12. SAFETY

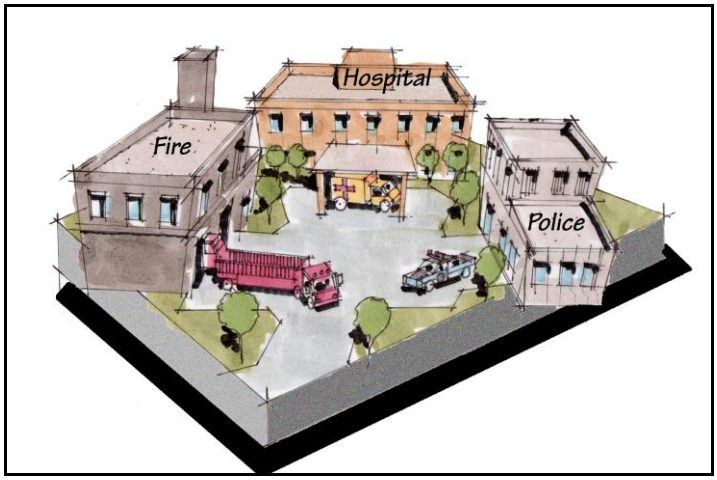
VISION

In 2030, the City of Chico is known and valued as a safe community, supported by appropriate development standards and a clear understanding of potential man-made and natural hazards. Public safety has been enhanced by improvements to local circulation systems including the roadways, well-lit bike and pedestrian trails, railroad crossings, and an expanded public transit program. Children are able to safely walk or bike to school, and residents, students, and visitors feel safe walking at night in neighborhoods and Downtown. The community and the Police Department have a strong partnership in law enforcement and deterring crime. Public safety and safe aviation operations are maintained at the Chico Municipal Airport and in the vicinity of local airports.

INTRODUCTION

The Safety Element focuses on maintaining Chico as a safe place for residents and businesses by minimizing risk and providing protective services.

Generally, the City of Chico is a safe and healthy City. However, like all cities in California, Chico is subject to a variety of potential safety hazards. Some are a result of the natural environment, such as floods or earthquakes, while others, such as hazardous materials spills or contamination, result from human activities. This Element briefly identifies known safety threats and hazards, along with the City's approach to managing these risks and hazards as outlined in the goals, policies and actions of this element. Topics covered include the potential risk from fires, floods, earthquakes, and hazardous materials, as well as airport safety, traffic and pedestrian safety at railroad crossings, and the provision of law enforcement and emergency services.



Safety Services

ISSUES AND CONSIDERATIONS

This section of the element identifies and addresses primary safety issues raised during the outreach efforts for the General Plan Update. Policy guidance is found in the goals, policies, and actions section of this element. An explanation of specialized terms can be found in the General Plan Glossary (**Appendix A**).

FIRE HAZARDS

Chico has the potential for both urban structural fires and wildland fires. Upper Bidwell Park and the foothills on the eastern edge of the community are particularly prone to wildland fire. The Chico Fire Department, the Butte County Fire Department, and Cal Fire provide fire protection in Chico and the unincorporated areas in and immediately surrounding the City. The Chico Fire Department currently operates six fire stations and a seventh station is planned in the Northwest Chico Specific Plan area. Balancing limited financial resources with the desire for a high level of service for public safety is a critical community concern that was raised during the public and stakeholder outreach effort undertaken as part of the General Plan Update.

This element addresses fire hazards through its support for continued interagency cooperation and mutual aid agreements with Butte County and Cal Fire, both of which are vital to providing high levels of protection. This element also addresses the issue of maintaining acceptable urban fire service through policies and targets for initial incident response times and a commitment to maintaining high quality fire response service.

LAW ENFORCEMENT

Maintaining a safe and secure environment is one of the highest priorities for Chico residents. While the police are the primary agency charged with crisis intervention, they cannot be solely responsible for controlling and limiting crime and interpersonal conflicts. Community-oriented policing and community partnerships are necessary to address law enforcement needs. Youth and neighborhood watch programs, as well as planning and design concepts, are complimentary programs and actions to support the Police Department's efforts. A critical issue for the future is finding a balance between the community's desire for a high level of public safety service and the City's limited fiscal resources available to provide a range of municipal services.

The Safety Element addresses this issue through policies that promote continued partnerships with other local and regional law enforcement agencies and through policies that support strategic planning efforts to identify and prioritize safety needs. The element also works with the Community Design Element to address safety through design, and the Circulation Element to ensure accessible emergency response routes.

Railroad-Related Safety

The trains on the Union Pacific Railroad line through Chico present safety hazards, especially in areas with at-grade street crossings. Illegal pedestrian crossing of the tracks, particularly near the university, is an ongoing safety concern. Additionally, emergency vehicle access to areas west of the railroad tracks when trains are blocking the crossings remains a significant concern to the community. This element incorporates policies which direct that these concerns be investigated and addressed. This element works with the Circulation Element and Noise element to further address issues related to the railroad.

SAFETY CONTEXT

In addition to the key issues identified in the previous section, this section provides relevant background for other safety topics addressed in the subsequent goals, policies, and actions section. Also included in this section are maps showing flood hazards, dam inundation hazards, and other seismic or geologic hazards within the Planning Area.

Emergency Management

The City of Chico and Butte County have both adopted Emergency Response Plans which include prearranged emergency response procedures and mutual aid agreements for emergency assistance within the Planning Area. Emergency routes for evacuation of Chico are Highway 99 and State Route 32.

The objectives of the emergency plans are to prepare for and coordinate effective responses to emergencies and to provide adequate assistance to other jurisdictions as needed. The plans specify actions to coordinate operations, manage resources, and direct governmental and non-governmental organization's responsibilities during emergency events. The Safety Element addresses the planning for emergency response through policies that commit the City to maintaining an emergency management plan and policies that reaffirm the City's commitment to working with other agencies and emergency response providers.

FLOODING AND DAM INUNDATION

Flood control in the Chico area is provided by federal, state, and local agencies. The general purpose for these agencies is to identify potential flood hazard areas and devise preventive programs, policies, and structures to avoid or minimize flood damage. The Federal Emergency Management Agency (FEMA) produces Flood Insurance Rate Maps, which identify areas of potential flood hazards, and designates 100-year floodplain zones. A 100-year floodplain is the area that has a one percent chance of being flooded in any one year. FEMA also manages the National Flood Insurance Program, which provides insurance to the public based on the predicted 100-year flood event.

Certain locations within the Chico Sphere of Influence are subject to periodic, localized flooding as a result of intense stormwater runoff. **Figure S-1** depicts the current FEMA floodplain mapping data for a 100-year flood event in the Chico area. Flood hazard and delineation information from the State Department of Water Resources (DWR) has not been included on **Figure S-1** at this time due to the lack of adopted and verified data. Flood control projects on Little Chico Creek, Big Chico Creek, and Lindo Channel have helped attenuate the amount of runoff that flows through the City, reducing potential flooding problems. However, portions of the City adjacent to Little Chico Creek are identified as being at risk to flooding during a 100-year event.

FEMA and DWR are in the process of evaluating whether various flood control infrastructure meet 100-year flood protection standards. These agencies have taken the position that various levees and flood control structures, for which adequate data is unavailable, cannot be certified or accredited as adequate to provide the required 100-year level of flood protection.

As part of the flood remapping effort for Butte County, FEMA has indicated that areas of the City previously mapped as protected from flooding such as Sycamore Creek and Mud Creek will be reclassified as subject to a one percent per year chance of flooding unless the levees are accredited. The reclassification of these areas would result in the imposition of flood insurance requirements on property owners and enhanced building permit requirements for areas in a mapped floodplain. The City, along with the County, has entered into a Provisionally Accredited Levee (PAL) agreement with FEMA in order to postpone a reclassification of flood hazard areas until the levees are accredited.

In 2006 and 2007, the State legislature produced several pieces of legislation governing various aspects of flood planning. The following is a list of legislation included as part of that package, which affect the City and the General Plan:

- SB 5 – Flood Management. Establishes higher standards of flood protection (generally 200-year protection) for urban and urbanizing areas exceeding 10,000 residents.

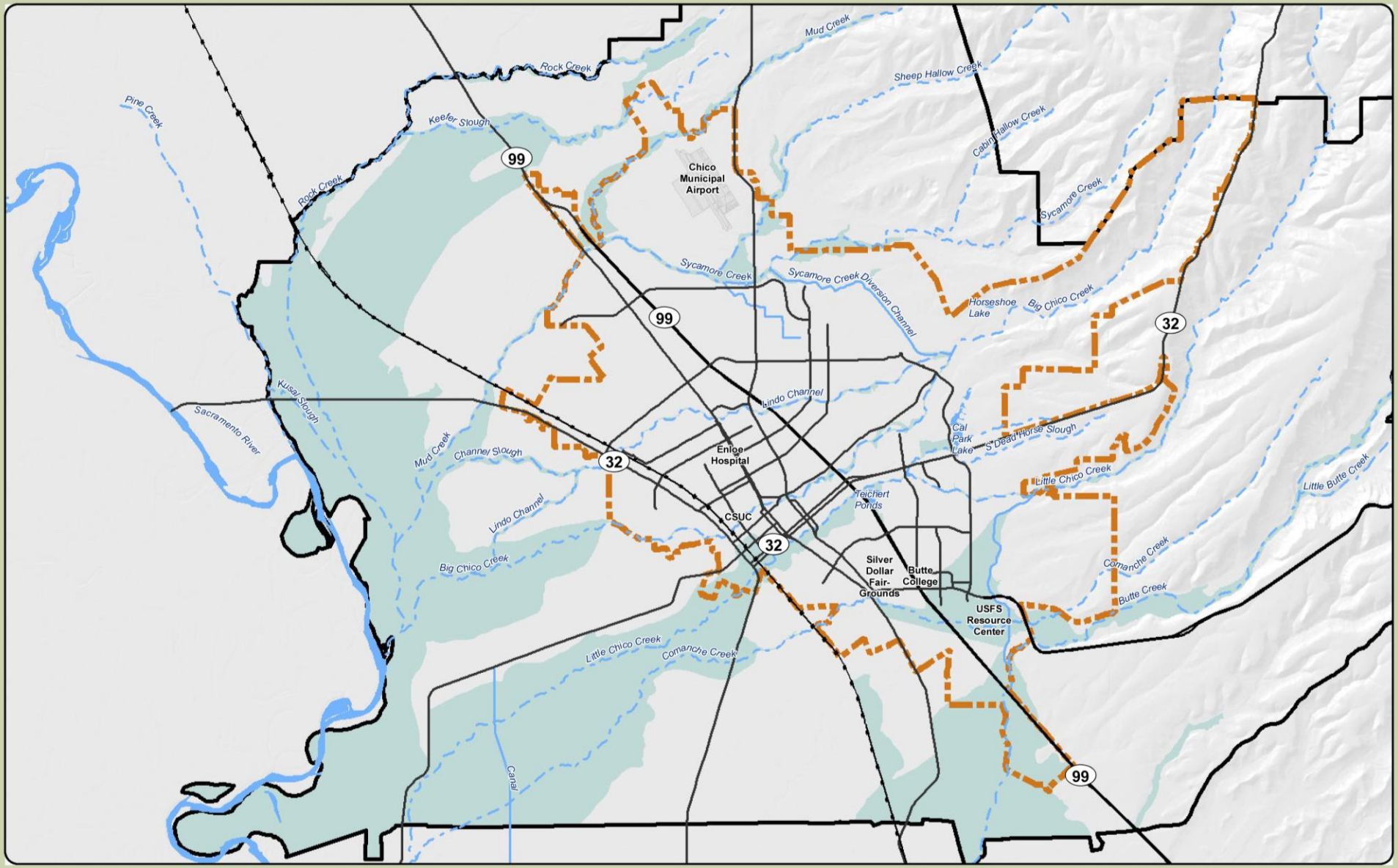
- AB 70 – Flood Liability. Requires a city or county to contribute its fair share cost of property damage caused by a flood event where the jurisdictions actions contributed to or increased the State's exposure to liability.

- AB 162 – Flood Planning in General Plans. Establishes enhanced requirements for cities and counties to address flood-related matters in their General Plans.

In addition, consistent with the requirements of Proposition 1E approved by voters in 2006 and as part of the State's overall effort to reevaluate flood hazards in the Central Valley, the State is preparing the State Plan of Flood Control (SPFC) and the Central Valley Flood Protection Plan (CVFPP) which will serve as comprehensive flood control documents and will help to define the reevaluated 100- and 200-year flood areas. The City of Chico and various flood control structures within the Planning Area are within the area covered by the SPFC and CVFCP documents.

Finally, the California Government Code requires local governments to assess the potential impact that the unlikely event of a dam failure would have on their jurisdiction. Portions of the Planning Area lie within the inundation limits of Black Butte, Whiskeytown and Shasta dams. Flows from the failure of these dams could inundate non-urban portions of the Planning Area. **Figure S-2** shows the flood hazard areas associated with the potential dam failures.

The Safety Element addresses flood and dam inundation hazards through policies that require compliance with flood protection building standards and actions to work with federal, state, and local agencies to identify areas susceptible to flooding and accredit the flood control levees in the City.



2009 FEMA FLOOD ZONES

100-Year Floodplain

City of Chico Sphere of Influence Boundary

Chico Planning Area

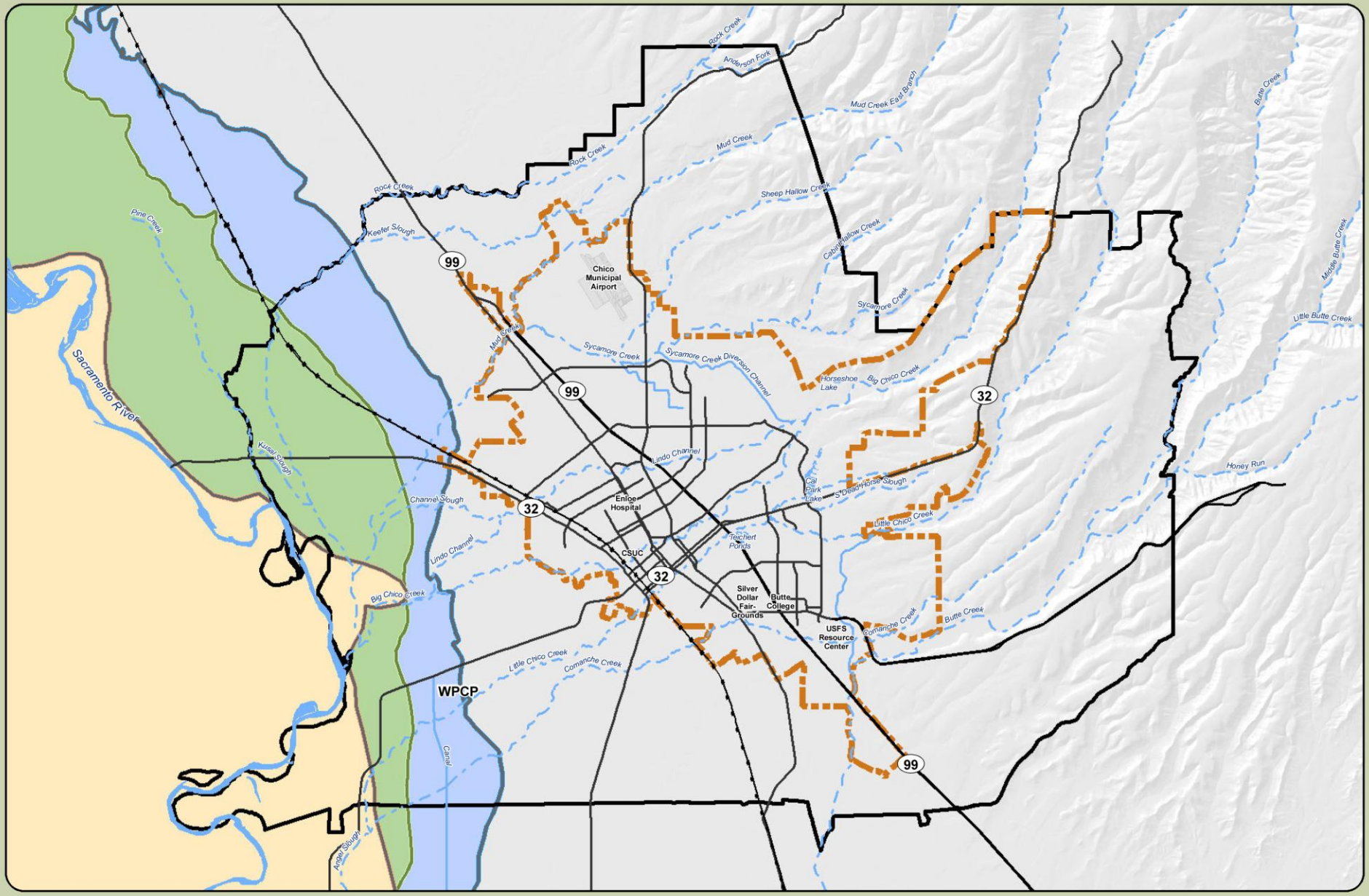
0 0.5 1 2 Miles

N

Source: Federal Emergency Management Agency (FEMA), 2009

Figure S-1
FEMA Flood Zones

CHICO 2030 GENERAL PLAN



DAM FAILURE INUNDATION AREAS

Black Butte Reservoir

Whiskeytown Lake

Lake Shasta

City of Chico Sphere of Influence Boundary

Chico Planning Area Boundary

0 0.5 1 Miles

N

Source: Federal Emergency Management Agency (FEMA), 2009. Note: Inundation areas are approximate.

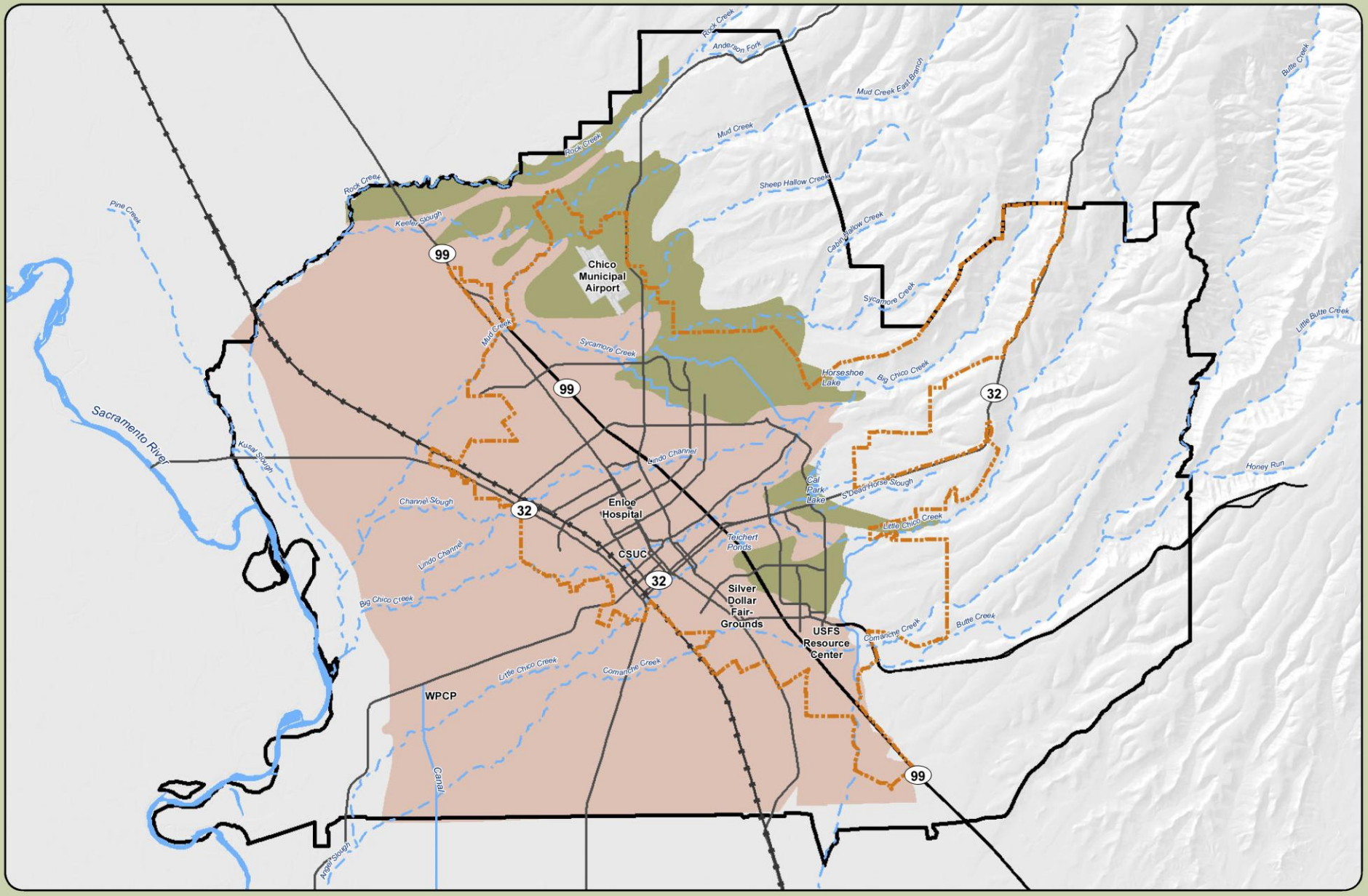
Figure S-2
Dam Failure Inundation

CITY OF CHICO INC. 1872

CHICO 2030 GENERAL PLAN

Seismic and Geologic Hazards

Chico and the surrounding area are relatively free from significant seismic and geologic hazards. There are no known or inferred active faults, however, faults located outside of the City could result in strong ground shaking within the City. The City enforces the state building code which mandates construction techniques that minimize seismic hazards. In addition to seismically induced ground-shaking, ground movement can also be triggered by heavy rains or by grading. Landslide potential is influenced by a number of factors, including geology, water influences, and topography. There is potential for landslides in the foothill portions of the community. Also, some locations in the Chico area are known to have expansive soils that swell when they absorb water and shrink when drying (see **Figure S-3**). Expansive soils can cause structural damage to foundations and roads if the necessary construction techniques and materials are not used. The policies of this Element support the continued use of the state building code to address structural requirements related to safety from seismic and geologic hazards.



SOILS TYPE

- Highly Expansive Soils
- Moderate to Highly Expansive Soils
- City of Chico Sphere of Influence Boundary
- Chico Planning Area Boundary

0 0.5 1 Miles

N

Source: Brandman Associates, 1967

Figure S-3
Expansive Soils

CHICO 2030 GENERAL PLAN

Airport Related Safety

There are two airports located in the Planning Area, the Chico Municipal Airport, owned by the City and located within the City limits, and the Ranchaero Airport, a private airport located to the west of the City. The County Airport Land Use Commission (ALUC) has adopted an Airport Land Use Compatibility Plan (ALUCP) for both airports. The City's efforts to keep development consistent with the ALUCP will help reduce safety concerns near airports. This element, as well as the Land Use Element, establishes policies and actions to ensure the continued operation of the airports and continued safety of nearby land uses by requiring the City to consider and analyze airport compatibility factors. This element works in conjunction with the Noise Element to address noise issues related to airport operations and the Circulation Element to address access issues.

Miscellaneous Hazards

Three other hazards should be noted in the Planning Area. These include agricultural spraying, electric and magnetic fields, and wireless telecommunications facilities.

Agricultural Spraying

Several herbicides and insecticides which are classified by the State Department of Food and Agriculture as potentially harmful to humans are used in Butte County. Although injuries from agricultural chemicals are experienced predominantly in occupational situations, some hazards may occur on neighboring lands during application. For example, if crop-spraying adjacent to urban uses occurs on a windy day, drift could create a hazard. The hazards that farming operations present for urban uses can be minimized by using organic farming practices, switching to crops with natural pest resistance, or by maintaining buffer zones between urban and agricultural uses. Policy LU-2.6 in the Land Use Element specifies the agricultural buffering requirements at the community's edge.

Electric and Magnetic Fields

The sets of high voltage transmission lines that traverse the eastern Planning Area are the largest electric transmission facilities in Chico. There is some continued debate over the health effects associated with electric and magnetic fields created by high voltage power lines. Both electric and magnetic field strengths fall off dramatically with distance. Although few agency standards address setbacks from electrical transmission lines, the State Department of Education has established restrictions for locating school sites near high voltage power transmission lines.

Wireless Communication Facilities

Numerous sites supporting wireless telecommunications (such as cell towers) exist throughout the Planning Area. There is some continued debate over the health effects of radio frequency energy associated with wireless telecommunications facilities. As with electric and magnetic fields created by high voltage power lines, radio frequency energy from wireless telecommunications sites drops off dramatically with distance. City regulation of the radio frequency energy created by wireless telecommunications is prohibited by the Telecommunications Act of 1996, which grants this sole authority to the Federal Communications Commission (FCC). Consistent with the Municipal Code, the City requires applicants to submit a radio frequency study for each new wireless telecommunications facility which verifies compliance with FCC exposure standards, including the cumulative radio frequency energy of all nearby facilities, both existing and proposed.

GOALS, POLICIES, AND ACTIONS

Goal S-1:	**Minimize the loss of life and property resulting from natural and human-caused hazards.**
Goal S-2:	**Minimize the threat to life and property from flooding and inundation.**
Goal S-3:	**Protect lives and property from seismic and geologic hazards.**
Goal S-4:	**Continue to provide effective and efficient fire protection and prevention services to Chico area residents.**
Goal S-5:	**Provide a safe, secure environment with responsive police services for the community.**
Goal S-6:	**Support safe airport operations and maximize public safety in the vicinity of airports.**
Goal S-7:	**Enhance the safety of railroad crossings.**
Goal S-8:	**Reduce the potential for public exposure to hazardous materials or the accidental releases of toxic or hazardous substances.**

- **Goal S-1: Minimize the loss of life and property resulting from natural and human-caused hazards.**

  - **Policy S-1.1 (Emergency Preparedness) – Promote public safety from hazards that may cause death, injury, or property damage through emergency preparedness and awareness.**

    - **Action S-1.1.1 (Emergency Plan Maintenance) –** Maintain, and update as needed, the City's Emergency Plan to guide emergency management in the City.

    - **Action S-1.1.2 (Emergency Response Awareness) -** Promote community preparedness for hazards and awareness of emergency notification methods.

    - **Action S-1.1.3 (Incident Training) –** Continue to participate in the Federal Emergency Management Agency's National Incident Management System program, which provides a standardized approach to emergency incidents.

  - **Policy S-1.2 (Adaptation to Climate Change) – Support public education, adaptation, and emergency response services in response to the potential long-term impacts of climate change.**

Cross reference PPFS-6.5.4 and LU-6.2.6

Cross reference PPFS-6.5.1

- **Goal S-2: Minimize the threat to life and property from flooding and inundation.**

  - **Policy S-2.1 (Potential Flood Hazards) - When considering areas for development, analyze and consider potential impacts of flooding.**

    - **Action S-2.1.1 (Flood Hazard Analysis) -** As part of project review, analyze potential impacts from flooding and require compliance with appropriate building standards and codes for structures subject to 200-year flood hazards.

    - **Action S-2.1.2 (Flood Hazard Management) -** Continue efforts to work with the Federal Emergency Management Agency and state and local agencies to evaluate the potential for flooding, identify areas susceptible to flooding, accredit the flood control levees in the City, and require appropriate measures to mitigate flood related hazards.

    - **Action S-2.1.3 (200-Year Flood Protection)** – Cooperate with local, regional, state, and federal agencies to seek funding for the provision of 200-year flood protection.

    - **Action S-2.1.4 (Floodplain Hazard Materials)** – Provide materials to the community regarding Federal Emergency Management Agency and California Department of Water Resources flood mapping.

- **Goal S-3: Protect lives and property from seismic and geologic hazards.**

  - **Policy S-3.1 (Potential Structural Damage) – Prevent damage to new structures caused by seismic, geologic, or soil conditions.**

    - **Action S-3.1.1 (California Building Code) –** Require all new buildings in the City to be built under the seismic requirements of the California Building Code.

    - **Action S-3.1.2 (Potential Soil Hazards) –** In areas with highly expansive soils, require appropriate studies and structural precautions through project review.

- **Goal S-4 - Continue to provide effective and efficient fire protection and prevention services to Chico area residents.**

  - **Policy S-4.1 (Fire Safety Staffing) - Maintain adequate fire suppression and prevention staffing levels.**

- **Action S-4.1.1 (Fire Response Time) –** Strive to obtain an initial response time of five and a half minutes or less for at least 90 percent of fire emergency response calls in urbanized areas.

- **Policy S-4.2 (Interagency Coordination) - Continue to maintain interagency relationships to maximize fire protection services and support programs that reduce fire hazards.**

  - **Action S-4.2.1 (Interagency Programs) -** Continue to work with CalFire and the Butte County Fire Department on programs that will enhance fire protection and firefighting capabilities in the Planning Area, including maintaining aid agreements.

- **Policy S-4.3 (Fire Safety Standards and Programs) – Support the development and implementation of standards and programs to reduce fire hazards and review development and building applications for opportunities to ensure compliance with relevant codes.**

  - **Action S-4.3.1 (Standards to Protect Structures) -** Maintain, and update as needed, the standards manual for protecting structures in wildland fire areas.

  - **Action S-4.3.2 (Structural Standards) -** Incorporate building construction standards for the Local Resource Area (areas which are provided City fire suppression services) that are consistent with the requirements for the State Responsibility Areas (areas that are provided State and County fire suppression services) designated as Very High, High, and Moderate Fire Hazard Severity Zones.

  - **Action S-4.3.3 (Project Design) -** As part of the project review process in wildland fire areas, require consideration of emergency evacuation routes and defensible buffer areas.

  - **Action S-4.3.4 (Development Standards) -** Encourage the County to require development in unincorporated areas within the City's Sphere of Influence to conform to the City's development standards.

  - **Action S-4.3.5 (Fire Sprinklers, New Structures) –** Consider adoption of an ordinance that exceeds state standards requiring automatic fire sprinklers in new non-residential construction.

- **Policy S-4.4 (Vegetation Management) - Support vegetation management and weed abatement programs that reduce fire hazards.**

Cross reference LU-1.1.1

- **Goal S-5: Provide a safe, secure environment with responsive police services for the community.**

  - **Policy S-5.1 (Police Services) – Continue to provide fundamental police services based upon rapid response to emergencies and response, control and intervention in conduct that threatens life and property.**

    - **Action S-5.1.1 (Strategic Plan) –** Using community input, develop a Police Department Strategic Plan to help guide priorities and staffing levels for the Department.

    - **Action S-5.1.2 (Police Staffing) –** Maintain adequate staffing to meet the needs of the community's service population.

    - **Action S-5.1.3 (Response Time) –** Analyze and monitor factors affecting police response times, and make operational adjustments as necessary in order to provide the most expeditious responses.

    - **Action S-5.1.4 (Specialized Resources) -** Train, equip, and maintain specialized response teams for extraordinary emergency incidents.

  - **Policy S-5.2 (Public Confidence in Police) – Maintain and increase public confidence in the ability of the Police Department to provide quality police services.**

    - **Action S-5.2.1 (Community Needs Assessments) -** Assess community needs, expectations, and satisfaction with the police on an ongoing basis.

    - **Action S-5.2.2 (City Council Reports) –** Report periodically to the City Council on citizen commendations and citizen complaints received.

  - **Policy S-5.3 (Community Policing) - Reduce crime by strengthening police/community partnerships and providing community-oriented policing services that are responsive to citizens' needs.**

    - **Action S-5.3.1 (Neighborhood-Based Programs) –** Enhance neighborhood-based crime prevention activities, such as Neighborhood Watch, Town and Gown activities, and community education programs.

  - **Policy S-5.4 (Collaboration and Coordination) – Maintain strong relationships with local and state law enforcement agencies, and participate in joint disaster preparedness planning.**

- **Action S-5.4.1 (University Police) –** Maintain a memorandum of understanding with CSU, Chico University Police to coordinate law enforcement duties and services in the neighborhoods near the campus, such as the South Campus District.

- **Action S-5.4.2 (Butte County Sheriff's Department) –** Strive to maintain the mutual aid agreement, and continue cooperative policing in the greater Chico area with the Butte County Sheriff's Department.

- **Action S-5.4.3 (Disaster Planning) -** Through the Butte County Office of Emergency Services, participate with area public safety and health agencies to plan and train for disaster preparedness.

- **Policy S-5.5 (Design to Deter Crime) – Support the deterrence of crime through site planning and community design.**

  Cross reference CD-3.4 and DT-3.4

  - **Action S-5.5.1 (Crime Deterring Design) –** Consider the incorporation of design features such as strategic window placement, lighting techniques, and landscaping into development projects to discourage criminal activity.

  Cross reference CD-3.4.1

- **Goal S-6: Support safe airport operations and maximize public safety in the vicinity of airports.**

  - **Policy S-6.1 (Airport Operations) – Promote safe air operations by limiting the height of structures and regulating uses that would have adverse impacts on airport safety.**

    Cross reference LU-7.1

  - **Policy S-6.2 (Safety in Airport Vicinity) – Continue to consider relevant public safety factors prior to approving development projects in the vicinity of airports.**

    Cross reference LU-7.1, LU-6.2.5 and CIRC-6.1.1

- **Goal S-7: Enhance the safety of railroad crossings.**

  - **Policy S-7.1 (Railroad Crossings) – Enhance the safety of railroad crossings in the City.**

    - **Action S-7.1.1 (Coordinate with UPRR) –** Request Union Pacific Railroad to verify that relevant safety measures for at-grade crossings are implemented and maintained, and assess the feasibility of improving safety features, including enhanced crossing gate practices and warning devices.

    Cross reference CIRC-7.1.2 and N-2.2.1

- **Action S-7.1.2 (Education on Railroad Crossings) –** Continue working with CSU Chico, UPRR, and student housing providers to develop and disseminate educational materials on the hazards of unauthorized railroad crossings, and regularly monitor and enforce crossing laws.

Cross reference CIRC-7.1.3

- **Action S-7.1.3 (Grade-Separated Crossings) -** For improved emergency response and traffic circulation, support interagency studies to identify the best possible locations and feasibility for funding and developing grade-separated (vehicle and pedestrian/bicycle) railroad crossings within the City.

- **Goal S-8: Reduce the potential for public exposure to hazardous materials or the accidental releases of toxic or hazardous substances.**

  - **Policy S-8.1 (Hazardous Materials Safety Coordination) - Support efforts to reduce the potential for accidental releases of toxic and hazardous substances.**

    - **Action S-8.1.1 (Planning for Hazardous Materials Safety) -** Consult with the State Office of Emergency Services, the State Department of Toxic Substances Control, the California Highway Patrol, Butte County, and other relevant agencies regarding hazardous materials routing and incident response programs.

Cross reference SUS-3.1.1

  - **Policy S-8.2 (Reduce Toxic Materials Use) – Reduce the use of hazardous and toxic materials in City operations.**