



# Public Safety

## Chapter 4

Since 1975, the California Government Code has required an element of the General Plan to address public safety, which was combined with the seismic element through an act of the legislature in 1984. As required by law, this public safety element includes policies and implementation measures that are for the purpose of protecting the community and its residents, as well as its structures, properties, and infrastructure, from any risks associated with the effects of natural or manmade hazards. Therefore, this chapter is comprised of the following:

- **Flooding** has traditionally been among the greatest hazards to life and property in Williams. This is due to the expansive 100-year floodplain lying to the north of the community. The flat topography of Williams combined with inadequate flood storage and lacking system capacity leads to inundation during heavy storm events. This inundation is mostly in the rural, undeveloped areas although there is property and structural flooding along the northern fringes of development, which (anecdotally) has stretched along 6th and 7th Streets as far south as D Street. Fortunately, this flooding has not been significant enough to lead to a loss of life, but it has caused structural damage and thus, affects the value of development in these areas. In the context of public safety, the mitigation of flooding is often discussed and thus, among the highest priorities for the community.
- **Seismic and geologic hazards** are an important consideration in the state due to the presence of fault lines and their proximity to developed areas. While there are no active faults near Williams or in Colusa County, the northern Sacramento Valley can expect regular low-intensity shocks. However, according to the State Division of Mines and Geology, the possibility of a major earthquake cannot be ruled out. The City must therefore, take the necessary steps to prepare itself and its residents against such natural hazard. Other seismic and geologic considerations include landslides, subsidence, expansive soils, erosion, and volcanic eruptions, which have varying degrees of hazard for Williams.

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- **Structural fires and wildfires** are a constant hazard in Williams as they are in any community. The Williams Fire Protection Authority was formed in 1994 for the purpose of protecting life and property within the City of Williams and the surrounding rural area. From their single station, they provide response to medical and fire calls and for other emergency response purposes. The Authority is responsible for reviewing site and building plans and both administering and enforcing compliance with the California Fire Code.<sup>1</sup> The areas that are most susceptible to wildfires are those to the west of Williams, which increase in severity with distance from the community.
- **Police services** include the protection of persons and property within the City limits. The Williams Police Department is responsible for crime prevention and law enforcement, as well as community education. The areas outside the City limits are the responsibility of the Colusa County Sheriff's Department and the California Highway Patrol along I-5.
- **Hazardous materials management** is important to ensure the safe storage, handling, and transportation of hazardous materials within and through the community. Most of the hazardous materials that have the potential to affect Williams are those associated with agricultural operations, including the use of aerial and ground application of chemicals. Additionally, major transportation routes such as I-5, Old Highway 20, and CFNR Railroad are used to transport these materials to and through Williams. Proper handling and management of any accidental releases or spill events is a primary consideration.

The plan shall include the following elements:

(g) A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction and other seismic hazards; flooding; and wild land and urban fires.

-California Government Code, Section 65302

### Purpose

The purpose of this general plan element is to identify the various threats to the health and safety of the community, and address them with both short-term and long-range solutions that will be proactive in an effort to prevent the occurrence of unnecessary disasters, while also protecting against the loss of life, property and resources should one occur. The policies of this element are intended to direct the decision-making bodies of the City to provide an acceptable level of protection to the City and to ensure that development provided for in this General Plan Update offers an equivalent level of protection. This protection will be achieved through the construction of new facilities, development and execution of new plans and safety programs, and the good and regular maintenance of the control measures already in place.

### Realization

The following subsections elaborate on the existing conditions, key future planning considerations, and the context of each of the above described safety hazards. This narrative is followed by the City's policies and the advisable action steps to be taken to effectively implement this general plan.

<sup>1</sup> The California Fire Code, 2007 Edition, incorporates and amends the International Fire Code, 2006 Edition, published by the International Code Council, which is adopted by reference and incorporated as the fire code of the city.



## FLOOD PROTECTION

Williams is confronted with persistent flood hazards due largely to the upstream watershed. In general, there are approximately 125 square miles of mountains and farmland that drain into the network of creeks and drainage canals above the City. Therefore, rainfall events often exceed the capacity of the conveyance systems, which results in overflows of storm waters that flow into developed portions of the City. As a result, the City has had several disaster declarations, which has resulted in costly damages and emergency construction.

The City lies mostly within the Freshwater Creek Basin. Two of the basin's tributaries include Salt Creek and Spring Creek, both of which flow through the City and its sphere of influence. As the primary conveyances, the capacity of these stream channels is often exceeded, even with modest rainfall events. This is due, in part, to the external hazards attributed to the runoff generated in areas of the watersheds that are outside of the City. Since these areas are largely rural and have less affect on property, these watersheds have not been extensively studied nor have significant, near-term improvements been identified. Secondly, flooding is caused by a lack of storm drainage infrastructure within the City. Since much of the drainage within the City is by way of overland sheet flow and above ground facilities like roadside ditches, valley gutters, and surface drainage in streets, there is simply an insufficient capacity to adequately handle the volume of storm water that is generated outside of and within the City.

The City participated in the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) program. As part of its administration of the National Flood Insurance Program (NFIP), FEMA publishes flood hazard maps (known as FIRMs). The purpose of a FIRM is to show the areas in Williams that are subject to flooding and the risk associated with these flood hazards. One of the areas shown on the FIRM is a Special Flood Hazard Area (SFHA). The SFHA is the area that has a 1-percent or greater chance of flooding in any given year; this area is also referred to as the 100-year floodplain. The flood hazard and risk information presented on the FIRMs is the result of engineering studies that are performed by engineering companies, other Federal agencies, or communities, which are reviewed for compliance with FEMA guidelines and approved by FEMA.

The City's involvement in NFIP requires it to adopt and enforce minimum floodplain management standards. These floodplain management requirements are designed to prevent new development from increasing the flood threat and to protect new and existing buildings from anticipated flood events. The City must therefore, require permits for all development in the SFHA and ensure that construction materials and methods used will minimize future flood damage. In return, the Federal Government makes flood insurance available for almost every building and its contents within the

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

community. No insurance may be obtained for structures built within the designated floodway or below the elevation of the 100-year flood. However, insurance is available in the 100-year floodplain for homes built with the first floor of living area above the 100-year flood elevation.

Land development results in an increase in the amount of impervious surfaces and decreased ground cover and vegetation. These conditions limit infiltration and, without adequate mitigation, can increase storm water runoff rates and volumes, and decrease the time required to reach and surpass the capacities of the drainage conveyance systems. For this reason, the City must be cognizant of the impacts of new development, and adequately prepare for and plan to mitigate these impacts with good design principles and adequate, up-to-date standards.

There have been a large number of studies undertaken to address the flooding conditions in and around Williams.<sup>2</sup> Two of the more recent include Preliminary Technical Memorandum for Flood Hazard Mitigation Study Project Alternatives and the Storm Drainage Master Plan. These two studies offer recommendations regarding the design capacities for sizing storm drainage infrastructure and detention basins, structure and non-structural measures to reduce existing flooding problems, preparation of a storm water management plan, and considerations applicable to new development. Many of these recommendations warrant consideration concurrent with the implementation of this general plan update.

#### Policies

- 4.1. The City will require applicants for development to submit drainage studies that adhere to storm water design requirements and incorporate measures from the Storm Drainage Master Plan to prevent on- or off-site flooding.
- 4.2. Future development will include adequate provisions for on- and/or off-site collection, storage, and conveyance of storm water, in accordance with the City's policies and standards.
- 4.3. Land within the floodplain that is indicated for future development in this general plan will mitigate flooding conditions through the means required by the City and FEMA.
- 4.4. New development shall not cause downstream property owners, watercourses, channels, or conduits to receive storm water runoff at a higher peak flow rate than would have resulted from the same storm event occurring over the development site with the land in its natural, undeveloped condition.

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<sup>2</sup> The Preliminary Technical Memorandum for Flood Hazard Mitigation Study Project Alternatives, March 28, 2003, references a bibliography of more than 30 reports and studies throughout the Sacramento Valley.



- 4.5. Storm retention/detention facilities will be integrated into the open space set-asides of future land developments and used as amenities and recreational areas.
- 4.6. Storm detention basins will be jointly used as public open space and recreational facilities where such improvements are determined by the City to be needed and warranted.
- 4.7. The City will continue to participate in the National Flood Insurance Program and in so doing with maintain their regulations in compliance with the standards of the Federal Emergency Management Agency (FEMA).
- 4.8. The City will promote and encourage the use of natural drainage configurations such as depression areas, wetlands, and natural swales versus underground storm drainage infrastructure.
- 4.9. The design of drainage improvements will be sensitive to community aesthetics, aquatic habitat, recreation (trails, playing fields), wetlands, and water quality mitigation.
- 4.10. The City will encourage design strategies to reduce the impact of impervious surfaces on storm water quality through the use of water gardens, rain barrels or cisterns, pervious pavement, vegetated swales, swale blocks, and green roofs, among others.
- 4.11. Review this Public Safety Element concurrently with the periodically updated Housing Element to update any new information regarding floodplain mapping and/or regulations and to ensure consistency.
- 4.12. Discourage extensive areas of impermeable surfaces and promote the use of permeable materials for surfaces such as driveways and parking lots.
- 4.13. The City will identify flood hazard information.
- 4.14. In its pending new Drainage Master Plan, the City will identify goals, objectives, and feasible implementation measures to protect itself from unreasonable risk of flooding.
- 4.15. The City will take a comprehensive approach to flood mitigation, and include floodplain management ordinances.

#### Actions

- 4.a. The City of Williams will coordinate with agencies having jurisdiction over the upstream lands to identify flood control alternatives and employ better flood management practices as a means to mitigate flooding conditions in the community.
- 4.b. The City will require a minimum of 100-year flood protection for new construction, and strive 100-year flood protection for unincorporated communities. Should FEMA increase these minimum standards, the City will mirror the new level of protection at the local level.
- 4.c. Update the Storm Drainage Master Plan to revise the assumptions relating to the future types and patterns use and their corresponding levels of imperviousness. This is particularly relevant and important

Vegetated Swale



Bioswale



Among the "green infrastructure" strategies are the use of vegetated swales and bioswales to improve storm water quality.

- considering the open space ratios that are integrated into the land use and zoning districts.
- 4.d. Maintain a Flood and Drainage Master Plan that addresses the following, at a minimum:
- Storm water and drainage improvements for all sections of the City that are needed to accommodate planned growth;
  - Coordination with irrigation districts, the County and other affected flood control agencies to develop uniform standards for irrigation and storm water conveyance infrastructure; and
  - Standard measures used for new development to address localized flooding, such as measures to avoid off-site drainage impacts from adjacent agricultural operations.
- 4.e. At the time the City reaches a size by which it is required to comply with Section 402(p) of the Federal Clean Water Act, prepare a Storm Water Management Plan (SWMP) to fulfill the requirements for improving the quality of storm water discharges from Small Municipal Separate Storm Sewer Systems (MS4) for Phase II municipalities.
- 4.f. Begin identifying Best Management Practices (BMPs), particularly construction site storm water runoff control and post-construction storm water management, to reduce the discharge of pollutants to the storm water system. These should be integrated as standards into the City's subdivision regulations.
- 4.g. Through improved land development practices and regulations, establish a hierarchy for managing storm water with the following priorities: minimize impervious surfaces, attenuate flows by use of open, vegetated swales and natural depressions and preserve existing natural stream channels, infiltrate runoff<sup>3</sup>, provide storm water retention and then detention structures, provide velocity dissipation structures or channel design, and construct storm sewers.
- 4.h. Require new development projects to provide site or project specific storm drainage solutions with are consistent with the approach outlined in the Storm Drainage Master Plan.
- 4.i. Require storm water storage facilities to be designed to store 115 percent of the required storm volume to support the development as means to reduce the need to clean out accumulated sediments and other solids.
- 4.j. Require new development projects to construct elements of the master plan infrastructure system that are within or abutting their project boundaries.

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<sup>3</sup> Infiltration is based on the extent practicable considering Group D soils that have a high runoff potential.



- 4.k. Allow the use of temporary onsite detention basins as an interim measure, subject to applicable engineering standards, only until such time as the City's permanent drainage system is completed. Funds, in an amount to be determined, must be deposited with the City to pay for the future decommissioning and filling of the temporary detention basin.
- 4.l. Pre-plan for the incorporation of recreation elements into future detention basins by acquiring sufficient additional land and programming recreational facility improvements, as applicable.
- 4.m. Investigate the feasibility of the alternatives outlined in the Preliminary Technical Memorandum for Flood Hazard Mitigation Study Project Alternatives. The structural alternatives include improving the conveyance capacity of Freshwater and Salt Creeks and the supporting network of drainage laterals, replacing bridge crossings to remove obstructions, constructing diversion dams to channel flows away from the City, constructing flood detention and multi-purpose flood retention reservoirs, constructing levees to the west and north of the City with removable floodwall sections, and elevating existing structures. The non-structural alternatives include land acquisition, cropland storage, channel restoration, upland re-vegetation, and improved maintenance of stream channels.
- 4.n. Investigate and adopt the necessary funding approaches to facilitate development of the City's storm drainage system, including consideration of a storm drain utility fee for improvements within the existing developed area<sup>4</sup> and development impact fees, assessment district(s), and/or special tax districts for new development.<sup>5</sup>
- 4.o. Annually review areas subject to flooding, levee failure, and dam inundation, including any relevant information developed by FEMA, the California Department of Water Resources, and other agencies, and update City-wide flood risk maps accordingly in compliance with AB 162.
- 4.p. During preparation of the Capital Improvement Program, review the conditions of bridges, culverts, railroad trellis structures, and other flood control and storm water conveyance infrastructure and include necessary improvements on the CIP to ensure safety of persons in the City and adequate conveyance of flood waters.
- 4.q. In accordance with California Government Code Sections 65302.9 and 65860.1, once the Central Valley Flood Protection Plan (CVFPP) has been adopted in July 2012, the City will review, and if necessary



The joint use detention facility that also provides a wetland, park, and play fields in Valley Ranch is exemplary of the approach advocated by this general plan.

<sup>4</sup> This would be subject to the provisions of Proposition 218, the "Right to Vote on Taxes Act" of 1996.

<sup>5</sup> The use of special tax districts is in accordance with the Mello Roos Community Facilities District Act of 1982.

amend, this Safety Element and the Zoning Code, to ensure that they are consistent with the CVFPP.

4.r. Review the Municipal Code and revise as necessary to ensure that development standards are consistent with the requirements of state law, including Government Code Section 65007. Development and building standards shall require the following:

- New structures proposed for location within the floodplain as established by FEMA shall be elevated one (1) foot or more above the base flood elevation;
- New construction in the floodplain as established by FEMA shall be designed and constructed so that they do not contribute to cumulative flooding problems that could pose a hazard to surrounding landowners or the public.

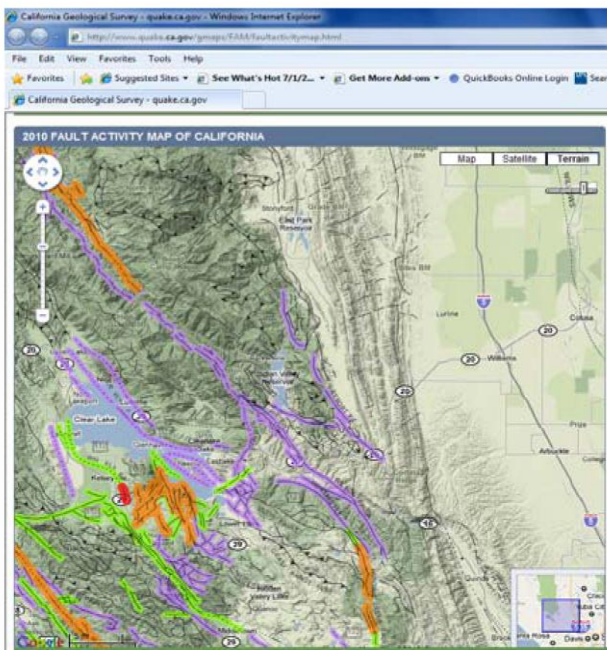
4.s. Collaboratively seek with Colusa County, irrigation districts and other local agencies State and Federal funding for improvements to existing flood control and drainage infrastructure.

#### SEISMIC AND GEOLOGIC HAZARDS

The State of California has identified five areas of critical seismic concern including surface ruptures, ground shaking, ground failure, tsunamis, and seiches. Each of these is caused by earthquake activity thereby creating hazards for life and property, which has the potential anywhere in California. While there are no active faults in Williams or Colusa County, the northern Sacramento Valley is to expect low-intensity shocks from time to time. Williams is not at risk for tsunamis or seiches due to its inland location and the absence of nearby large bodies of water.

The faults that are in the Valley are what are referred to as quaternary, meaning they were active 200,000 years ago, or even pre-quaternary (active two million years ago). Much of

the earthquake preparedness efforts conducted in the area to date have considered earthquakes that occur outside of Colusa County. The nearest known fault is at Sutter Buttes (lying midway and slightly north between Colusa and Yuba City) for which the maximum credible earthquake could measure a magnitude of 5.7 on the Richter scale. Ground shaking from this level of earthquake would be felt and observed as to its cause. The damage would be moderate to major, with general damage to foundations, partial to complete collapse of unreinforced masonry structures, partial damage to reinforced masonry structures, and underground pipes broken. Therefore, there are seismic risks in Williams and throughout Colusa County for which preparedness is wise and warranted.



This map published by the California Geologic Survey indicates the fault traces that are present in the area to the west of Williams.





In 2004, the City adopted a resolution to adopt the Colusa County Operational Area Local Hazard Mitigation Plan.<sup>6</sup> This plan was required by Federal law<sup>7</sup> as a prerequisite for the receipt of Federal grant funds, and establishes parameters of O.E.S. to carry out post disaster mitigation activities. The goals of the plan is to provide the basis for funding pre-mitigation priorities for projects that save lives and reduce damage. This plan includes a series of mitigation strategies that are applicable to the City of Williams. These primarily relate to enforcing earthquake preparedness activities and inspections based on city and county codes, public education and preparedness drills, bringing buildings to code, preparing to reduce flood damage, and enforcing wild fire defensible zones around homes. Specifically related to Williams, the mitigation measure identified is to maintain the integrity of stream banks to protect against flooding. This plan is required to be updated in 2010, which is the sole responsibility of the Colusa County Office of Emergency Services. It is advisable for the City to actively engage in this update process.

#### Policies

- 4.16. The City will continue to coordinate with the Colusa County Office of Emergency Services and the California State Office of Emergency Services to collect, account for, and distribute geologic data for use in preparedness and hazard mitigation planning.
- 4.17. Geotechnical investigation will be required by the City for any development proposed to occur in an area of known subsidence for which engineering modifications may be necessary to mitigate or eliminate adverse impacts.
- 4.18. The City supports the Williams Fire Protection Authority (WFPA), efforts to continuously seek to lower its fire insurance rating Public Protection Classification (PPC) by improving the availability of water and the adequacy of fire flows and investing in an advance communication system.
- 4.19. The City will comply with state seismic and building standards in the design and citing of its critical emergency response facilities, and coordinate with other local agencies, such as the Williams Unified School District, to facilitate their compliance as well.

#### Actions

- 4.t. Coordinate with the Colusa County Office of Emergency Services in their 2010 update of the Local Hazard Mitigation Plan. Specifically, the City should seek to elaborate on this plan to ensure its interests in hazard preparedness, as well as consistency with this general plan. This will require a new resolution to replace Resolution 04-38.
- 4.u. Update from time to time the City's building standards to stay current with amendments to the California Building Code.

<sup>6</sup> Resolution 04-28, adopted by the City Council of the City of Williams on December 8, 2004.

<sup>7</sup> Disaster Mitigation Act of 2000 and 44 CFD, Part 201

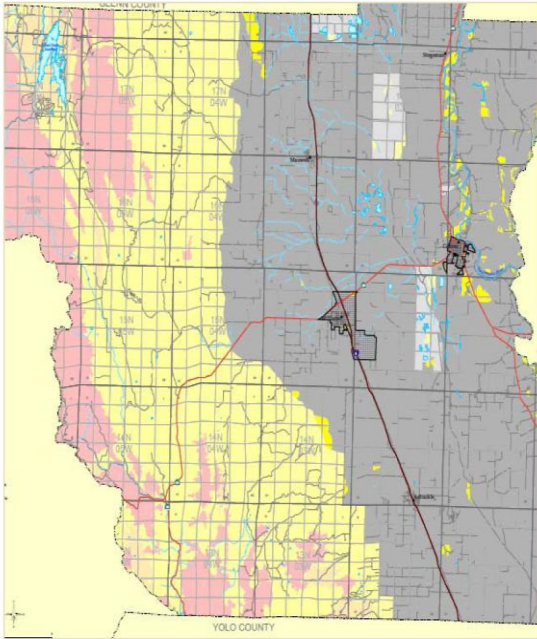
- 4.v. Investigate buildings within the City of Williams that were constructed of unreinforced masonry and built prior to the current standards of building construction to document their location and make record of needed code compliance.
- 4.w. Update and keep current an emergency response plan for the City that outlines the roles and responsibilities of different agencies, the command center location, areas of shelter, means of public notification, and the methods for providing emergency response.

#### FIRE PROTECTION SERVICES

According to the California Department of Forestry and Fire Protection, the City of Williams is within a Local Responsibility Area (LRA) that is unzoned as to its fire hazard severity zone. Essentially, this means that the City is at low risk for wild land fires. Areas further west in the foothills and mountains of Colusa County have an increased potential for fire hazard.<sup>8</sup> Although the risk is low within the community, it is important for the City to remain cognizant of this potential threat, and to prepare itself in a manner that protects life, property, and resources from wildfires. Therefore, it is prudent for the City to adapt its fire protection planning to incorporate good practices for limiting the exposure to unnecessary fire hazards.

The State Board of Forestry and Fire Protection classify areas in which the primary financial responsibility for preventing and suppressing fires is that of the state. These include: lands covered wholly or in part by timber, brush, undergrowth or grass, whether of commercial value or not; lands which protect the soil from erosion, retard run-off of water or accelerated percolation; lands used principally for range or forage purposes; lands not owned by the Federal government; and lands not incorporated. By Board regulations, unless specific circumstances dictate otherwise, lands are removed from State Responsibility Areas (SRAs) when housing densities average more than three units per acre over an area of 250 acres. CAL FIRE has SRA responsibility for the protection of over 31 million acres of California's privately-owned wild lands. The area to the west of Williams is within the SRA, for which the WFPD has a contract with the Lake Napa Unit for fires within this area.

The responses of the Williams Fire Protection Authority may be grouped into three categories: fire calls, emergency medical calls, and non-fire calls. The latter are for investigations of possible fire hazards, false alarms, and other miscellaneous calls. The numbers of calls within each of these categories is outlined in *Chapter 2, Background Analysis*. In short, the WFPA's incident response has been maintained at roughly one hundred calls per



The yellow and pink areas lying west of Williams are within the State Responsibility Area. These are within the other moderate (yellow) to other very high (pink) fire hazard severity zones.

<sup>8</sup> The Fire Hazard Severity Zones in Local Responsibility Area map shows the western portions of Colusa County in the "Other Moderate" and "Other Very High" zones.



thousand population (0.11), which is significantly lower than the national average of 0.19 per thousand. While a majority of these calls are within the City of Williams, the entire service area is over 200 square miles.

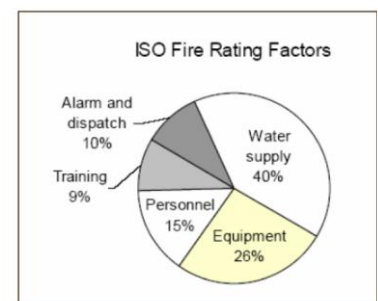
Fire protection services for the 3,187.3 acres that exist within the City Limits are managed from one station located at 810 E Street. While a one and one-half mile radius covers the entire City limits from this location, the response time to East Williams is dependent upon whether or not there is a train crossing E Street. If so, fire response must be rerouted north to Old Highway 20, which lengthens the trip and increases the time of response. As the community expands eastward a second station is warranted on the east side of town. This is based on the Insurance Services Organization (ISO) guideline that a fire station can cover one and one-half road miles from an existing station. As new growth occurs beyond these limits, either during the horizon of this general plan or beyond, further consideration should be given of establishing a second fire station.

The Insurance Services Organization (ISO) rating is four (out of a possible ten, with one as the highest) within the City and six for a distance up to five miles from the fire station. This is important as insurance companies use Public Protection Classification (PPC) information to help establish the premiums for fire insurance

- generally offering lower premiums in communities with better protection. The ISO rating is determined using a manual called the Fire Suppression Rating Schedule (FSRS), which evaluates three major areas:

- Fire alarm and communications systems. A review of the fire alarm system accounts for 10 percent of the total classification. The review focuses on the community's facilities and support for handling and dispatching fire alarms.
- Fire department. A review of the fire department accounts for 50 percent of the total classification. ISO focuses on a fire department's first-alarm response and initial attack to minimize potential loss. Here, ISO reviews such items as engine companies, ladder or service companies, distribution of fire stations, equipment carried on apparatus, pumping capacity, reserve apparatus, department personnel, and training.
- Water supply. A review of the water-supply system accounts for 40 percent of the total classification. ISO reviews the water supply a community uses to determine the adequacy for fire-suppression purposes. The organization also considers hydrant size, spacing, type, and installation, as well as the inspection frequency and condition of fire hydrants.

The Fire Suppression Rating Schedule (FSRS) measures the major elements of a community's fire-suppression system and develops a numerical grading called a Public Protection Classification (PPC). The items considered in the FSRS and the percentage weighting of each item in the calculation that leads to a PPC rating is as follows:



The Insurance Services Office (ISO) collects information on public fire protection and analyzes the data using a Fire Suppression Rating Schedule (FSRS). ISO assigns a Public Protection Classification (PPC) from 1 to 10. Class 1 represents the best public protection, and Class 10 indicates less than the minimum recognized protection.

### Receiving and handling of fire alarms

|  |            |
|--|------------|
| Receipt of fire alarms by commercial telephone — ISO compares the number of telephone lines provided with the number of telephone lines needed for emergency and business calls. The number of needed lines depends on the population served by the communication center. ISO also evaluates telephone directory listings.   | 2%         |
| Operators — ISO compares the number of fire alarm operators provided with the number of operators needed. The number of needed operators depends on whether the community is meeting its performance standards with existing operators for receiving and dispatching alarms. Alternatively, if performance data is unavailable, the number of needed operators is based upon the number of alarms received.                          | 3%         |
| Alarm dispatch circuits — All fire departments (except for single-station departments with full-time personnel receiving alarms directly at the station) need adequate means of notifying personnel of fire locations. ISO evaluates the type and arrangement of those facilities.   | 5%         |
| <b>Subtotal</b>  | <b>10%</b> |
| <b>Fire department</b>   |            |
| Pumpers — ISO compares the number of in-service pumpers and the equipment carried with the number of needed pumpers and the equipment identified in the FSRS (or equivalency list). The number of needed pumpers depends on the Basic Fire Flow, the size of the area served, and the method of operation.   | 10%        |
| Reserve pumpers — ISO evaluates the adequacy of the pumpers and their components with one (or more in larger communities) pumper out of service.   | 1%         |
| Pump capacity — ISO compares the pump capacity of the in-service and reserve pumpers (and pumps on other apparatus) with the Basic Fire Flow. ISO considers a maximum Basic Fire Flow of 3,500 gpm.  | 5%         |
| Ladder/service — Communities use ladders, tools, and equipment normally carried on ladder trucks for ladder operations, as well as for forcible entry, utility shut-off, ventilation, salvage, overhaul, and lighting. The number and type of apparatus depend on the height of the buildings, needed fire flow, and the size of the area served.  | 5%         |
| Reserve ladder and/or service — ISO compares the adequacy of ladder and service apparatus when one (or more in larger communities) apparatus is out of service.  | 1%         |
| Distribution of companies — ISO credits the percentage of the community within specified response distances of pumpers (1-1/2 miles) and ladder/service apparatus (2-1/2 miles).   | 4%         |
| Company personnel — ISO credits the personnel available for first alarms of fire. For personnel not normally in the fire station (for example, volunteers), ISO reduces the value of the responding members to reflect the delay due to decision, communication, or assembly. ISO then applies an upper limit for the credit for manning, as it is impractical for a very large number of personnel to operate a piece of apparatus. | 15%        |



|  |             |
|--|-------------|
| Training — Trained personnel are vital to a competent fire-suppression force. ISO evaluates training facilities and their productivity; training at fire stations; training of fire officers, drivers, and recruits; and building familiarization and prefire planning inspections.  | 9%          |
| <b>Subtotal</b>  | <b>50%</b>  |
| <b>Water supply</b>  |             |
| Adequacy of water supply — ISO compares the available water supply at representative community locations with the needed fire flows for those locations. The supply works, the water main capacity, or fire hydrant distribution may limit the available supply.   | 35%         |
| Hydrants: size, type, and installation — ISO evaluates the design capacity of fire hydrants.   | 2%          |
| Hydrants: inspection and condition — ISO evaluates the frequency of fire hydrant inspection, the completeness of the inspections, and the condition of the hydrants.   | 3%          |
| <b>Subtotal</b>  | <b>40%</b>  |
| <b>Divergence</b>  |             |
| Divergence — An inadequate water supply may limit the ability of even the best fire department to suppress fires. Similarly, an inadequate fire department may not be able to make effective use of an abundant water supply. So, if the quality of the fire department and the water supply are different, ISO adjusts the total score downward to reflect the limiting effect of the less adequate item on the better one. |             |
| <b>TOTAL</b>   | <b>100%</b> |

Source: <http://www.isomitigation.com/ppc/2000/ppc2007.html>

The WFPA has established a response time standard to determine the effectiveness of fire services in Williams. A six minute response time on 90 percent of its calls has been determined to be the target for the purpose of saving lives and structures. Currently, the Authority has a response time of approximately seven minutes. Another station location on the east side of I-5 would improve response time.

Municipal Code Chapter 17.112 establishes a fire facilities development fee that imposes upon residential, commercial, industrial and other land development projects an equitable share of the cost of additional and expanded fire needs created by new development projects. The amount of the fee was initially established by Resolution 91-13 in 1991. The amount of the fee remained unchanged until Resolution 03-24,<sup>9</sup> which established updated fees to allocate a fair portion of the costs of the fire facilities. This resolution also provided that, “Commencing on July 1, 2004, the Fee shall be adjusted on July 1 of each year to reflect the increase, if any, in the cost of living...”. In light of the expected future growth this annual review is warranted.

<sup>9</sup> Passed and adopted by the City Council on October 8, 2003



| Year | Population | Firefighters |
|------|------------|--------------|
| 2009 | 5,287      | 4            |
| 2015 | 6,279      | 5            |
| 2020 | 7,322      | 6            |
| 2025 | 8,487      | 6            |
| 2030 | 9,822      | 7            |

The current ratio of full-time firefighters is 0.76 per 1,000 residents. In order to maintain this ratio, the number of full-time firefighters needed for the projected increase in population is shown above.

Source: Kendig Keast Collaborative

#### Policies

- 4.20. The City supports the Williams Fire Protection Authority's (WFPA), efforts to lower its fire insurance rating and public protection classification (PPC) by:
- improving the availability of water and the adequacy of fire flows; and
  - investing in an advanced communication system.
- 4.21. The City will continue to coordinate with the Colusa County Office of Emergency Services to identify and establish evacuation routes and operational plans to be used in case of a fire (or other) public safety hazard.
- 4.22. The City will continue to coordinate with the WFPA to minimize its risk for wild land and urban fires through the administration and enforcement of Chapter 15.24, Fire Code concurrent with the amendments of the California Fire Code.
- 4.23. The City will continue to work with the WFPA to plan for the provision of water infrastructure to support the fire fighting capabilities of the WFPA.
- 4.24. The City will continue to support the WFPA in its participation in the California Master Mutual Aid Agreement.
- 4.25. The City will observe responsible land use planning as it relates to the management and protection against fire hazards.
- 4.26. The City will support the WFPA investigations of constructing a second fire station on the east side of I-5.

#### Actions

- 4.x. Provide assistance to the WFPA with coordination with the Colusa County Office of Emergency Services in their 2010 update of the Local Hazard Mitigation Plan to expand upon the City's emergency response plan pertaining to wildfires and urban fires..
- 4.y. Support the WFPA in its work to elevate the fire insurance rating from four to three within a period of five years. Consider the feasibility of additional rating improvements over a longer period of time.
- 4.z. The City shall review and amend its ordinances and remove any regulatory barriers, as necessary, to integrate defensible space provisions with respect to clearance of brush and other highly flammable materials around buildings. While not within a State Responsibility Area (SRA), provisions relating to vegetation management, clearing, and fuel reduction are good fire protection practices.
- 4.aa. Develop a local fire safe council of community members to aid the WFPA in developing a readiness plan and educating land and homeowners to mitigate the risks and effects of fire hazards.
- 4.bb. Provide support to the WFPA in promoting the availability of fire inspections as a means for identifying risks and measures for protecting against unnecessary fires.



- 4.cc. Assist the WFPA in preparing a local fire service evaluation report to constructively self-evaluate the fire response and to identify the means for reducing the response time and achieving the goal of five minutes on 90 percent of the fire calls, in accordance with recommendations established by the National Fire Protection Association (NFPA).
- 4.dd. Commensurate with an increase in population and demand for fire services, support the WFPA's endeavors to add more full-time and volunteer firefighters to maintain or improve upon the current ratios.
- 4.ee. In conjunction with the State Office of Emergency Services, assist the WFPA in conducting a community-wide disaster drill on a bi-annual basis.
- 4.ff. Assist in the WFPA's Coordination efforts with regional, state, and federal agencies to establish, maintain, and test coordinated emergency response systems that address a variety of hazardous and threatening situations for Williams' residents.
- 4.gg. Support the WFPA's plans for the construction of a second fire station on the east side of I-5, at a time that it is warranted and feasible.

**POLICE PROTECTION SERVICES**

The Williams Police Department is responsible for patrol duty within the City limits, including response to and investigating crimes, providing traffic safety and enforcement, and other calls for service. The Department contracts with Colusa County for animal control. The City does not have proper facilities for housing stray, owner-relinquished, and/or impounded animals. For this reason, there may be a need in the future for short-term and weekend animal boarding facilities.

The Police Department is also provided for by Chapter 17.112, Development Fees, of the Municipal Code. In accordance with this ordinance there is development fees imposed on residential and non-residential development projects to share the equitable costs of police facilities, vehicles and equipment to meet the needs created by new development projects. The fee amounts for police facilities, vehicles, and equipment were also established by Resolution 91-13, which include \$229 per residential dwelling unit and \$0.32 per square foot for gross floor area for non-residential projects. This rate has remained unchanged since 1991. The City is about to undertake a fee study analysis to re-evaluate the development impact fees and establish a new schedule, as necessary.

The Police Department has 11 sworn officers, which includes the Chief, two sergeants, two corporals, two detectives, and four patrol officers. Given this level of staffing there are approximately 2.08 sworn officers per 1,000 persons. This is slightly above the ratio of 2.0 indicated in the 1988 general plan. Since

| Year | Population | Officers |
|------|------------|----------|
| 2009 | 5,287      | 11       |
| 2015 | 6,279      | 13       |
| 2020 | 7,322      | 15       |
| 2025 | 8,487      | 17       |
| 2030 | 9,822      | 20       |

The FBI's advised ratio of sworn officers is 2.0 per 1,000 residents. Using this as a standard, the number of sworn officers needed for the projected increase in population is shown above. Source: Kendig Keast Collaborative

the City has been operating effectively at this level it is advised to maintain this ratio as the population increases.<sup>10</sup>

#### Policies

- 4.27. The City will maintain a ratio of 2.0 sworn officers per 1,000 persons, which equates to a total of 15 sworn officers in the Year 2020 and 20 sworn officers in the Year 2030.<sup>11</sup>
- 4.28. The City will regularly (recommended bi-annually) conduct a fee study analysis to identify the requisite adjustments in the development fee for police facilities, vehicles, and equipment.
- 4.29. The City's Police Department will emphasize the use of modern technology in providing for effective law enforcement.
- 4.30. The City will prepare and implement a training plan for all Department employees to ensure they maintain the skills necessary to fulfill their mission.
- 4.31. The City will coordinate with other City departments to conduct a review of both public and private development plans to ensure crime prevention is adequate addressed.
- 4.32. The City will consider the adoption and administration of a building security ordinance.
- 4.33. The Police Department will continue to coordinate with the California Highway Patrol in their enforcement along the I-5 corridor.
- 4.34. The Department will continue to be involved in community service projects such as D.A.R.E. and G.R.E.A.T and participate in and sponsor community events.

#### Actions

- 4.hh. Prepare a fee study analysis on an annual basis to determine the increase, if any, in the cost of living during the previous year, as required by Resolution 91-13.
- 4.ii. Formalize a mutual aid agreement with the Colusa County Sheriff's

The purpose of a Building Security Ordinance is to provide a minimum level of resistance to unlawful entry to buildings by establishing minimum standards of design and maintenance of certain security equipment. Such standards may related to exterior doors, loading docks, shipping/receiving areas, lighting and parking areas, etc.

Department to govern the assistance requested by and provided to the City of Williams in instances warranting mutual response, setting forth the powers and authorities of each, as well as the basis of compensation, if any.

4.jj. Investigate the building security ordinances of other similar communities and consider its adoption and use in the community.

<sup>10</sup> Note: the Uniform Crime Reports published by the Federal Bureau of Investigations (FBI) the ratio of full-time law enforcement officers per 1,000 persons for cities in the West with populations under 10,000 persons is 3.3. However, it is important to note that this ratio is based on a survey of 7,591 cities, which varies widely from city to city and based on the size of city. For instance, the ratio is 1.6 for cities within populations between 10,000 and 24,999 persons.

<sup>11</sup> This number of officers is based on 2.0 sworn officers per 1,000 persons, assuming a projected Year 2030 population of 9,822 persons (see Figure 2.2, Williams Population Projections, in Chapter 2, Background Studies).





- 4.kk. Plan for the addition of animal boarding facilities for short-term and weekend boarding before the animals are transferred to the Colusa County Animal Control facilities.

### HAZARDOUS MATERIALS

Hazardous materials are substances that are dangerous to the public's health and safety, particularly if they are improperly used, stored, transported, or disposed. Hazardous materials include substances known to be toxic, flammable, explosive, corrosive, infectious, carcinogenic, or radioactive. The most significant concerns for such substances in the City of Williams are the presence of I-5 and the CFNR Railroad. This is due to the potential for accidents or spills along these corridors that could release hazardous materials like gasoline, diesel fuel, or hazardous substances or wastes that may be transported.

Hazardous materials also include many household products such as cleaning fluids, insecticides, car batteries, paints, aerosols, electronic equipment, etc. These too, may be hazardous if disposed of improperly. If disposed of improperly, these substances can do serious damage to the health of humans, wildlife, and the environment. Colusa County periodically hosts free collections of household hazardous wastes, which is essential since these items are now banned from California landfills. Furthermore, hazardous wastes may also be disposed of at the Recology Butte Colusa Counties facility in Oroville.

In May 2000, Colusa County Public Works published a hazard materials policy for the purpose of protecting life, environment, and property from the dangers of a hazardous materials incident. The policy sets forth the jurisdictional responsibilities, indicating that the Fire Chief for the City of Williams will assume command responsibilities for all hazardous material incidents within the City limits. Outside of the City limits is the responsibility of the Colusa County Office of Emergency Services. The Colusa County Environmental Health Department is then responsible for performing all assessments of environmental contamination and/or human exposure and providing oversight of cleanup activity and coordination with the lead state agency having cleanup jurisdiction.

In the ordinary course of training the firefighters of the WFPA all full-time staff and volunteers are trained as Firefighter I and First Responder, which includes basic hazardous materials fire training. There is no hazardous materials team within Colusa County, which draws on the master mutual aid system for any incidents.

All hazardous materials handlers who store in excess of 55 gallons, 500 pounds, or 200 cubic feet of gas are required to submit Hazardous Materials Management Plans. These plans provide emergency responders like the

AB 2765 provides common-sense safeguards and assurances relating to the aerial spraying of pesticides in urban areas. It requires that before final decisions are made about aerial pesticide spraying over urban areas, California Department of Food and Agriculture (CDFA) must provide an open public process, with disclosure of all chemical ingredients, and an assurance by independent state agencies that the product proposed for aerial spraying is safe for that purpose.

WFPA emergency contact information, site specific chemical inventories, and vicinity and facility maps. Furthermore, owners/operators of above ground tanks containing in excess of 660 gallons of petroleum hydrocarbons must comply with the state Aboveground Petroleum Storage Act, which requires preparation of a Spill Prevention and Countermeasure Plan.

There are currently no designated routes for the transportation of hazardous materials within the City. Most materials are transported by truck for which designated truck routes have also not been established within the City.

Lastly, given the extent of agricultural operations and activities around the community another public health concern is related to the aerial spray application of agricultural pesticides. The use of crop dusters in close proximity to town may allow drifting into adjacent residential areas. The use of buffers and other approaches is prudent to minimum conflicts between urban and agricultural uses activities.

#### Policies

- 4.35. The City will coordinate with appropriate federal, state, and regional agencies to address local sources of groundwater and soil contamination, including underground storage tanks, septic tanks, agriculture, and industrial uses.
- 4.36. The Williams Fire Protection Authority will assume responsibility for hazardous materials incidents that occur within the City limits, and provide assistance, as needed, in the instance of an incident in proximity to yet outside of the City.
- 4.37. The City will work with the Colusa County Office of Emergency Services to coordinate their response to any hazardous materials incidents.
- 4.38. The City will continue to cooperate with Colusa County in the acceptance of household hazardous wastes at the Road Department in Williams.
- 4.39. The City will support the WFPA's efforts to train its firefighters in basic hazardous materials fire training.
- 4.40. The City will establish hazardous materials routes, which should be listed in the National Hazardous Materials Registry managed by the U.S. Department of Transportation Federal Motor Carrier Safety Administration (FMCSA).
- 4.41. The City will establish designated truck routes through and around the City via an ordinance adopted by the City Council.
- 4.42. The City will establish safeguards for the aerial spraying of pesticides and other agricultural chemicals within or in near proximity to the City limits.
- 4.43. New development adjacent to areas of ongoing agricultural development shall provide agricultural buffers that are adequate to protect residents from the harmful effects of agricultural chemical use.



- 4.44. The City will educate the public as to the types of household hazardous waste and the proper means of disposal.
- 4.45. The City will require that development project proposals address existing hazardous materials concerns, particularly past agricultural uses, through preparation of Phase I or Phase II hazardous materials studies.

#### Actions

- 4.ll. Consider advanced training in the handling and fire training for hazardous materials incidents, including the purchase of hazardous materials apparatus and equipment.
- 4.mm. Develop a database of hazardous materials generators and storage facilities for hazardous materials incident management. As a component of the environmental review process, the City may require a hazardous materials inventory, including an assessment of materials and operations for any applications for land use entitlement.
- 4.nn. Consider a cooperative program with Colusa County and the Recology Butte Colusa Counties facility in Oroville for regular, scheduled collection of household hazardous wastes.
- 4.oo. Become familiar with the requirements for the establishment of hazardous materials routes and then identify and adopt them by ordinance.
- 4.pp. Adopt an ordinance to establish standards relating to the spray application of agricultural chemicals within a specified distance of the City limits.
- 4.qq. Prepare a Hazardous Materials Response Plan to outline the participants, responsibilities, organization, and operational duties in the event of a hazardous materials emergency.