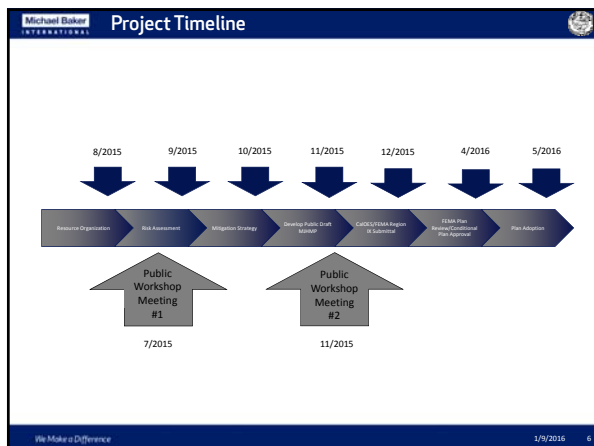
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Project Overview

- What is a Hazard Mitigation Plan?
 - Official statement of the County's and Cities' hazards, vulnerability analysis, and mitigation strategy.
 - Living document that guides implementation activities to achieve the greatest reduction of vulnerability, resulting in saved lives, reduced injuries, reduced property damages, and protection for the environment.
- Why have a Hazard Mitigation Plan?
 - Ensure public consensus through a planning process on mitigation actions that best suits the County and Cities.
 - Focus efforts and limited resources on the most highly desirable mitigation projects.
 - Vehicle to apply for and receive mitigation grants which can augment local mitigation activities already being done.
 - Reduce vulnerability and enable communities to recover more quickly from disasters.



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Hazard Identification

- FEMA Disaster Declarations from 1950 to present
- CA State Declarations from 1950 to present
- Storm event databases from 1953 to 2014
 - National Centers for Environmental Information (NCEI)
 - Spatial Hazard Events and Losses for the United States (SHELDUS)
- Other planning documents
 - CA State HMP
 - General Plans for Glenn County and the Cities of Orland and Willows
 - Glenn County EOP
 - HMPs from surrounding counties


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Hazard Identification

- MJHMP Steering Committee members prioritized hazards using a ranking system

Factors considered:

- Historical Occurrences
- Frequency of Occurrences/Probability of Future Occurrences
- Spatial Extent
- Potential Impact



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Hazard Identification

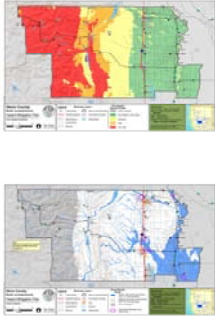
- Hazards in **bold** will be included in the MJHMP
- Severe Weather and Storms includes Hail, Wind, Tornado, and Extreme Temperatures
- Geologic Hazards includes Earthquakes, Expansive Soils, and Subsidence
- Avalanche, Volcano, and Landslide were ranked very low due
 - Will be briefly mentioned in the MJHMP, but not fully profiled since they were deemed insignificant because of the infrequent event and limited population and development in the potential impacted areas

Rank	Hazard
1	Flood
2	Levee Failure
3	Drought
4	Severe Weather and Storms
5	Wildfire
6	Dam Failure
7	Geologic Hazards
8	Avalanche
9	Volcano
10	Landslide

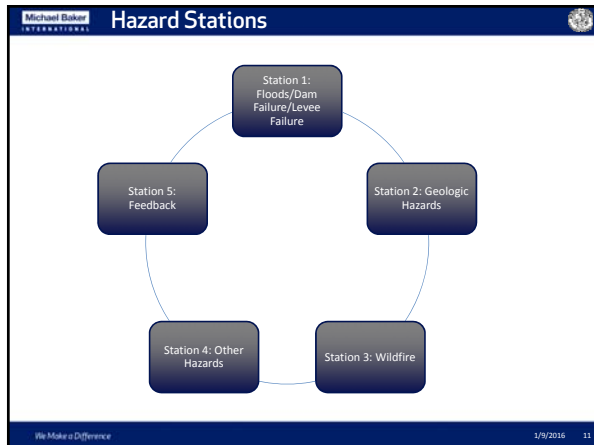
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Michael Baker INTERNATIONAL Vulnerability Assessment

- Assess vulnerabilities with County and City-specific data
 - Impacts on:
 - Populations
 - Structures (County/City community assets, infrastructures, and critical facilities)
 - Economy and tax base
- Inventory/summarize vulnerable assets
- Land Use and Development Trends



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Michael Baker INTERNATIONAL Next Steps

- Finalize hazard profiles/vulnerability assessments based on comments/input from Public Workshop
- Develop Mitigation Strategy
 - Capabilities Assessment
 - Goals
 - Mitigation Actions
 - Implementation Strategy
- Finalize Public Draft version of MJHP
 - Present at second Public Workshop in November
- Finalize MJHP with comments/input from Public Workshop for submittal to CalOES/FEMA
- Receive Approval Pending Adoption status from FEMA
- Adoption by Glenn County Board of Supervisors; City of Orland City County; and City of Willows City Council


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How to Participate Further

- Attend the future Public Workshop and Steering Committee Meetings
- Provide comment/feedback via the Comment Form or by contacting the Project Contacts


Glenn County
Andy Popper, Associate Planner
530-934-6540
apopper@countyofglenn.net

Michael Baker International
Wynne Kwan, Project Manager
510-879-0959
wkwan@mbakerintl.com



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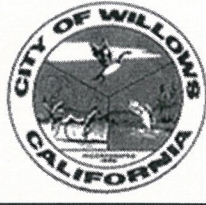
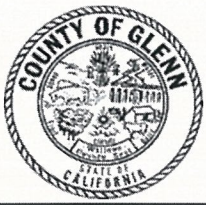
Questions?



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Thank You for Your Participation!

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Glenn County Multi-Jurisdiction Hazard Mitigation Plan

Meeting: Public Workshop #1
 Date/Time: July 30, 2015 - 5:00 - 7:30 pm
 Page 1 of 3

Name	Title	Jurisdiction/Organization	Mailing Address	Email/Telephone
Mike Martin	Planner	Orland		
Natalie Butler	City Clerk	Willows	201 N LASSEN	934-7041
Steve Seeth	Director Public Works	Willows		
Wynne Kwan	Project Manager	Michael Baker International	1 Kaiser Plaza, Ste 1150 Oakland, CA 94612	510.879.0959 wkwan@mbakerintl.com
ANDY POPPER	CONTACT LEAD ASSOCIATE PLANNER	GLENN COUNTY	777 N. Colusa St	934-6540
Emma Reed	Plang. Assoc.	Michael Baker Intl	1 Kaiser Plaza, Ste 1150 Oakland, CA 94612	emma.reed@mbakerintl.com 510-879-0952
Lisa Messano	COMMUNICATIONS + OUTREACH SPECIALIST	Michael Baker International	" "	510-879-0911 LMessano@mbakerintl.com
MARDY THOMAS	PRINCIPAL PLANNER	GLENN COUNTY	777 N Colusa St	934-6540

Planning Commissioners:

District 1 William Irvin
District 2 Robert Costa
District 3 Howard Cawthra, Vice-Chair
District 4 Mathew Amaro
District 5 William Carriere, Chairman

**Glenn County
Planning Commission**



AGENDA

DATE: Wednesday, January 20, 2016

TIME: 9:00 A.M.

PLACE: Board of Supervisors' Chambers, Willows Memorial Hall
525 West Sycamore Street, 2nd Floor
Willows, California 95988

The Glenn County Planning Commission welcomes you to its meetings, which are regularly scheduled on the third Wednesday of each month. Members of the public may appear before the Planning Commission and present evidence or make comments concerning any Commission business. If the matter is not listed on the agenda, such comments shall be presented at the public input portion of the agenda entitled "PUBLIC COMMENT" and are limited to three (3) minutes. If the matter concerns an item listed on the agenda, comments must be made at the time the agenda item is considered by the Commission. This includes Public Hearings. In the event that the agenda item or Hearing gathers a large audience and/or group with the same or similar views, one individual should be assigned to speak on behalf of that group. Comments may be limited to three (3) minutes by the Chairman of the Planning Commission in the interest of time. Additional comments may be submitted in writing. The purpose of this procedure is to allow members of the public to provide information to the Commission. If members of the public are seeking information, such information should be obtained outside the meeting. Meetings may be recorded, therefore, please proceed to the rostrum and after receiving recognition from the chair, state your name and comments for the record. Please contact the Glenn County Planning & Public Works Agency, 777 North Colusa Street, Willows, CA 95988, (530) 934-6540, (530) 934-6533 (FAX), for further information prior to the meeting. Action taken by the Planning Commission may be appealed in accordance with Glenn County Code §15.050.020. Planning Commission agendas, minutes, and audio recordings are available on Glenn County's website at http://www.countyofglenn.net/govt/minutes_agendas/.

1. **CALL TO ORDER:**
2. **ROLL CALL:**
3. **APPROVAL OF MINUTES:**
Minutes of the November 18, 2015 meeting
4. **PUBLIC WORKSHOPS:**
 - A. **Glenn County Housing Element Zone Changes; 5th Cycle
GPA/ZC 2016-001**

The workshop is to provide information to the Planning Commission and the public regarding the candidate properties for Zone Changes to Multi-Family Residential, as required by the State of California.

B. Zone Change 2015-001
Applicant: County of Glenn

Proposal: Update "AE" (Exclusive Agricultural) Zoning District for Uses Permitted with a Conditional Use Permit

Staff Recommendation

A draft of the zoning code chapter and sections related to the permitting of power generation facilities in the "AE" (Exclusive Agricultural) Zoning District is being presented for review and comment.

Attachments:

A. Staff Report Power Generation

1. Exhibit A – Alternative Energy

2. [Glenn County Code 15.330.040 "AE" \(Exclusive Agriculture Zone\)](#)

C. Glenn County Multi-Jurisdictional Hazard Mitigation Plan

Glenn County, along with the incorporated cities of Orland and Willows, has completed the draft Multi-Jurisdiction Hazard Mitigation Plan (MJHMP). The presentation to the Planning Commission provides information about the process, findings, and outcomes, and a forum to receive any comments from the Planning Commission and public.

5. PUBLIC COMMENT:

Any person wishing to address the Planning Commission on any item NOT ON TODAY'S AGENDA may do so at this time. The Planning Commission will not be making a decision or determination on items brought up during Public Comment. Please keep your comments to three (3) minutes or less. Step to the microphone and state your name.

6. STAFF REPORT:

Planning Division Project and Status Report

1. Planning Projects In Process Report

2. Completed Planning Projects Completed Report

7. FUTURE AGENDA ITEMS:

8. ADJOURNMENT:

In compliance with the Americans with Disabilities Act, Glenn County will make available to disabled members of the public disability-related modification or accommodations. Notification three days prior to the meeting will enable the County to make arrangements to provide reasonable accommodations. If requested, this document and other agenda materials can be made available in an alternative format for persons with a disability who are covered by the Americans with Disabilities Act. Contact the Planning Division Office with your request for accommodations at (530) 934-6540.



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Windows Media Player is required to view the videos. This can be downloaded for free from the [Microsoft website here](#).

The minimum system requirements for watching the Archived video [are available here](#).

[Streaming video support](#)

Upcoming Events

Name	Date
Board of Supervisors	February 02, 2016 - 09:00 AM
Local Agency Formation Commission	February 08, 2016 - 09:00 AM
Planning Commission	February 17, 2016 - 09:00 AM
Regional Transit Committee & Transportation Commission	February 18, 2016 - 09:00 AM

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Board of Supervisors

Name	Date	Duration			
Board of Supervisors	Dec 15, 2015	00h 50m	Agenda	Minutes	Audio
Board of Supervisors	Dec 1, 2015	00h 22m	Agenda	Minutes	Audio
Board of Supervisors	Nov 17, 2015	01h 27m	Agenda	Minutes	Audio
Board of Supervisors	Nov 3, 2015	01h 39m	Agenda	Minutes	Audio
Board of Supervisors	Oct 20, 2015	00h 09m	Agenda	Minutes	Audio

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Planning Commission

Name	Date	Duration			
Planning Commission	Jan 20, 2016	01h 19m	Agenda		Audio
Planning Commission	Nov 18, 2015	02h 27m	Agenda		Audio
Planning Commission	Oct 21, 2015	00h 49m	Agenda	Minutes	Audio
Planning Commission	Sep 16, 2015	00h 00m	Agenda	Minutes	Audio
Planning Commission	Aug 19, 2015	01h 26m	Agenda	Minutes	Audio

[Click here to view all Planning Commission Agendas, Minutes and Audio](#)

Local Agency Formation Commission

Name Date Duration

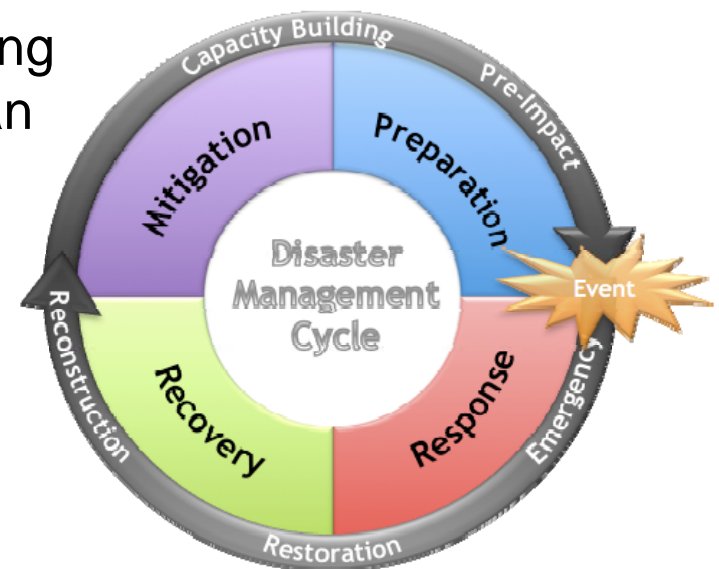
Glenn County, CA Multi-Jurisdiction Hazard Mitigation Plan



Planning Commission Presentation

January 20, 2016

- Disaster Mitigation Act of 2000 (DMA 2000)
 - Amended Federal Stafford Act
 - Legal basis for FEMA mitigation planning requirements for State, local, and Indian Tribal governments
 - Requires a FEMA-approved mitigation plan as a condition of mitigation grant assistance.
 - Hazard Mitigation Plans must be updated, resubmitted, and approved every 5 years.



- What is Hazard Mitigation?
 - Any sustained action taken to reduce or eliminate long-term risk to life and property resulting from natural hazards

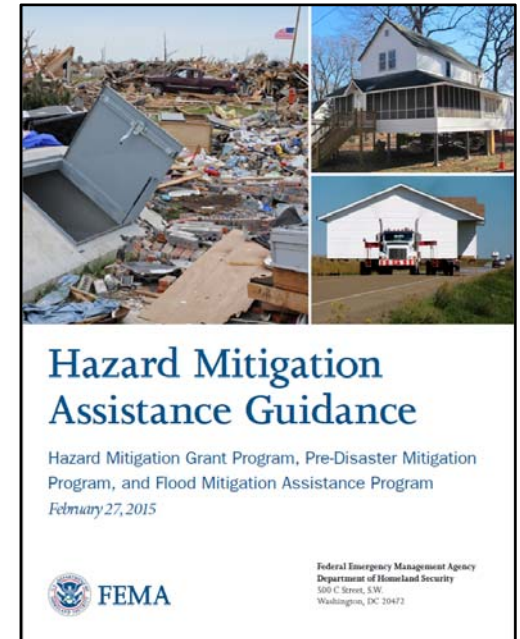
- Hazard Mitigation is an investment
 - Prevent injury and loss of life
 - Prevent damage to community assets (existing and future)
 - Reduce costs of disaster response/recovery
 - Advance other community objectives
 - Every \$1 spent on mitigation saves \$4 (MMC, Natural Hazard Mitigation Saves)



- What is a Hazard Mitigation Plan?
 - Official statement of Glenn County and the Cities of Orland and Willows' hazards, vulnerability analysis, and mitigation strategy
 - Living document that guides implementation activities to achieve the greatest reduction of vulnerability, resulting in saved lives, reduced injuries, reduced property damages, and protection for the environment

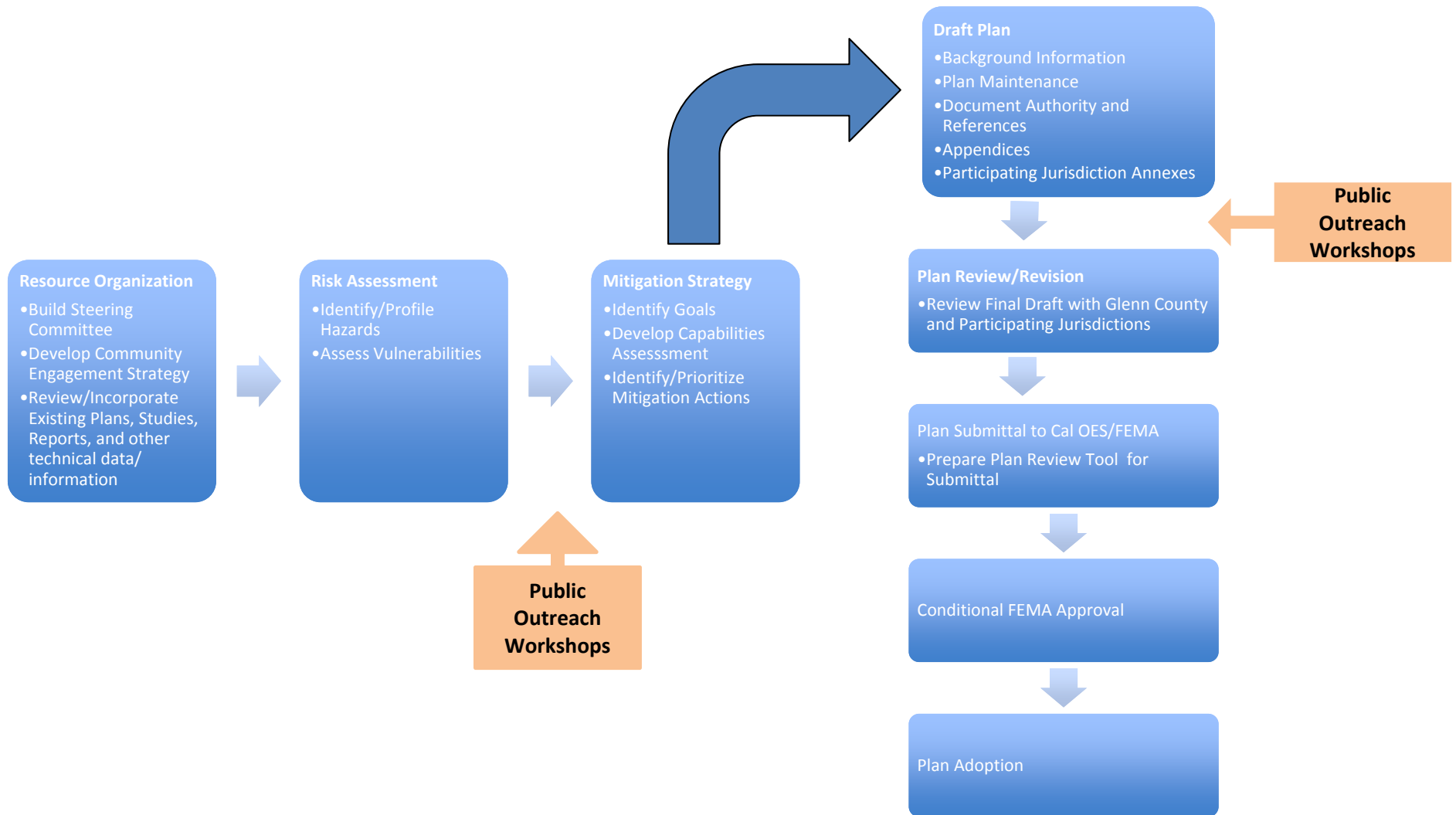
- Why have a Hazard Mitigation Plan?
 - Identify cost-effective actions to reduce risk
 - Focus efforts and limited resources on the greatest vulnerabilities
 - Build partnerships in Glenn County
 - Increase awareness of hazards and risk
 - Communicate priorities
 - Align with other community objectives
 - Reduce vulnerability and enable communities to recover more quickly from disasters.
 - Required to apply for and receive mitigation grants which can augment local mitigation activities already being done.

- Hazard Mitigation Grant Program (HMGP)
 - Funding for eligible mitigation projects following a major disaster
- Pre-Disaster Mitigation (PDM) Program
 - Funding for hazard mitigation planning and projects on an annual basis
- Flood Mitigation Assistance (FMA) Program
 - Funding for projects to reduce/eliminate risk of flood damage to buildings insured under the NFIP on an annual bases



Glenn County received a 2012 PDM Grant to prepare the multi-jurisdiction hazard mitigation plan

Multi-Jurisdiction Hazard Mitigation Planning Process



Steering Committee Membership

- Glenn County Representatives
 - Planning and Public Works Agency; Regional Transportation Planning; Environmental Health; Public Health; Air Pollution Control District; Agricultural Commission; Sheriff's Office;
- Representatives from the Cities of Orland and Willows
- Stakeholders from other public/private entities
 - Hamilton City CSD; Butte City CSD; Hamilton City Fire Protection District; Glenn County Resource Conservation District; CHP Willows
- Michael Baker International

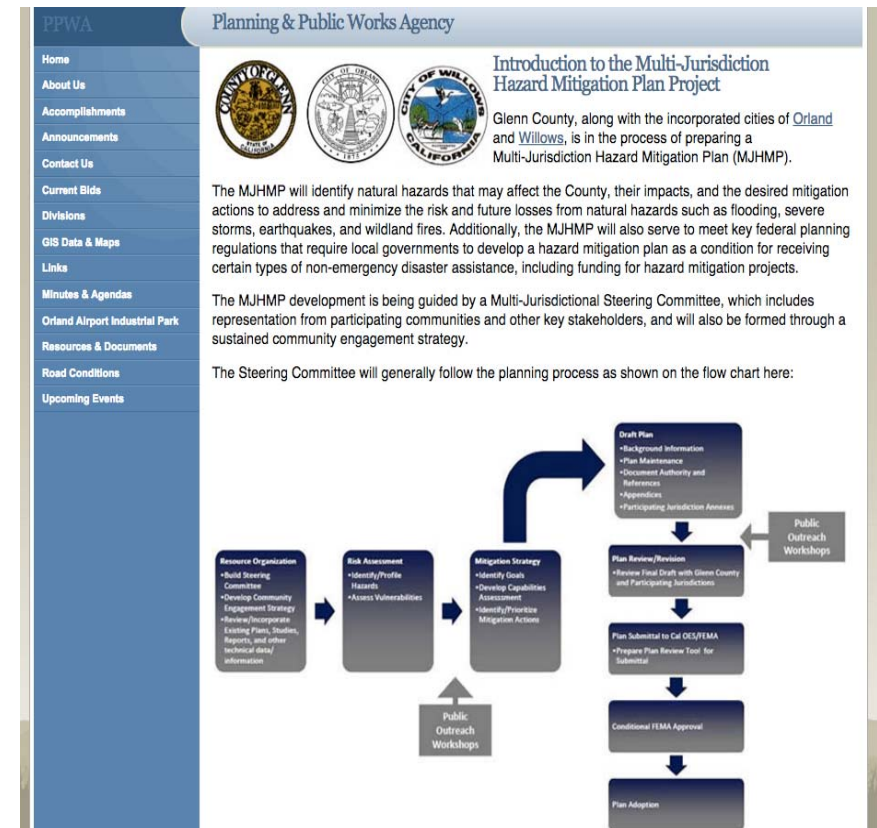


Steering Committee Meetings

Date	Meeting Type	Topics
April 2, 2015	Internal Kick-Off Meeting	Project Overview and Schedule, and MJHMP
May 7, 2015	Kick-Off Meeting (Steering Committee #1)	Steering Committee Member Guidelines Overview, Address Questions/Comments on the MJHMP Update Planning Process and Public Outreach Strategy, and MJHMP Planning Committee Issues
July 30, 2015	Steering Committee Meeting #2	Project Overview and Timeline, MJHMP and FMP Planning Components, Overview of Existing LHMP, Participation Documents, and Risk Assessment Development
October 8, 2015	Steering Committee Meeting #3	Risk Assessment Development, Hazard Specific Discussion, and Planning Committee Hazard Focus Groups
November 19, 2015	Steering Committee Meeting #4	Vulnerability Assessment Results Review, Goal Review, and Mitigation Actions Categories

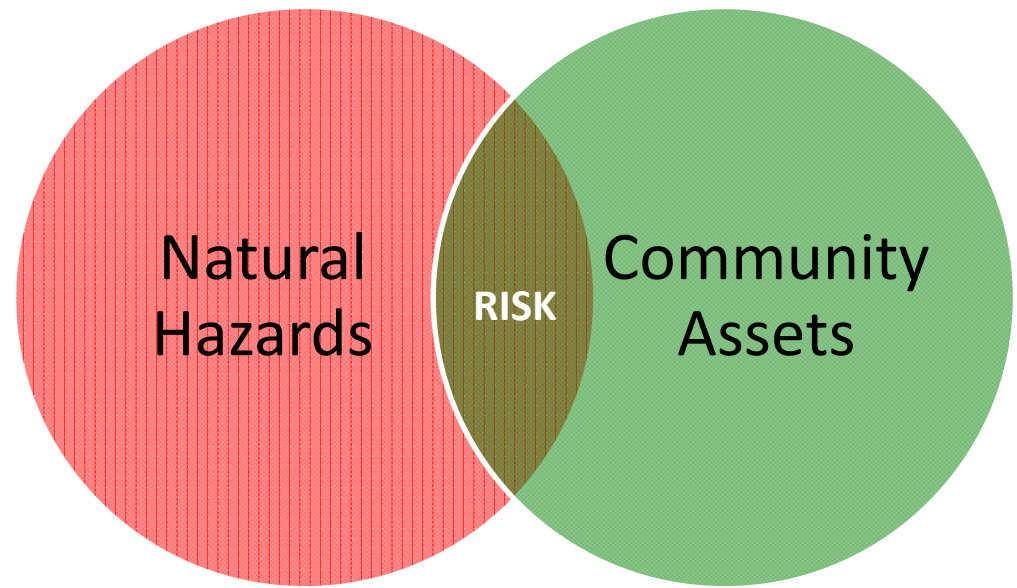
Public Outreach

- Two (2) Public Workshops/Meetings
 - July 30, 2015
 - January 20, 2016
(concurrent with Planning Commission meeting)
- Public Noticing and Press Releases
- Project Fact Sheet
- Website

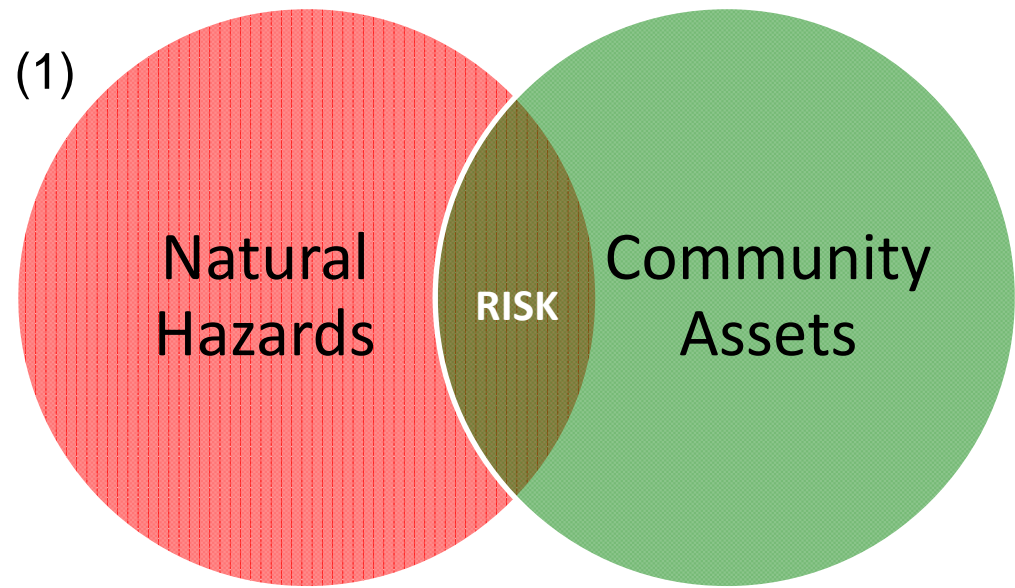


■ Hazards Assessed:

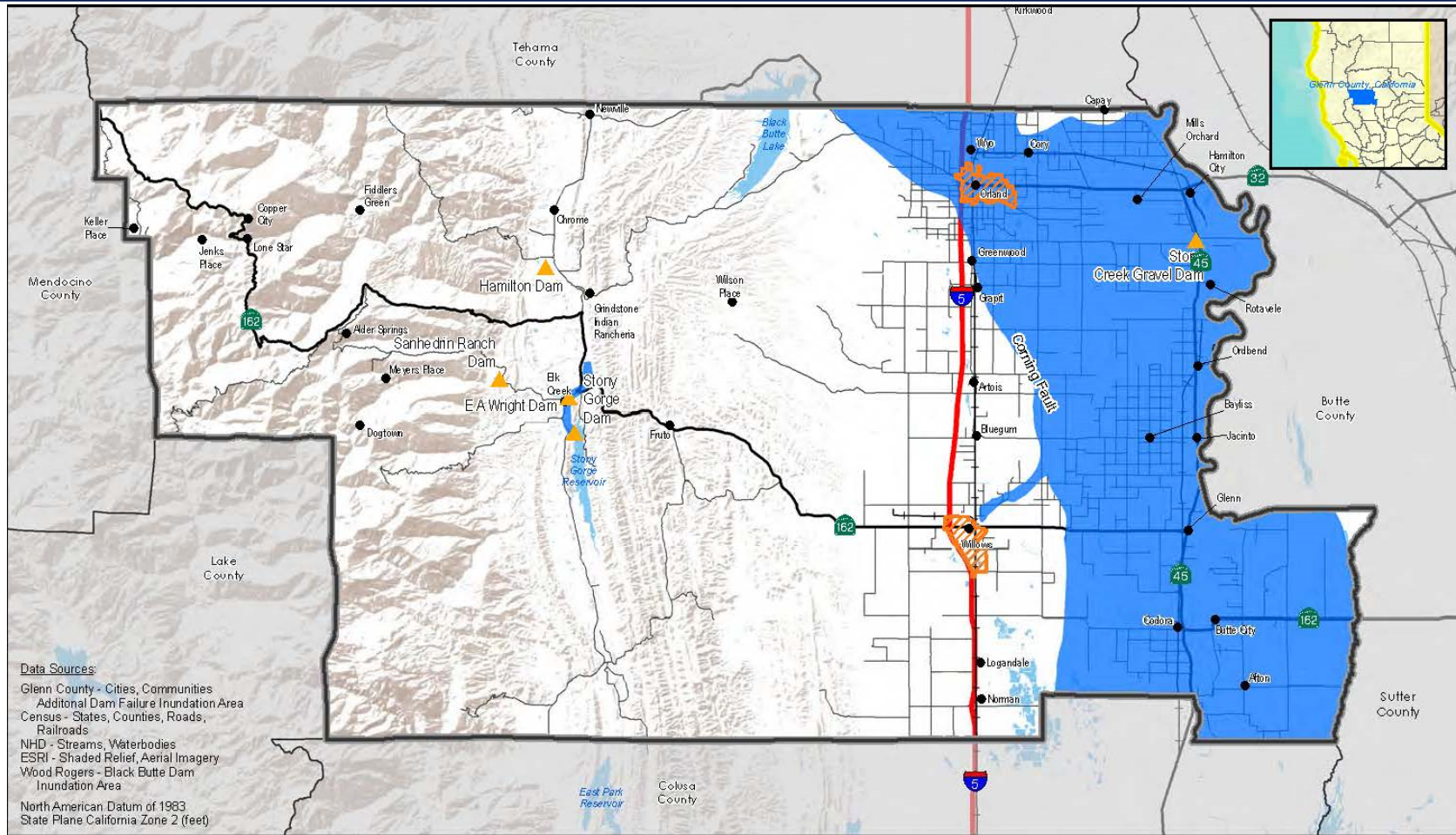
- Dam Failure
- Drought
- Flood
- Geologic Hazards (EQ, Expansive Soils, Land Subsidence)
- Levee Failure
- Severe Weather (Heavy Rains, Extreme Temperatures, etc.)
- Wildfire



- 114 Identified Community Assets and Critical Facilities:
 - County/City Government Facilities in the City of Orland (19)
 - County/City Government Facilities in the City of Willows (16)
 - Educational Facilities (33)
 - Medical Facilities (9)
 - Fire and Police Department Facilities (15)
 - Airports (2)
 - Hazardous Materials Sites (7)
 - Cell Towers (7)
 - Dams (5)
 - Other Critical Infrastructure (1)



Dam Failure



Data Sources:
 Glenn County - Cities, Communities
 Additional Dam Failure Inundation Area
 Census - States, Counties, Roads, Railroads
 NHD - Streams, Waterbodies
 ESRI - Shaded Relief, Aerial Imagery
 Wood Rogers - Black Butte Dam Inundation Area
 North American Datum of 1983
 State Plane California Zone 2 (feet)

Glenn County
 Multi-Jurisdictional
 Hazard Mitigation Plan
 Dam Failure Hazard



Map created:
June, 22 2015



Legend

- | | | | |
|---------------------------------|--------------------|----------------|-----------------------|
| ● | Communities | ▭ | Glenn County Boundary |
| — (thick red) | Interstate Highway | ▭ (light gray) | Surrounding Counties |
| — (thin black) | State Highway | ▭ (orange) | City |
| — (thin gray) | County Route | — (blue) | Waterbodies |
| — (thin black with cross-ticks) | Railroad | | |

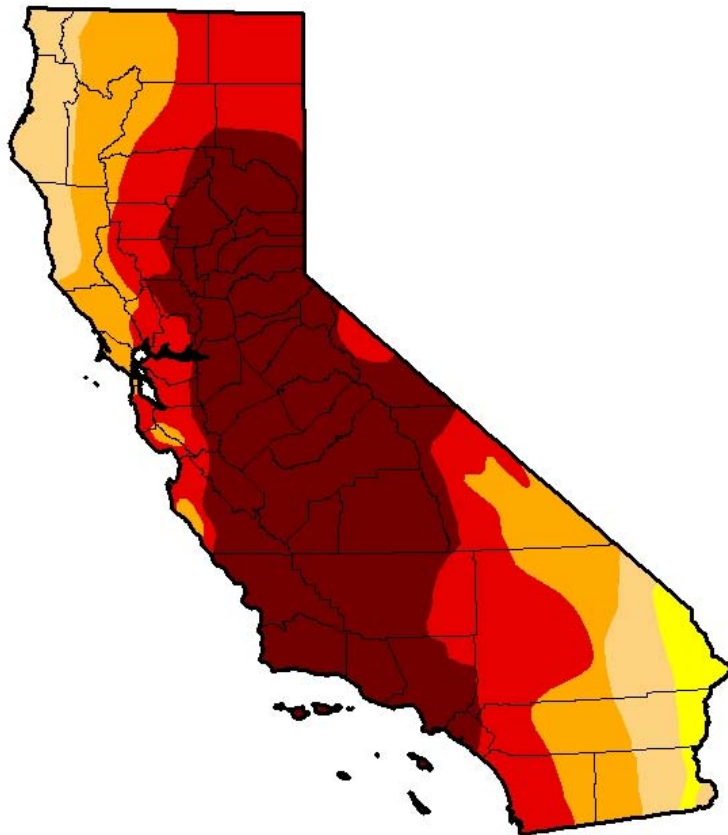
Basemap Layers

Dam Failure Hazard Layers

- ▲ Dams
- Dam Failure Inundation Area

Facility Category	Number Located Within the Dam Inundation Zone
County/City Facilities in the City of Willows	0
County/City Facilities in the City of Orland	15
Educational Facilities	21
Medical Facilities	4
Fire Department Facilities	7
Police Department Facilities	1
Airports	1
Hazardous Materials Sites	4
Cell Towers	2
Dams	2
Other Critical Infrastructure	0
TOTAL	57

U.S. Drought Monitor California



January 12, 2016
(Released Thursday, Jan. 14, 2016)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	97.33	87.55	69.07	42.66
Last Week <i>1/5/2016</i>	0.00	100.00	97.33	87.55	69.07	44.84
3 Months Ago <i>10/13/2015</i>	0.14	99.86	97.33	92.36	71.08	46.00
Start of Calendar Year <i>12/29/2015</i>	0.00	100.00	97.33	87.55	69.07	44.84
Start of Water Year <i>8/29/2015</i>	0.14	99.86	97.33	92.36	71.08	46.00
One Year Ago <i>1/13/2015</i>	0.00	100.00	98.12	94.34	77.52	39.15

Intensity:

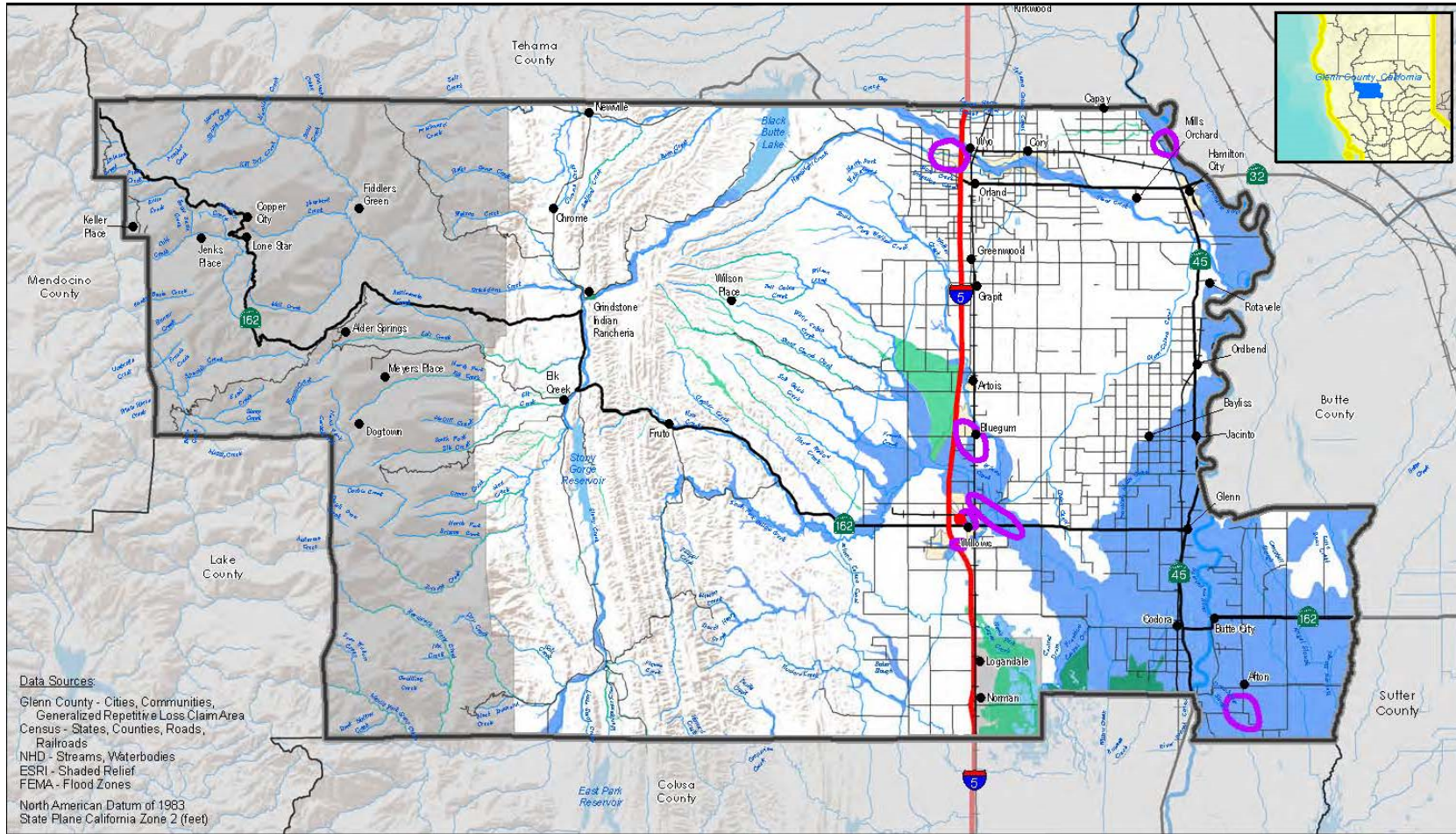
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Brian Fuchs
National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>

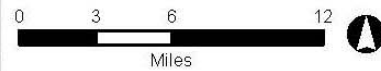


Data Sources:
 Glenn County - Cities, Communities,
 Generalized Repetitive Loss Claim Area
 Census - States, Counties, Roads,
 Railroads
 NHD - Streams, Waterbodies
 ESRI - Shaded Relief
 FEMA - Flood Zones
 North American Datum of 1983
 State Plane California Zone 2 (feet)

Glenn County Multi-Jurisdictional Hazard Mitigation Plan

Map created:
June, 22 2015

Flood Hazard



Legend

- | | | | |
|-----|--------------------|---|-----------------------|
| ● | Communities | ▭ | Glenn County Boundary |
| — | Interstate Highway | ▭ | Surrounding Counties |
| — | State Highway | ▭ | Waterbodies |
| — | County Route | | |
| —+— | Railroad | | |

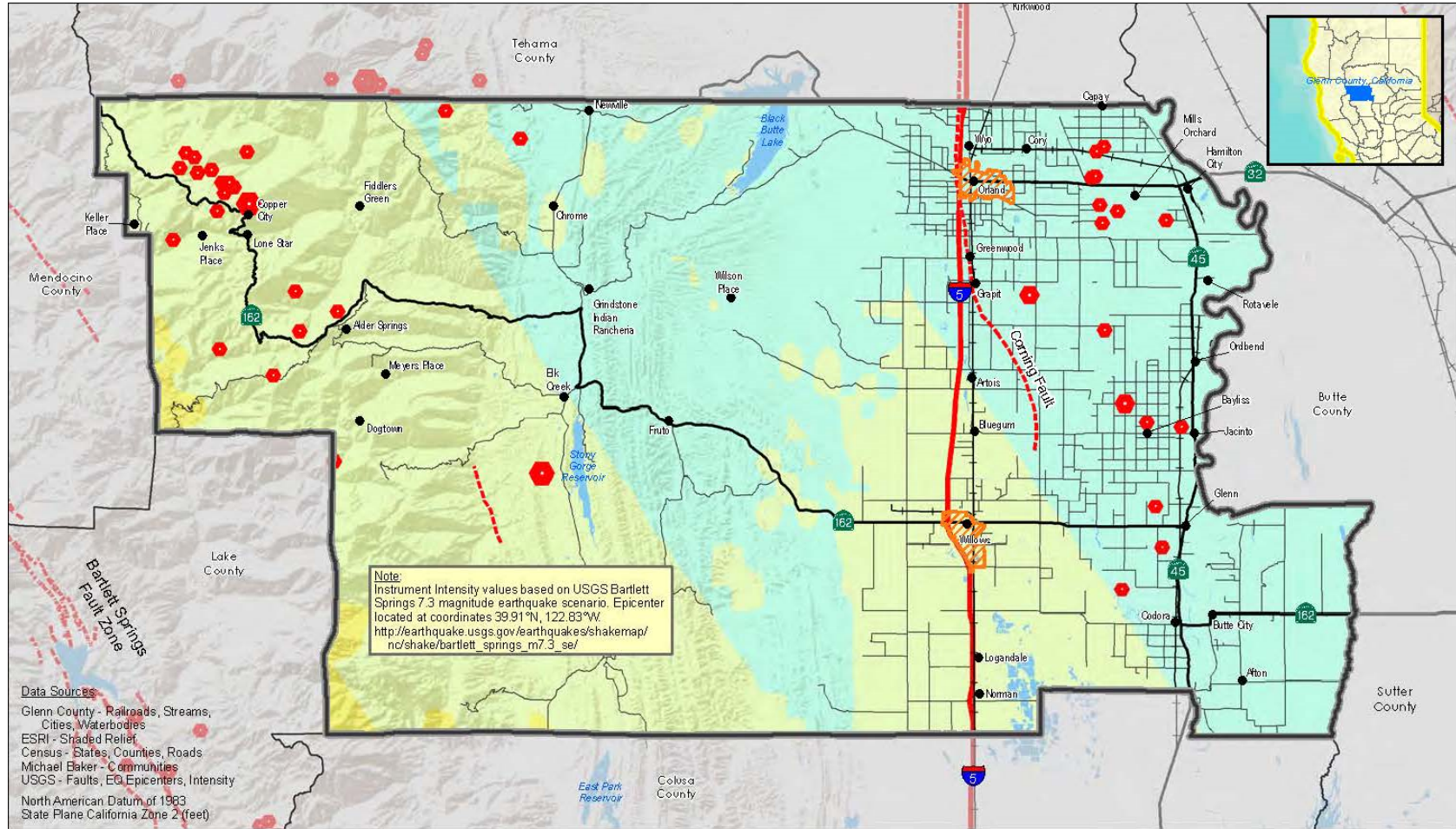
Basemap Layers

Flood Hazard Layers

- | | | | |
|--|--|--|---|
| | FEMA 1-Percent-Annual-Chance (100 YR) Flood Boundary | | Generalized Repetitive Loss Claim Areas |
| | FEMA 0.2-Percent-Annual-Chance (500 YR) Flood Boundary | | Local Flooding (Identified by Steering Committee) |
| | Area Not Mapped | | |
| | DWR Awareness Floodplains (7/31/12) | | |
| | FEMA 100 YR and DWR Awareness Zone Overlap | | |

Facility Category	Number Located in the Special Flood Hazard Area (100-year Flood Zone)	Number Located in the 0.2 Percent Annual Chance Flood Hazard Area (500-year Flood Zone)	Number Located in an Area of Minimal Flood Hazard
County/City Facilities in the City of Willows	1	7	14
County/City Facilities in the City of Orland	0	0	16
Educational Facilities	1	2	28
Medical Facilities	0	2	7
Fire Department Facilities	3	2	6
Police Department Facilities	0	1	2
Airports	0	1	1
Hazardous Materials Sites	2	1	4
Cell Towers	1	0	4
Dams	1	0	4
Other Critical Infrastructure	0	0	1
TOTAL	9	16	87

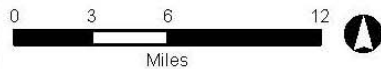
Geologic Hazards: Earthquake



Glenn County
Multi-Jurisdictional
Hazard Mitigation Plan
Earthquake Hazard



Map created:
June, 22 2015



Legend

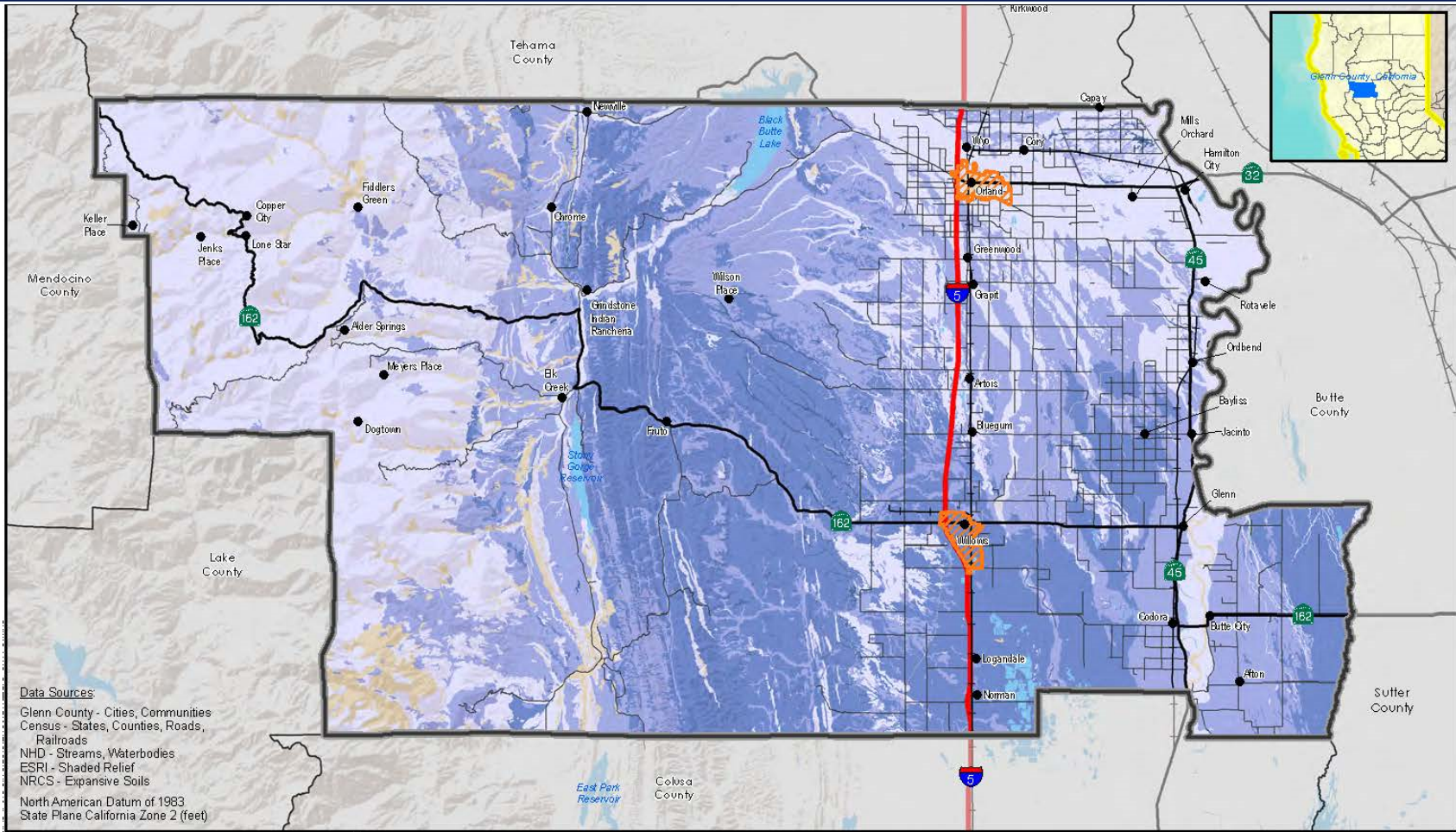
- | | | | |
|---|--------------------|--|-----------------------|
| ● | Communities | | Glenn County Boundary |
| | Interstate Highway | | Surrounding Counties |
| | State Highway | | City |
| | County Route | | Waterbodies |
| | Railroad | | |

Earthquake Hazard Layers

- | | |
|--|-------------------------------------|
| Historic Earthquakes Epicenters (1975 - 2015) | Potential Damage (Intensity) |
| | |
| | |
| | |
| | |
| | |

Facility Category	Number Located in Strong Earthquake Intensity Zone	Number Located in Moderate Earthquake Intensity Zone
County/City Facilities in the City of Willows	19	0
County/City Facilities in the City of Orland	16	0
Educational Facilities	22	9
Medical Facilities	5	4
Fire Department Facilities	4	7
Police Department Facilities	2	1
Airports	1	1
Hazardous Materials Sites	3	4
Cell Towers	3	3
Dams	2	3
Other Critical Infrastructure	1	0
TOTAL	78	32

Geologic Hazards: Expansive Soils



Data Sources:
 Glenn County - Cities, Communities
 Census - States, Counties, Roads,
 Railroads
 NHD - Streams, Waterbodies
 ESRI - Shaded Relief
 NRCS - Expansive Soils
 North American Datum of 1983
 State Plane California Zone 2 (feet)

Glenn County
 Multi-Jurisdictional
 Hazard Mitigation Plan
 Expansive Soils Hazard



Map created:
June, 22 2015



Legend

- Communities
- Interstate Highway
- State Highway
- County Route
- +— Railroad

Basemap Layers

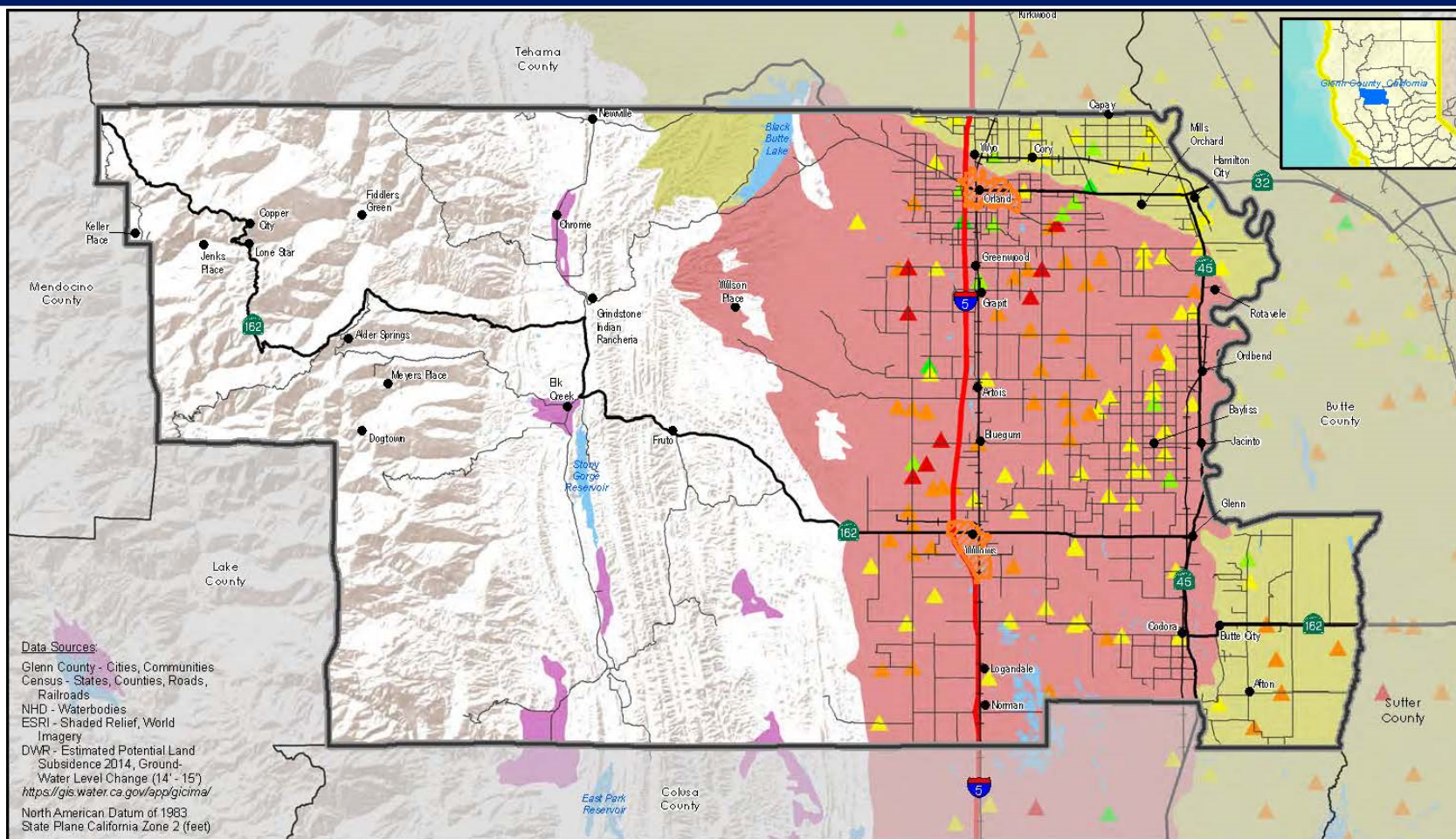
- Glenn County Boundary
- Surrounding Counties
- City
- Waterbodies

Expansive Soil Layers

- Low (0 - 3)
- Moderate (3 - 6)
- High (6 - 9)
- Very High (9 - 30)
- Not rated or not available

Facility Category	Number Located in High Expansive Soil Potential	Number Located in Moderate Expansive Soil Potential	Number Located in Low Expansive Soil Potential
County/City Facilities in the City of Willows	15	4	0
County/City Facilities in the City of Orland	0	0	6
Educational Facilities	8	1	18
Medical Facilities	5	0	3
Fire Department Facilities	2	4	4
Police Department Facilities	2	0	0
Airports	1	0	1
Hazardous Materials Sites	2	3	1
Cell Towers	1	2	3
Dams	0	2	1
Other Critical Infrastructure	0	0	0
TOTAL	36	16	37

Geologic Hazards: Land Subsidence



Data Sources:
 Glenn County - Cities, Communities
 Census - States, Counties, Roads,
 Railroads
 NHD - Waterbodies
 ESRI - Shaded Relief, World
 Imagery
 DWR - Estimated Potential Land
 Subsidence 2014, Ground-
 Water Level Change (14' - 15')
<https://gis.water.ca.gov/app/gicima/>
 North American Datum of 1983
 State Plane California Zone 2 (feet)

Glenn County
Multi-Jurisdictional
Hazard Mitigation Plan
Land Subsidence

Map created:
June, 22, 2015

Miles

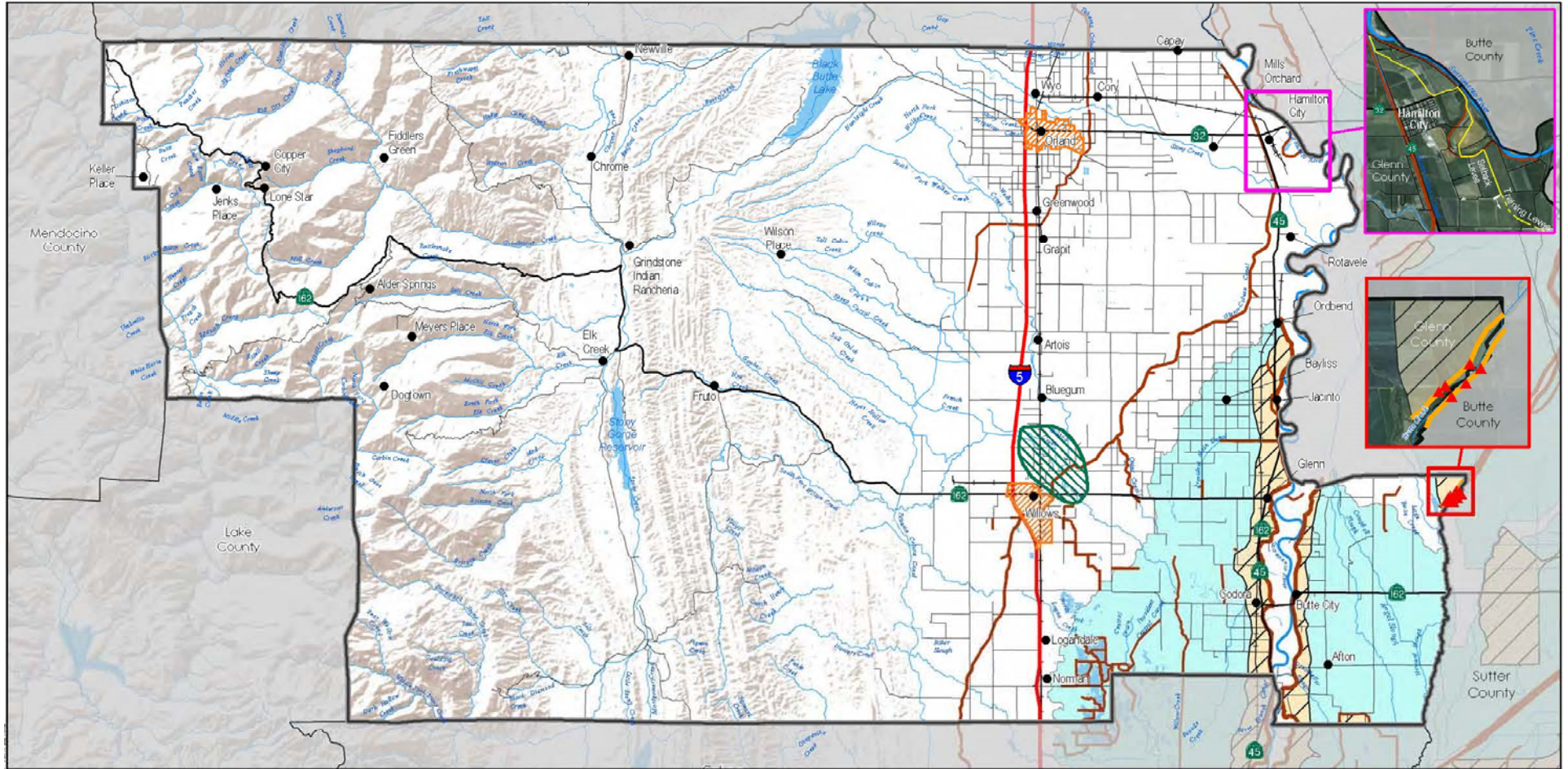
Legend

- Communities
- Interstate Highway
- State Highway
- County Route
- Railroad
- Glenn County Boundary
- Surrounding Counties
- City
- Waterbodies

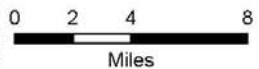
Land Subsidence Hazard Layers

Estimated Potential Land Subsidence 2014	Change in Groundwater Levels 2014 - 2015
 Low	 Less than -10.0 ft
 Low to Medium	 -10.0 to -2.5 ft
 Medium to High	 -2.5 to 2.5 ft
 High	 2.5 - 10.0
 Data Insufficient	 Over 10.0 ft

Facility Category	Number Located in High Land Subsidence Potential	Number Located in Medium to High Land Subsidence Potential	Number Located in Low to Medium Land Subsidence Potential	Number Located in Low Land Subsidence Potential
County/City Facilities in the City of Willows	19	0	0	0
County/City Facilities in the City of Orland	16	0	0	0
Educational Facilities	23	0	8	0
Medical Facilities	8	0	1	0
Fire Department Facilities	8	0	2	0
Police Department Facilities	3	0	0	0
Airports	2	0	0	0
Hazardous Materials Sites	7	0	0	0
Cell Towers	3	0	1	0
Dams	1	0	0	0
Other Critical Infrastructure	1	0	0	0
TOTAL	91	0	12	0



Glenn County
Multi-Jurisdictional
Hazard Mitigation Plan
Levee Hazard



Map modified:
11/17/2015

Legend

- | | |
|----------------------|-------------------------|
| ● Communities | ▭ Glenn County Boundary |
| — Interstate Highway | ▭ Surrounding Counties |
| — State Highway | ▭ City |
| — County Route | ~ Streams |
| — Railroad | ~ Waterbodies |

Basemap Layers

Levee Layers

- | |
|---------------------------|
| ▲ Historic Levee Failures |
| — Failed Levees |
| — Levees |
| ▨ Area Protected By Levee |
| ▭ Leveed Area |

Data Sources:

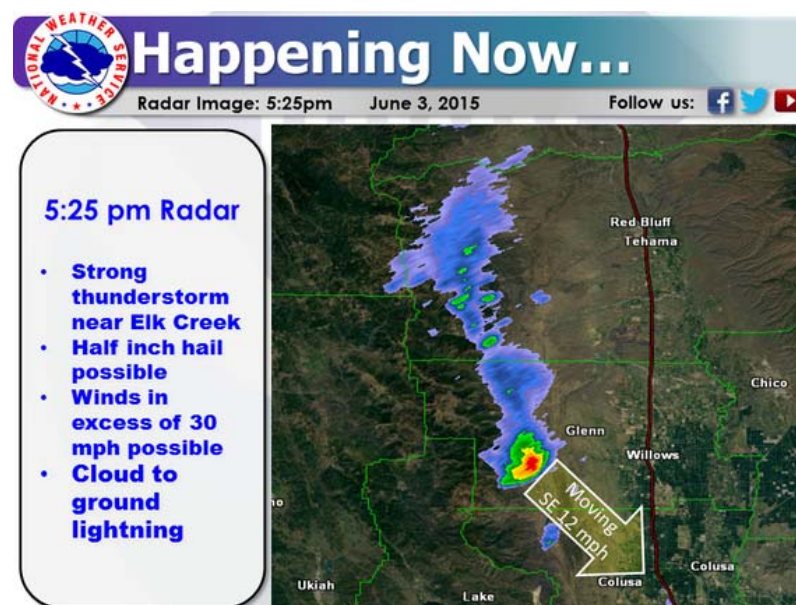
- Glenn County - Cities, Communities
- Census - States, Counties, Roads, Railroads
- NHD - Streams, Waterbodies
- ESRI - Shaded Relief, Aerial Imagery
- NLD / MLI - Historic Levee Failures, Failed Levees, Levees, Leveed Area

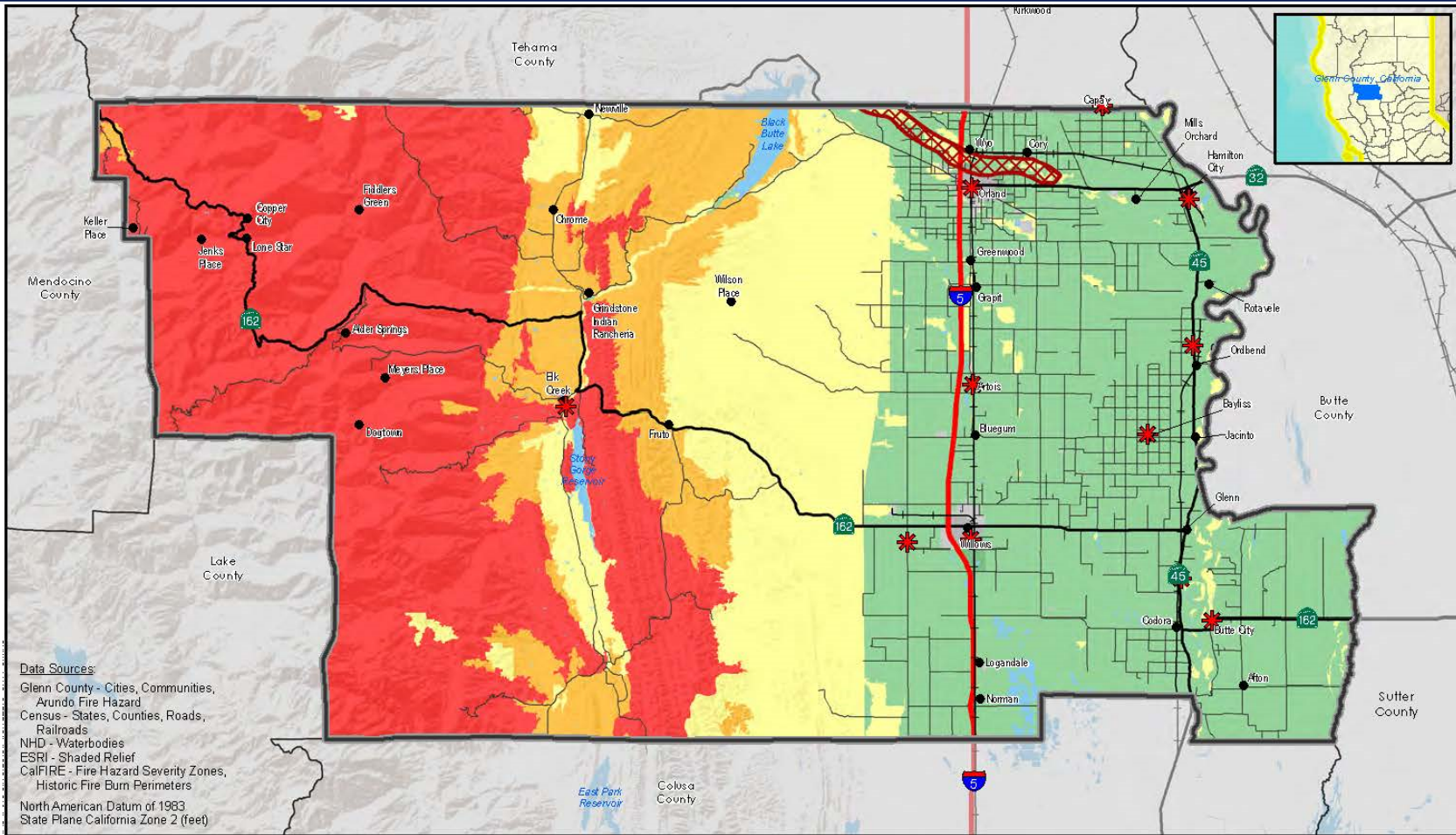
North American Datum of 1983
State Plane California Zone 2 (feet)



Facility Category	Number Located in Area Protected by Levees	Number Located in Leveed Areas
County/City Facilities in the City of Willows	0	0
County/City Facilities in the City of Orland	0	0
Educational Facilities	3	3
Medical Facilities	0	0
Fire Department Facilities	2	3
Police Department Facilities	0	0
Airports	0	0
Hazardous Materials Sites	1	2
Cell Towers	1	2
Dams	0	0
Other Critical Infrastructure	0	0
TOTAL	7	10

- Affects all areas of Glenn County
- Localized storms with heavy rain, hail, lightning, and strong winds
 - Secondary hazards include floods and landslides
 - Impacts
 - Increases in traffic accidents
 - Disruptions in transportation, government, and education
 - Damage to buildings and communication towers
 - Prolonged utility outages due to falling trees or other debris
- Extreme heat and severe winter storms/winter weather
 - Impacts
 - Health risks to vulnerable populations
 - Damage to shrubbery and trees and other vegetation
 - Increase water supply and power demands resulting in limited water supplies and power outages
 - Linear utilities may freeze, halting availability



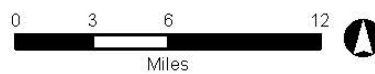


Data Sources:
 Glenn County - Cities, Communities,
 Arundo Fire Hazard
 Census - States, Counties, Roads,
 Railroads
 NHD - Waterbodies
 ESRI - Shaded Relief
 CalFIRE - Fire Hazard Severity Zones,
 Historic Fire Burn Perimeters
 North American Datum of 1983
 State Plane California Zone 2 (feet)

Glenn County Multi-Jurisdictional Hazard Mitigation Plan



Fire Hazard Severity
 Map created:
 June, 22 2015



Legend

- | | | | |
|---|--------------------|--|-----------------------|
| ● | Communities | | Glenn County Boundary |
| | Interstate Highway | | Surrounding Counties |
| | State Highway | | Waterbodies |
| | County Route | | |
| | Railroad | | |

Basemap Layers

Fire Hazard Layers

- | | |
|--|--------------------------|
| | Urban Unzoned |
| | Non-Wildland / Non-Urban |
| | Moderate |
| | High |
| | Very High |

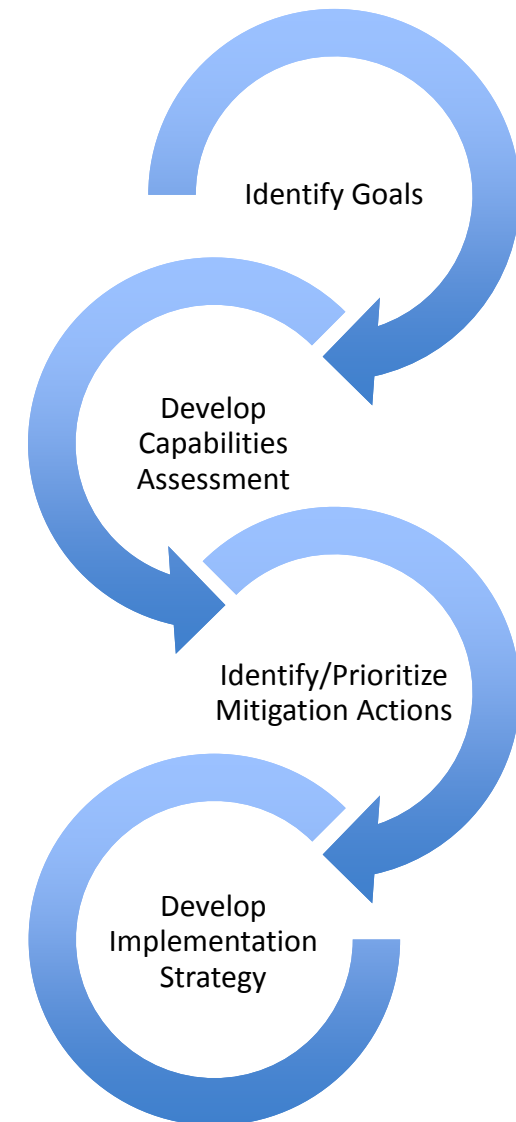
- | | |
|--|--|
| | Arundo Fire Hazard
(Identified by City of Orland) |
| | Fire Station |

Facility Category	Number Located in Very High Fire Severity Zone	Number Located in High Fire Severity Zone	Number Located in Moderate Fire Severity Zone	Number Located in Non-Wildland/Non-Urban Area	Number Located in Urban Unzoned Area
County/City Facilities in the City of Willows	0	0	0	0	19
County/City Facilities in the City of Orland	0	0	0	2	14
Educational Facilities	1	1	0	6	23
Medical Facilities	0	0	0	1	8
Fire Department Facilities	2	0	1	4	4
Police Department Facilities	0	0	0	0	3
Airports	0	0	0	0	2
Hazardous Materials Sites	0	0	0	3	4
Cell Towers	2	0	1	3	0
Dams	1	2	1	1	0
Other Critical Infrastructure	0	0	0	1	0
TOTAL	6	3	3	21	77

Prioritized Hazards

	Glenn County	City of Orland	City of Willows
High Risk	Flood Levee Failure Drought Wildfire		Flood
Moderate Risk	Severe Weather/Storms Dam Failure	Drought Wildfire Dam Failure Severe Weather/Storms Flood	Drought Severe Weather/Storms
Low Risk	Geologic Hazards	Geologic Hazards Levee Failure	Geologic Hazards Wildfire Dam Failure Levee Failure

- Heart of the Hazard Mitigation Plan
- Long-term blueprint to take action to reduce the risk of/losses from hazard events



- Reduce or eliminate hazard-related loss of life and injuries
- Reduce or eliminate hazard-related damage to critical/essential facilities and public services, infrastructure, and property
- Promote collaboration/coordination amongst jurisdictions and agencies within Glenn County to reduce or eliminate the impacts of natural hazards
- Improve and maintain Glenn County and incorporated Cities' capabilities (i.e., planning/regulatory, personnel capacity, funding accessibility, etc.) to implement mitigation activities

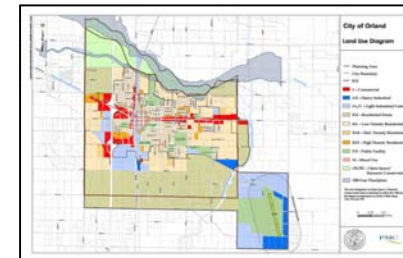
Mitigation Action Types

Local planning and regulations

Structure and infrastructure projects

Natural systems protection

Education and awareness programs



A screenshot of the CalOES MyHazards website. The page features a search bar at the top, navigation tabs for 'Instructions', 'Earthquakes', 'Flood', 'Fire', and 'Tsunami', and a main content area with text and a map. The text includes instructions on how to use the website and information about natural hazards in California. A red box is overlaid on the bottom right of the screenshot, containing the text 'CalOES MyHazards' and the URL 'http://myhazards.calema.ca.gov/'.

Glenn County Mitigation Actions

Mitigation ID	Mitigation Project Title
GC-1	New Slip Liner in 42" Pipe Trunk Line that Runs from Glenwood Pump Station to Cemetery Pump Station
GC-2	Stream Cleaning/Debris Removal throughout the County
GC-3	Replace Box Culvert with A Bridge or Larger Culvert at Hunter Creek on County Road D, south of County Road 68
GC-4	Fill in the Road Dip on County Road Y, South of County Road 50
GC-5	Increase Natural Hazard Education and Risk Awareness
GC-6	Improve Household Disaster Preparedness
GC-7	Monitor Drought Conditions
GC-8	Develop and enforce water conservation measures during drought conditions
GC-9	Implement and Maintain Fuels Management Program
GC-10	Work with Dam Owners to develop Dam Failure Study to improve upon flood inundation data in Glenn County and develop/update emergency action plans, as appropriate
GC-11	Hamilton City Flood Control and Ecosystem Restoration Project

Mitigation ID	Mitigation Project Title
OR-1	Eradicate Arundo in Stony Creek
OR-2	Flood Potential Reduction Along Stony Creek
OR-3	Black Butte Dam Failure Inundation
OR-4	Improve and Maintain Stormwater Drainage System Capacity
OR-5	Drought Awareness
OR-6	Increase Natural Hazard Education and Risk Awareness
OR-7	Improve Household Disaster Preparedness

Mitigation ID	Mitigation Project Title
WI-1	Increase Natural Hazard Education and Risk Awareness
WI-2	Improve Household Disaster Preparedness
WI-3	Drought Awareness - Educate City Residents on Water Saving Techniques/Water Conservation Measures
WI-4	Slip Liner in 42" Storm Drain Pipe Glenwood to GCID Canal (Cemetery Pump Station) 8500 Linear Feet
WI-5	Siphon Under GCID Canal at Sacramento Street (Co Rd 51) Storm Pump Station

Monitoring, Evaluating, and Updating the Plan

- Process established to track the Plan's implementation progress to:
 - Ensure mitigation strategy is implemented according to Plan
 - Provide the foundation for an ongoing mitigation program in the community
 - Standardize long-term monitoring of hazard-related activities
 - Integrate mitigation principles into community officials' daily job responsibilities and department roles
 - Maintain momentum through continued engagement and accountability in the Plan's progress
 - Inform the Plan update



Monitoring, Evaluating, and Updating the Plan

	Monitoring	Evaluating	Updating
WHO	Steering Committee, with Glenn County PPWA Planner as Lead	Steering Committee, with Glenn County PPWA Planner as Lead	Steering Committee, with Glenn County PPWA Planner as Lead
WHEN	Annually	<ul style="list-style-type: none"> • Annually • After a disaster event 	<ul style="list-style-type: none"> • Every 5 years • Update process to start at least one year prior to plan expiration • After a disaster event
HOW	<ul style="list-style-type: none"> • Responsible agencies/ organizations to monitor/ evaluate progress of mitigation actions • Report to Steering Committee using Mitigation Action Progress Report worksheet • Report out to elected officials, as appropriate once per year 	<ul style="list-style-type: none"> • Use information culled from annual meetings to monitor mitigation actions • Evaluate process and implementation • Identify lessons learned • Annual Plan Review Questionnaire worksheet • Report to elected officials 	<ul style="list-style-type: none"> • Develop scope of work • Coordinate participating jurisdictions • Apply for funding/budget cost • Review/revise Plan accounting for <ul style="list-style-type: none"> • new hazard vulnerabilities • special circumstances • new information • new priorities • issues from monitoring/ evaluation • progress in mitigation efforts

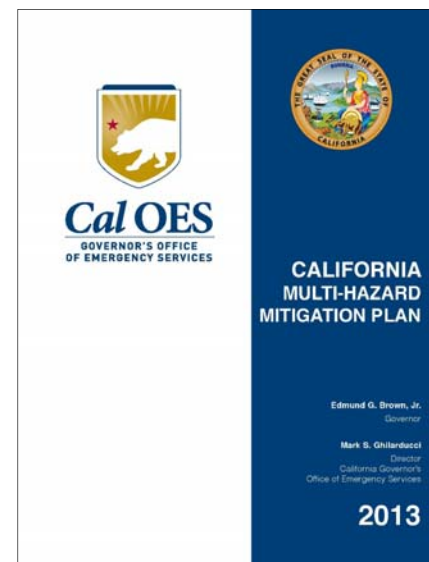
Continued Public Involvement

- Open up Annual Review Meetings to the Public
- Collaborate with Glenn County Disaster Council
- Collaborate with public service clubs, places of worship, and other civic groups to get information to out to the public
- Website with a copy of the Plan and supporting documentation
- Hard copies of Plan available at different sites within the County and Cities
- Piggy back on other existing local community meetings and events



- Mitigation Funding Sources
 - Local funding
 - State government funding
 - Federal government funding

****State and Federal agencies may have funds that can be used to reduce hazard risks, as well as meet other community objectives**



Annex 4 - Public Sector Funding Sources.....	1
4.1. Introduction.....	1
4.2. Federal Funding Sources.....	2
4.2.1. Federal Emergency Management Agency (FEMA).....	2
4.2.2. Environmental Protection Agency (EPA).....	3
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4.2.5. U.S. Army Corps of Engineers (USACE) and U.S. Fish and Wildlife Service.....	4
4.2.6. Department of Housing and Urban Development (HUD).....	5
4.2.8. Bureau of Land Management.....	6
4.2.9. U.S. Department of Agriculture (USDA).....	6
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4.2.12. Research Agencies.....	8
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4.6.4. Contra Costa County Keller Mitigation Fund.....	21

Local Funding Sources

Local resources can often be leveraged as grant matching funds and used to mitigation projects

- Requires coordination with Cities and County government

Examples:

- General Fund
- Capital Improvement Budget
- Special Revenue Sources



State Funding Sources

Caltrans

- Bridge Retrofit

CEA

- Residential Retrofit, Brace and Bolt

Flood Hazard

- Various state sources for flood mitigation

Wildfire Hazard

- CalFIRE and California Fire Safe Councils Program

Other

- Various other departments have grants available

- Leveraged as grant matching funds

Federal Funding Sources

EPA

- Water quality, wetlands protection

USACE

- Water resource issues

HUD

- Community Development Block Grant, Neighborhood Stabilization Program Grant

BLM

- Wildfire safety and prevention

USDA

- Various grants

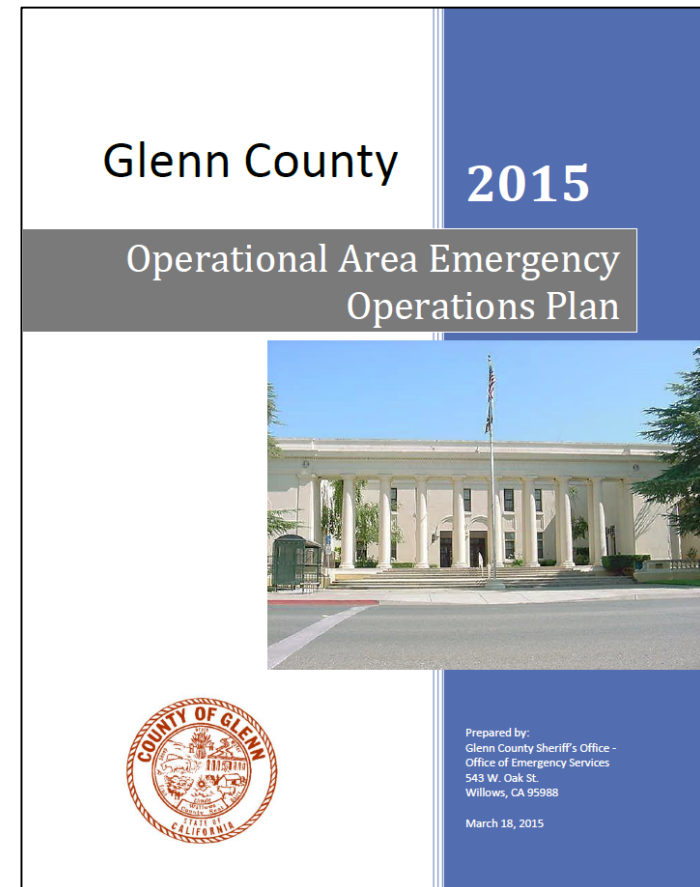
DHS

- Emergency preparedness

- Leveraged as grant matching funds

Integration with Other Local Planning Mechanisms/Documents

- Identify areas of overlap with hazard mitigation planning
- Highlight inconsistencies between plans and make recommendations to address potential gap
- Coordinate with hazard mitigation plan to implement mitigation goals, objectives, policies, and actions



Integration across Agencies and Departments

- Opportunity for collaboration and coordination
 - Identify and highlight mitigation activities and opportunities
 - Foster interdisciplinary idea-sharing
 - Partnerships to maximize resources and avoid duplication of efforts
- Monitoring of agendas, attendance at meetings, and distribution of memos
- Monitoring of funding opportunities that can be leveraged to implement the mitigation actions





Publicize Public Review Draft for Review/Comment Period

Prepare Plan Submittal to CalOES/FEMA Region IX

Obtain Conditional Approval from FEMA Region IX

Adopt the Plan



Questions?

Thank You!

Project Contacts:

Glenn County

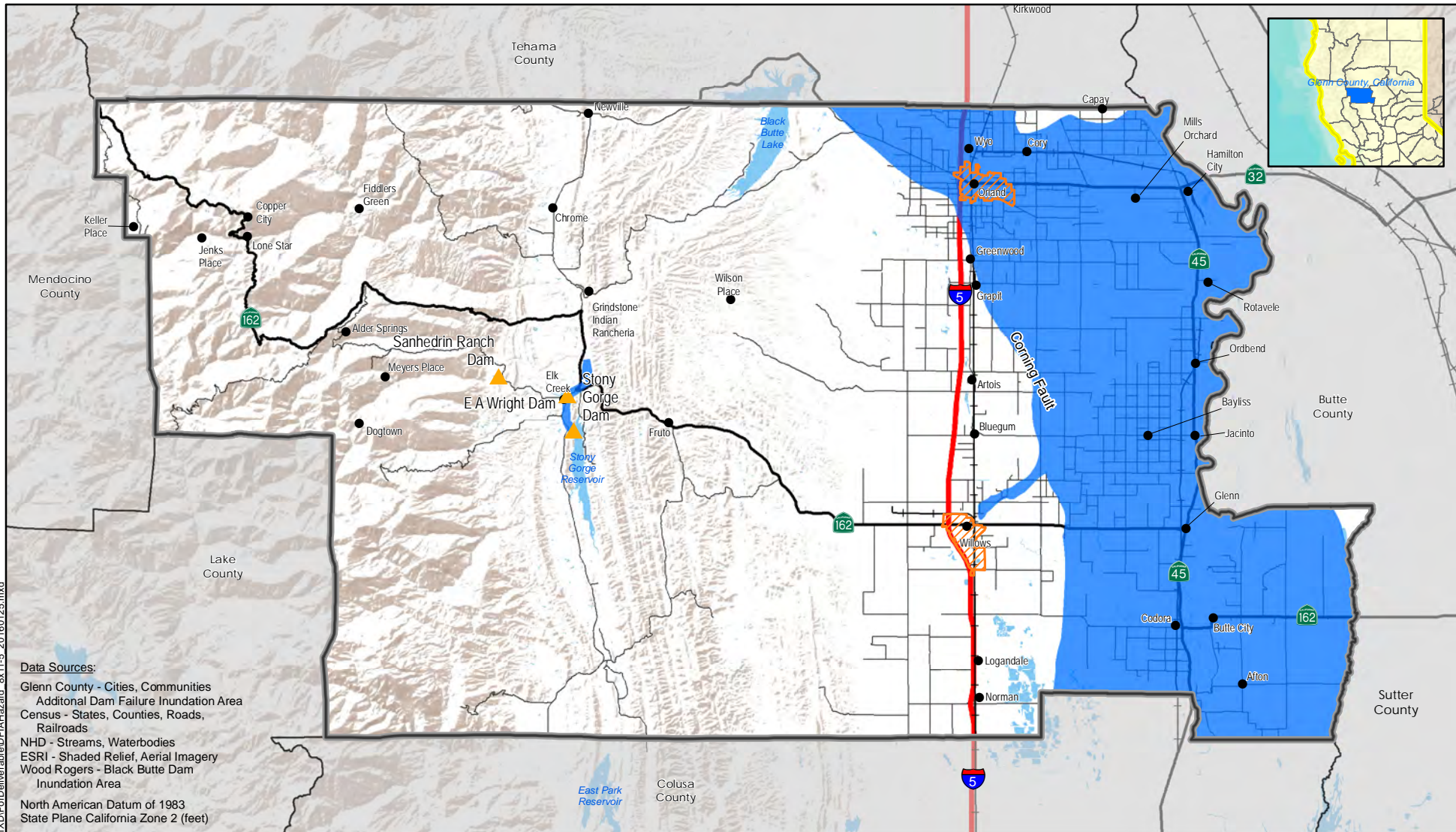
Andy Popper, Associate Planner
530-934-6540
apopper@countyofglenn.net

Michael Baker International

Wynne Kwan, Project Manager
510-879-0959
wkwan@mbakerintl.com

Appendix C: Hazard Profile and Vulnerability Maps





Data Sources:

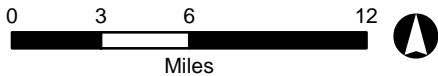
Glenn County - Cities, Communities
 Additional Dam Failure Inundation Area
 Census - States, Counties, Roads,
 Railroads
 NHD - Streams, Waterbodies
 ESRI - Shaded Relief, Aerial Imagery
 Wood Rogers - Black Butte Dam
 Inundation Area
 North American Datum of 1983
 State Plane California Zone 2 (feet)

Glenn County Multi-Jurisdictional Hazard Mitigation Plan



Dam Failure Hazard

Map created:
 June, 22 2015



Legend

- Communities
- Interstate Highway
- State Highway
- County Route
- Railroad

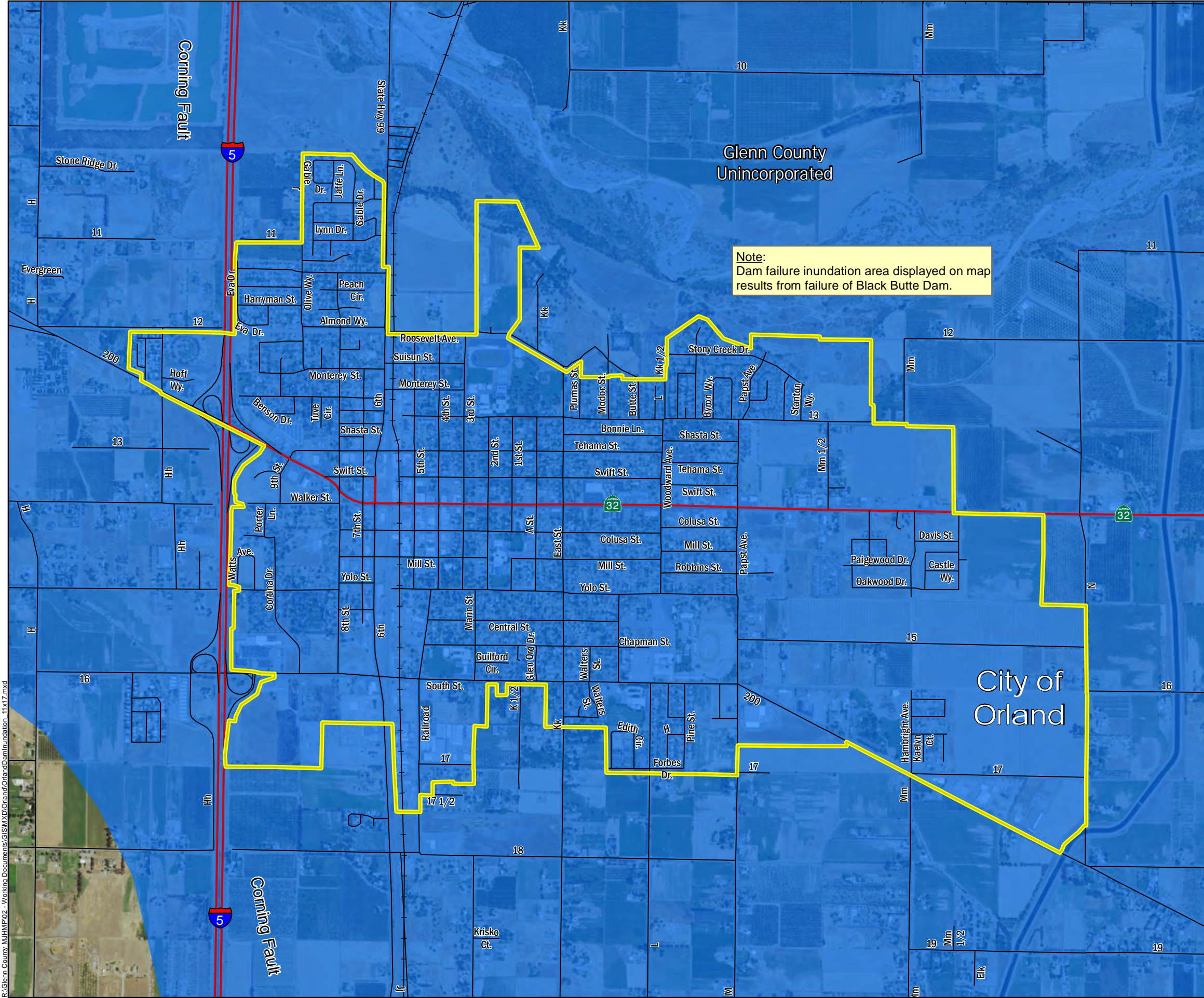
Basemap Layers

- Glenn County Boundary
- Surrounding Counties
- City
- Waterbodies

Dam Failure Hazard Layers

- Dams
- Dam Failure Inundation Area

F:\Glenn County\MH\PI02 - Working Documents\GIS\MapX\OrlandDamInundation_11x17.mxd



Note:
Dam failure inundation area displayed on map results from failure of Black Butte Dam.

Glenn County Multi-Jurisdictional Hazard Mitigation Plan

City of Orland: Dam Failure Hazard

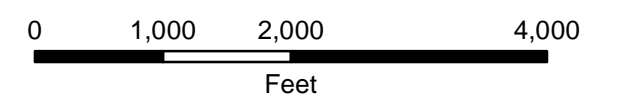


Basemap

- City of Orland
- Railroad
- Highway
- Roadway

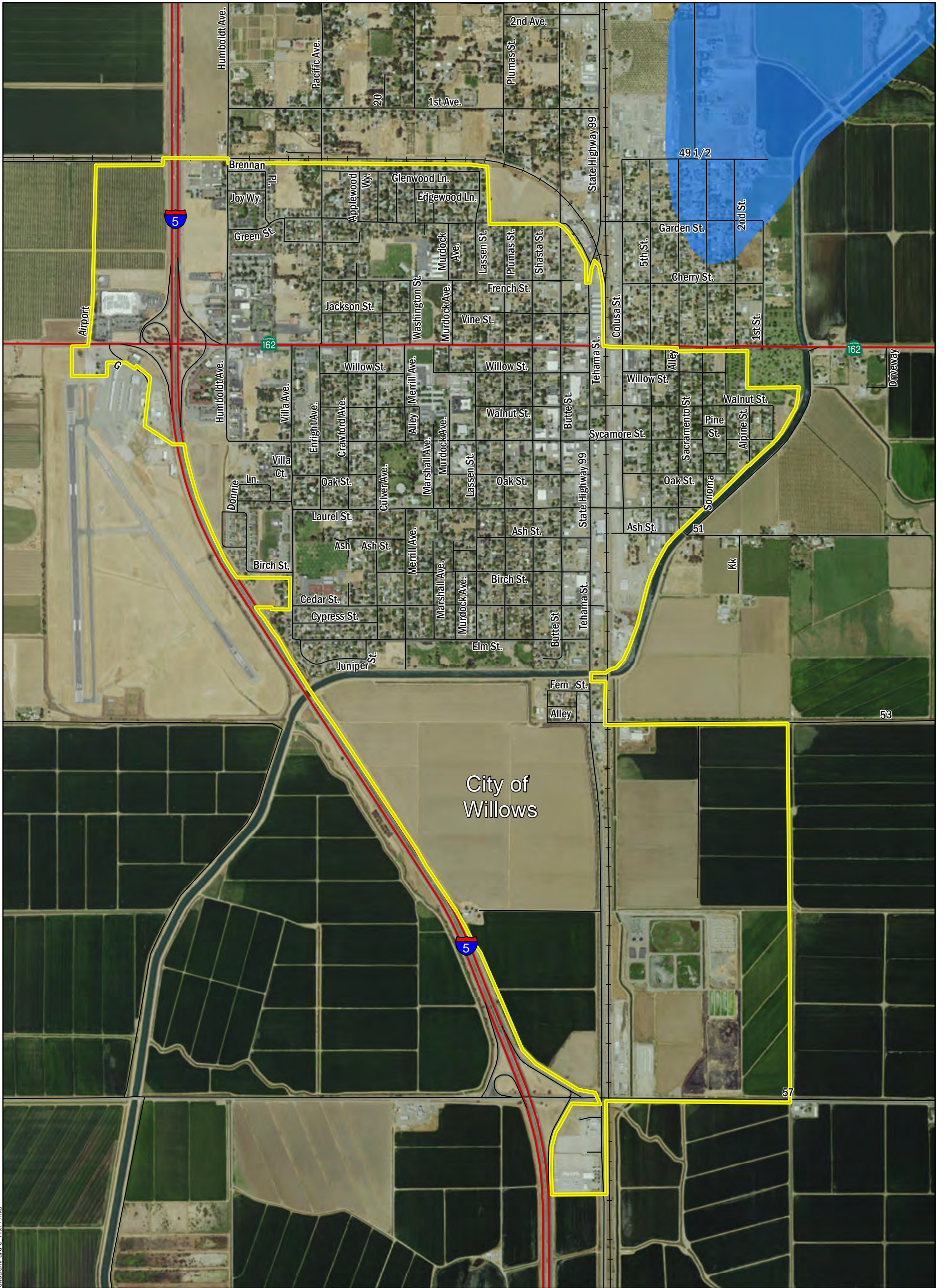
Dam Failure Inundation Layers

- Dam Failure Inundation Area



Data Sources:
 Glenn County - City of Orland, Roads, Railroads
 Additional Dam Failure Inundation Area
 ESRI - Aerial Imagery
 Wood Rodgers - Black Butte Dam Failure Inundation Area

North American Datum of 1983
 State Plane California Zone 2 (feet)



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Glenn County Multi-Jurisdictional Hazard Mitigation Plan

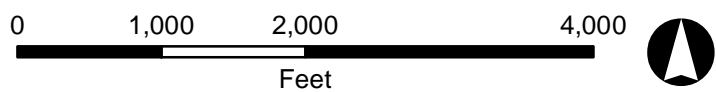
City of Willows: Dam Failure



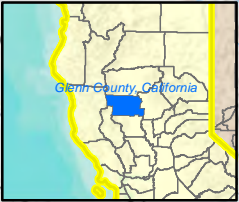
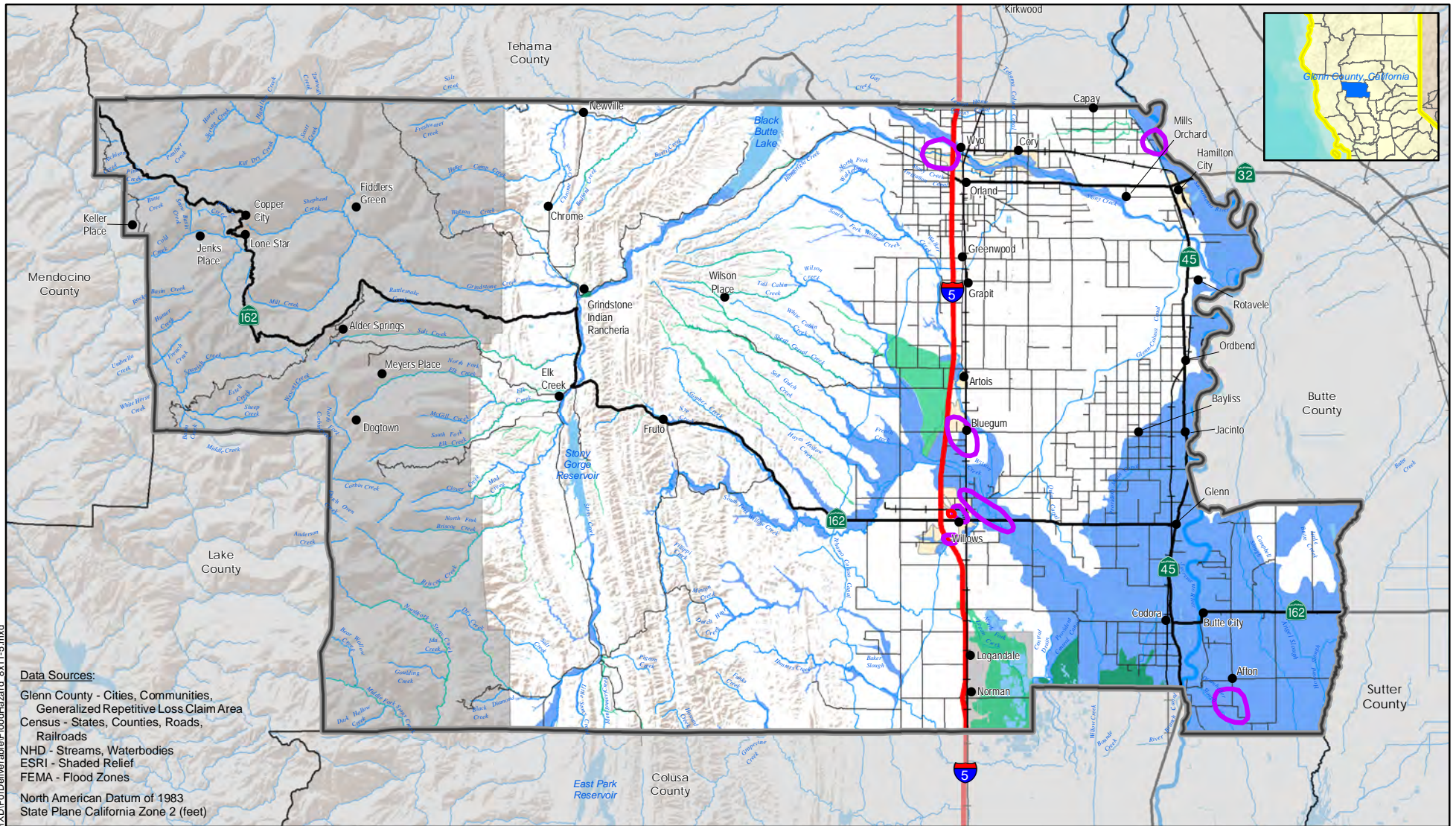
- Basemap**
- City of Willows
 - Railroad
 - Highway
 - Roadway

- Dam Hazard Layers**
- Black Butte Dam Failure Inundation Area

Data Sources:
 Glenn County - City of Willows, Roads, Railroads
 ESRI - Aerial Imagery
 Wood Rogers - Black Butte Dam Inundation Area



North American Datum of 1983
 State Plane California Zone 2 (feet)



Data Sources:

Glenn County - Cities, Communities,
Generalized Repetitive Loss Claim Area
Census - States, Counties, Roads,
Railroads
NHD - Streams, Waterbodies
ESRI - Shaded Relief
FEMA - Flood Zones
North American Datum of 1983
State Plane California Zone 2 (feet)

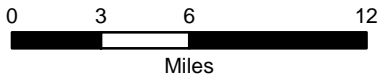
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Glenn County Multi-Jurisdictional Hazard Mitigation Plan



Map created:
June, 22 2015

Flood Hazard



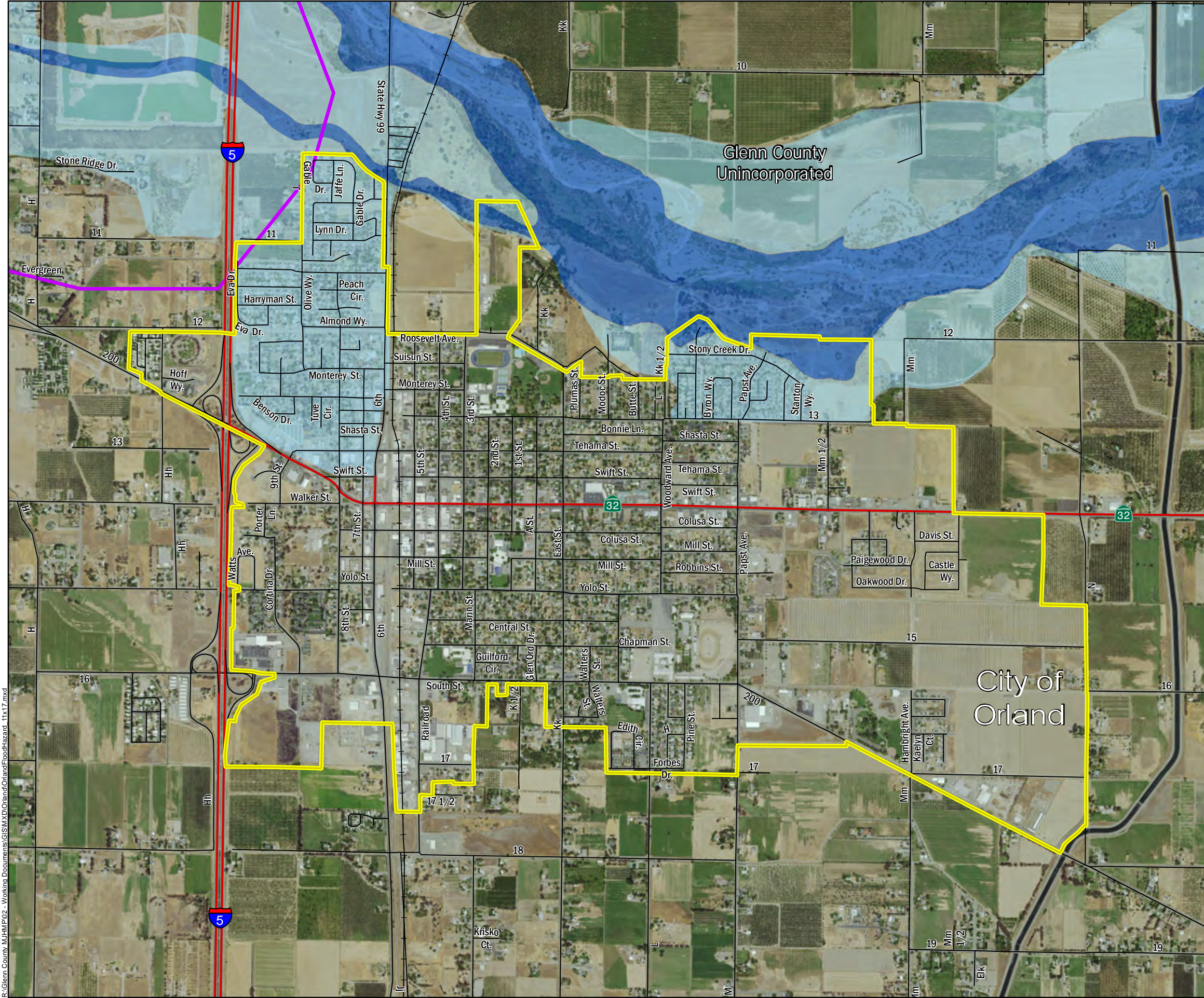
Legend

- | | | | |
|---|--------------------|--|-----------------------|
| ● | Communities | | Glenn County Boundary |
| | Interstate Highway | | Surrounding Counties |
| | State Highway | | Waterbodies |
| | County Route | | |
| | Railroad | | |

Basemap Layers

Flood Hazard Layers

- | | | | |
|--|--|--|---|
| | FEMA 1-Percent Annual-Chance (100 YR) Flood Boundary | | Generalized Repetitive Loss Claim Areas |
| | FEMA 0.2-Percent Annual-Chance (500 YR) Flood Boundary | | Local Flooding (Identified by Steering Committee) |
| | Area Not Mapped | | |
| | DWR Awareness Floodplains (7/31/12) | | |
| | FEMA 100 YR and DWR Awareness Zone Overlap | | |







Glenn County Multi-Jurisdictional Hazard Mitigation Plan






City of Orland: Flood Hazard

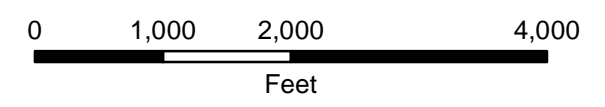


Basemap

-  City of Orland
-  Railroad
-  Highway
-  Roadway

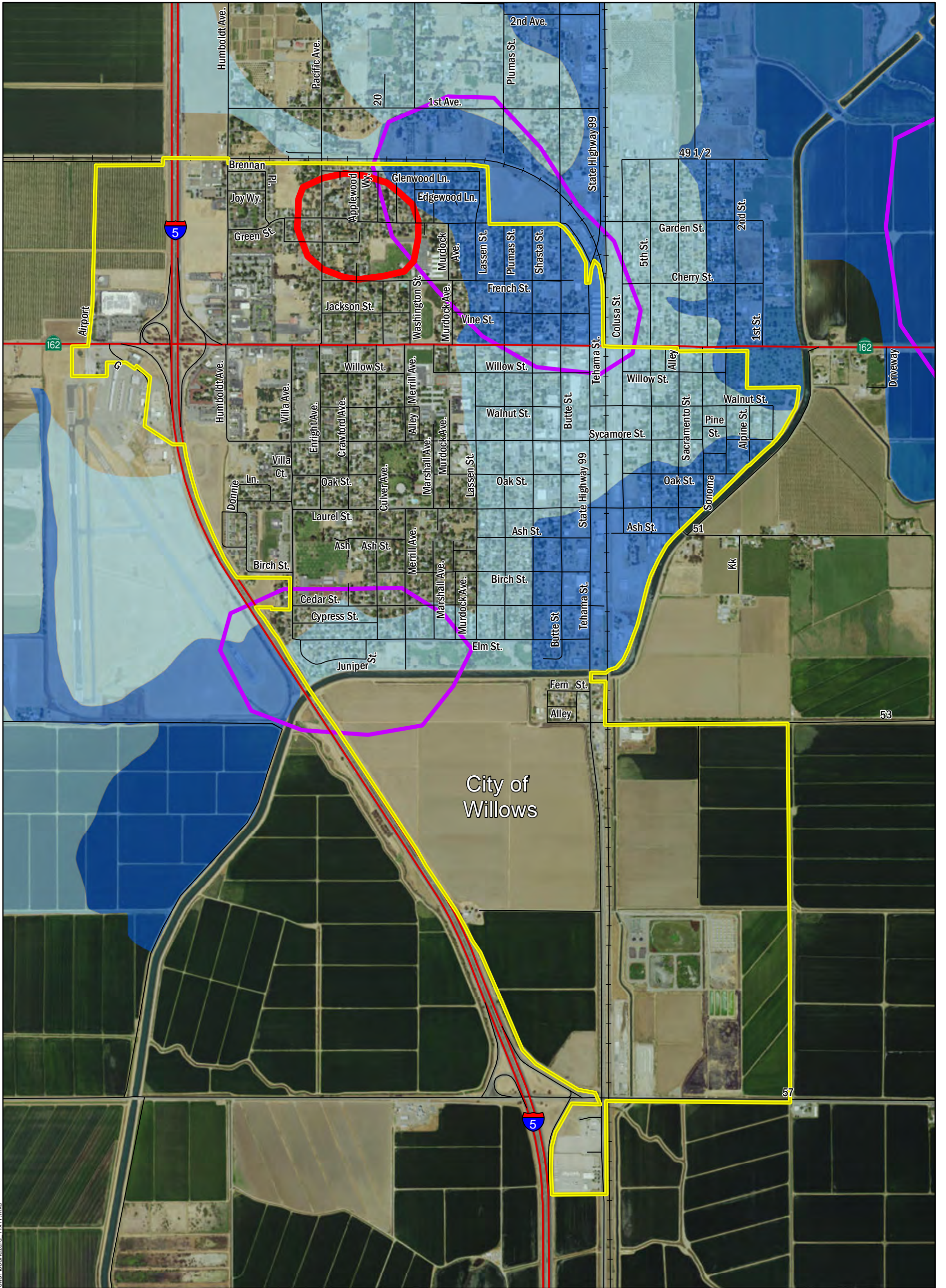
Flood Hazard Layers

-  FEMA 1-Percent-Annual-Chance (100 Yr) Flood Hazard
-  FEMA 0.2-Percent-Annual-Chance (500 Yr) Flood Hazard
-  DWR Awareness Floodplains (7/31/12)
-  FEMA 100 YR and DWR Awareness Zone Overlap
-  Generalized Repetitive Loss Claim Areas



Data Sources:
 Glenn County - City of Orland, Roads, Railroads
 ESRI - Aerial Imagery
 FEMA - Flood Hazard Layers
 DWR - DWR Awareness Zones

North American Datum of 1983
 State Plane California Zone 2 (feet)

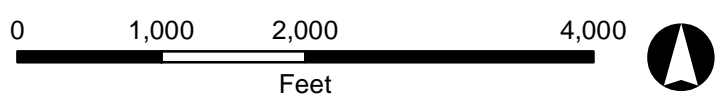


City of Willows

F:\Glenn County\MJHM\PI02 - Working Documents\GIS\MapXDoc\Willows\FloodHazard - 11x17.mxd

Glenn County Multi-Jurisdictional Hazard Mitigation Plan

City of Willows: Flood Hazard

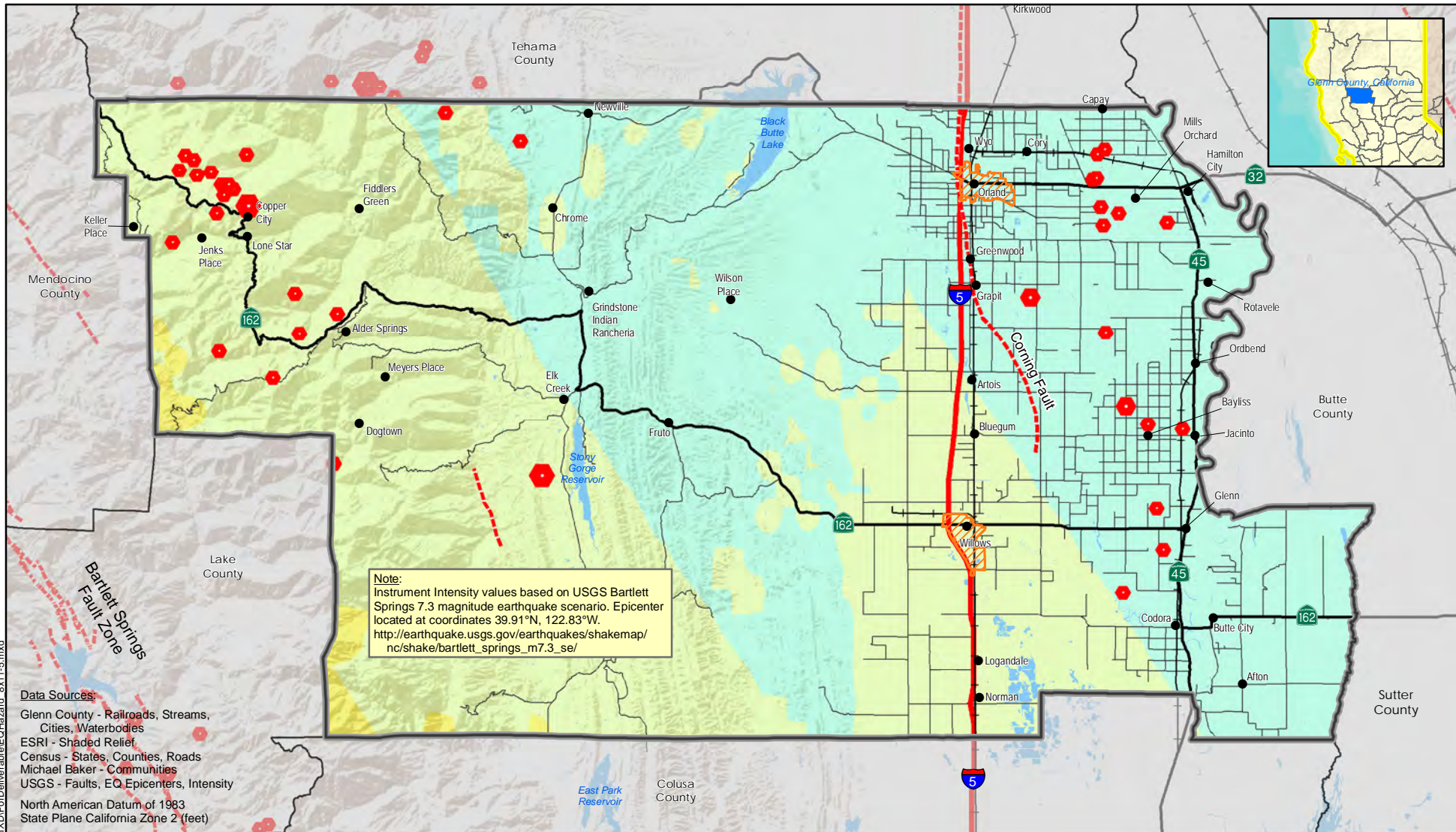


- Basemap**
- City of Willows
 - Railroad
 - Highway
 - Roadway

- Flood Hazard Layers**
- 1-Percent-Annual-Chance (100 Yr) Flood Hazard
 - 0.2-Percent-Annual-Chance (500 Yr) Flood Hazard
 - DWR Awareness Floodplains (7/31/12)
 - FEMA 100 YR and DWR Awareness Zone Overlap
 - Generalized Repetitive Loss Claim Areas
 - Willows Localized Flooding (Steering Committee)

Data Sources:
 Glenn County - City of Willows, Roads, Railroads, Local Area of Flooding, Generalized Repetitive Loss Claim Area
 ESRI - Aerial Imagery
 FEMA - Flood Hazard Layers

North American Datum of 1983
 State Plane California Zone 2 (feet)



Note:
 Instrument Intensity values based on USGS Bartlett Springs 7.3 magnitude earthquake scenario. Epicenter located at coordinates 39.91°N, 122.83°W.
http://earthquake.usgs.gov/earthquakes/shakemap/nc/shake/bartlett_springs_m7.3_se/

Data Sources:

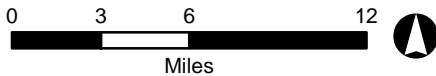
- Glenn County - Railroads, Streams, Cities, Waterbodies
- ESRI - Shaded Relief
- Census - States, Counties, Roads
- Michael Baker - Communities
- USGS - Faults, EQ Epicenters, Intensity
- North American Datum of 1983
- State Plane California Zone 2 (feet)

Glenn County Multi-Jurisdictional Hazard Mitigation Plan

Earthquake Hazard



Map created: June, 22 2015



Legend

- | | | | |
|---|--------------------|--|-----------------------|
| ● | Communities | | Glenn County Boundary |
| | Interstate Highway | | Surrounding Counties |
| | State Highway | | City |
| | County Route | | Waterbodies |
| | Railroad | | |

Earthquake Hazard Layers

- | | | | |
|--|---------------------|-------------------------------------|-------------------|
| Historic Earthquakes Epicenters (1975 - 2015) | | Potential Damage (Intensity) | |
| | 3.0 - 3.5 | | V (Moderate) |
| | 3.5 - 4.0 | | VI (Strong) |
| | 4.0 - 4.5 | | VII (Very Strong) |
| | 4.5 - 5.0 | | |
| | Faults (Quaternary) | | |

Glenn County Multi-Jurisdictional Hazard Mitigation Plan

City of Orland: Land Subsidence



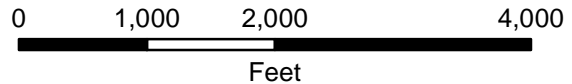
Basemap

- City of Orland
- Railroad
- Highway
- Roadway

Potential Damage (Intensity)

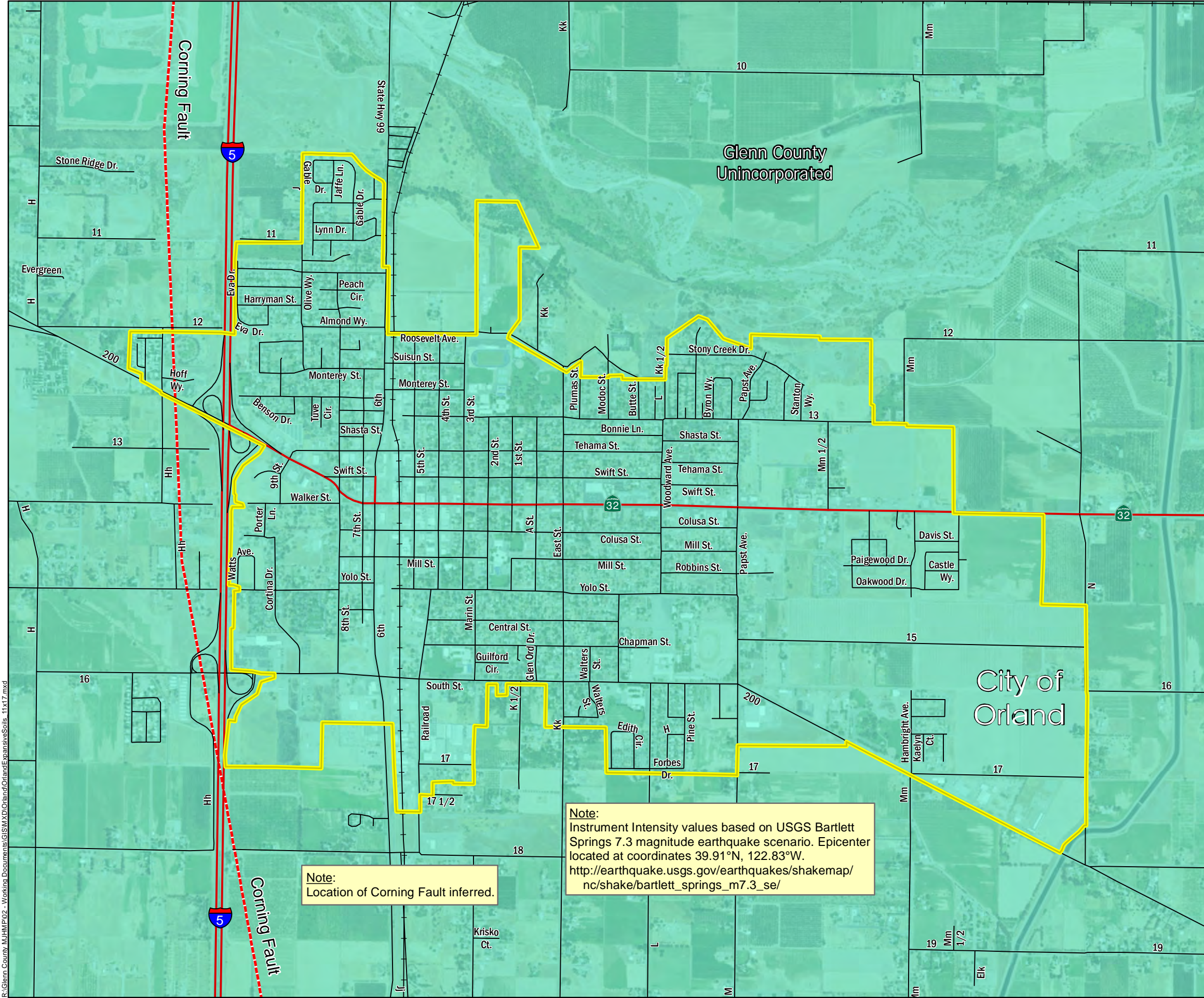
- V (Moderate)
- VI (Strong)
- VII (Very Strong)

Faults (Quaternary)



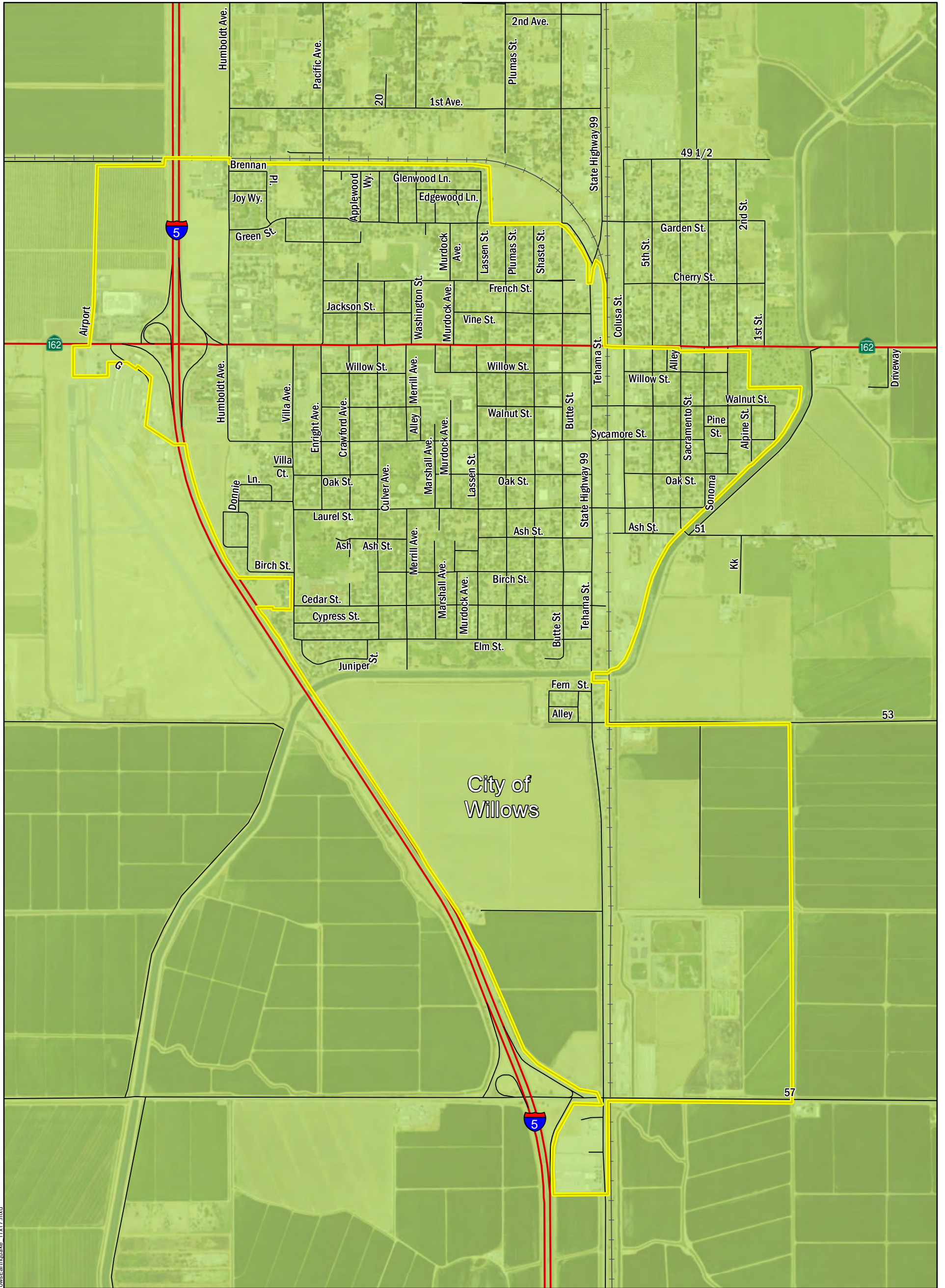
Data Sources:
 Glenn County - City of Orland, Roads, Railroads
 ESRI - Aerial Imagery
 USGS - Potential Damage, Faults

North American Datum of 1983
 State Plane California Zone 2 (feet)



Note:
 Location of Corning Fault inferred.

Note:
 Instrument Intensity values based on USGS Bartlett Springs 7.3 magnitude earthquake scenario. Epicenter located at coordinates 39.91°N, 122.83°W.
http://earthquake.usgs.gov/earthquakes/shakemap/nc/shake/bartlett_springs_m7.3_se/

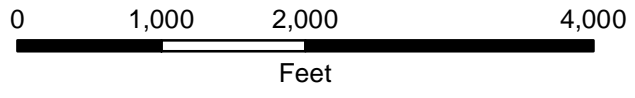


City of Willows

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Glenn County Multi-Jurisdictional Hazard Mitigation Plan

City of Willows: Earthquake Hazard

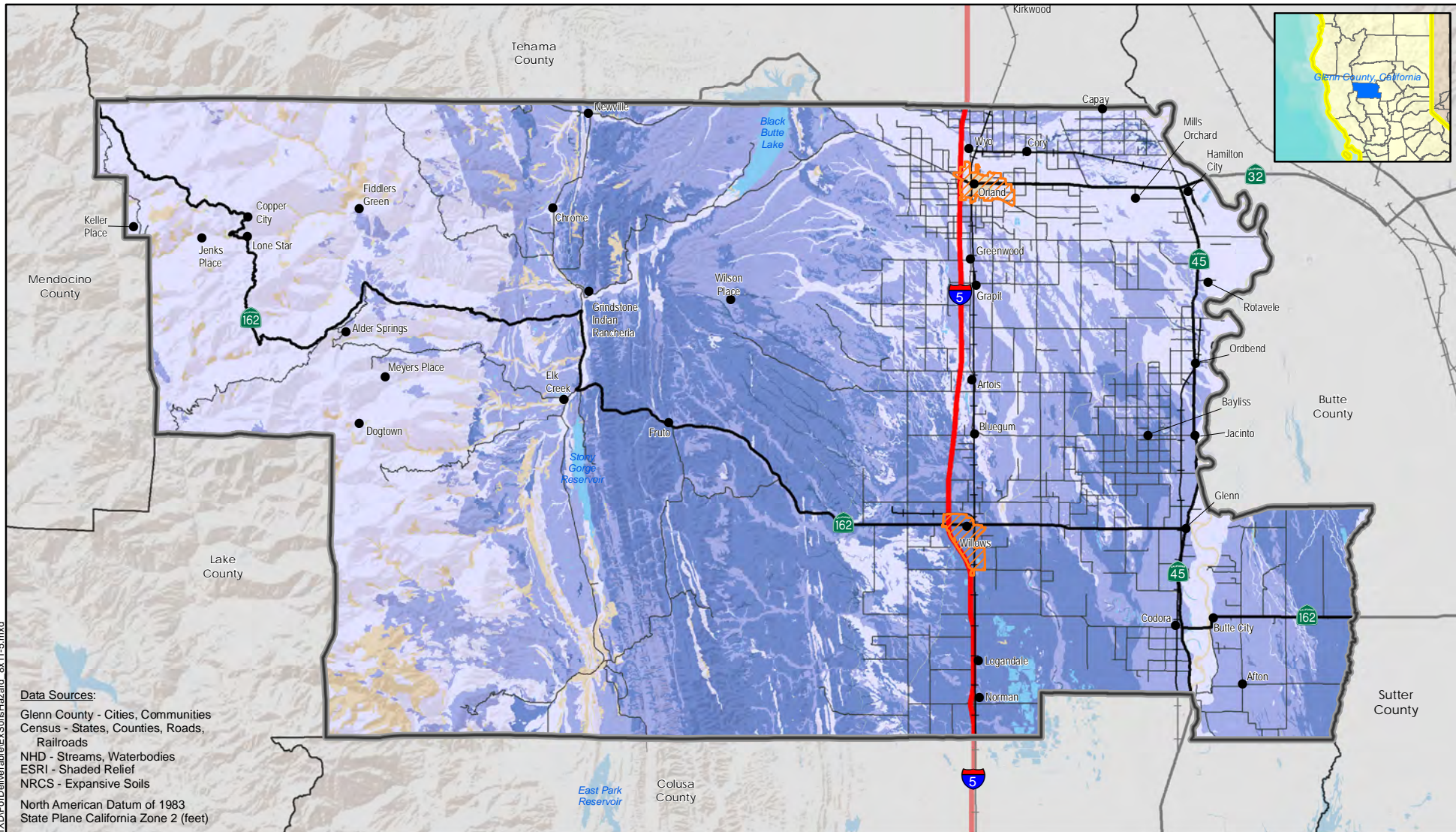


- Basemap**
- City of Willows
 - Railroad
 - Highway
 - Roadway

- Potential Damage (Intensity)**
- V (Moderate)
 - VI (Strong)
 - VII (Very Strong)
 - Faults (Quaternary)

Data Sources:
 Glenn County - City of Willows, Roads, Railroads
 ESRI - Aerial Imagery
 USGS - Potential Damage (Intensity), Faults

North American Datum of 1983
 State Plane California Zone 2 (feet)



Data Sources:

Glenn County - Cities, Communities
 Census - States, Counties, Roads,
 Railroads
 NHD - Streams, Waterbodies
 ESRI - Shaded Relief
 NRCS - Expansive Soils
 North American Datum of 1983
 State Plane California Zone 2 (feet)

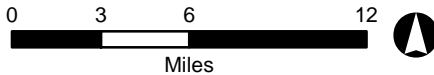
R:\Glenn County\MJHMP\02 - Working Documents\GIS\WXDI\Fordeliverable\ExpansiveSoilsHazard_8x11-5.mxd

Glenn County Multi-Jurisdictional Hazard Mitigation Plan



Expansive Soils Hazard

Map created:
 June, 22 2015



Legend

- | | | | |
|---|--------------------|--|-----------------------|
| ● | Communities | | Glenn County Boundary |
| | Interstate Highway | | Surrounding Counties |
| | State Highway | | City |
| | County Route | | Waterbodies |
| | Railroad | | |

Basemap Layers

Expansive Soil Layers

- | | |
|--|----------------------------|
| | Low (0 - 3) |
| | Moderate (3 - 6) |
| | High (6 - 9) |
| | Very High (9 - 30) |
| | Not rated or not available |

Glenn County Multi-Jurisdictional Hazard Mitigation Plan

City of Orland: Expansive Soils

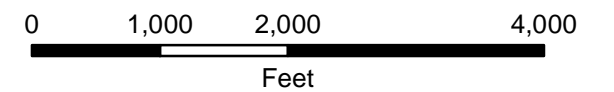


Basemap

- City of Orland
- Railroad
- Highway
- Roadway

Soil Linear Extensibility

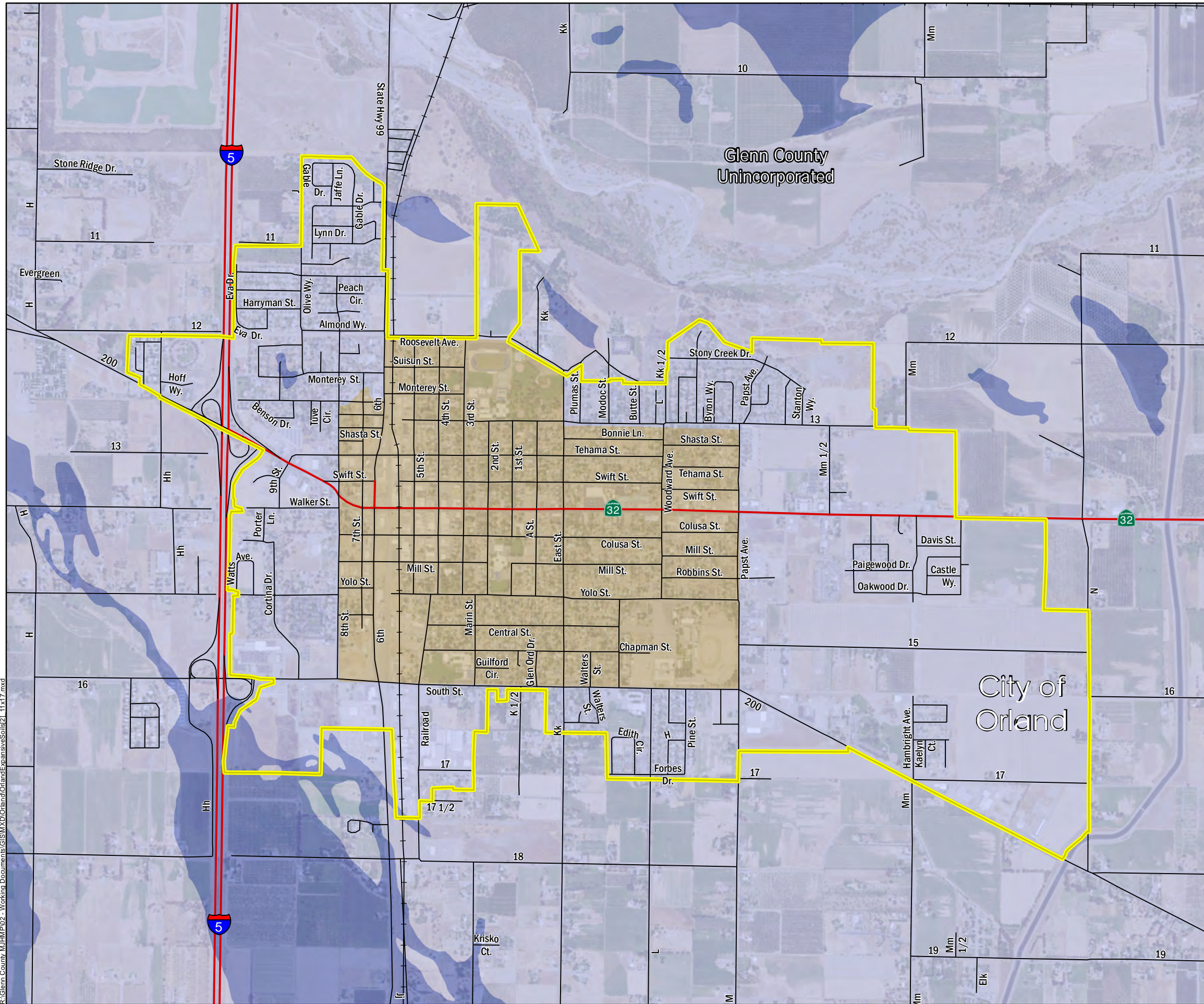
- Low (0 - 3)
- Moderate (3 - 6)
- High (6 - 9)
- Very High (9 - 30)
- Not rated or not available

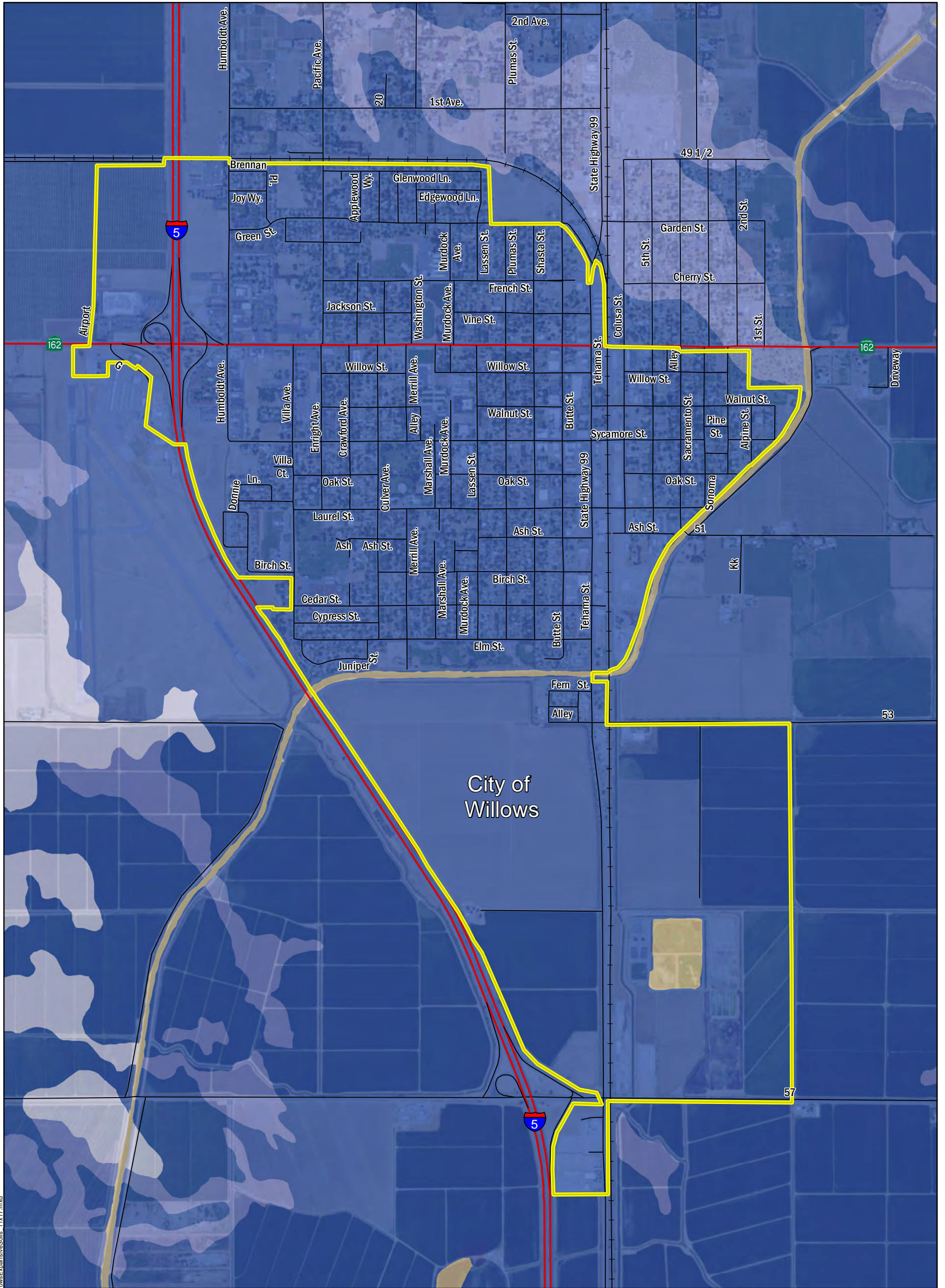


Data Sources:

- Glenn County - Cities, Communities
- Census - Roads, Railroads
- ESRI - World Imagery
- NRCS - Expansive Soils

North American Datum of 1983
State Plane California Zone 2 (feet)





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Glenn County Multi-Jurisdictional Hazard Mitigation Plan

City of Willows: Expansive Soils



Basemap

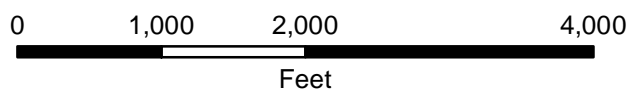
- City of Willows
- Railroad
- Highway
- Roadway

Soil Linear Extensibility

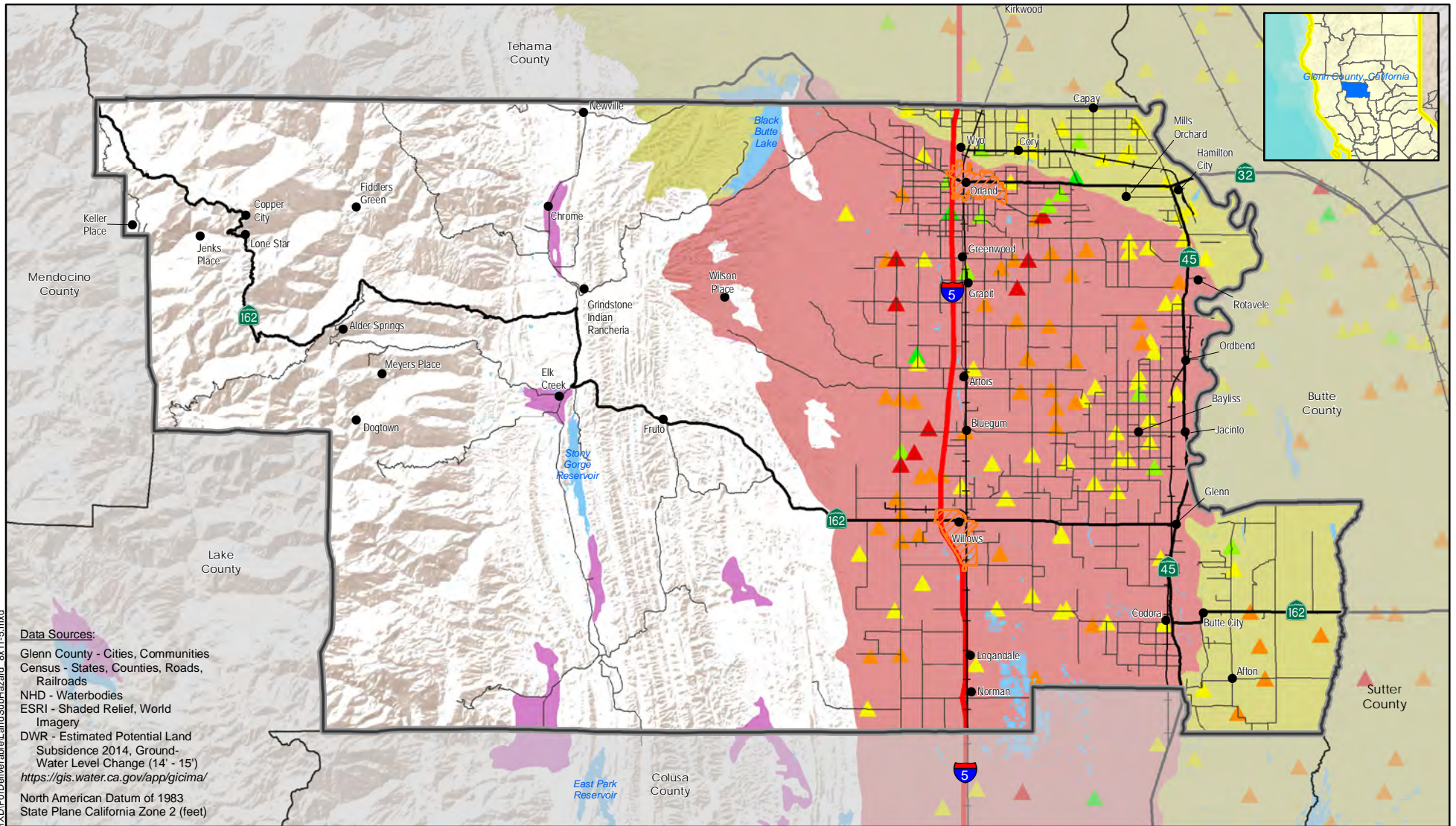
- Low (0 - 3)
- Moderate (3 - 6)
- High (6 - 9)
- Very High (9 - 30)
- Not rated or not available

Data Sources:

- Glenn County - City of Willows, Roads, Railroads
- ESRI - Aerial Imagery
- NRCS - Expansive Soils



North American Datum of 1983
State Plane California Zone 2 (feet)



Data Sources:

Glenn County - Cities, Communities
 Census - States, Counties, Roads,
 Railroads
 NHD - Waterbodies
 ESRI - Shaded Relief, World
 Imagery
 DWR - Estimated Potential Land
 Subsidence 2014, Ground-
 Water Level Change (14' - 15')
<https://gis.water.ca.gov/app/gicima/>
 North American Datum of 1983
 State Plane California Zone 2 (feet)

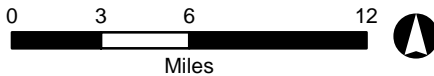
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Glenn County Multi-Jurisdictional Hazard Mitigation Plan



Land Subsidence

Map created:
 June, 22 2015



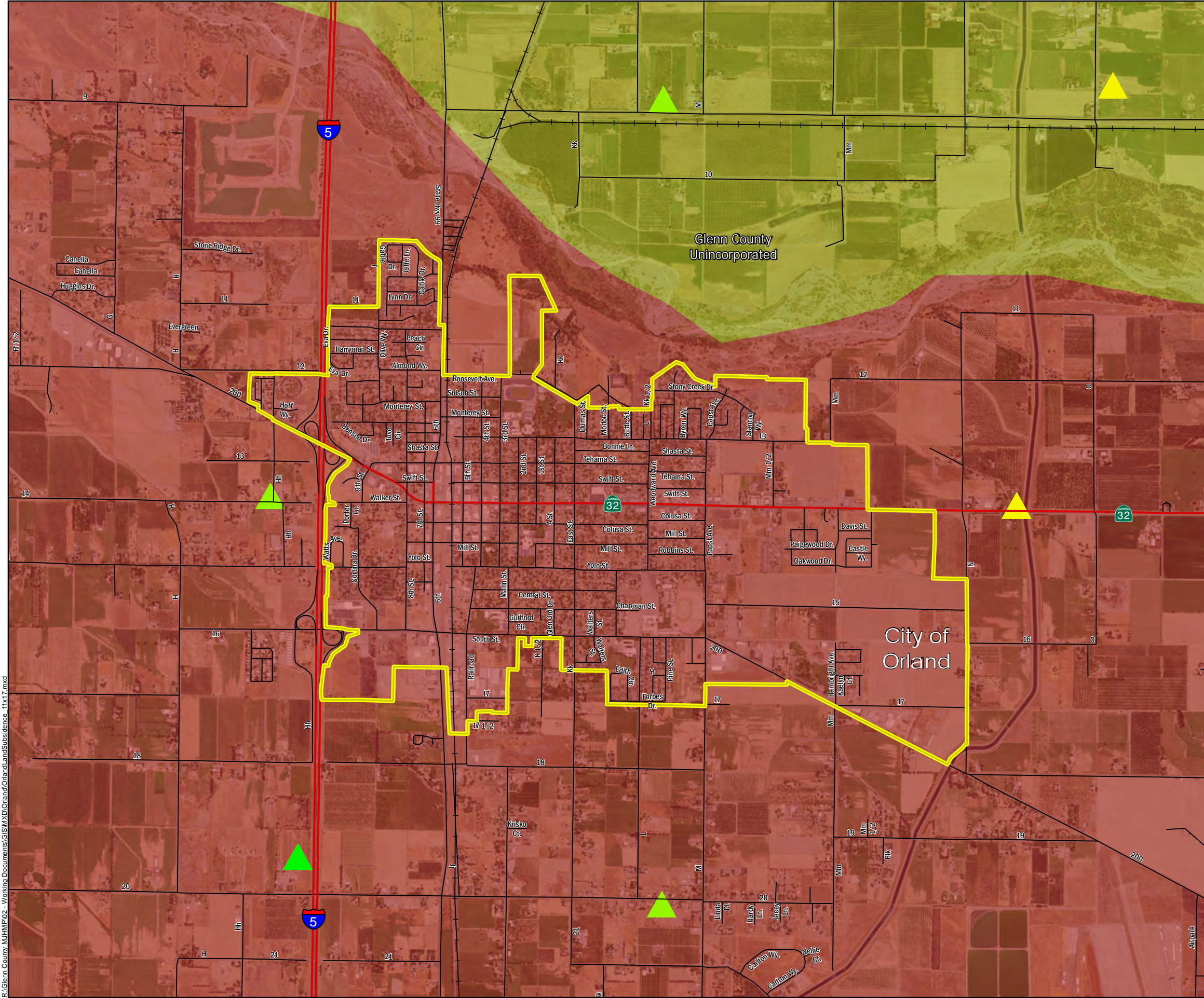
Legend

- | | | | |
|---|--------------------|--|-----------------------|
| ● | Communities | | Glenn County Boundary |
| | Interstate Highway | | Surrounding Counties |
| | State Highway | | City |
| | County Route | | Waterbodies |
| | Railroad | | |

Basemap Layers

Land Subsidence Hazard Layers

- | Estimated Potential Land Subsidence 2014 | Change in Groundwater Levels 2014 - 2015 | | |
|--|--|--|--------------------|
| | Low | | Less than -10.0 ft |
| | Low to Medium | | -10.0 to -2.5 ft |
| | Medium to High | | -2.5 to 2.5 ft |
| | High | | 2.5 - 10.0 |
| | Data Insufficient | | Over 10.0 ft |



Glenn County Multi-Jurisdictional Hazard Mitigation Plan

City of Orland: Land Subsidence



Basemap

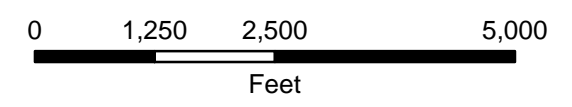
- City of Orland
- Railroad
- Highway
- Roadway

Estimated Potential Land Subsidence (2014)

- Data Insufficient
- Low
- Low to Medium
- Medium to High
- High

Change in Groundwater Levels (2014 - 2015)

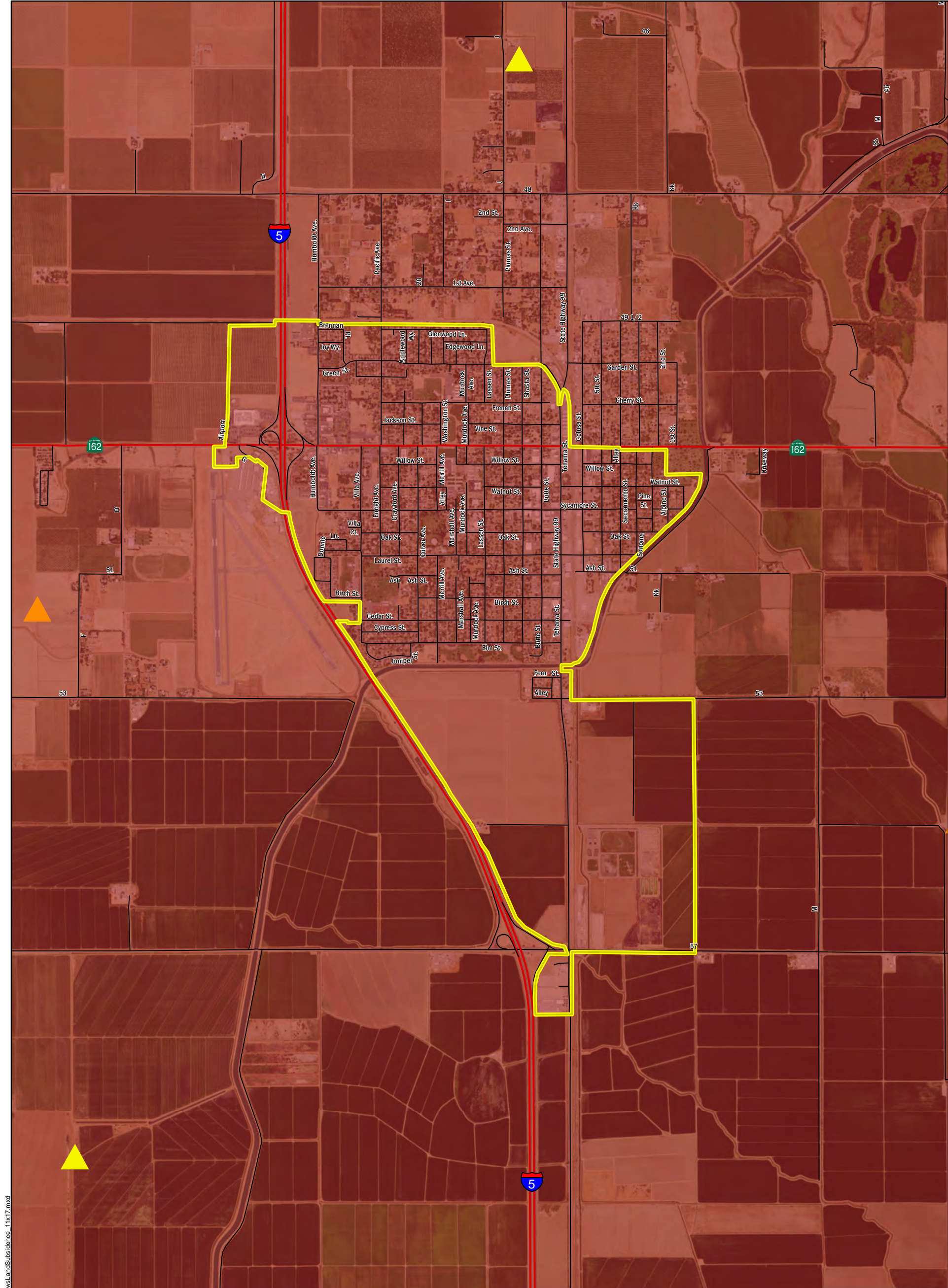
- Less than -10.0 ft
- 10.0 to -2.5 ft
- 2.5 to 2.5 ft
- 2.5 - 10.0
- Over 10.0 ft



Data Sources:

- Glenn County - City of Orland, Roads, Railroads
- ESRI - Aerial Imagery
- GIC - Estimated Potential Land Subsidence, Change in Groundwater Levels

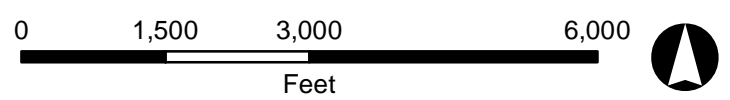
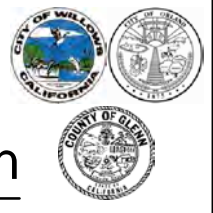
North American Datum of 1983
State Plane California Zone 2 (feet)



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Glenn County Multi-Jurisdictional Hazard Mitigation Plan

City of Willows: Land Subsidence

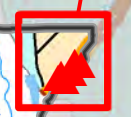
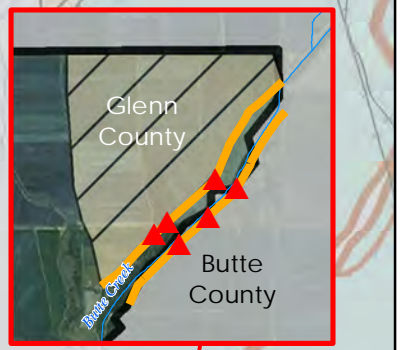
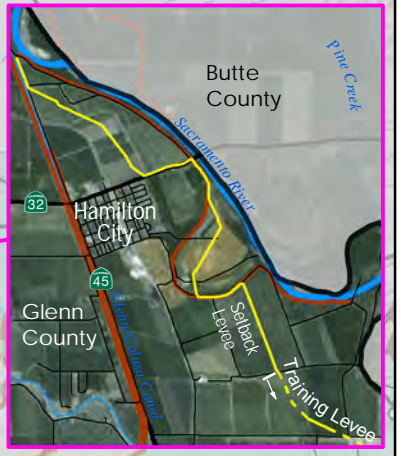
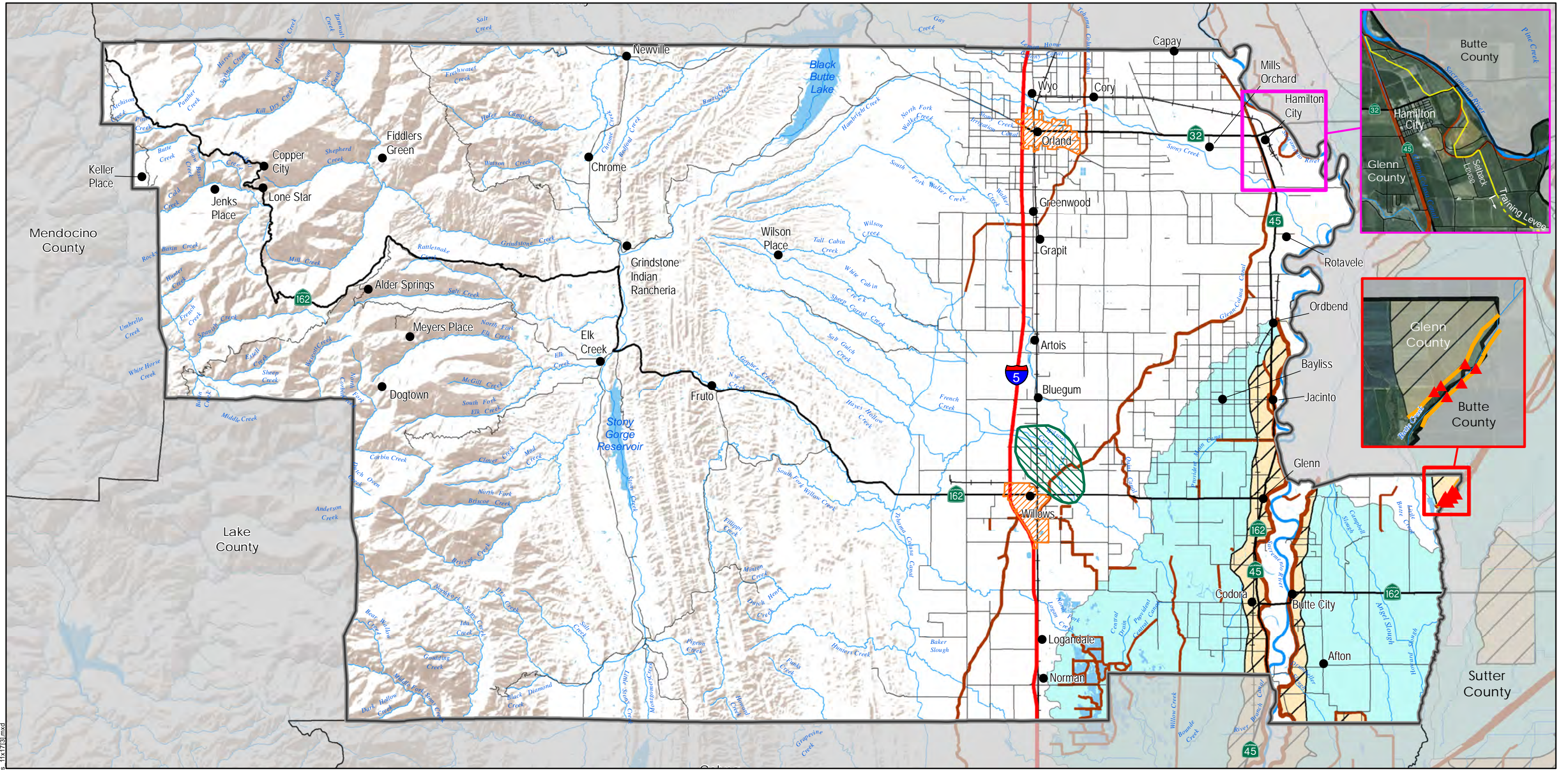


- Basemap**
- City of Willows
 - Railroad
 - Highway
 - Roadway

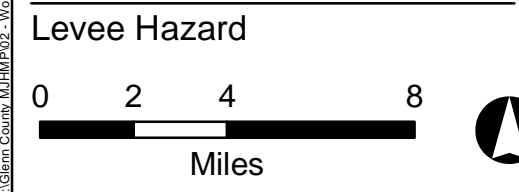
- Estimated Potential Land Subsidence 2014**
- Low
 - Low to Medium
 - Medium to High
 - High
 - Data Insufficient
- Change in Groundwater Levels (2014 - 2015)**
- Less than -10.0 ft
 - 10.0 to -2.5 ft
 - 2.5 to 2.5 ft
 - 2.5 - 10.0
 - Over 10.0 ft

Data Sources:
 Glenn County - City of Willows, Roads, Railroads
 ESRI - Aerial Imagery
 DWR - Estimated Potential Land Subsidence, Groundwater Level Change (14' - 15')

North American Datum of 1983
 State Plane California Zone 2 (feet)



Glenn County Multi-Jurisdictional Hazard Mitigation Plan



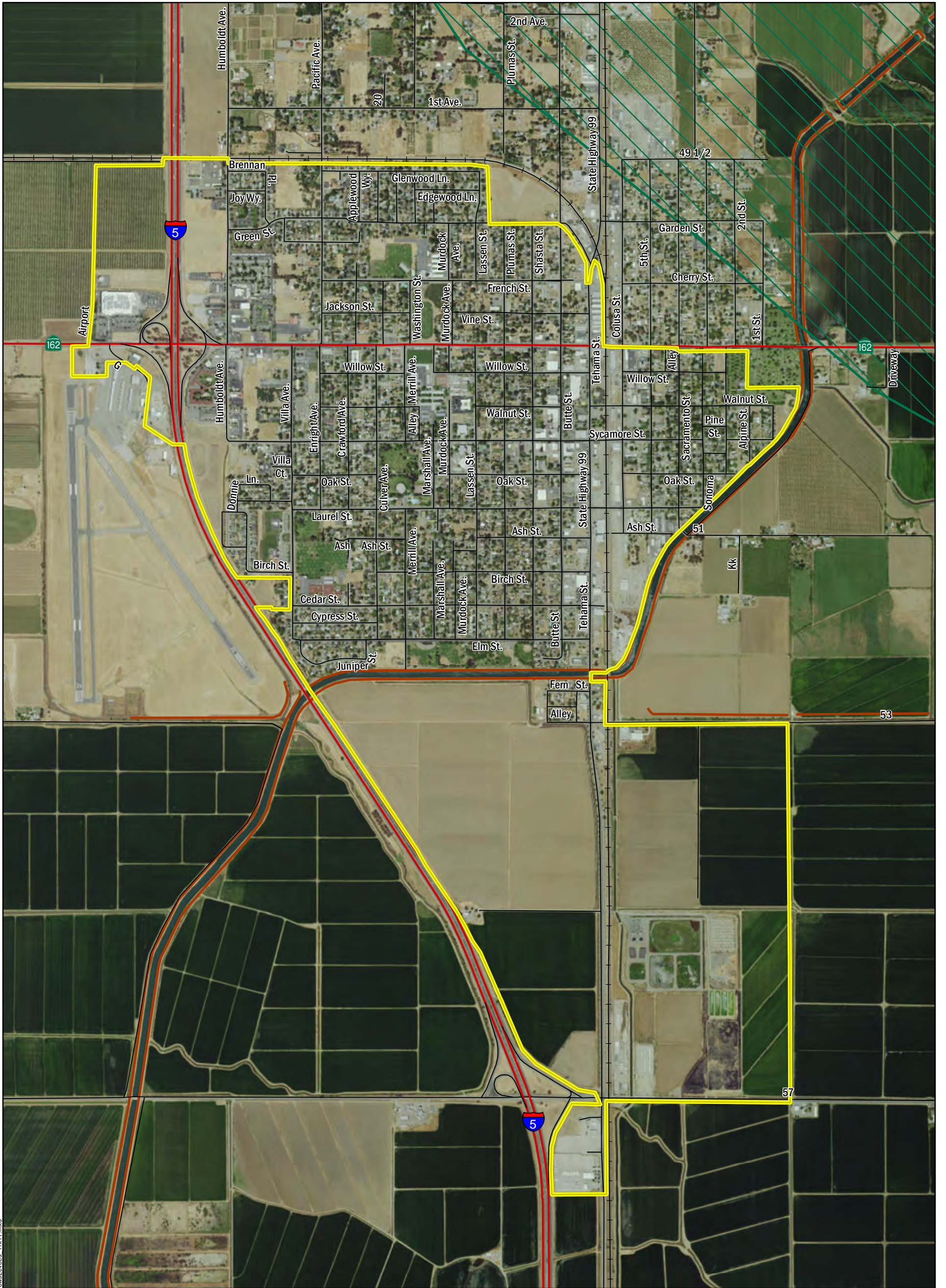
Map modified:
11/17/2015

Legend		Basemap Layers		Levee Layers	
●	Communities		Glenn County Boundary	▲	Historic Levee Failures
	Interstate Highway		Surrounding Counties		Failed Levees
	State Highway		City		Levees
	County Route		Streams		Area Protected By Levee
	Railroad		Waterbodies		Leveled Area

Data Sources:
 Glenn County - Cities, Communities
 Census - States, Counties, Roads, Railroads
 NHD - Streams, Waterbodies
 ESRI - Shaded Relief, Aerial Imagery
 NLD / MLI - Historic Levee Failures, Failed Levees, Levees, Leveled Area

North American Datum of 1983
 State Plane California Zone 2 (feet)





F:\Glenn County\MJHMP\02 - Working Documents\GIS\MapX\Willows\Flow\Levees - 11x17.mxd

Glenn County Multi-Jurisdictional Hazard Mitigation Plan

City of Willows: Expansive Soils



Basemap

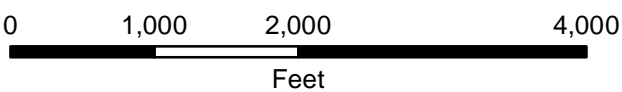
- City of Willows
- Railroad
- Highway
- Roadway

Levee Layers

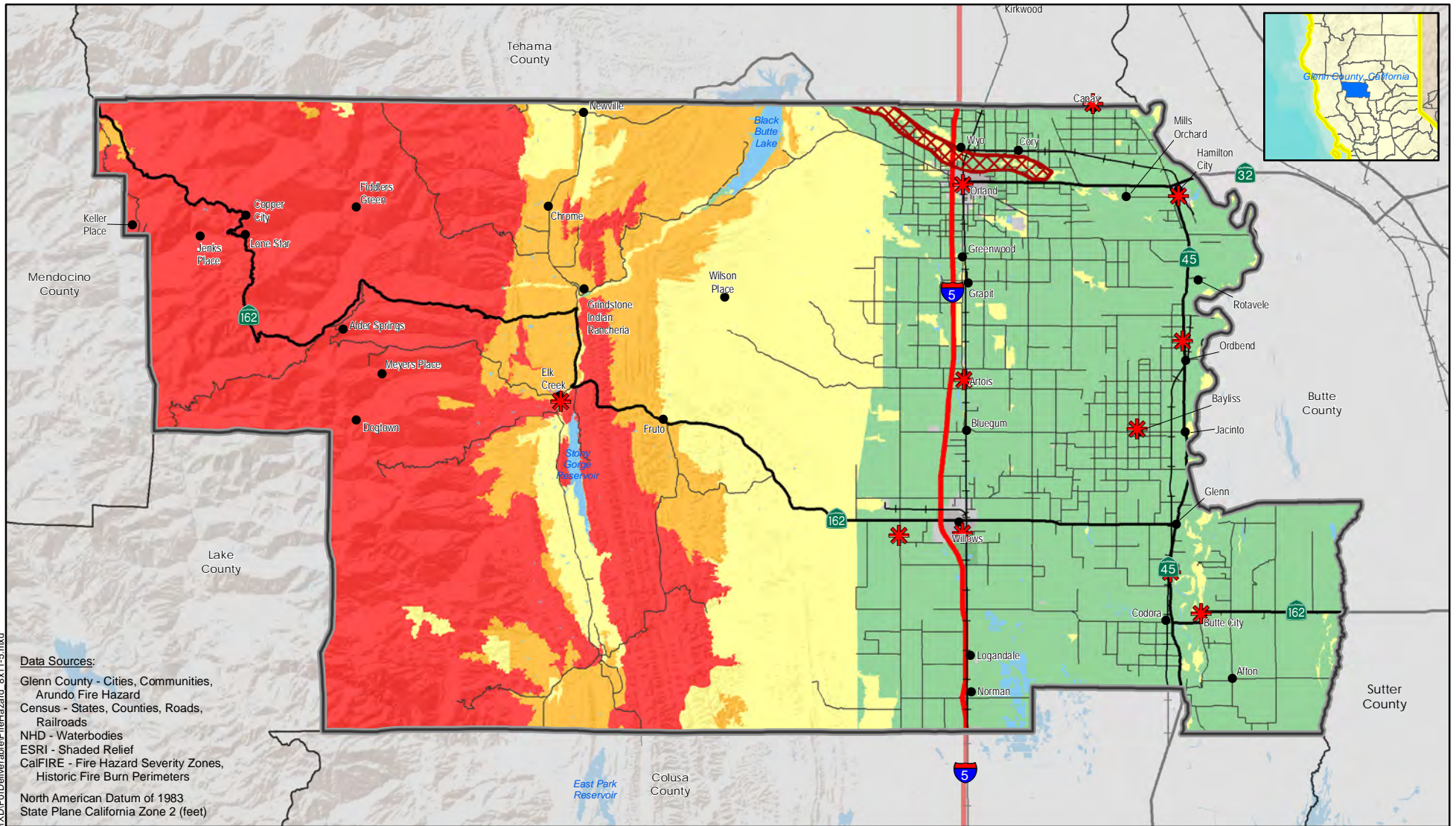
- Levees (MLI & NLD)
- Area of Concern (Steering Committee)

Data Sources:

- Glenn County - City of Willows, Roads, Railroads, Area of Concern
- ESRI - Aerial Imagery
- NLD and MLI - Levees
- USACE - Leveed Area
- FEMA - Area Protected by Levee



North American Datum of 1983
State Plane California Zone 2 (feet)



Data Sources:

Glenn County - Cities, Communities,
 Arundo Fire Hazard
 Census - States, Counties, Roads,
 Railroads
 NHD - Waterbodies
 ESRI - Shaded Relief
 CalFIRE - Fire Hazard Severity Zones,
 Historic Fire Burn Perimeters
 North American Datum of 1983
 State Plane California Zone 2 (feet)

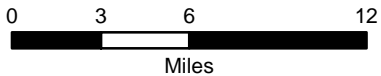
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Glenn County Multi-Jurisdictional Hazard Mitigation Plan



Fire Hazard Severity

Map created:
 June, 22 2015



Legend

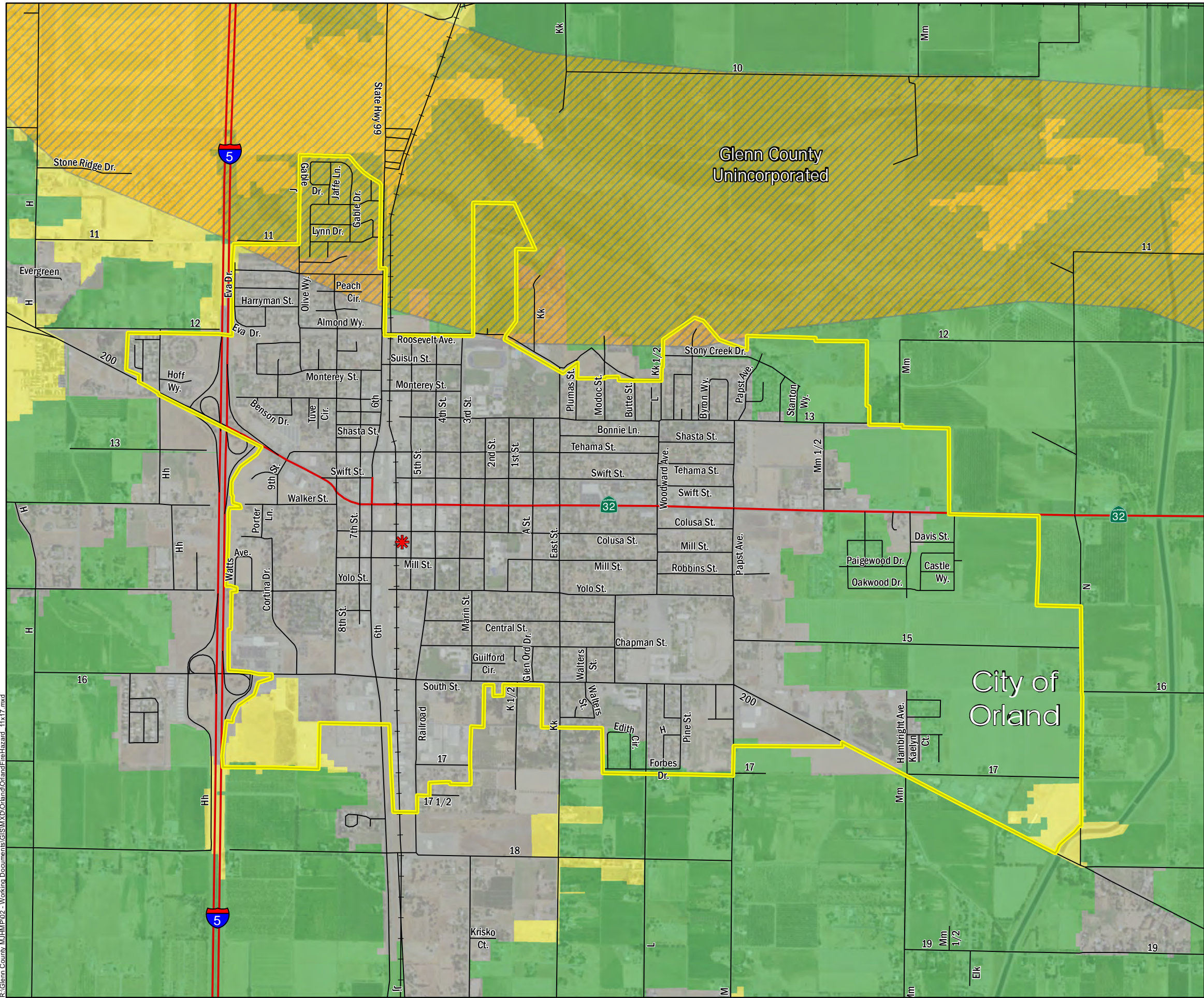
- | | | | |
|----------------------------|--------------------|--|-----------------------|
| ● | Communities | | Glenn County Boundary |
| — (thick red) | Interstate Highway | | Surrounding Counties |
| — (thin black) | State Highway | | Waterbodies |
| — (dashed black) | County Route | | |
| — (black with cross-ticks) | Railroad | | |

Basemap Layers

Fire Hazard Layers

- | | | | |
|--|--------------------------|--|--|
| | Urban Unzoned | | Arundo Fire Hazard
(Identified by City of Orland) |
| | Non-Wildland / Non-Urban | | Fire Station |
| | Moderate | | |
| | High | | |
| | Very High | | |

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Glenn County Multi-Jurisdictional Hazard Mitigation Plan

City of Orland: Fire Hazard

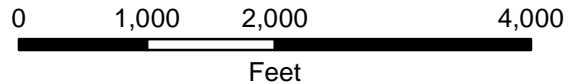


Basemap

- City of Orland
- Railroad
- Highway
- Roadway

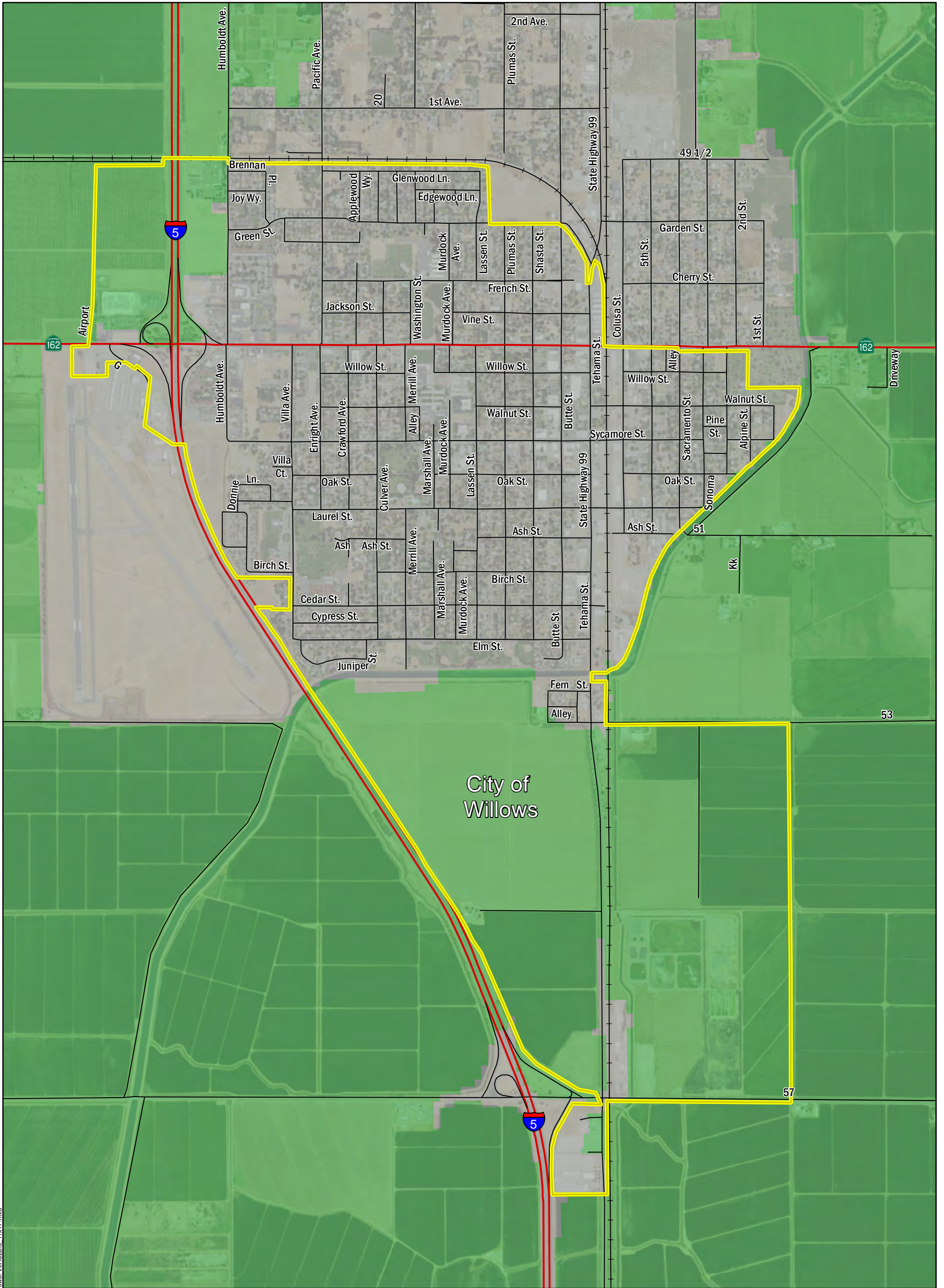
Fire Hazard Layers

- Urban Unzoned
- Non-Wildland / Non-Urban
- Moderate
- High
- Very High
- Arundo Donax Fire Hazard
- FireStation / Fire Department



Data Sources:
 Glenn County - City of Orland, Roads, Railroads
 Arundo Fire Potential
 ESRI - Aerial Imagery
 CalFIRE - Fire Hazard, Hirstoric Burn Area

North American Datum of 1983
 State Plane California Zone 2 (feet)

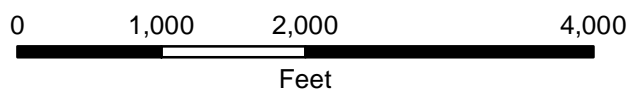


City of Willows

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Glenn County Multi-Jurisdictional Hazard Mitigation Plan

City of Willows: Fire Hazard



Basemap

- City of Willows
- Railroad
- Highway
- Roadway

Fire Hazard Layers

- Urban Unzoned
- Non-Wildland / Non-Urban
- Moderate
- High
- Very High

- Historic Fire Perimeter

Data Sources:

- Glenn County - City of Willows, Roads, Railroads
- ESRI - Aerial Imagery
- CalFIRE - Fire Hazard, Historic Burn Perimeters

North American Datum of 1983
State Plane California Zone 2 (feet)

Appendix D: Sample Adoption Resolution



Example Adoption Resolution

(LOCAL COMMUNITY)

(STATE)

RESOLUTION NO. _____

A RESOLUTION OF THE (LOCAL COMMUNITY) ADOPTING THE

(TITLE AND DATE OF MITIGATION PLAN)

WHEREAS the (local governing body) recognizes the threat that natural hazards pose to people and property within (local community); and

WHEREAS the (local community) has prepared a multi-hazard mitigation plan, hereby known as (title and date of mitigation plan) in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS (title and date of mitigation plan) identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in (local community) from the impacts of future hazards and disasters; and

WHEREAS adoption by the (local governing body) demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the (title and date of mitigation plan).

NOW THEREFORE, BE IT RESOLVED BY THE (LOCAL COMMUNITY), (STATE), THAT:

Section 1. In accordance with (local rule for adopting resolutions), the (local governing body) adopts the (title and date of mitigation plan).

ADOPTED by a vote of ____ in favor and ____ against, and ____ abstaining, this ____ day of

_____, _____.

By: _____

(print name)

ATTEST:

By: _____

(print name)

APPROVED AS TO FORM:

By: _____

(print name)

Appendix E: Plan Maintenance



Glenn County MJHMP Annual MHMP Review Questionnaire

PLAN SECTION	QUESTIONS	YES	NO	COMMENTS
PLANNING PROCESS	Have there been local staffing changes that would warrant inviting different members to the planning team?			
	Are there procedures (e.g., meeting announcements, plan updates) that can be done more efficiently?			
	Are there any representatives of essential organizations who have not fully participated in the planning and implementation of actions? If so, can someone else from this organization commit to the implementation team?			
	Has the Steering Committee undertaken any public outreach activities regarding the MHMP or implementation of mitigation actions?			
HAZARD PROFILES	Has a natural and/or human-caused disaster occurred in this reporting period?			
	Are there natural and/or human-caused hazards that have not been addressed in this MHMP and should be?			
	Are additional maps/data or new hazards studies available? If so, what have they revealed?			

Glenn County MJHMP Annual MHMP Review Questionnaire

PLAN SECTION	QUESTIONS	YES	NO	COMMENTS
VULNERABILITY ANALYSIS	Do any new critical facilities or infrastructure need to be added to the asset lists?			
	How will the vulnerability analysis be affected by additional maps/data or new hazard studies?			
	Have there been changes in development patterns that could influence the effects of hazards or create additional risks?			
	Has the vulnerability analysis changed as a result of the implementation of mitigation actions?			
MITIGATION STRATEGY	Are there different or additional resources (financial, technical, and human) that are now available for mitigation planning?			
	Is the goal still applicable?			
	Should new mitigation actions be added to the Mitigation Action Plan?			
	During implementation of the mitigation actions, what has proven effective? What has proven not effective?			
	Do existing mitigation actions listed in the Mitigation Action Plan need to be reprioritized deleted, or revised?			
	Are the mitigation actions listed in the Mitigation Action Plan appropriate for available resources?			

Glenn County MJHMP Annual MHMP Review Questionnaire

PLAN SECTION	QUESTIONS	YES	NO	COMMENTS
PLANNING MECHANISMS	Has the Mitigation Action plan been incorporated into existing planning mechanisms? If yes, please list what other planning mechanisms and in what way.			
	Has the Mitigation Action plan incorporated existing planning mechanisms? If yes, please list these existing planning mechanisms and what elements were incorporated and how.			

Glenn County MJHMP Mitigation Action Progress Report

Progress Report Period: _____ to _____
(date) (date)

Project Title: _____ Project ID# _____

Responsible Agency: _____

Address: _____

City: _____

Contact Person: _____

Phone#: _____

email address: _____

List Supporting Agencies and Contacts: _____

Total Project Cost: _____

Funding Source: _____

Anticipated Cost Overrun/Underrun: _____

Date of Project Approval: _____ Start date of the project: _____

Anticipated completion date: _____

Description of the Project (include a description of each phase, if applicable, and the time frame for completing each phase):

Glenn County MJHMP Mitigation Action Progress Report

Milestones	Completed (✓)	Projected Date of Completion

MHMP Goal Addressed: _____

Indicator(s) of Success: _____

Project Status

- Project on schedule
- Project completed
- Project delayed*

*explain _____

- Project cancelled*

*explain _____

Project Cost Status

- Cost unchanged
- Cost overrun*

*explain _____

Glenn County MJHMP Mitigation Action Progress Report

Summary of progress on project for this report:

A. What was accomplished during this reporting period?

B. What successes have you encountered, if any?

C. What obstacles, problems, or delays have you encountered, if any?

D. How was each problem resolved?

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E. Based on the past experiences (successes and obstacles), what changes, if any, need to be made to ensure completion?

Next Steps: What are the next step(s) to be accomplished over the next reporting period?

Other Comments:

Appendix F: Glenn County/Cities of Orland and Willows Adoption Resolutions

