Chapter 6. Safety

The Safety Element is a required element of *Sonora General Plan 2020*. Pursuant to Government Code Section 65302(g), The Safety Element addresses natural conditions and human activities that can potentially threaten public health and safety. Natural hazards in the City of Sonora include the potential for wildland fire, utility failures, flooding, hazardous materials, geologic conditions including unstable or erosive soils and landslides, and emergency evacuations. Understanding these hazards and preparing to deal with them on both an incident- related and ongoing basis are important objectives. The Safety Element is intended to reduce the risks associated with these hazards and help the City prepare for and avoid emergencies. The City is part of the multi-jurisdictional Local Hazard Mitigation Plan which is hereby included by reference.

Issues and Opportunities

Emergency or disaster situations which could affect the City of Sonora include:

- Wildland and Fire Hazards
- Utility failures
- Flooding
- Hazardous Materials
- Geologic Hazards
- Emergency Evacuation

Population

The City of Sonora has a population of approximately 4,800 persons. However, the population can rise to an estimated 25,000 individuals during the day. Population within the city increases by visitors inhabiting hotels within the city, tourists and shoppers from throughout the county visiting the main shopping district within the city limits and for special events, such as the Mother Lode Fair, Mother Lode Round-Up, etc.

Chapter Organization

For organizational purposes, this element is divided into the following sections:

Fire Protection
Address levels of service provided by the Sonora Fire Department, CAL FIRE, Tuolumne County Fire Department and including minimum road widths and clearances around structures.

Utility Failures
Address peak load demand for the City of Sonora and issues associated with water quality and quantity during emergencies and addressing interruption of sewer services, electrical, communication, gas and other utility services

Flood Hazard & Dam Failure
Address the potential for flooding within the City and evaluate the potential for dam failures that may impact the City.

Hazardous Materials
Addressing those establishments identified within and near the City of Sonora which store Hazardous materials and the potential for hazardous material incidents.

Geologic Hazards
Address seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, slope instability leading to mudslides and landslides; subsidence, liquefaction and other seismic or geologic hazards.

Law Enforcement & Civil Disturbances
Addressing levels of service provided by the Sonora Police Department. Tuolumne County Sheriff's Department, California Highway Patrol and the Tuolumne County's court system.

Emergency Services
Addressing hospitals, ambulance (ground and air) services, and evacuation routes.

There are no military installations located in the City of Sonora. Therefore, issues related to protection of military installations are not addressed herein.

6.1. Geologic Hazards

The *Updated Geotechnical Safety Issues Report*, January 1996 [hereinafter *1996 Update*], by Geotechnical Research and Development, Sutter Creek, was prepared in conjunction with the update of the 1996 Tuolumne County General Plan. The report includes maps showing the approximate boundaries of faults, areas of slope instability (based on steep slopes) and limestone soils throughout Tuolumne County. That report is hereby incorporated by reference. Tuolumne County also maintains Geotechnical Interpretive Diagrams. Geotechnical Interpretive Diagrams for the Sonora, Columbia and Columbia SE Quadrangles have been adopted in conjunction with the *Sonora General Plan 2020* adoption and are hereby incorporated by reference as the *Sonora General Plan 2020 Geotechnical Diagrams*.

6.1.1. Seismic Hazards

The locations of these faults and their proximity to the City of Sonora are illustrated in the *Sonora General Plan 2020 Geotechnical Diagrams* available for review at Sonora City Hall. As shown in Figure 6.1: Earthquake Shaking Potential, California, Sonora is located in the area of lowest Earthquake potential.

Based on historical data, particularly work performed on the Auburn and New Melones Dam sites (Woodward Clyde, 1975, 1977 and 1978), the California Geologic Service determined that the Melones Fault Zone is capable of generating a Richter 6.5 maximum credible earthquake. The modified Mercalli intensity of the Melones fault zone for a maximum credible earthquake would be expected to be on the order of VIII or IX--a quake resulting in moderate to major damage (Table 4, page 29 of the Tuolumne County General Plan Master EIR Documentation

Maximum credible earthquakes on the Rawhide Flat East and Rawhide Flat West faults are estimated to be Magnitude 6.2 (Dames and Moore, 1993) with a recurrence interval of 10,000-30,000 years (Woodward Clyde, 1978).

While moderate rather than devastating quakes are more likely to occur in Sonora; the 1990 Sonora Emergency Operations Plan states that the danger to life and property in the City resulting from earthquake is significant. The Plan cites an historic quake, which nearly destroyed the downtown district. It resulted in significant damage to residences and destruction of the majority of unreinforced masonry structures downtown. Historical records reference quakes felt in the City in 1868, 1870, 1872, 1876, 1877.

The probability of a development project being impacted by a fault within Tuolumne County (and hence the City of Sonora) is remote.

Ground Shaking

Based on the likelihood of an earthquake of moderate magnitude occurring within the area (see preceding analysis), the *1996 Update* concludes:

> *"Tuolumne County is located in a potentially active seismic area. Although the long period of time for the recurrence interval between significant effects implies that the project area will not be affected [sic] during the project's life, it should be expected that a remote chance exists for the site to be subjected to moderate ground shaking."*

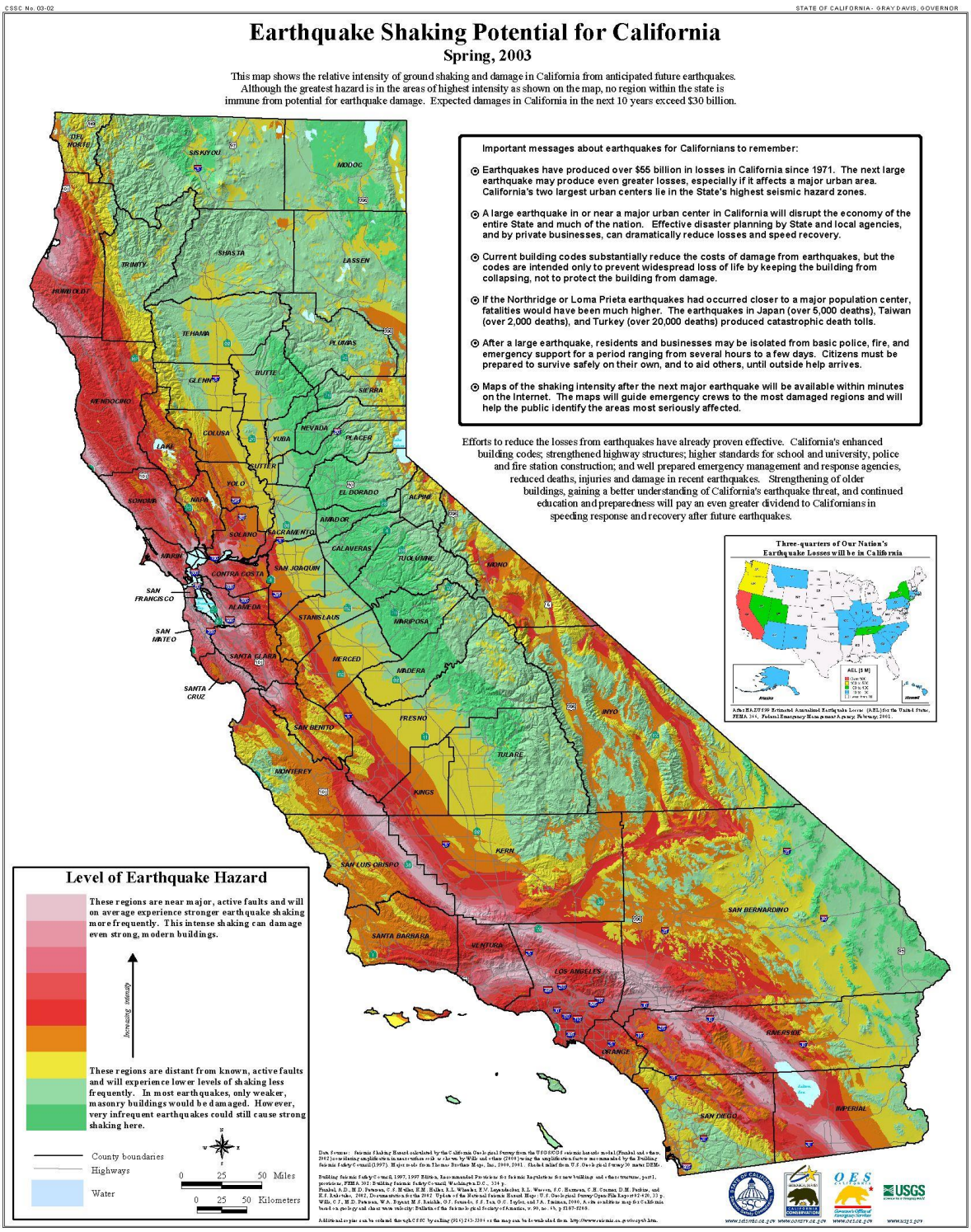
The International Conference of Building Officials (ICBO) designated all of the United States into four zones based on likelihood of earthquake in the area. The larger the number (1-4), the higher the likelihood of earthquake occurring. All of California is designated as either Zone 3 or Zone 4. Tuolumne County is located within Seismic Zone 3. The Uniform Building Code (UBC) includes building standards for each zone with construction standards for the strongest buildings able to withstand significant ground shaking required in Zone 4 with lesser standards for strength in Zone 1. Compliance with the construction standards of the UBC (Current Edition) for Seismic Zone 3 reduces the likelihood of damage to structures from ground shaking associated with moderate earthquakes in the City of Sonora.

Ground Failure

Ground shaking results in liquefaction, lateral spreading, lurching and differential settlement which may occur in unconsolidated, fine grained, water-saturated sediments typically found in valleys. Based on the known geology and topography of the city, it is not anticipated that these types of seismically-related ground failures would occur within the city unless development has been located on incompetent (i.e., inadequate or defective) fill materials. Soils disturbed by grading may result in

differential settlement of soils without proper implementation of engineered grading plans.

Figure 6.1: Earthquake Shaking Potential, California



Seiches and Tsunami

Seiches are earthquake-generated waves within enclosed or restricted bodies of water such as lakes or reservoirs. There are no lakes or reservoirs within close enough proximity to the City of Sonora to present a likely hazard. Therefore, seiches present no threat to the City of Sonora.

Because the City of Sonora has no land within proximity to a seacoast, there is no potential for tsunami (i.e., tidal wave).

6.1.2. Geologic Hazards

Unstable Slopes/Landslides/Erosive Soils/Erosion

Soils within the City of Sonora are generally shallow. The nature of the soils underlying surface soils provide a good indicator of the likelihood of erosion, potential for shrinking and swelling, and slope stability.

The potential for erosion of soils increases with the steepness of a slope. Generally, slopes in excess of 30% present a high potential for slope failure/erosion. Areas within the city with slopes of 30% or more are illustrated on the *Sonora General Plan 2020* Diagrams.

A map of soils types with a description of soil characteristics within the City of Sonora are found in *General Plan 2020* **Appendix 6B**.

Subsidence and Differential Settlement – Mines

Subsidence is settling of the ground surface in response to fluid withdrawals, mine excavations, solution cavity (i.e., cave) collapse or hyrdocompaction. Differential settlement is a form of subsidence in which one soil mass settles at a different rate than an adjacent soil mass.

Settlement due to fluid (e.g., oil, water) withdrawal is theoretically possible in the extreme western portion of the county, but is unlikely since oil deposits have not been discovered in Tuolumne County and large withdrawal of groundwater by agriculture does not exist on a large scale.

Past mining activity has created a subsurface system of miles of tunnels and shafts, primarily excavated in hard rock. These tunnels and shafts have collapsed in the past and will continue to collapse in the future as the tunnels and shafts continue to fill with water and supporting timbers decay and crumble. Localized subsidence has been observed near the former openings of some of the City's historic mines and has historically resulted in sinking homes and sinking streets. It is likely that subsidence in the vicinity of water lines, sewer lines, or drainage structures could also affect the ability of those facilities to function.

Volcanic activity

There are no active volcanoes identified in Tuolumne County.

6.2. Geologic Hazards: Goals, Policies and Implementation Programs

Goal:

6.A Protect persons and property from geologic hazards.

Policies:

6.A.1 Assess and keep appraised of the potential risks to persons and property from geological hazards within or with the potential to affect the City.

Implementation Programs:

6.A.a ***Investigate the Cost of Mapping Potential Underground Hazards which May Pose a Risk to Public Property***

Investigate the cost of mapping mines and tunnels beneath City buildings and City streets and evaluate whether or not the risk posed by potential subsidence is such that the cost of mapping these potential hazards may provide sufficient benefits or future cost-savings to offset the costs of underground mapping.

6.A.b ***Acquire Maps of Areas Posing a Potential Hazard from Mine or Tunnel Collapse***

Acquire a set of maps of historical mines within the City limits to supplement the *Sonora General Plan 2020* Geotechnical Maps and assist in identifying potential hazards to existing and new development. Examples of maps which may assist in identifying historic mines include: Government Land Office (GLO) maps, US Geological Survey topographical maps, 1882 Beauvais Map, 1906 Thom Map, 1879 Dart Map, and Sanborn Maps.

6.A.c ***Require New Development to Evaluate Geotechnical Hazards***

Require new developments located within an area identified on the *Sonora General Plan 2020* Geotechnical Maps as having potentially unstable slopes, limestone soils, underground tunnels, located within 100 feet of a fault rupture zone, or exhibiting evidence of significant subsidence, erosion potential or similar geologic hazard to conduct an evaluation of potential geotechnical hazards

6.A.d ***Continue to Inspect Old Buildings in Conjunction with Rehabilitations***

Continue to inspect the City's older buildings in conjunction with rehabilitations. Inspections should focus on trim or other ornamental or functional structures overhanging sidewalks and roadways to

evaluate the potential risk to human safety posed by heavy objects falling during earthquakes.

6.A.e ***Continue to Implement the City's Hillside Preservation Ordinance's Best Management Practices***

Continue to implement the best management practices for construction on hillsides as contained (and referenced) in the City's hillside preservation ordinance.

6.A.f ***Require Engineering Studies for Development in Unstable Areas***

Continue to require engineering studies to evaluate development in unstable areas (e.g., slopes exceeding 30%). Evaluate the effects of grading on slope stability including standards limiting fill slopes to 1 ½:1 unless registered civil engineer or certified engineering geologist can demonstrate that the fill slope will be stable and not prone to erosion.

6.A.g ***Adopt Standard Erosion Control Measures***

Adopt standardized measures for protecting soil stability and to prevent erosion.

6.3. Flood Hazard & Dam Failure

Flooding may occur from heavy, prolonged rain and/or rapid spring thaw. Widespread or localized flooding could involve extensive life and property loss, interruption of transportation and communication systems, and similar facilities.

The City of Sonora is located within the Upper Tuolumne River Watershed. Primary waterways within the City of Sonora Sphere of Influence include:

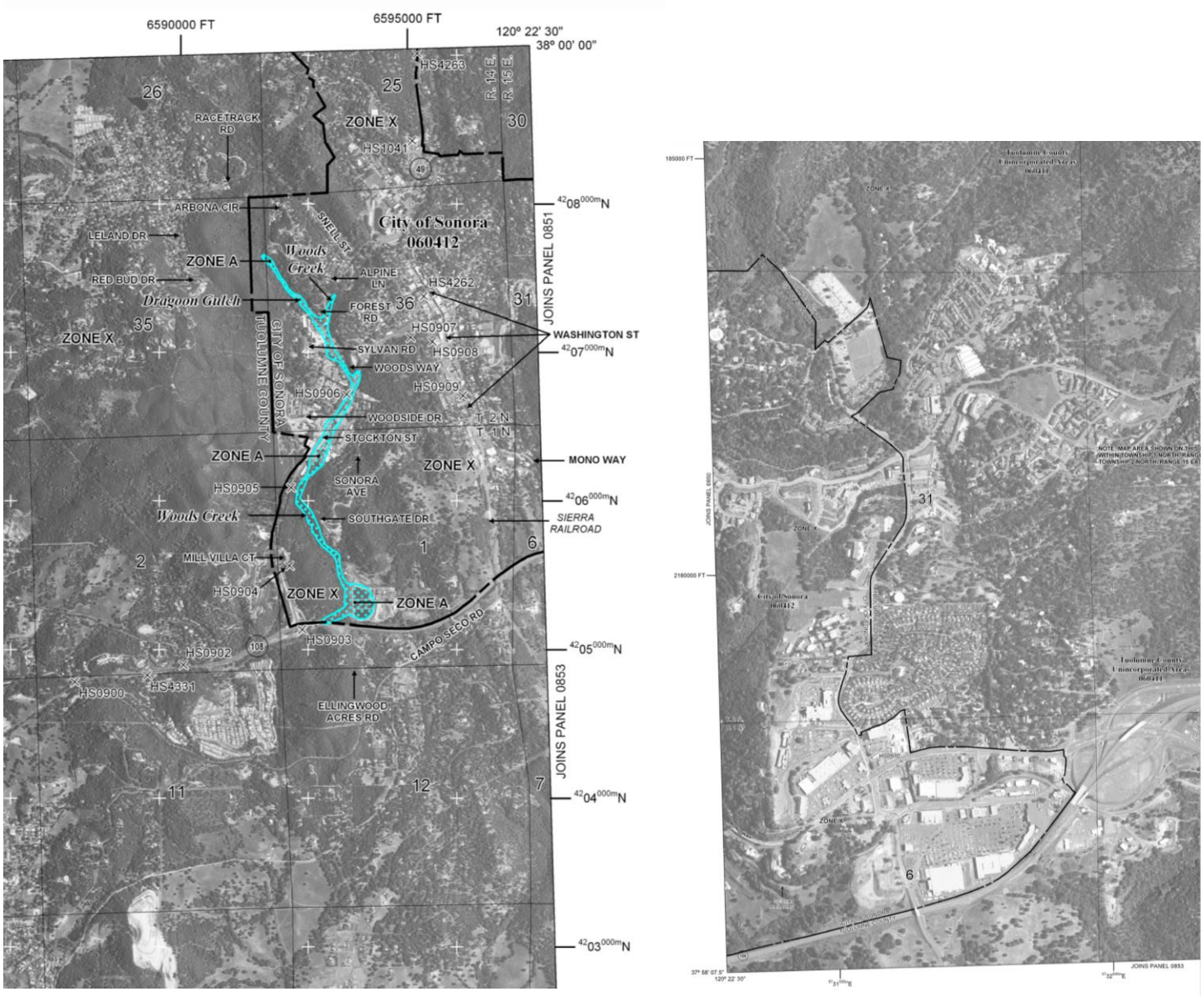
- Woods Creek
- Sonora Creek
- Dragoon Gulch
- Sullivan Creek
- Shaws Flat Ditch
- Jamestown Ditch

Water bodies within the City's planning area include:

- Tuolumne Utilities District Sonora Water Treatment Plant (Bald Mountain)
- Tuolumne Utilities District Sonora Reservoir (Saratoga Road)
- Tuolumne Utilities District Sewer Treatment Plant ponds

The flood potential of these waterways and water bodies within the City of Sonora has not been evaluated by the Federal Emergency Management Agency (FEMA) National Flood Insurance Program. History indicates that flooding can occur quickly and result in major property damage in the City of Sonora as illustrated on March 6, 2019 when severe thunderstorms and runoff overwhelmed the waterway and drainage system in downtown Sonora. The 2019 floods damaged portions of the City's infrastructure and flooded several downtown businesses.

Figure 6.2: FIRM Panels in Sonora



Dam Failure

There are 45 dams in Tuolumne County. None of the dams that are required by the Federal Energy Regulatory Commission (FERC) to prepare inundation area maps show the City of Sonora within a potential area of inundation.

6.4. Flood Hazard & Dam Failure: Goals, Policies and Implementation Programs

Goal:

6.B Protect persons and property from flooding.

Policies:

6.B.1 Monitor the potential risks to persons and property from flooding within the City and inform the public.

6.B.2 Provide guidance to citizens for preparing for and responding to floods affecting the city.

6.B.3 Strive to maintain adequate levels of police, fire and other emergency services necessary to protect persons and property from floods and inundation from dam failures within the city.

Implementation Programs:

6.B.a ***Facilitate Identification and Mapping of Flood Zones in the City***

In conjunction with preparation of or updates to the City's FEMA-mandated Local Hazards Mitigation Plan, identifying funding sources for and facilitate mapping of the City's flood zones. Make this information available at the public counter.

6.B.b ***Consider Preparation of a Flood Damage Prevention Ordinance***

Consider preparation of a flood damage prevention ordinance to guide development within flood zones identified pursuant to **Program 6.B.a**. In the absence of maps identifying flood zones and flood elevations (or equivalent) along waterways within the City; the following is required:

Prior to approval of new development occurring within 75 feet of both sides of Sonora Creek, Woods Creek and Dragoon Gulch (measured from the top of the bank of the drainage); the applicant shall identify flood elevations and provide documentation that new development will be located outside of the 100-year flood elevation, prior to approval of new development.

6.B.c ***Continue to Maintain and Upgrade Drainage Facilities***

Continue to address maintenance and upgrades of the City's drainage facilities. Consider preparation of a Drainage Facilities Management Plan to forecast when systems may require replacement and the potential costs and funding sources necessary to maintain the City's drainage facilities. Continue to pursue sources of funding to ensure ongoing maintenance of the City's storm drains.

6.B.d ***Mitigate Impacts on Downstream Drainage Facilities and Property***

Address requirements for preparation of drainage plans addressing potential impacts on downstream drainage facilities and properties and requiring implementation of measures identified to reduce or eliminate those impacts.

6.B.e ***Coordinate with the County to Address the Impacts of Upstream Development on the City***

Consider requesting that the county send notifications of all development projects located within the City's watershed. Meet with the county to consider preparation of a retention basin master plan or standardized mitigation requirements to offset cumulative impacts of individual projects occurring upstream of the City of Sonora and resulting in increased runoff, increased flood hazards and overtaxing of drainage systems within the City.

6.B.f ***Coordinate with the County to Improve Methods of Mitigating the Potential of Flood Damage***

Meet with the county to discuss county methodology for monitoring and facilitating debris removal in streams which may flow downstream and damage bridges and other facilities within the City. Consider preparation of standardized mitigation requirements on new development requiring management of stream debris in conjunction with monitoring vegetation clearances for fire safety.

6.5. Fire Protection

Wildfire along the urban-wildland interface or a series of such fires could result in major losses to property, life and natural resources. The City of Sonora Fire Department has the only maintained facility in the City limits, Tuolumne County Fire Department and CAL FIRE all maintain facilities within the city limits.

6.5.1. City Fire Department

It is the mission of the Sonora City Fire Department to serve and protect the community, to provide public education, training, fire prevention, fire suppression, emergency rescue, disaster preparedness, mutual aid support, advances in modern technology and other services in order to minimize the loss of life and property, damage to the environment, and adverse economic impacts due to natural and man-made emergencies or events, while still preserving the City's historic character and charm.

The City of Sonora Fire Department is responsible for all risk emergency response fire suppression and fire prevention within all areas within the city limits.

The City of Sonora maintains a Fire Department consists of five full-time and five part-time positions. The Department operates three shifts (A, B, & C) with one Fire Captain, one Fire Engineer (due to funding, C shift does not have a full-time Fire Engineer) and 1 Firefighter Intern per shift. During weekdays, the Fire Chief, Fire Prevention Captain and a Part-time assistant also are on duty. The department relies on 4 part-time fire engineers and 6-8 Volunteer Firefighters for additional staffing. This level of staffing is below that level maintained in 1982.

Figure 6.3: Sonora Fire Department

The City has and continues to face problems with recruitment and retention of personnel for its police and Fire Departments due to competition from neighboring Cities and Counties.

The Department responds not only to calls within the City limits, but maintains an automatic aid agreement with all fire agencies within Tuolumne County. five-mile radius of the city. With the increase in homelessness and other outdoor activities in the Sonora area, the Department has seen a rise in non-traditional hazards such as camping / warming fires, open flames, etc. The Department responded to an all-time high of 1800 calls in 2018. Response time averages 3.6± minutes.

Emergency response equipment includes:

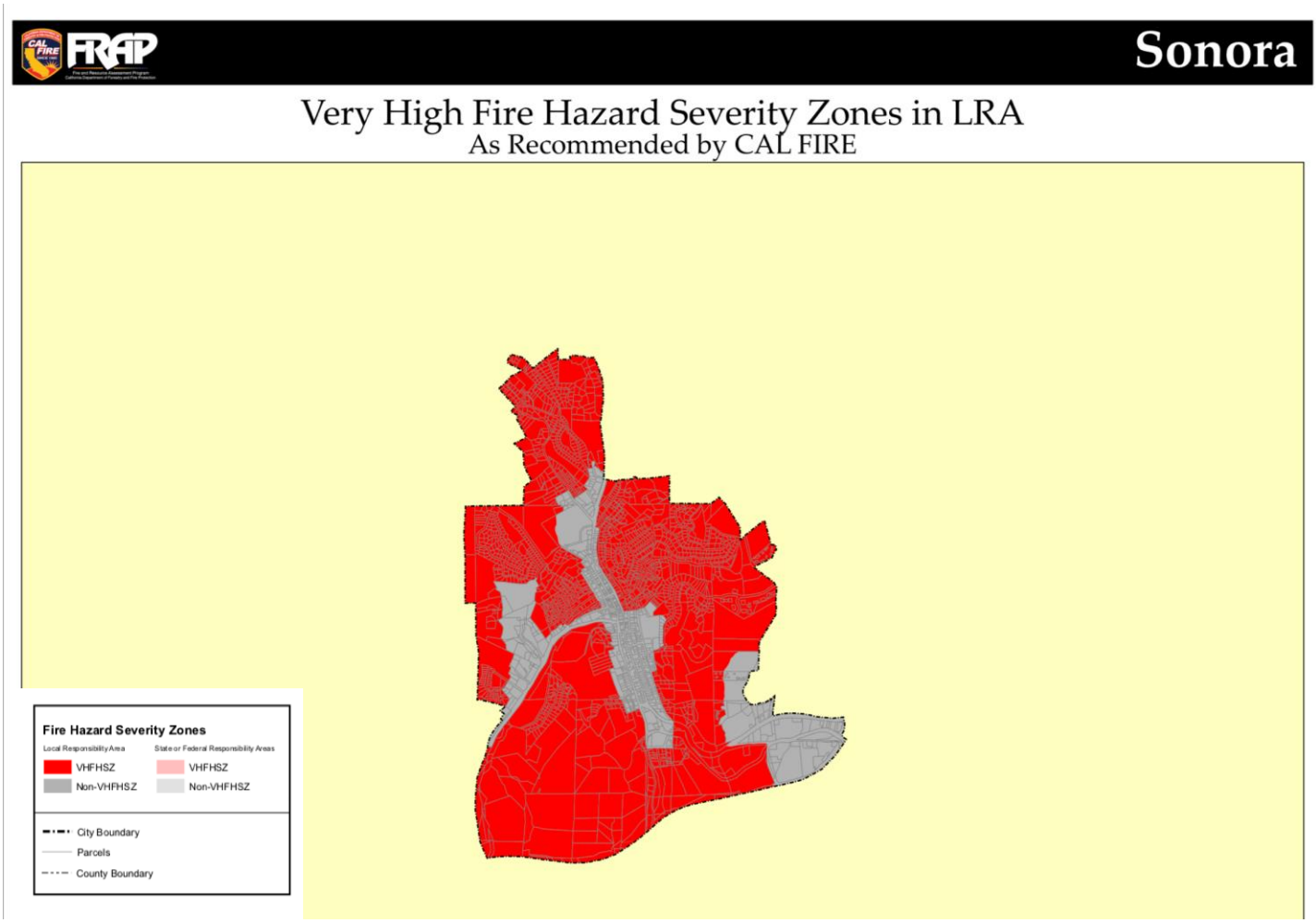
Table 6-1: Sonora Emergency Response Equipment

Description	Type/a/	Year	Manufacturer	Model
Pumper	I	1996	HME	Central States
Ariel/Quint	I	1996	Spartan	3D
Pumper	II	1972	Ford	Van Pelt
Pumper	I	2003	HME	West States

Urban/Wildland Interface – Road and Construction Standards

As shown in Figure 6.4, the majority of Sonora is located in the CalFire Very High Severity Zone. The Sonora Fire Department enforces the provisions of the California Fire Code (which includes references to the National Fire Code) and the California Building Code for construction within the urban-wildland interface. Specifically, those standards address the creation of "defensible space" for buildings and accessory buildings through reducing vegetative cover adjacent to structures. The California Fire Code is also implemented to establish standards for road widths sufficient for safe ingress and egress of emergency vehicles.

Figure 6.4: Fire Hazard Severity Zone Classification – City of Sonora



Section 17.60.040(J) of the municipal code allows building heights in excess of two stories with building heights generally restricted to three stories in commercial and multi-family zones subject to the granting of a conditional use permit consistent with the Sonora Fire Department's capacity to provide fire protection. This requirement may be modified through acquisition of a variance in conjunction with the adoption of mitigation as necessary to offset additional impacts associated with buildings in excess of three stories.

6.6. Fire Protection: Goals, Policies and Implementation Programs

Goal:

6.C Protect persons and property from the hazards of urban and wildland fires.

Policies:

6.C.1 Continue to assess the adequacy of fire protection staffing levels, equipment and facilities to protect persons and property within the City limits from urban and wildland fires.

6.C.2 Reduce exposure to wildland fire hazards by requiring developments away from areas with a to meet high wildland fire building codes and standards.

6.C.3. Provide guidance to citizens for preparing for and responding to emergencies related to urban and wildland fires.

6.C.4 Strive to maintain adequate fire, police and other emergency services necessary to protect persons and property from urban and wildland fires.

Implementation Programs:

6.C.a ***Strive to Maintain an ISO Classification of 3 or Less***

Strive to increase a level of service for fire protection within the City of Sonora consistent with an ISO rating of 3 or less.

6.C.b ***Continue to Require Fire Safe Design Standards for New Development***

Continue to require fire safe design standards for new development consistent with the provisions of Chapter 15.12 of the municipal code and applicable state and federal regulations.

6.C.c ***Continue to Mitigate Impacts to City Fire Protection Resources***

Continue to mitigate impacts of new development on the City's ability to maintain a level of service equivalent to an ISO classification of 3 or less.

6.C.d ***Strive to improve and to Maintain and Expand Fire Prevention Inspection Activities***

Strive to hire full-time Fire Inspector position lost during recession maintain and expand fire prevention inspection activities as necessary to reduce the risk of loss of life and property to fire.

6.C.e ***Continue to Maintain State-of-the Art First Responder Equipment and Trained Personnel for Life Support and Fire Suppression***

Continue to maintain state-of-the art first responder equipment and trained personnel for life support and fire suppression levels of service consistent with an ISO Classification of 3 or less.

6.C.f ***Continue to Provide Fire Prevention Education***

Continue to provide fire prevention education to schools, public interest groups and other interested parties.

6.C.g ***Continue to Implement the Citywide Weed Abatement Program***

Continue to implement the citywide weed abatement program.

6.C.h ***Support Retention of the Columbia Air Attack Base***

Support retention of Columbia Air Attack Base (e.g., through resolutions, letters of support, attendance at hearings in which the retention of the air attack base may be discussed) as an essential asset contributing to the protection of people and property in Sonora.

6.C.i ***Continue to Work Cooperatively with CAL FIRE, the Tuolumne County Fire Department (TCFD)*, and U.S. Bureau of Land Management (BLM) Lands**

Continue to work cooperatively with the Tuolumne County Fire Department, CAL FIRE, the United States Forest Service and BLM in matters of mutual aid, automatic aid regionalization of services to the benefit of all parties. Meet with BLM to formulate and implement a plan for reducing fire hazards on BLM wildlands adjacent to the city consistent with the agency's resources management goals.

6.C.j ***Assess the Need for a Second Fire Station in Conjunction with Annexations***

The City should analyze whether or not a second fire station will be necessary to serve the community in conjunction with future annexations. The analysis should address when and where such a station might be needed and how the station might be funded.

6.C.k ***Consider Reimbursement for Fire Services In Future Annexations***

Include provisions for reimbursement of City of Sonora fire services during consideration of annexation agreements between the City of Sonora and the county to provide reimbursement to the City by the county for the expansion of services.

6.C.l ***Consider Establishing Special Districts to Address Fire Suppression in areas with Overlapping Jurisdictional Boundaries***

Consider establishing special districts, or a similar alternative, to address fire suppression and assist in funding fire support activities in which the City of Sonora

is first responder within areas located outside of the city limits (i.e., within the county—for example, Cabezut Basin).

6.C.m ***Continue to Seek/Maintain Funding for Fire Protection***

Continue to seek and maintain a reliable source of funding for fire protection within the City limits.

6.C.n ***Reevaluate Automatic Aid Agreements if CAL FIRE/TCFD Relocate Outside the City Limits***

If the CAL FIRE and/or the Tuolumne County Fire Department relocate outside of their present location within the city limits (e.g., to Standard); reevaluate existing automatic aid agreements to assess the affects of the move on the Sonora Fire Department's response time and requests for service outside of the city limits.

6.C.o ***Coordinate with Local Fire Safe Councils***

Participate in the planning efforts of and work cooperatively with the local Fire Safe Councils undertaking fuel load reduction efforts in areas within and adjacent to the City including, but not limited to, working with the Highway 108 Fire Safe Council to address fuel load reduction along the Highway 108 corridor (www.tuolumnefiresafe.org).

6.C.p ***Maintain Vegetation Clearances along Emergency Access Routes***

Continue to maintain vegetation clearances along emergency access transportation routes encompassing, at a minimum, the existing width of the roadway.

6.7. Law Enforcement

Civil Disturbances

Public demonstrations tied to conflicts focused towards government agencies, businesses involved in labor disputes, or religion-based disputes may occur in the county. In addition to the Columbia College campus, and the U.S. Forest Service Headquarters on Greenley Road, Sonora's downtown business area is recognized as one of the most likely locations for civil disorder to occur.

Figure 6.5: Sonora Police Department (2006)

Police Protection

The Sonora Police Department's Mission Statement:

> *The service we deliver to the residents, merchants, and visitors of Sonora are in keeping with the highest traditions of public safety. Safeguarding life and property is the Sonora Police Department's highest priority and we pledge to carry out this obligation through compassion, dignity, and equality to every individual. Our actions will be distinguished by professionalism, fairness, and diligence.*

The City of Sonora maintains a Police Department consisting of 25 staff including 14 sworn officers plus support staff. The city also relies on Reserve Police Officers and an active Community Volunteer program. Staffing levels for the City of Sonora Police Department have not markedly increased since 1975.

The Police Department strives to maintain two patrol officers on duty for the majority of each 24-hour period. In general, there are three personnel on duty during critical hours including one supervisor or manager and two officers. The Department operates a 24-hour Dispatch Center. The Department has five divisions: Patrol, Investigations, Animal Control, Parking and Administration. In 2018, the Department responded to 13,545 calls for service.

Special Programs provided by the Sonora Police Department include:

- Police Explorer Post
  Currently with 14 Explorers, the program introduces young men and women to career opportunities in law enforcement. Explorers participate in traffic control, crime scene control, report writing, bicycle licensing, community relations programs, Department/Explorer meetings, training, fingerprinting, security work activities, departmental work activities, and patrol ride-alongs.

- Community Service Volunteers
  These volunteers assist with serving subpoenas, patrolling handicap parking spaces, directing traffic and similar services depending on the volunteers abilities and interests for a minimum of four hours per week.

- School Resource Officer/ DOJ Prop-56 Grant Program
  Two part-time Police Officers are to be assigned to Sonora's private and public schools. The program, is being funded through the Proposition 56, 2016 Tobacco Tax Act.

- Community Service Officers
  The Department employs three part-time Community Service Officers, each working 20 hours per week to assist with non-priority calls including traffic collisions, animal control complaints, property and evidence, subpoenas, crime scene processing and similar activities.

Sheriff/Jail

The county jail and Tuolumne County Sheriff's offices also are located within the city limits at 28 North Lower Sunset Drive. Efforts to relocate both the jail and Sheriff's Department facilities have been ongoing, the identified site for the new Law and Justice Center facility is just outside of the city limits on Justice Center Drive.

California Highway Patrol

The California Highway Patrol maintains facilities at 18437 Fifth Avenue in Jamestown. The CHP patrols Highways 108 and 49 within the city limits.

Court System

Pursuant to a 1998 California Constitutional amendment, Tuolumne County consolidated its Municipal and Superior Courts into a single Superior Court system as did all 58 of California's counties. Oversight of Superior trial courts is provided by the Administrative Office of the Courts, a part of the Judicial Council of California-the policy and rule-making body of the state court system.

Tuolumne County's Superior Court system includes four judges, one Commissioner, and support staff located in two separate court buildings—both located within the city limits. Plans to relocate the county's court facilities to the Law and Justice Center are underway.

6.8. Law Enforcement: Goals, Policies and Implementation Programs

Goal:

6.D Promote and provide security and safety for persons and property within the city.

Policies:

6.D.1 Continue to assess the adequacy of police staffing levels, equipment and facilities to protect persons and property within the city.

6.D.2 Strive to maintain an adequate level of police service necessary to protect persons and property in the city.

6.D.3 Limit criminal activities associated with certain kinds of development through implementation of land use planning techniques which reduce the likelihood of criminal activity.

6.D.4 Continue to coordinate law enforcement activities of the city with those of Tuolumne County, the State of California and agencies of the federal government.

Implementation Programs:

6.D.a ***Identify and Implement Land Use Planning Techniques to Reduce Crime***

Incorporate land use planning techniques to integrate design methods to deter crime (e.g., hours of operation; lighting consistent with community character, use

of private patrols and security personnel in large residential and commercial development).[1]

6.D.b ***Consider Criminal Justice Reimbursement In Future Annexations***

Consider provisions for reimbursement of City of Sonora police services in during consideration of annexation agreements between the City of Sonora and the county to provide reimbursement to the city by the county for the expansion of services which will be required in conjunction with the annexation.

6.D.c ***Continue to Seek/Maintain Funding for Police Protection***

Continue to identify and maintain a reliable source of funding for police protection within the city limits.

6.9. Emergency Services Plan & Emergency Services

6.9.1. Emergency Operations Plan (EOP)

The City of Sonora adopted its Emergency Operations Plan in 1990 to provide guidance for the city's response to emergency situations.

The EOP contains:

Basic Plan:
Describing the overall organizational and operational concepts for responding to emergency situations and an overview of potential hazards which the city could encounter.

Functional Annexes:
In effect, this section provides a single-page master chart (*General Plan 2020* **Appendix 6C**) directing each of the city's emergency agencies to checklists and step-by-step guidance for performing assigned duties during emergencies.

The EOP also includes:

- Designation of alternate seats for city government (the fire station as first alternate and Sonora Police Station as second alternate)
- Designation of alternates to the city administrator to act as Director of Emergency Services (in order: fire chief, police chief, director of public services)
- Designation of the Sonora Fire Department as the city's medical coordinator

Emergency Services Plan
The City of Sonora is a participant in the preparation and implementation of the *Tuolumne County Operational Area Emergency Services Plan* (hereinafter, "Plan") which was last updated in June, 1996. An update of the Plan is pending. The Plan and its subsequent updates are hereby incorporated by reference and address the county and city's response to each of the hazards discussed in the preceding paragraphs. The Plan is available for review at the City of Sonora

[1] Recommended: *SafeScape*, Al Zelinka and Dean Brennan, 2000. APA Planners Press Available through the Planners Book Service, American Planning Association.

Administrative Offices located at 94 North Washington Street, Sonora, M-F, 8:00 a.m. through 3:00 p.m., excepting city holidays.

The plan addresses:

Administration
Including responsibilities of government during disaster, emergency plan authorities and references, comprehensive emergency management planning, the incident command system, continuity of Government, and preservation of records.

Management functions and responsibilities
Including activation of the Emergency Service Plan, resource management, assignment of responsibilities, mutual aid, incident command system, emergency operations center, emergency alerting and broadcast system, emergency broadcast system procedures, emergency public information, evacuation, emergency shelter and feeding, donation management, medical care, public health, mass casualties, mass fatalities, and recovery.

Hazard specific operations
Including aircraft accidents, agricultural disasters, civil disturbance, earthquake, flood/dam failure, hazardous materials, major fire, radiological incidents, severe weather, utility failure, volcanic activities, and water supply.

Chapter 8.30 of the City of Sonora Municipal Code establishes the guidelines for implementing the City's Emergency Services Plan. Pursuant to the Plan, the Mayor of the Sonora City Council is the designated emergency services director for the Office of the Director of Emergency Services. The Vice-Mayor (i.e., mayor pro tem) serves as Director in the absence of the Mayor. The City Administrator is the Assistant Director of Emergency Services in the Office of the Assistant Director of Emergency Services. The city administrator serves as the Director of the Office of Director of Emergency Services in the absence of the Vice-Mayor. The Director of the Office of the Emergency Services Coordinator is appointed by the city administrator.

The Mayor (or Mayor pro-tem or city administrator, as prescribed in Section 8.30.040 of the municipal code) is empowered, during a state of local emergency, to:

- Redirect city funds for emergency use
- Suspend standard city procurement procedures
- Require emergency services of any city officer or employee or, if necessary, the aid of citizens of the city
- Extend governmental authority to nonpublic resources (e.g., personnel and equipment)
- Enter into mutual aid agreements with other public and private agencies, including police and law enforcement, for use of resources
- Establish a curfew
- Evacuate persons
- Limit the number of persons who may congregate in public
- Restrict vehicular and pedestrian traffic

- Curtail or suspend commercial activity
- Direct rescue and salvage work
- Designate persons to coordinate the work of public and private relief agencies
- Control, restrict, and regulate the distribution and use of food, feed, fuel, clothing, other commodities, materials, goods and services by rationing, freezing, use of quotas, prohibitions on shipments, price fixing, allocation or other means
- Direct activities in connection with the use, conservation and salvage of essential materials, services and facilities (e.g., transportation, power, communication facilities)
- Other actions necessary for the management of resources following an emergency

As part of Plan implementation, the city participates in the joint city-county Operational Area Committee established by the Plan. City agencies participating on the Operational Area Committee include: City of Sonora Emergency Services, Sonora Police Department, and the Sonora Fire Department.

Designated emergency operations centers for the city are: The Sonora Fire Department with the Tuolumne County Office of Emergency Services and the U.S. Forest Service offices on Greenley Road as alternate locations.

Section two of the Plan addresses procedures for evacuations within the city and county. The Incident Commander, in coordination with the Sonora Police Department (or Tuolumne County Sheriff's Department, as applicable), is responsible for ordering and managing evacuations within the city. For more widespread emergencies requiring evacuation, evacuation operations are coordinated by the Operational Area Law Enforcement Coordinator (City of Sonora Police Chief or Tuolumne County Sheriff, as applicable), however, the city remains responsible for its own evacuation notifications.

Best available evacuation routes, per the Plan procedures, will be provided in conjunction with the issuance of evacuation orders and will vary depending upon the nature and location of the emergency. During evacuations, the city will make transportation arrangements for groups requiring assistance for those facilities which do not already have evacuation plans in place. The City of Sonora Public Works Department (or Tuolumne County Public Works Department, as applicable) is responsible for identifying potential problem areas along evacuation routes (e.g., weight restrictions, narrow bridges, road sections susceptible to secondary effects of an incident); clearing debris from roads which have been designated as evacuation routes and coordinate with the Emergency Operations Center to estimate traffic capacity for designated evacuation routes and the amount of time for completing the evacuation.

The county has the authority to close county roads. Within the city limits, the city has authority to close city roads. Direction of traffic flow on county roads may be altered at the discretion of the California Highway Patrol and such changes will be coordinated through the Operational Area Law Enforcement Coordinator. Authority to close state highways resides with the California Department of Transportation and, in an emergency, with the California Highway Patrol.

In general, primary evacuation routes identified by the City of Sonora include routes to the north, south, east and west of the city via major highways:

- South Washington Street south to Highway 108 (southern and western route)
- North Washington Street (Highway 49) north on Highway 49 (northern route)
- Mono Way East to Highway 108 (eastern route)

As identified in the Plan, Tuolumne County is part of Mutual Aid Region IV as established by the State Office of Emergency Services. Other counties in Region IV are: Nevada, Placer, El Dorado, Yolo, Sacramento, San Joaquin, Calaveras, Alpine and Stanislaus counties.

6.9.2. Emergency Medical Services

Emergency medical response services are provided within the city by the City of Sonora Fire Department and the Tuolumne County Ambulance Service. In general, four ambulances are normally in service with two back-up ambulances. However, the service has the capacity to provide up to 9 ambulances, if necessary. Tuolumne County pays for equipment and facilities and hires staff pursuant to a contract with another agency. One ambulance will be retained within the city limits.

Tuolumne County has one hospital— located within the City limits of Sonora: Adventist Health Sonora. Adventist Health Sonora opened a new facility in Sonora in 2004 at 1000 Greenley Road relocating from its former site at 4 South Forest Road. The facility is privately owned and operated by Adventist Health.

American Red Cross

The American Red Cross provides disaster relief and recovery in Tuolumne County and within the City of Sonora. The Red Cross is most frequently called upon to provide relief to residents who have lost their home in a fire, although the agency also provides relief for large-scale disasters—one of the most notable being the 1987 Complex Fire in Tuolumne County

6.10. Emergency Services: Goals, Policies and Implementation Programs

Goal:

6.E Undertake adequate preparation for and ensure an adequate response to emergency and disaster situations affecting the City.

Policies:

6.E.1 Prepare City staff, to the maximum extent feasible given available funding levels, to respond quickly and adequately to emergency and disaster situations affecting the city.

6.E.2 Support the formation of self-help/citizen response teams, such as CERT, to aid City agencies.

Implementation Programs:

6.E.a ***Periodically Update Chapter 8.30 of the Municipal Code (Emergency Preparedness)***

Update Chapter 8.30 of the Sonora Municipal Code (Emergency Preparedness) in conjunction with updates of the City's Emergency Operations Plan or more frequently, if necessary.

6.E.b ***Continue to Coordinate with Tuolumne County in Preparation and Implementation of the Tuolumne County Operations Area Emergency Services Plan***

Continue to participate in the preparation and implementation of the Tuolumne County Operations Area Emergency Services Plan and promote consistency between that Plan and the City's Emergency Operations Plan. Continue to emphasize the need to recognize the role of city personnel and agencies, as well as county personnel and agencies, in the Tuolumne County Operations Area Emergency Services Plan.

6.E.c ***Continue to Participate in Emergency Training Exercises***

Continue to participant in joint City/county emergency response training exercises.

6.E.d ***Continue to Maintain a City Safety Committee***

Continue to maintain and hold regular meetings of the City of Sonora Safety Committee to reinforce emergency preparedness.

6.E.e ***Provide Emergency Response/Preparation Guidelines for Citizens, Website Link***

Provide a link from the City's website to the Federal Emergency Management Agency (FEMA) website for emergency response procedures for citizens for emergencies. Provide handouts to the public for emergency response procedures for citizens available from FEMA.

6.11. Hazardous Materials

Pursuant to the City of Sonora Emergency Operations Plan, hazardous materials that could be encountered as a result of a spill or release within the City include:

Herbicides
Pesticides
Chemicals in gaseous, liquid and solid form
Flammable explosives
Petroleum products
Toxic Waste
Radioactive substances

Hazardous materials may be associated with transportation accidents or occur in a fixed production or storage facility. Both accidental and sabotage-related releases are possible as are ones from clandestine drug labs. Both short-term and long-term contamination of an affected area is possible depending upon the situation. Businesses within or adjacent to the City of Sonora storing hazardous materials are listed in *General Plan 2020* **Appendix 6A**. These facilities are predominantly associated with auto-related facilities and gas stations, which store petroleum-based products.

The Tuolumne County Health Department, Division of Environmental Health is the Certified Unified Program Agency with oversight of hazardous materials for Tuolumne County. The City responds to calls related to hazardous material spills or releases and calls on the Tuolumne County Environmental Health Department for support, if needed. The primary responder for hazardous material-related calls within the City is the Sonora Fire Department.

The City of Sonora has adopted the *Multi-jurisdictional Household Hazardous Waste Element* prepared in cooperation with Tuolumne County. The goals of the Household Hazardous Waste Element are to reduce the amount of household hazardous waste generated through reuse and recycling, diversion from landfills, promoting alternatives to toxic household products and educating the public regarding household hazardous waste management.

6.12. Hazardous Materials: Goals, Policies and Implementation Programs

Goal:

6.F Protect people and property from risks associated with the use, transport, treatment and disposal of hazardous materials and wastes.

Policies:

6.F.1 Encourage citizen opportunities for recycling and disposal of household hazardous materials and wastes.

6.F.2 Strive to maintain and increase adequate Fire Protection service levels as necessary to protect persons and property from spills or releases of hazardous materials.

6.F.3 Continue to work cooperatively with other jurisdictions to manage the use , transport, treatment and disposal of hazardous materials.

Implementation Programs:

6.F.a ***Implement the Multi-Jurisdictional Household Hazardous Waste Element***

Continue to implement the programs adopted in the Multi-Jurisdictional Household Hazardous Waste Element designed to reduce the amount of household hazardous waste (HHW) generated within Tuolumne County, including periodic drop-off days for all household hazardous wastes, on-going drop-off program for recyclable household hazardous waste, public education regarding household

hazardous waste reduction, and monitoring the success of these selected programs.

6.F.b ***Continue to Provide Public Information Related to Household Hazardous Waste Drop Off Days***

Continue to provide handouts (available from the county) listing upcoming dates and locations for Household Hazardous Waste Drop-Off Days.

6.F.c ***Support Efforts to Increase Opportunities for Recycling and Disposal of Computer Components***

Support county efforts to sponsor household hazardous waste drop-off opportunities which allow for the recycling and disposal of computer components [e.g., monitors, keyboards, printers, computer processing units (CPU)]. Support may be provided through providing assistance in locating facilities in the city for drop-off and assisting in promoting public awareness of opportunities for disposal and recycling.

6.F.d ***Continue to Participate in Updates of the Comprehensive Hazardous Waste Management Plan***

Continue to participate with the county in preparation of the Comprehensive Waste Management Plan.

6.F.e ***Continue to Participate on the County Solid Waste Committee***

Continue to provide City representation on the Tuolumne County Solid Waste Committee.

6.F.f ***Maintain an Inventory of Sites Storing or Using Hazardous Materials***

The Sonora Fire Department should continue to update *General Plan 2020* **Appendix 6A** annually. The Sonora Fire Department should consider mapping the sites included in *General Plan 2020* **Appendix 6A** with accompanying hazardous material information to facilitate access hazardous materials information during spills or releases.

6.13. Water Supply & Utilities

The county has more than 133 water suppliers. The largest supplier of potable water is the Tuolumne Utilities District (TUD) which serves all of the City of Sonora. Emergency situations related to water supply are associated with water quantity and quality. TUD owns and operates the water utilities in the city of Sonora and is responsible for supplying the city with water.

6.13.1. Water Quantity

The peak load water demand for the City of Sonora in 2002 was 3.5 million gallons per day (TUD, 2004). Three water storage facilities provide water for the City of Sonora—all are located within or adjacent to the city limits:

- Greenley Road water tank adjacent to Sonora Hills – 2.7 million gallons storage

- Sonora Water Treatment Plant water storage tanks on Bald Mountain Road - Storage capacity 2 million with potential expansion to 3 million gallons
- Sonora Reservoir at the end of Reservoir Road – 60,000 gallons

A failure of the county's more than 71 miles of water supply ditches; damage to one of TUD's water storage facilities; or drought could result in a full or partial loss of water supply to the City.

Drought occurs in Tuolumne County. The Sonora Emergency Operations Plan states that, during periods of drought, emergency response measures will consist of land use planning practices consistent with water conservation goals and various water conservation methods. TUD also has adopted requirements for drought periods for the conservation of water.

6.13.2. Utility failures

Utility facilities within the city include landline phone service, cellular phone service, radio communication sites, internet services, liquid petroleum, electricity, water (see above), and sewage disposal. Interruptions to utility services delivered through above or below-ground pipelines, ditches or electrical lines could suffer service interruptions from earthquakes, floods, fire, wind storms, landslides, sabotage or similar events.

6.14. Utilities & Communications and Water Supply: Goals, Policies and Implementation Programs

Goal:

6.G Facilitate actions for alternate resources to provide or supplement utility and communication services for essential emergency response entities.

6.H Implement procedures to deliver supplemental water supplies for city residents during emergency situations.

Policies:

6.G.1. Proactively plan for emergency response during situations affecting the essential services and communications.

6.G.2 Coordinate with public utility agencies in the preparation of emergency operations plans.

Implementation Programs:

6.G.a **Coordinate Efforts with Local, State and Federal Emergency Response Agencies**

Establish communication and resource management procedures with Tuolumne County, State and Federal agencies.

6.G.b ***Collaborate with KVML and other Media Resources to Provide Emergency Updates to Citizens***

Cooperate with KVML Radio and other available news and media sources to push and disseminate emergency information to the community. Consider appointing a liason for real-time sharing of information to the media.

6.15. Other Safety Issues: Transportation, Severe Weather, and Agricultural Disaster

6.15.1. Transportation Accidents (including aircraft and rail accidents)

Major east-west commercial air transportation routes pass directly over parts of Tuolumne County. The Columbia Airport, located north of the city, and Pine Mountain Lake Airport located south of the city, also generate large numbers of private aircraft. From June through mid-October, the CAL FIRE operate firefighting aircraft out of the Columbia Airport Air Attack Base.

The Sierra Railroad traverses southern Sonora and crosses Sonora roadways in three locations: South Washington Street near its intersection with Hospital Road, Wards Ferry Road at its intersection with Sanguinetti Lane, and Sanguinetti Loop at Sanguinetti Road within the city limits. Under current operating conditions, a train makes one round-trip to the lumber mill in Standard through Sonora (i.e., passes through the city twice daily). Occasional passenger trains from Railtown 1897 State Historic Park in Jamestown and occasional work trains also pass through Sonora. Train derailments have resulted in the temporary closure of access to and from Sonora along South Washington Street to Highway 108.

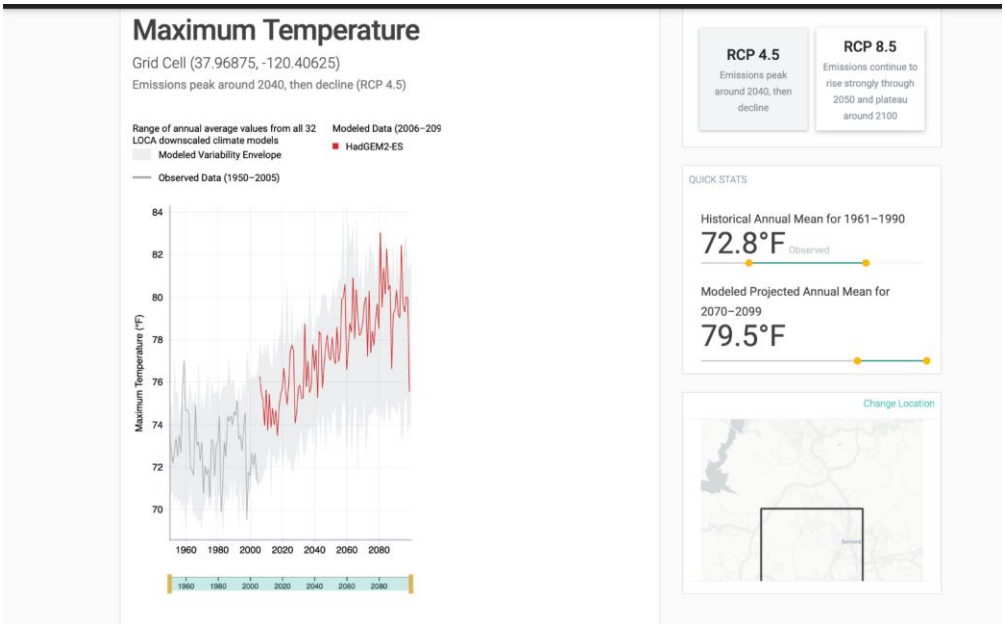
Crash, derailment, or collision involving aircraft, trains, truck, or other passenger or cargo vehicles could occur within the city limits. Transportation accidents resulting in spills of hazardous materials are addressed in the Hazardous Materials portion of this element.

6.15.2. Severe Weather

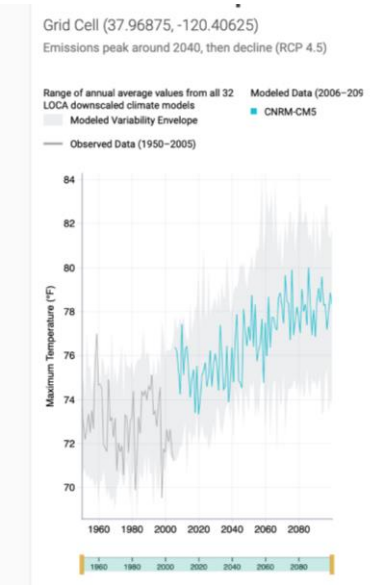
Severe weather may occur in the form of wind, rain, snow, ice, extreme cold or heat and/or thunder storms. The City of Sonora also has occasionally been subject to tornado warnings. All of these conditions could result in loss in life and property, and interruption of transportation and communication systems.

Figure 6.6 – Extreme Event Potential

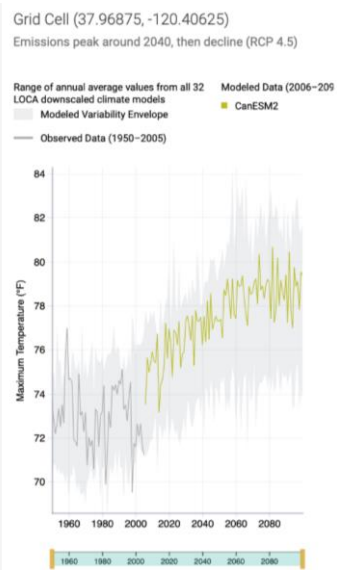
Source: CalADAPT Tool



Extreme Wet Cold



Cumulative Events



6.15.3. Agricultural Disasters

Agriculture within the city limits is minimal. Therefore, disasters affecting agriculture are unlikely to directly affect the City of Sonora.

6.16. Severe Weather and Transportation Incidents: Goals, Policies and Implementation Programs

Goal:

6.H Prepare city staff, agencies and citizens to respond in a coordinated and cooperative manner to emergency situations.

Policies:

6.H.1 Prepare a Climate Action Plan.

6.H.2 Facilitate and encourage citizen self-help during emergency situations.