
VIII. SAFETY ELEMENT



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SAFETY

Seismic and Geologic Hazards
Flood Control
Police Services
Fire Protection
Hazardous Materials
Health Services
Electromagnetic Fields

Since 1975, state law has required that a safety element be included as part of all general plans. In 1984, the legislature consolidated the safety and seismic elements into one element that includes seismic safety, geologic hazards, fire safety, and flooding. As with all elements, additional safety issues of particular importance to the community may also be included.

The citizens of Roseville rely on the City for many of their safety needs, such as fire and crime prevention. They count on the City to plan for, and protect them from, natural hazards such as flooding, earthquakes, and other potentially dangerous situations. The Safety Element addresses safety concerns of the community and sets forth the goals and policies essential for their resolution. The Safety Element is comprised of the following components:

Seismic and geologic hazards includes goals and policies to protect the City's residents from danger associated with active faults, liquefaction, ground failure (landslides), and steep slopes. While the potential for seismic and geologic hazard occurrences in Roseville is not high, the soil and geologic characteristics of the City continue to play an important role in determining safety procedures.

Flood control underscores the need for development standards along the City's Regulatory Floodplain. Since the floods of 1986, the City's flood-prone areas have been redefined

and, in some cases, regulations pertaining to development in these areas are more restrictive to protect life and property.

Police services addresses protection of persons and property within the City by application of the crime prevention unit, building security ordinance, department training program, and streets patrol.

Fire protection includes goals and policies to prevent and protect against catastrophic fires and minimize the loss of life and damage to property and the environment. Policies are established to achieve a four-minute response time and an ISO rating of 3 or better.

Hazardous materials addresses the need for the safe and efficient handling of hazardous materials and ~~implementation of programs that will comply hazardous wastes, consistent~~ with state law. This includes requirements for the submittal of a Hazardous Materials Management Plan (HMMP) and ~~emergency response procedures for hazardous spills~~ Hazardous Materials Release Response Plans and Inventories (Business Plans).

Health services includes the existing status of health services within the City of Roseville and provides policies that ensure that medical needs are met. Trauma center services and health care for indigents are addressed.

Electromagnetic fields includes the Electric Department's policy of "prudent action" with regard to electromagnetic fields (EMF).

The following two documents are active plans for the City of Roseville. These plans are utilized as Implementation Measures throughout the Safety Element. The plans are:

Emergency Operations Plan. The City's [Emergency Operations Plan \(EOP\) establishes an Emergency Management Organization and assigns functions and tasks consistent with the Standardized Emergency Management System \(SEMS\) and the National Incident Management System \(NIMS\). The EOP was reviewed and approved by representatives from each City of Roseville department, local special districts with emergency services responsibilities in the city, and the County of Placer Operational Area Office of Emergency Services. The content is based upon guidance approved and provided by the State of California and the Federal Emergency Management Agency. The plan provides for the integration and coordination of planning efforts of multiple jurisdictions, emergency functions, continuity of government responsibility, and public awareness. In addition, the plan provides strategies for operations of police, fire, and health services, as well as transportation alternatives, search and rescue, shelter and other required services in the event of an emergency. The EOP is reviewed annually and updated, republished and redistributed every five years.](#)

~~Emergency Operations Plan provides direction for responding to disastrous occurrences in Roseville. This plan, which is subject to State Office of Emergency Service (OES) review and certification on a periodic basis, describes response strategies for all types of emergencies. The plan also addresses interagency cooperation, emergency functions, continuity of government responsibility, and public awareness. In addition, the plan provides strategies for operations of police, fire, and health services, as well as transportation alternatives, search and rescue, shelter and other required services in the event of an emergency. The Emergency Operations Plan is reviewed annually and updated every four years.~~

Multi-Hazard Mitigation Plan. On July 20, 2005, the Roseville City Council initially adopted the Multi-Hazard Mitigation Plan in compliance with

federal regulations. The plan was adopted at the conclusion of the following public process: nine months of public meeting with an ad hoc Steering Committee, an on-line survey of Roseville residents, two public workshops on natural and human-caused hazards, and a special workshop of the City Council on May 31, 2005 to discuss the Plan contents.

The City's Multi-Hazard Mitigation Plan describes the type, location, and extent of all natural hazards that can affect the City; describes the City's vulnerability to these hazards; and includes a mitigation strategy that provides the City's blueprint for reducing the potential losses. The City's Multi-Hazard Mitigation Plan is subject to Federal Emergency Management Agency (FEMA) review and certification every five years.

The Multi-Hazard Mitigation Plan as amended by the Roseville City Council from time to time is hereby incorporated into the Safety Element by reference as though it were fully set forth herein. [The City is currently in the process of updating the Plan.](#)

In the event of any conflict between the provisions of the Multi-Hazard Mitigation Plan and the provisions of the Safety Element, the provisions of the Multi-Hazard Mitigation Plan shall control. A copy of the Multi-Hazard Mitigation Plan is on file in the ~~Development Services~~ [Planning Division](#) ~~Fire Department~~ or on the City's web page [at: http://www.roseville.ca.us/fire/divisions/fire_n_lif_e_safety/planning/multi_hazard_mitigation_plan.asp](http://www.roseville.ca.us/fire/divisions/fire_n_lif_e_safety/planning/multi_hazard_mitigation_plan.asp)

for use and examination by the public.

It is an underlying goal of the entire Safety Element to protect the life, property, and environment of community residents, enterprises, employees, and visitors.

SEISMIC AND GEOLOGIC HAZARDS

A. SETTING

Like any California community, Roseville is subject to potential seismic activity. The South Placer area, as designated by the State Division of Mines and Geology, is classified as a low-severity earthquake zone. Expected intensity on the Modified Mercalli Scale would range between VI and VII. Events typical of this intensity level would include cracks in weak masonry and chimneys, shaking or rustling of trees and bushes, furniture movement, and breaking of glassware.

A major seismic event in Roseville could occur from earthquake activity along faults some distance from the City and, in an extreme situation, could conceivably result in severe property damage and injury to building occupants or passersby. Further damage could result from breakage of electrical, water and gas lines, causing additional problems in the course of post-earthquake repairs.

The last seismic event recorded in the South Placer area, measuring at least 4.0 on the Richter Scale, occurred in 1908 on a north-south fault line between Folsom and Auburn and on an east-west line between Placerville and Roseville. No significant seismic events have been recorded since that time within the Roseville vicinity. However, the State Division of Mines and Geology indicates that increased earthquake activity throughout California may cause tectonic movement along now "inactive" fault systems.

The following describes the existing conditions and state provisions relevant to seismic and geologic hazards.

EXISTING CONDITIONS

Regional Faults - While numerous faults have been identified within 100 kilometers of the Sacramento area, there are no known active faults located within Placer County. Three inactive faults lie within the immediate Roseville vicinity: 1) the Volcano Hill Fault, extending northwesterly for approximately one mile starting just east of the City limits; 2) the Linda Creek Fault (the existence of which is disputed due to lack of recorded activity) extends along a portion

of Linda Creek through Roseville and a portion of Sacramento County; and, 3) an unnamed fault alignment extending east to west between Folsom Lake and the City of Rocklin, portions of which are concealed, but possibly connected to the Bear Mountain Fault near Folsom Lake. These faults are identified on Figure VIII-1.

Liquefaction - This process, involving loose, sandy soil with a high water content, undermines the ground's ability to solidly support building structures during seismic activity. According to the State Division of Mines and Geology, the City of Roseville is not specifically addressed in currently available liquefaction risk data. No determination has been made that liquefaction exists in the Roseville area. However, based on project-specific analysis and past experience, liquefaction has not been a significant problem within the City.

Ground Failure - The City's geographic location, soil conditions, and surface terrain combine to minimize risk of major damage from landslides, subsidence (gradual shrinking of the earth's surface due to underground resource extraction), or other geologic hazards resulting from seismic activity and related natural forces.

Slopes - While Roseville is located on relatively level terrain, the land gradually increases in slope to the east and north. The most significant slope areas are located along creeks and ravine areas.

STATE LAW

Alquist-Priolo Act - The Alquist-Priolo Special Studies Zone Act of 1972 is directed at areas identified by the State Geologist as likely to experience earthquakes. The act focuses on surface fault rupture and not shaking. It addresses earthquake safety in building permits and subdivision procedures by requiring project applicants to submit a registered geologist's report describing potential for on-site surface rupture. Roseville is not included within any special study area and, consequently, not subject to these requirements.

Seismic Hazards Mapping Act - Under the 1991 Seismic Hazards Mapping Act (AB 3897), regional data shall be gathered and zones

mapped to identify areas where earthquake geologic hazards may occur. This information is to be used in city and county hazard mitigation plans and incorporated into general plan safety elements. According to the California Geological Survey's *Seismic Shaking Hazards maps of California (1999)*, the Sacramento Region has a low probability of experiencing significant ground shaking. The shaking hazard maps show the level of ground motion that has one chance in 475 of being exceeded each year, which is equal to a ten percent probability of being exceeded in 50 years. These maps are not intended for site-specific hazards analysis, but only provide a regional perspective of earthquake hazard in California.

Landslide Hazard Identification Program -

This act directs the State Geologist to identify and map hazardous landslide areas for use by municipalities in planning and decision-making on grading and building permits. Three factors that characterize landslide hazard areas include significant slope, weak rocks, and heavy rains. This program focuses on urban areas and growth areas that exhibit these characteristics. Roseville and the surrounding Sacramento region are not identified as areas prone to landslide hazards. Therefore, the region has not been included as a part of this study program.

B. OUTLOOK

While the potential for seismic and geologic hazard occurrences in Roseville is not high, the soil and geologic characteristics of the City continue to play an important role in determining safety procedures. Current policies and ordinances reflect the City's ongoing obligations to protect lives and property and include ongoing monitoring of seismic activity and periodic updating of plans for emergency events. Continued implementation of these policies and enforcement of City ordinances and General Plan policies will ensure that efforts are maximized in protecting the safety of Roseville's citizens from potential geologic and seismic safety hazards.

**Insert Figure VIII-1
(Regional Fault Map)**

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C. GOALS AND POLICIES

GOALS: SEISMIC AND GEOLOGIC HAZARDS

Goal 1 Minimize injury and property damage due to seismic activity and geologic hazards.

Policies:	Seismic and Geologic Hazards	<i>Implementation Measures</i>
1.	Continue to monitor seismic activity in the region and take appropriate action if significant seismic hazards, including potentially active faults, are discovered in the planning area.	<ul style="list-style-type: none"> - <i>California Division of Mines and Geology Studies</i> - <i>Emergency Operations Plan</i>
2.	Continue to mitigate the potential impacts of geologic hazards through building plan review.	<ul style="list-style-type: none"> - <i>California Building Code</i>
3.	Minimize soil erosion and sedimentation by maintaining compatible land uses, suitable building designs, and appropriate construction techniques.	<ul style="list-style-type: none"> - <i>Development Review Process</i> - <i>Grading and Erosion Control Ordinance</i> - <i>Specific Plans</i> - <i>Land Use Designation</i>
4.	Comply with state seismic and building standards in the design and siting of critical facilities including police and fire stations, school facilities, hospitals, hazardous material manufacture and storage facilities, bridges, and large public assembly halls.	<ul style="list-style-type: none"> - <i>California Division of Mines and Geology Studies</i> - <i>California Building Code</i>
5.	Create and adopt slope development standards prior to or as part of the planning process for any area identified as having significant slope.	<ul style="list-style-type: none"> - <i>Development Review Process</i> - <i>Specific Plans</i>
6.	Require contour grading, where feasible, and re-vegetation to mitigate the appearance of engineered slopes and to control erosion.	<ul style="list-style-type: none"> - <i>Development Review Process</i> - <i>Grading and Erosion Control Ordinance</i>

D. IMPLEMENTATION MEASURES

1. California Department of Mines and Geology Studies (Ongoing)

Continue to monitor California Department of Mines and Geology studies. Pursuant to state legislation, the Department of Mines and Geology studies potentially active faults on an ongoing basis. Information on a previously unknown or inactive fault that is discovered and/or becomes active can be obtained by monitoring such studies. Discovery of any such fault in the region may require modification of the City's development and building codes. (*Policies 1 and 4*)

2. Emergency Operations Plan (Existing)

Through the Roseville Fire Department, maintain and update the ~~state-required~~ Emergency Operations Plan that describes response strategies for all types of emergencies. The plan addresses interagency cooperation, emergency functions, continuity of government responsibility, and public awareness. In addition, the plan provides for the operation of police, fire, and health services, as well as transportation alternatives, in the event of an emergency. ~~City evacuation procedures are submitted to the State Office of Emergency Services for approval.~~ The City shall implement this plan in the event of a hazardous seismic or geologic occurrence. (*Policy 1*)

3. California Building Code (Existing)

Through the Building Division of the ~~Public Works~~ Development Services Department, continue to enforce and update the California Building Code that includes construction standards for seismic and geologic safety. (*Policies 2 and 4*)

4. Development Review Process (Ongoing)

Refer any development proposal that may be impacted by grading, soil, or geologic issues to the ~~Public Works~~ Engineering and Building

Divisions of the Development Services Department. Consider the comments of the ~~Public Works~~ these divisions Department in the development review process.

The environmental review for projects shall include a full inventory of potential grading impacts and any potential soil or geologic concerns, assessment of potential project impacts, and identification of mitigation and monitoring measures. Issues relating to slopes, liquefaction, ground failure and erosion shall be addressed. Project design, grading, and building construction techniques shall be utilized, as applicable, to minimize impacts.

Sites that are determined to have significant slope shall be identified and appropriate design restrictions shall be implemented to avoid the risk of erosion or landslide. Graded slopes shall generally be limited to 2:1 where feasible. Slopes that are less than 2:1 should be encouraged. The use of retaining walls or stepped building designs should be pursued as an alternative to high or steep slopes where feasible and desirable. (*Policies 3, 5 and 6*)

5. Grading Ordinance (Existing)

Enforce and regularly evaluate the Grading Ordinance. The Grading Ordinance includes specific standards for project construction and erosion control. This ordinance requires prompt re-vegetation of disturbed areas, avoidance of grading activities during wet weather, avoidance of disturbance within drainageways, and other erosion control measures. (*Policies 3 and 6*)

6. Specific Plans (Ongoing)

Ensure that specific plans are consistent with the goals and policies of the General Plan. Specific plans shall identify potential geologic, soil, and seismic hazards within the planning area and shall also include measures to reduce the risk of such hazards. Proposed specific plans shall identify criteria for development on steep slope areas, as applicable, in order to ensure public safety and minimize environmental and aesthetic impacts. (*Policies 3 and 5*)

7. Land Use Designation

(Ongoing)

In areas where potentially significant soil and erosion impacts are identified, the City should consider open space or other appropriate land use designations, as specific in the Land Use Element, to minimize potential impacts. *(Policy 3)*

FLOOD PROTECTION

A. SETTING

The City of Roseville is located within portions of two major drainage basins: the Pleasant Grove Creek Basin and the Dry Creek Basin. Pleasant Grove Creek and its tributaries drain most of the western and central areas of the City north of Baseline Road and the Diamond Oaks Golf Course. Dry Creek and its tributaries drain the remainder of the City from Rocklin to the north, Loomis Basin to the east, Sacramento County to the south, and Placer County to the west. The Dry Creek system has year-round flows in its major watercourses, while the Pleasant Grove system is generally intermittent in its upper reaches with only seasonal flows, and flowing year-round in its lower reaches. For the most part, the primary creek systems in the City have been maintained in their natural state and alignment.

Upstream flows, generated elsewhere in Placer County, enter Roseville's creeks and tributaries from the east and north. The creek systems, picking up additional natural and storm-water-system-delivered run-off in the City, generally flow in a west-southwestward direction through Roseville. The flows continue to move west-southwestward into Placer, Sacramento, and Sutter Counties, eventually draining through various creeks and canals into the Sacramento and American Rivers.

Flooding is defined as the temporary rising and overflowing of water resulting in partial or complete inundation of normally dry land areas. The initial force of flooding and inundation of floodwaters can result in injury, loss of life, and property damage. Damage may include: the shattering or flooding of structures, including homes and businesses; uplifting of vehicles and other objects; damage to roadways, bridges, infrastructure and services; and, soil instability, erosion, and landslides.

Flood protection is a major concern in Roseville as well as the remainder of the Sacramento/South Placer region. Flooding in Roseville is associated with storm run-off exceeding creek and storm drainage capacities. As a result, flooding in the City is generally limited

to areas of low elevation adjacent to the creek systems.

Reports of flooding along Dry, Antelope, Cirby, and Linda Creeks have been recorded from the 1930's to present time. Recent flooding that has resulted in property damage has occurred about every three to five years since 1950, with the exception of the period from 1973 to 1981 when no flooding was reported. A large flood event took place in February 1986, causing substantial damage to property. The flood ranged between a 70 and 100-year event, depending upon the location.

In January of 1995, the City was subject to flooding that exceeded the flood event of 1986 on Cirby Creek and Linda Creek. A detailed description of the flooding problem in the Dry Creek watershed can be found in the "Dry Creek Watershed Flood Control Plan" by the Placer County Flood Control District dated April 1992 and in the "Cirby-Linda-Dry Creek Study" by Dames & Moore dated November 1991. The portion of Roseville within the Pleasant Grove Creek watershed has, until recently remained mostly undeveloped so reports of flood damage are limited.

Localized flooding resulting from storm run-off exceeding piped drainage capacity is primarily limited to street flooding. There have been very few reports of major flood damage caused by piped drainage capacity being exceeded. Improvements to the drainage system have been made to most of these areas.

Dam failure could result in widespread flooding. Although there are no dams within Roseville, the failure of Folsom Lake containment dike numbers ~~4-one~~ through ~~six~~6 could impact the City. The containment dikes are used to close the saddles, or low points along the crests of the ridges located along the westerly rim of the reservoir. Dikes ~~2-two~~ and ~~three~~3 store essentially no water at all, except during flood surcharges at the lake. Of these, dikes ~~5-five~~ and ~~6-six~~ would result in the largest impacts to Roseville. In the unlikely event of such a failure occurring, a plan of action has been developed and is included in the City of Roseville's Emergency Operations Plan.

The City of Roseville is involved in several flood control projects and mitigation programs designed to protect residents and lessen the potential for flooding both within the City and within neighboring communities:

- The City collects drainage mitigation fees within the Pleasant Grove and Dry Creek watersheds to be used to alleviate potential downstream drainage problems in these basins. [A Regional Retention Basin project at the Al Johnson Wildlife Area is planned within the 1,700-acre city-owned property. The goal is to provide 2,530 acre feet retention storage for some or all of the incremental increase in runoff volume resulting from existing and future development projects that generate runoff flowing through Sutter County.](#)
- Roseville is also involved, through the Placer County Flood Control District, in the Auburn Ravine, Coon Creek, and Pleasant Grove Creeks Flood Mitigation Plan dated June 1993, as well as the Dry Creek Watershed Flood Control Plan.
- The City has a flood alert system in place. *Alert Roseville* is an emergency notification system that may be used to deliver alerts when there is a threat to the health and safety of residents. In the event of potential flooding, warnings will also be broadcast on Roseville's Government Access Channel and on local radio stations. The system is designed to provide residents up to three hours advance warning of potential flooding within the regulatory floodplain. Details of this program are described in the City of Roseville's Emergency Response Plan.
- The City operates a stream cleaning program in the flood prone areas of Roseville each year. Details of this program can be found in the City's Creek Maintenance Guidelines dated February 2001 and the Stream Clearing Inspection Report dated July 2001.

Minimizing encroachment within the regulatory floodplain has been a primary goal of the City. The boundaries of the regulatory floodplain have been revised over the years due to better data availability. A majority of the damage that resulted from the 1986 and 1995 floods occurred within the older infill area of the City where historic

encroachments into what is currently recognized as the floodplain have occurred.

In most cases, the definitions of the floodplain generated by the U.S. Army Corps of Engineers and the Federal Emergency Management Agency (FEMA) encumber less property than those developed for the City. The most recent FEMA information is more consistent with the City data than previous versions.

B. State Law

The California Legislature enacted six interrelated flood management bills in 2007—Senate Bills (SB) 5 and 17, and Assembly Bills (AB) 5, 70, 156, and 162—to improve flood management in a sustainable way and to strengthen the linkage between local land use planning decisions and flood management practices. The legislation requires that an Urban Level of Flood Protection be met in specific locations within the Sacramento and San Joaquin river basins.

The legislation defines an Urban Level of Flood Protection (ULOP) as that which is necessary to withstand flooding that has a 1-in-200 chance of occurring in any given year using criteria consistent with, or developed by, the Department of Water Resources. Subsequent legislation refined the definition of the urban level of flood protection to exclude areas of shallow flooding (inundation less than ~~3~~three feet deep) or flooding from local drainage (tributary areas of less than 10 square miles) that meets the criteria of the national Federal Emergency Management Agency standard of flood protection. (Government Code Section 65007(l)(n)).


There are five locational criteria which must all be met in order for the ULOP to apply. While all areas of the City meet two of the criteria (the City is an urban area of more than 10,000 people and the City is within the Sacramento-San Joaquin Valley) only certain areas of the City meet the remaining three location criteria. These are:

- -Located within a flood hazard zone that is mapped as either a special hazard area or an area of moderate hazard on FEMA's official (i.e., effective) Flood Insurance Rate Map for the National Flood Insurance Program,

- Located within an area with a potential flood depth above ~~3~~-three feet, from sources other than localized conditions, and
- Located within a watershed with a contributing area of more than 10 square miles.

The boundaries of the ULOP floodplain and the 100-year floodplain within Roseville are generally reflected on Figure VIII-2 and are also shown overlaid upon the General Plan land uses in Figure VIII-3. These combined floodplain areas are referred to hereinafter as the City's Regulatory Floodplain. The current modeling of the City's floodplain is based on estimated build-out of the Pleasant Grove and Dry Creek basins.

The State of California has implemented a State Plan of Flood Control (SPFC). State law requires all communities to be in compliance with this plan. The City's current standards for managing new development in or near the floodplain are in compliance with the State Plan. The City will continue to require new development to comply with the latest SPFC.

State law is also addressing the issue of Climate Change, in terms of both the cause and the potential effects. Expected effects of Climate Change include increased risk of flooding. Roseville's policies that address flood protection, and similar policies that address the cause and potential effects of Climate Change throughout the General Plan are designated with an icon: 

Also, a more focused discussion of Climate Change can be referenced in the Air Quality ~~element~~-Element of the General Plan.

C. Regulatory Floodplain

The City of Roseville regulates its floodplain areas through land use, zoning, and other development restrictions. This includes policies requiring the dedication of ~~—~~ and a prohibition on development ~~within, the~~ within, the City's Regulatory Floodplain. Certain exceptions to this policy exist primarily within the infill area and for the construction of essential services. Where encroachments may be permitted, improvements are required to be designed to minimize cumulative upstream and downstream effects.

The Floodplain ~~Combining~~-combining land use designation is applied to all floodplain areas in the

City. This designation is normally combined with open space or park designations, but may be combined with other land uses in areas with existing development. The City is responsible for maintaining its storm drain systems (including the creeks that are part of that system, where they are owned by the City), as well as its existing and planned retention and detention basins.

In addition to the City, there are several other agencies that regulate floodplain areas and/or the resources commonly found within these areas. These agencies include the U.S. Army Corps of Engineers (Section 404 of the Clean Water Act), Central Valley Flood Protection Board, FEMA, and the California Department of Fish and Wildlife (1602 Stream Bed Alteration Agreement). The Placer County Resource Conservation District and the Placer County Flood Control District provide advice and assistance on floodplain management.

FEMA plays a particularly prominent role in floodplain management. FEMA is charged with overseeing disaster assistance and mapping floodplains. One of its programs is the National Flood Insurance Program (NFIP) that requires owners of property within designated flood zones to purchase flood insurance. Eligible flood zones are designated through engineering studies that are adopted by FEMA. The mapping of the flood zones then becomes the Flood Insurance Rate Map (FIRM) that reflects the expected frequency and severity of flooding by area. The City, in September 1990 and 2001, adopted revised FIRM maps to ensure continued participation in the National Flood Insurance Program.

D. OUTLOOK

As urbanization of western Placer County continues to increase within the Pleasant Grove Creek and Dry Creek Basins, Roseville faces the potential of experiencing increased flooding problems. Land development typically results in increased hard surfaces and decreased vegetation. These conditions limit infiltration opportunities and, without adequate mitigation, can increase storm water run-off rates and volumes and decrease the time required to reach peak discharge.

The goals, policies, and implementation measures of this component focus on minimizing damage due to flood hazards. Key to this effort is the clear definition and application of floodplain boundaries. Emphasis is placed on protecting the floodplain areas and on pursuing regional cooperation on flooding issues. The City is committed to exploring environmentally sensitive flood control solutions. As a result, this component is intended to be utilized in combination with the goals, policies, and implementation measures contained within the Open Space and Conservation Element.

A detailed Floodplain Management Plan has been developed and is included in the City's Multi-Hazard Mitigation Plan.

E. FLOODPLAIN DESIGNATIONS

Clear policy on how floodplain areas are defined and regulated is very important in effectively dealing with flood protection. Several different designations have been used to define floodplains in Roseville, including zoning and land use designations for floodplain areas, local flood hazard areas, 100-year FEMA floodplain areas, and the City's Regulatory Floodplain. It is the intent of the General Plan to establish clear direction to ensure consistent application of floodplain policy in the City.

Policy relating to the designation of the floodplain recognizes that there are differences between the infill area and the remainder of the City. Infill areas were developed prior to modern floodplain mapping and policies, and consequently there is existing infill development within the floodway fringe. As a result, floodplain policy for the infill Infill area-Area is slightly more flexible to account for existing development and to retain some development potential for those undeveloped but entitled properties within the floodplain, assuming compliance with the specified restrictions.

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**Insert Figure VIII-2
(City's Regulatory Floodplain)**

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**Insert Figure VIII-3
(Land Uses with City's Regulatory Floodplain)**

Blank reverse of Figure VIII-3

FLOODPLAIN DESIGNATION POLICY

OBJECTIVES:

In the City of Roseville, floodplain policy focuses on two primary objectives: 1) To minimize the potential for flood damage by providing for the safe movement of flood waters through the City; and, 2) To preserve, protect, and enhance the natural habitat, open, and recreational values found along Roseville's floodplain and creek environments. The goals, policies, and implementation measures within this Element focus primarily on the safety objective. It is intended that these policies be utilized in combination with the policies contained within the Open Space and Conservation Element to ensure full implementation of the objectives stated above.

REGULATORY FLOODPLAIN DESIGNATION:

The City of Roseville shall designate the City's Regulatory Floodplain on its land use map in accordance with the best available floodplain information as determined by the Public Works Director. The Regulatory Floodplain assumes that the watershed has been fully developed without mitigation. The floodway fringe is defined as that area along the boundary of the floodplain that, if totally obstructed, would not result in more than a one foot rise in the water surface elevation. The floodway constitutes the remainder of the floodplain area and is typically where flood waters have the most velocity.

Where the City's Regulatory Floodplain information does not exist, or where it is determined that the City's Regulatory Floodplain does not represent the best available information, new floodplain information shall be generated by the project proponent. New floodplain information shall generally be developed: 1) Consistent with the build-out development assumptions used to develop the City's Regulatory Floodplain; and, 2) In compliance with the most recent Placer County Floodplain Manual.

FLOODPLAIN DEVELOPMENT REGULATIONS:

Development within the City's Regulatory Floodplain shall be regulated as follows:

1. INFILL AREAS

No development is permitted within the regulatory floodway. Development may be permitted by the City within the regulatory floodway fringe. Such development shall be limited to that falling within the assumed cumulative one-foot rise in the water surface elevation.

2. REMAINDER OF THE CITY (Specific Plans, and the North Industrial ~~area~~Area)

No development is permitted within the City's Regulatory Floodplain (floodway and floodway fringe). Exceptions may be considered by the City for unusual conditions on a case-by-case basis if the encroachment is limited to only the floodway fringe and would not result in any off-site increase in the water surface elevation.

The above designations are schematically reflected in Figure VIII-3.

ESSENTIAL SERVICES EXCEPTIONS:

On-site increases in the water surface elevation and/or fill within the regulatory floodplain, including the floodway, may be permitted by the City on an exception basis if associated with essential facilities and services such as roads, infrastructure, and detention facilities subject to the following criteria:

- No feasible¹ alternatives exist that would eliminate or reduce the need for fill and/or an increase in the water surface elevation and would result in a lesser impact to the environment.
- The facility has been designed to result in the minimum amount of fill and impact necessary to achieve its intended purpose and results in no off-site increase in the water surface elevation.

SECONDARY CHANNELS AND TRIBUTARIES:

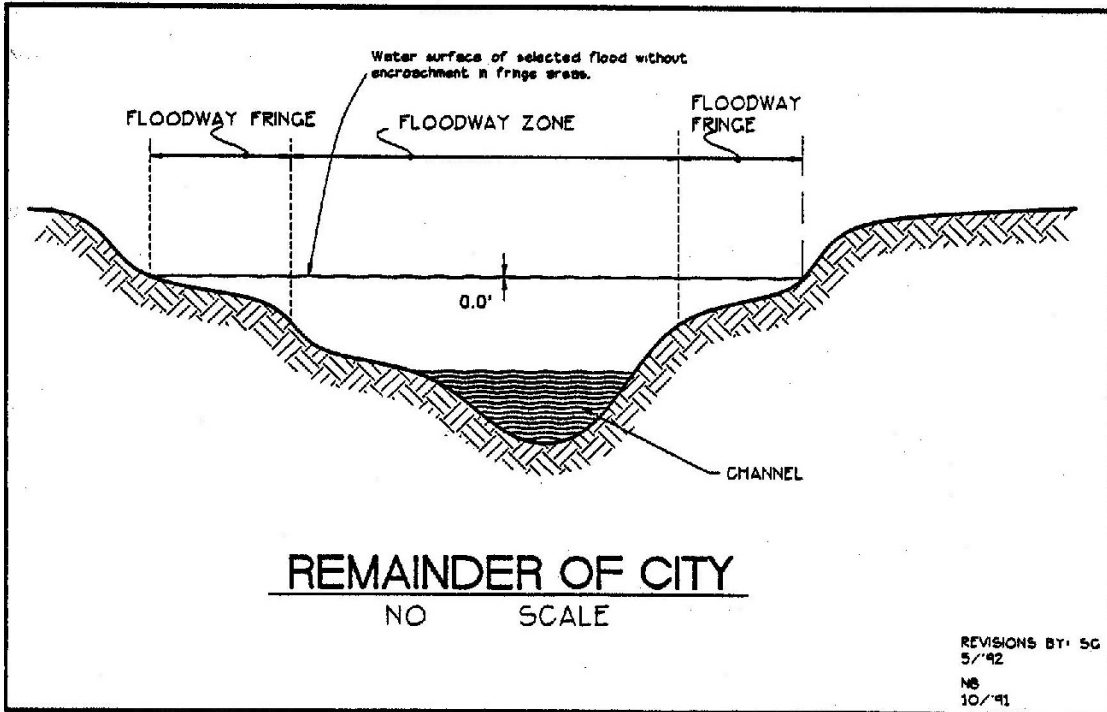
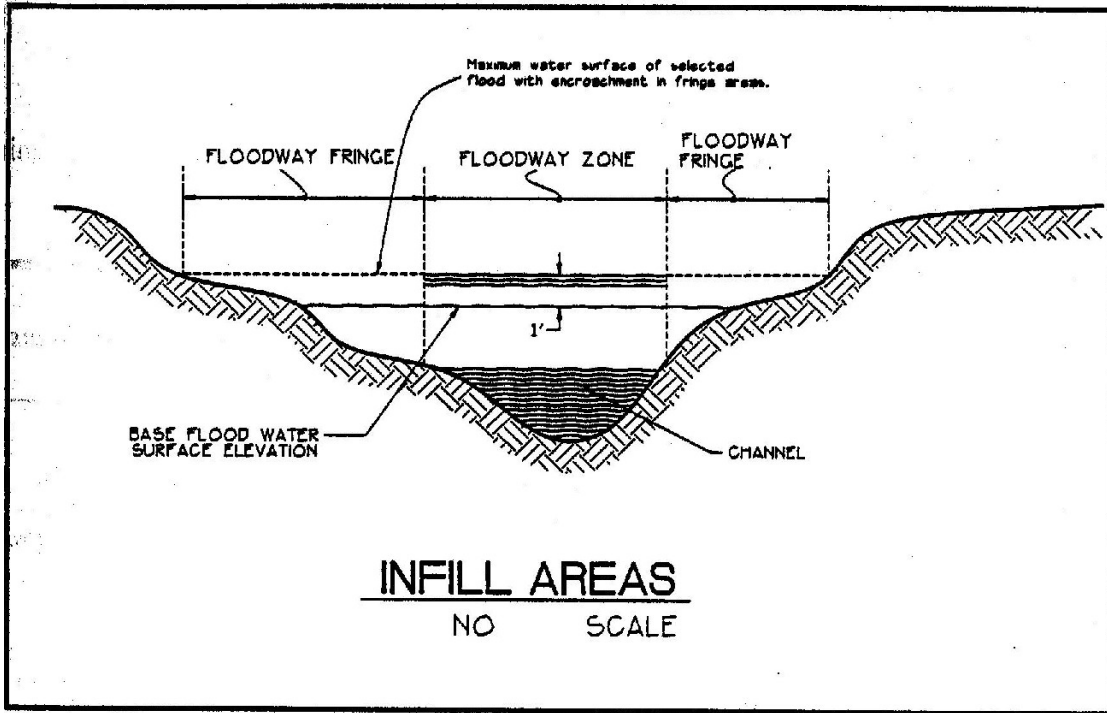
Generally, piping of storm water in a watershed that is less than 300 acres is encouraged for ease of maintenance and for public health and safety reasons.

Channels and tributaries are defined where the existing drainage area is between 300 and 640 acres. These areas may be permitted to be channelized or modified to better serve the needs of the area.

- The modification to the channel or tributary would not result in any off-site increase in the water surface elevation.
- The channel or tributary to be modified is determined to have less than significant vegetation, habitat, visual, recreation, or other open space value.
- If allowed to be channelized, the created channels should be designed to: 1) Provide adequate open space to safely accommodate the 100-year flow; 2) Reflect cross-sections and contours similar to the natural channel with gentle side slopes and be unlined; 3) Be compatible with the adjacent system and provide transitions as appropriate; 4) Be an integral part and amenity to the area; 5) Incorporate habitat enhancement, mitigation, and other resources; and 6) Be designed to reduce the need for maintenance.
- If allowed to be piped, the 100-year flow must be able to be safely accommodated over land assuming a blocked pipe and must comply with all other provisions of the City of Roseville Improvement Standards.

¹ Feasible is defined as capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors

Figure VIII-3
FLOODPLAIN DESIGNATION CROSS SECTIONS










D. GOALS AND POLICIES

GOALS: FLOOD PROTECTION

Goal 1 Minimize the potential for loss of life and property due to flooding.

Goal 2 Pursue flood control solutions that are cost-effective and minimize environmental impacts.

Policies:	Flood Protection	Implementation Measures
1. 	Continue to regulate, through land use, zoning, and other restrictions, all uses and development in areas subject to potential flooding and require new development to comply with the State Plan of Flood Control.	<ul style="list-style-type: none"> - Land Use Designation - Ordinance Modification - Development Review Process - Multi-Hazard Mitigation Plan
2. 	Monitor and regularly update City flood studies, modeling and associated land use, zoning, and other development regulations.	<ul style="list-style-type: none"> - Flood Information Update - National Flood Insurance Program
3. 	Continue to pursue a regional approach to flood issues.	<ul style="list-style-type: none"> - Placer County Flood Control District - Interagency Coordination
4. 	Provide flood warning and forecasting information to community residents to reduce impacts to personal property.	<ul style="list-style-type: none"> - Flood Alert and Early Warning Systems
5. 	Minimize the potential for flood damage to public and emergency facilities, utilities, roadways, and other infrastructure.	<ul style="list-style-type: none"> - Ordinance Modification - Development Review Process - Specific Plans
6. 	Require new developments to provide mitigation to insure that the cumulative rate of peak run-off is maintained at pre-development levels.	<ul style="list-style-type: none"> - Master Drainage Plan
7. 	Continue to implement the Storm Maintenance Program to keep creeks and storm drain systems free of debris.	<ul style="list-style-type: none"> - Storm Maintenance Program - Financing Mechanisms

8. 

Establish flood control assessment districts or consider other funding mechanisms to mitigate flooding impacts.

- *Specific Plans*
- *Financing Mechanisms*

9. 

Where feasible, maintain natural stream courses and adjacent habitat and combine flood control, recreation, water quality, and open space functions.

- *Land Use Designation*
 - *Ordinance Modification*
 - *Specific Plans*
-

E. IMPLEMENTATION MEASURES

1. Land Use Designation

(Existing)

The City shall designate all areas identified as the City's Regulatory Floodplain with the Flood Area Combining land use designation as defined in the Land Use Element. The boundaries of the floodplain shall be as specified in the Floodplain Designations section of this component. Floodplain areas shall be preserved as specified in the Open Space and Conservation Element. Such preservation may include required dedication to the City. *(Policies 1 and 9)*

2. Ordinance Modification

(Proposed)

Modify the City's Ordinances to include floodplain use regulations consistent with the goals, policies, and implementation measures of the Safety, Land Use, Open Space and Conservation, and Parks and Recreation Elements. *(Policies 1, 5 and 9)*

3. Development Review Process

(Ongoing)

Refer any development proposal that has a direct or indirect impact on flood protection to the [Development Services Department – Engineering Division and Public Works Department](#) for comment. In addition, forward such proposals to other agencies as applicable, including the U.S. Army Corps of Engineers, Central Valley Flood Protection Board, Federal Emergency Management Agency, California Department of Fish and Wildlife, Placer County Resource Conservation District, and Placer County Flood Control District. Consider the comments of the agencies during the development review process.

Continue the City's existing development review process for both public and private projects in accordance with statutory requirements contained in such documents as the Zoning Ordinance, Sign Ordinance, Subdivision Ordinance and the Subdivision Map Act, Transportation Systems Management Ordinance, the Specific Plans, the California Environmental Quality Act, the Permit

Streamlining Act, and other statutes. Continue to provide for public participation and coordination with other jurisdictions through the review of development proposals.

Through the development review process, the City shall pursue the following:

- Promote the use of open grassy swales to carry run-off from urban areas to natural drainage.
- Discourage large continuous paved areas in development unless adequate mitigation is provided.
- Encourage development to use pervious paving materials.
- Ensure design that prevents the diversion of run-off onto neighboring parcels.
- Encourage development to discharge run-off into pervious areas.

All building pads shall be located a sufficient distance above the City's Regulatory Floodplain elevation, as determined by the Public Works Department, to minimize the potential for flooding. The review of improvement plans shall ensure that all storm drainage culverts and bridges along designated floodplains are designed to accommodate, at a minimum, 100-year flood volumes with at least one foot of freeboard as measured from where the water would otherwise overtop. —Where practicable, such improvements should accommodate 150% percent of the 100-year volumes. *(Policies 1 and 5)*

4. Flood Information Update

(Ongoing)

Update the City's flood studies, modeling, and regulations at a minimum of every five (5) years, or whenever information becomes available that would significantly modify previous data. "New information" could take the form of new studies, change in City policy, consideration of a major development project or specific plan, or implementation of a flood control project. This will be overseen by the Public Works Department. When a new flood study is deemed appropriate, funding may be by City, ~~state~~State, and/or federal sources, or by private funds from developing areas. *(Policy 2)*

5. National Flood Insurance Program *(Ongoing)*

Continue City participation in the National Flood Insurance Program (NFIP). This will include adoption and administration of updated Federal Emergency Management Agency (FEMA) model ordinances and Flood Insurance Rate Maps (FIRM). This will be overseen by the Public Works Department and will require no special funding needs. *(Policy 2)*

6. Placer County Flood Control District *(Ongoing)*

Remain actively involved in the Placer County Flood Control District. This involvement includes cooperation in the development of a comprehensive regional data base. Encourage regional drainage planning and design for all individual developments in the Placer County Flood Control District to address cumulative flooding impacts. Continue to participate in regional flooding studies, including the Auburn Creek/Coon Creek/Pleasant Grove Creek Flood Mitigation Plan and the Dry Creek Watershed Flood Control Plan. This will be overseen by the Public Works Department. Annual funding for membership is provided via the City's General Fund. *(Policy 3)*

7. Interagency Coordination *(Ongoing)*

Continue City coordination with other agencies on issues of flood control. Coordination between the City and adjacent jurisdictions occurs through several mechanisms including the distribution of development proposals for review and comment. Continue City cooperation with federal, state, and local agencies including the U.S. Army Corps of Engineers, Central Valley Flood Protection Board, Federal Emergency Management Agency, California Department of Fish and Wildlife, Placer County Resource Conservation District, and Placer County Flood Control District. This will be overseen by the Development Services Department –Planning Division and Public Works Department as appropriate and will require no special funding needs. *(Policy 3)*

8. Flood Alert and Early Warning Systems *(Ongoing)*

Continue to develop, implement, and expand the Flood Alert and Early Warning Program systems and integrate the systems with other local jurisdictions to form a regional warning program. This is overseen by the Public Works Department. Annual funding is provided through the City's General Fund. *(Policy 4)*

9. Specific Plans *(Ongoing)*

Ensure that future specific plans and specific plan amendments are consistent with the goals and policies of the General Plan. The specific plans shall include the designation and preservation of floodplain areas and adjacent habitat. Provisions shall be incorporated to ensure that public infrastructure, utilities, and emergency services remain functional during flood conditions. Such infrastructure and facilities include water, sewer and gas mains, telephone and electric lines, streets and bridges, hospitals, and fire and police stations. Financing mechanisms shall be explored to fund necessary flood protection improvements and maintenance. Development ~~agreements~~ Agreements may be utilized to secure implementation and funding provisions. This is overseen by the Development Services Department –Planning Division and Public Works Department and will require no special funding needs (specific plans are 100% ~~percent~~ cost recovery by the developers). *(Policies 5, 8 and 9)*

10. Master Drainage Plan *(Ongoing)*

Require a master drainage plan as part of the approval process for all specific plans and large development projects as determined by the Public Works Director. The master drainage plan must consider cumulative regional drainage and flooding mitigation. The intent of the plan is to ensure that the overall rate of run-off from a project does not exceed pre-development levels. If necessary, this shall be achieved by incorporating run-off control measures to minimize peak flows and/or assistance in financing or otherwise implementing comprehensive drainage plans. This is overseen by the Development Services Department –

Planning Division and Public Works Department and requires no special funding needs. *(Policy 6)*

11. Storm Maintenance Program

(Ongoing)

Continue the Parks, ~~and Recreation~~ & Libraries Department's regular storm maintenance program within the City's creeks and floodplain areas. This program clears and removes debris that could contribute to blockage and flooding and may include the removal of silt. This is overseen by the Parks, ~~and Recreation~~ & Libraries Department. Annual funding is provided by the City's General Fund. *(Policy 7)*

12. Financing Mechanisms

(Ongoing)

Continue to explore mechanisms to finance flood prevention and storm maintenance programs. This includes continued collection of the Pleasant Grove and Dry Creek Watershed Mitigation Fees. Seek State and federal assistance. Consider alternative funding sources, including the establishment of drainage, utility, and assessment districts. This is overseen by the Public Works Department. *(Policies 7 and 8)*

13. Multi-Hazard Mitigation Plan

(Existing)

The City's Multi-Hazard Mitigation Plan describes the type, location, and extent of all natural hazards that can affect the City; describes the City's vulnerability to these hazards; and includes a mitigation strategy that provides the City's blueprint for reducing the potential losses. The City's Multi-Hazard Mitigation Plan is subject to Federal Emergency Management Agency (FEMA) review and certification every five years. *(Policy 1)*

POLICE SERVICES

A. SETTING

The City of Roseville Police Department (RPD), headquartered at 1051 Junction Boulevard, provides primary law and traffic enforcement services within the City. In 2001 the police department was authorized for 93 sworn police officers and 67.5 civilian positions. Although the City has not adopted a formal staffing standard for the police department, the department's current goal is to maintain a sworn staffing level of approximately 1.2 sworn officers per 1000 population, and other staff as needed to support the department's mission and meet community needs.

The Roseville Police Department is responsible for patrol duty within the City limits, including parks and open space areas, responding to and investigating crimes and other calls for service, providing animal control services, and traffic safety (i.e., enforcing the Vehicle Code and responding to traffic collision or traffic hazard calls.) Cooperation with the Union Pacific Railroad's private police department ensures provision of back-up services within the UP rail yard as needed. The Roseville Police Department employs Animal Control officers who respond to emergency and routine calls regarding animals, and currently shelters stray, owner-relinquished, or impounded animals through a contact with the Placer County SPCA.

The Roseville Police Department staffs and houses its own communications center, which is the 9-1-1 PSAP (public safety answering point) for the City of Roseville. The communications center dispatches for Roseville Police, Fire, and Animal Control. A 40-bed jail is housed at the RPD and staffed by non-sworn correctional officers. The City's jail is classified by the California Board of Corrections as a Type I jail, meaning it can house pre-sentenced arrestees up to 96 hours or until arraignment. The department's current policy is to hold inmates no longer than 24 hours; those that cannot be released by that time on a promise to appear are transported to the Placer County Jail.

The ratio of full-time police officers per 1000 population in the United States ranges from 3.5 officers in large northeastern cities to fewer than

1.5 officers in mid-size west coast cities. Throughout the 1990's, the Roseville Police Department maintained a staffing level between 1.1 and 1.2 per 1000 population. The effectiveness of a police force cannot be determined by police-to-population ratios alone. Adequacy in police protection must account for the community's demographic characteristics and crime levels. What may be the proper standard for one community may not be suitable for another. The RPD feels that flexibility is key to competent police protection. This allows the department to better respond to changes in the frequency and nature of crimes in the city. For this reason, the City has not adopted a police to population ratio.

B. OUTLOOK

The Roseville Police Department offers extensive non-traditional police services that are far above the norm for cities of similar size. Currently the department assigns sworn police officers to every public school campus and offers numerous low- or no-cost recreational programs for youth. The department's youth programs are designed to reach young people who may not participate in mainstream school and recreational activities, and to forge strong positive relationships between youth and police. The department employs a Youth and Family Services Manager, a licensed therapist, who coordinates the department's response to social service-related problems, such as family violence, delinquent or out-of-control youth, elder abuse, and child neglect.

The police department was instrumental in the creation of the Roseville Coalition of Neighborhoods (RCONA), has full-time coordinators to assist neighborhoods and businesses with police issues, and assigns police officers to liaison with every neighborhood association.

As the population grows, the demand for both traditional and non-traditional law enforcement services is expected to increase. Therefore the Roseville Police Department will require additional staff as the City's population grows, if it is to continue providing its present high level of service.

C. GOALS AND POLICIES

GOALS: POLICE SERVICES

Goal **Maintain a professional law enforcement agency that proactively prevents crime; controls crime that the community cannot prevent; and, reduces fear and enhances the security of the community.**

Policies:	Police Services	<i>Implementation Measures</i>
1.	Provide a high level of visible patrol services within the City.	- <i>Police Department Policy</i>
<hr style="border-top: 1px dashed black;"/>		
2.	Respond to both emergency and routine calls for service in a timely manner consistent with department policy.	- <i>Police Department Policy</i>
<hr style="border-top: 1px dashed black;"/>		
3.	Ensure that the Police Department utilizes modern technology and provides adequate training to maximize job performance.	- <i>Police Department Policy</i> - <i>Department Training Plan</i>
<hr style="border-top: 1px dashed black;"/>		
4.	Establish programs that respond to community concerns of crime, gangs, drug abuse, and traffic.	- <i>Community Services Division</i>
<hr style="border-top: 1px dashed black;"/>		
5.	Provide extensive community-based service and education programs designed to prevent crime and emphasizes citizen protection and involvement.	- <i>Community Services Division</i>
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6.	Continue to enforce, update, and expand the Building Security Ordinance.	- <i>Building Security Ordinance</i>
<hr style="border-top: 1px dashed black;"/>		
7.	Design parks to facilitate surveillance by adjoining residents, security services, and police.	- <i>Parks Design Process</i>
<hr style="border-top: 1px dashed black;"/>		
8.	Work with other city departments to review public and private development plans, ensuring that crime prevention is addressed.	- <i>Building Security Ordinance</i> - <i>Development Review Process</i>
<hr style="border-top: 1px dashed black;"/>		
9.		- <i>Interagency Coordination</i>

Coordinate with park rangers in patrolling parks and open space areas and continue coordination with other law enforcement agencies.

D. IMPLEMENTATION MEASURES

1. Police Department Policy

(Ongoing)

Continue to emphasize the use of modern technology in providing effective law enforcement for the community. The Police Department sets a response goal of three minutes or less for 90% of all emergency calls. Additionally, timely response to routine calls and the high visibility of patrol service strengthens security within the community. *(Policies 1, 2 and 3)*

2. Department Training Plan

(Ongoing)

Continue to maintain, update, and implement a training plan for all Police Department employees. The program stresses current law enforcement standards and techniques to ensure that employees have the skills necessary to accomplish their mission. *(Policy 3)*

3. Community Services Division

(Existing)

Continue to provide exceptional prevention programs and community partnerships. Examples include police officers assigned as liaisons to all neighborhoods and commercial areas; police officers stationed on school campuses for security as well as youth mentorship and education; Citizen's Police Academy; police department volunteers; proactive outreach to youth through programs such as DARE, Cops Care Kids Camp and PAL; and providing counseling and referrals for troubled families. *(Policies 4 and 5)*

4. Building Security Ordinance

(Existing)

Continue to enforce the Building Security Ordinance. The ordinance specifies standards for construction that include building safety and crime prevention. *(Policy 6)*

5. Parks Design Process

(Ongoing)

The Parks, ~~and~~ Recreation & Libraries Department should continue to consult with City

law enforcement officials in the design of City parks to ensure ease of surveillance. The park design should also consider visibility within the neighborhood for added security. *(Policy 7)*

6. Development Review Process

(Ongoing)

Refer all development proposals to the Roseville Police Department for review and comment. Police Department staff will review plans for building safety and other crime prevention considerations. *(Policy 8)*

7. Interagency Coordination

(Ongoing)

Continue coordination between the Police and the Parks, ~~and~~ Recreation & Libraries Departments in ensuring park patrol and security, and in coordinating outreach, recreation and prevention programs for youth and the community. Continue to work with the City's ~~traffic~~ Traffic Engineering ~~De~~ivision to review traffic collision data and formulate ongoing plans for traffic safety. In addition, the Police Department should continue its mutual aid relationships with other law enforcement agencies, including the California Highway Patrol and Union Pacific Railroad's private police department. *(Policy 9)*

FIRE PROTECTION

A. SETTING

The City of Roseville provides primary fire protection services within the City limits. As of 2015 the Department has eight existing fire stations and three planned fire stations throughout the community (Figure VIII-4). Additional fire stations will be planned as future specific plans and/or annexations occur. The front line fire apparatus fleet consists of an appropriate number of strategically located and staffed engines, aerial ladder trucks, wildland engines, a hazardous materials response vehicle, a technical rescue vehicle, and command vehicles. In addition, the department maintains an appropriate number of reserve apparatus and one engine is dedicated to the Fire Training Center.

As of January ~~2009~~2015, there were ~~422-120~~ Fire Department personnel assigned to the following divisions: Administration – ~~85~~, Operations – ~~403~~102, Training – ~~42~~, Logistics – ~~3~~, and Fire and Life Safety ~~8~~. Fire Prevention – ~~10~~.

The Fire Training Center is located at the Corporation Yard on PFE Road. It includes a storage building, training tower, classrooms, and field training facilities.

Fire Department responses can generally be grouped into three categories. The first, fire calls, are defined as those related to fires, including structural, ~~grass~~vegetation, and vehicle. Emergency medical service (EMS) calls are identified as those calls related to medical emergencies. Non-fire calls refer to all other calls, such as investigations of possible fire hazards, ~~citizen assists~~, false alarms, and other miscellaneous calls.

~~Over the last several years the Fire Department's incident response has been maintained at one hundred calls per thousand in population. EMS incidents continue to be the majority of these responses. Structure fire responses show a decrease during the same time period representing 0.11 per thousand which is significantly under the national average of 0.19 per thousand. Since 2010, the annual number of incidents the Fire Department has responded to has increased 23 percent to over 13,000 calls per year. EMS incidents continue to make up the~~

~~majority of these incidents, while responses to fires have averaged approximately five percent of the total call volume. Fire prevention activities and public education programs along with high building standards can be credited for these statistics. This trend is expected to continue for the short term. However, it is anticipated that these numbers will increase in the future as newer residential and commercial development ages.~~

The City has carried an excellent Insurance Service Office (ISO) rating since 1980. As a measure of a fire department's effectiveness, ISO's rating system is based on a municipality's facilities and equipment, personnel, and quantity of water available for fire fighting. Roseville rates high for urban areas among its neighboring jurisdictions, with an ISO rating of ~~3-2~~ on a scale of 1 to 10. The lower the number, the higher the rating.

In the early 2000's, the Roseville Fire Department underwent a rigorous Self-Assessment study process established by the Commission on Fire Accreditation International. This process allowed the department to perform a thorough analysis of all aspects of the organization, including all programs and services provided. The Department obtained full International Accreditation in 2005 ~~and was re-accredited in 2010. The Department is currently undergoing a 5 year re-accreditation audit with results expected late in 2015.~~

Roseville's supply and availability of water for firefighting needs is sufficient to serve the demands at build-out of the infill and specific plan areas. Water pressure must be sufficient; however, quantity rather than increased water pressure is the key to effective fire suppression. The specific quantity of water needed for fire protection of individual buildings is set forth in the California Fire Code. (California Code of Regulations Title 24, Part 9).

The Fire Department's ~~budget is included within~~ ~~has traditionally received its budget from~~ the City's General Fund. As Roseville began to develop at a rapid rate, there was concern as to whether the Fire Department could obtain

adequate financial resources to meet the increase in demand for services.

As a result, Roseville citizens approved a Fire Service Construction Tax in 1984 that requires that one-half percent of the value of any new construction be collected as part of the building permit fee and designated for fire suppression and protection. These funds must be spent on capital improvements, such as fire stations, fire trucks apparatus, and other departmental equipment. The funds may not be allocated to operational expenses, such as salaries or training. The Fire Service Construction Tax expired on December 31, 2009. The City's newer Specific Plan areas include Development Agreement provisions that extend this tax-fee collection to the buildout of each plan.

REGIONAL FIRE PROTECTION

Regional responsibilities for fire fighting are shared among municipal fire departments and those assigned to specially-designated lands outside city boundaries.

The Placer County Fire Department, as contracted by the California Department of Forestry and Fire Protection provides fire protection to the west of Roseville, the South Placer Fire Protection District provides fire protection to the east, the Rocklin Fire Department provides fire protection to the north, and the Sacramento Metropolitan Fire District provides fire protection to the south. The City and adjacent agencies have mutual and automatic aid agreements. In addition, virtually all fire departments and districts are part of the statewide mutual aid agreement. This agreement provides that a fire department will help any other fire department when the need arises. The City of Roseville, along with CAL FIRE and other local fire districts, is part of this statewide mutual aid agreement. A similar agreement exists between all fire agencies in Placer County.

FIRE HAZARDS

~~Buildings constructed prior to 1983 are a greater fire risk than those built subsequently with higher structural and material standards under the new building code. Most of the older structures, which comprise the highest hazards, are concentrated within the infill regions of the City.~~

~~Wildfires in open space areas around the City do not present a high hazard. Most fires of this type tend to be small and localized. New Open Space areas are being dedicated and preserved through the Specific Planning process. This process results in new developments constructed directly adjacent to Open Space areas, which does pose moderate risk to such developments. This is carefully considered by the Fire Department during the planning process and fire safety provisions are accounted for within Specific Plan design guidelines and development agreements. Wild land fire severity zones are designated throughout California Department of Forestry and Fire Protection. Because of the City's geographical location, lack of steep slopes and thick brush, most of Roseville is in a low-severity zone for wild land fire hazards. Although, it is highly encouraged that fire and drought resistant landscaping be used in areas adjacent to open wildland spaces. The northeast portion of the City does contain significant slopes adjacent to ravines and is being developed. A wildfire safety plan was developed specifically for this area and has been implemented.~~

The California Building Standards Code, Title 24 serves as the basis for the design and construction of buildings in California. Improved safety, sustainability, maintaining consistency, new technology and construction methods, and reliability are paramount to the development of building codes during each Triennial and Intervening Code Adoption Cycle.

Buildings constructed prior to 1980 pose a greater fire risk than those built subsequently with higher structural and material standards. Most of the older structures, which comprise the highest hazard, are concentrated within the older areas of the City.

Wildfires in open space areas around the City present a moderate hazard. New open space areas are being dedicated and preserved through the specific planning process. This process results in new developments constructed adjacent to open space areas. This development is carefully considered by the Fire Department to ensure fire safety provisions are accounted for within specific plan design guidelines and development agreements.

Wildland fire severity zones are designated throughout California by the Department of Forestry and Fire Protection. Because of the City's geographical location, lack of steep slopes

and thick brush, most of Roseville is in a low-severity zone. Although, it is highly encouraged that fire and drought resistant landscaping be used in areas adjacent to open wildland spaces.

FIRE SERVICE STANDARDS

Fire stations are located strategically throughout the community in order to place resources within an acceptable response distance. Response time from these stations is one of the most important measurements of fire department performance. Time is critical – two commonly referred to criteria used to quantify the importance of fire department response time include (1) the time of flashover in a structure fire (where a fire goes beyond the control capability of a single alarm) and (2) the time where irreversible brain damage and chances of survival are greatly reduced for patients that are pulseless and non-breathing.

The Fire Department has established response performance measures based on the Fire Department’s current capabilities and resources. These performance measures include:

1. For 90 percent of all calls for service received, the City of Roseville Public Safety Answering Point (PSAP) will notify and dispatch the appropriate units in less than 90 seconds; this is reported as Call Processing Time.

2. For 90 percent of all dispatches received, the Fire Department will be en route to the incident in 90 seconds or less; this is reported as Turnout Time.

3. For 90 percent of all emergency incidents, the first due unit shall have five minutes and 12 seconds from departure to arrive at the incident scene; this is reported as Travel Time.

4. For 90 percent of all Fire and EMS incidents, the first due unit shall arrive within 8 minutes and 12 seconds from when the initial call was received. The first due unit shall be capable of advancing the first line for fire control, starting rescue, or providing basic or advanced life support; this is reported as Total Response Time.

5. For 90 percent of all emergencies, the Fire Department shall assemble an Effective Response Force (ERF) within 11 minutes and 30 seconds. The ERF shall be able to flow 1,500 gallons per minute of water for firefighting or be

able to handle a multiple-casualty emergency medical incident. This is measured when three (3) engines, one (1) truck and one (1) Battalion Chief arrive on scene (14 responders); this performance standard measures the adequate concentration of resources.

The City has established a response time standard to determine the effectiveness of fire services in Roseville. A four-minute response time has been determined to be the critical target for lifesaving purposes. This standard is from the time the call is dispatched to the arrival of the first engine on the scene.

The Roseville Fire Department presently achieves the four minute standard seventy percent of the time for first engine arrival, which does not meet the response goal of 80%. The difference between targeted and actual response time can be attributed to dispatch call preparation time and the need for additional fire stations, engine companies, and truck companies.

The City of Roseville has no specific standards for staffing relative to population. In California, it is generally normal to have three to four firefighters per fire engine, 24 hours per day, seven days a week. The Roseville Fire Department currently meets this norm and has approximately 0.93 fire fighters per 1,000 residents.

A firefighting standard of 500 gallons per minute within 10 minutes of alarm is the standard adopted by the City as adequate to meet fire protection needs. The standard is currently being met and exceeded.

There are no established standards for population served by a fire station. Increased population does not necessarily affect demand for new fire stations. As an example, if population increases occur in infill areas, a new fire station may not be needed to maintain a four-minute response time. If, however, growth is concentrated in more remote areas of the community, new stations may be required in order to ensure emergency response times. The Fire Department maintains a comprehensive Standards of Response Coverage Plan to direct placement and timing of new fire stations and resource deployment.

B. OUTLOOK

Although the Fire Department is not, at present, consistently meeting the targeted response time standard, additional fire stations and additional engine/truck companies have been planned for specific plan areas as they develop. These [Existing and planned](#) fire stations and companies will help in meeting the [four-minute](#) the [Department's](#) response time [goals](#). All future fire stations will need to be evaluated, planned (timing), located, and staffed to ensure that the response time standard is achieved.

Fire Department staff will continue to promote progressive and sound fire protection engineering techniques for all new development. The Fire Department will pro-actively enforce the fire and life safety provisions set forth by California State law, regulations, and local codes and ordinances.

The City will continue to utilize the [Fire Facilities Construction—Tax Development Agreement process in new planned development areas](#) as a source of revenue to pay for new fire facilities and equipment as long as the funding is available. Alternative funding sources will be evaluated and sought in the future.

**Insert Figure VIII-4
(Existing and Planned Fire Stations)**

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C. GOALS AND POLICIES

GOALS: FIRE PROTECTION

- Goal 1** Protect against the loss of life, property, and the environment by [the application of](#) appropriate prevention, education, and [suppression operational](#) measures.
- Goal 2** Provide emergency services in a well-planned, cost-effective, and professional manner through the best utilization of [properly trained, equipped and supervised personnel](#)~~equipment, facilities, and training available.~~

Policies:	Fire Protection	Implementation Measures
------------------	------------------------	--------------------------------

- | | | |
|----|--|---|
| 1. | Continue to pursue and promote fire prevention programs and standards. | <ul style="list-style-type: none"> - <i>Fire Prevention Programs</i> - <i>Development Review Process</i> - <i>California Building Code</i> - <i>California Fire Code</i> - <i>Weed Abatement Ordinance</i> - Public Education Program |
|----|--|---|

- | | | |
|----|---|--|
| 2. | <p>Strive to achieve the following service levels:</p> <p>Strive to achieve the following service levels:</p> <ul style="list-style-type: none"> • 8 minute 12 second Total Response Time • 11 minute 30 second Effective Response Force • 90 Second Call Processing Time • 90 Second Turnout Time • 5 minute 12 second Travel Time • Maintain ISO rating of 3 or better <p>Urban Areas:</p> <ul style="list-style-type: none"> • Four-minute response time for all emergency calls • ISO rating of 3 or better • 500 gallons of water per minute within 10 minutes of an alarm <p>Rural Areas:</p> <ul style="list-style-type: none"> • Fifteen to twenty-minute response time for all emergency calls • ISO rating of 8 or better | <ul style="list-style-type: none"> - <i>Specific Plans</i> - <i>Capital Improvement Program</i> - Fire Service Construction Tax - <i>Dedications, Fees and Exactions</i> - <i>Water System Master Plan</i> - <i>Interagency Agreements</i> - <i>Annual Report</i> - <i>Standards of Cover</i> |
|----|---|--|

- | | | |
|--------------------|--|---|
| 2. | | <ul style="list-style-type: none"> - <i>Standards of Cover</i> - <i>Appropriate Training Programs</i> |
|--------------------|--|---|

[Provide a comprehensive emergency medical services program to deliver basic and advanced life support services.](#)

3. **Monitor Fire Department service levels annually, concurrent with the City budget process and via quarterly reports.** - *Annual Report*
- *National Fire Incident Reporting System (NFIRS)*

 4. **Provide highly trained personnel to ensure effective suppression of fires, and safety for firefighters.** - *Technical Training Program*

 5. **Seek to reduce fires by fully investigating the cause, origin and circumstances of each fire; collect and preserve evidence; coordinate with authorities in detection, apprehension, and prosecution of arsonists; pursue each investigation to its conclusion; and use resultant findings to develop more effective fire prevention programs.** - *Fire Investigation Program*

 6. **Phase the timing of the construction of fire stations to be available to serve the surrounding service area.** - *Specific Plans*
- *Capital Improvement Program*
- *Fire Service Construction Tax*
- *Dedications, Fees and Exactions*
- *National Fire Incident Reporting System (NFIRS)*

 7. **Continue to completion the permanent fire training classroom facility at the Fire Training Center.** - *Capital Improvement Program*
- *Fire Service Construction Tax*

 8. **Provide a comprehensive emergency medical services program to provide Advance Life Support services and ensure reliable ambulance transport services to aid citizens in need of rescue or medical assistance.** - *Emergency Operations Plan*
- *Ambulance Transport Feasibility Study*

 9. **Continually update the Roseville Emergency Operations Plan and ensure that participants are prepared to efficiently carry out assigned functions.** - *Emergency Operations Plan*
-

D. IMPLEMENTATION MEASURES

1. Fire Prevention Programs

(Ongoing)

Continue to pursue and promote the following fire prevention programs:

- Regular inspection and code enforcement
- Fire-safe roofing
- Adequate access to and fire breaks adjoining open space areas
- Early warning devices such as automatic detection and reporting devices and smoke detectors
- Automatic fire suppression systems such as fire sprinkler systems
- Public education and information
- Code and ordinance development
- Training and planning
- Fire investigation and data analysis
- Hazardous materials process and inspection

(Policy 1)

2. Development Review Process

(Ongoing)

Refer all development proposals to the Roseville Fire Department for review and comment. Consider the department's comments during review of the proposed project. The review process shall consider the provision of access to lands for fire fighting purposes, street access to all structures, fire prevention programs, and the enforcement of building and fire codes and City ordinances. *(Policy 1)*

3. California Building Code

(Existing)

Enforce the California Building Code that includes specifications and standards for building safety. Roofing and building materials, construction techniques, wiring standards, and fire detection/warning devices are defined and enforced to minimize risk of structural fire damage. *(Policy 1)*

4. California Fire Code

(Existing)

The State Fire Code (California Code of Regulations, Title 24, Part 9) provides

specifications and standards for fire safety. Early warning devices, such as automatic sprinkler systems, automatic detection and reporting devices, and smoke detectors are required as preventative measures to reduce risk of fire. The code also specifies the quantity of water needed for fire protection. *(Policy 1)*

5. Weed Abatement Ordinance

(Existing)

Continue to enforce the City's Weed Abatement Ordinance. This ordinance specifies that weeds be eradicated from residential areas to prevent their becoming fire fuel. Additionally, proper implementation of this ordinance will ensure accessibility of fire fighters to open space areas and creation of firebreaks that slow the spread of fire. *(Policy 1)*

6. Specific Plans

(Ongoing)

Ensure that specific plans shall specify anticipated need for additional fire services based on land use designations within the plan area. The location and size of fire facilities shall be described so that the Fire Department may more effectively meet the level of service specified in this element. Require that each specific plan provides a fire facilities phasing plan and require that funding be available at the time of development. *(Policies 2 and 6)*

7. Capital Improvement Program

(Existing)

Continue to utilize the City's CIP as a source of funding for capital improvements for fire stations and facilities equipment. Providing adequate levels of fire fighting capacity will help to increase the City's ISO rating as determined by the Insurance Services Office. *(Policies 2, 6 and 7)*

8. Fire Service Construction Tax

(Existing)

Continue to utilize the Fire Service Construction Tax as a source of revenue to pay for new fire facilities and equipment as long as funding is available. Pursue alternative funding sources in the future. *(Policies 2, 6 and 7)*

9. Dedications, Fees and Exactions

(Existing)

As appropriate require, as a condition of project approval, dedication of land or payment of appropriate fees and exactions to help offset municipal costs for fire-related facilities and services. As growth occurs, this measure will help to ensure continued provision of adequate services at required levels of service. *(Policies 2 and 6)*

10. Water System Master Plan

(Existing)

Continue to cooperate with the Environmental Utilities Department, to maintain and update the Water System Master Plan. The plan shall specify objectives and standards that permit effective monitoring of water needs. The plan shall address adequate provision of water sources, quantities, and water pressure, along with an emergency back-up system to ensure maximum fire fighting capacity. *(Policy 2)*

11. Interagency Agreements

(Ongoing)

Continue to participate in the statewide mutual aid agreement, whereby the Fire Department will respond to any other department or district when the need arises. In addition, the Department should continue its mutual aid arrangements with other agencies, including that through the Office of Emergency Services (OES) Region IV, Placer County Operational Area. *(Policy 2)*

12. Annual Report

(Ongoing)

Continue to prepare Fire Department annual reports. These reports provide the Fire Department with a means of monitoring service levels and addressing problems before they become serious. This annual evaluation shall include the establishment of goals and objectives, formulation of key indicators relating to activities/efficiency that can be monitored through the year, and a line-item cost for each program or objective. The annual report shall include a review of fire service levels and departmental goals as adopted by City Council. *(Policies 2 and 3)*

13. Technical Training Program

(Ongoing)

Continue to develop and expand the Fire Department's technical training program to ensure that its personnel are properly trained and updated as new techniques and equipment become available. One aspect of the training focuses on cardiopulmonary resuscitation (CPR). Emphasis is on training the City's 935 employees (01/02 Annual Budget) who may be exposed to situations that require the use of CPR. *(Policy 4)*

14. Fire Investigation Program

(Ongoing)

Fires within the City of Roseville are investigated by Roseville Fire Department investigators. The Fire Department's program will ensure proper investigation of the cause, origin and circumstances of each fire; collect and preserve evidence; coordinate with authorities in detection, apprehension, and prosecution of arsonists; pursue each investigation to its conclusion. Adequate information is submitted to the State Fire Marshal for compilation into their annual report. *(Policy 5)*

15. Emergency Operations Plan

(Existing)

Through the Roseville Fire Department, maintain and update the state-required Emergency Operations Plan that describes response strategies for all types of emergencies. The plan addresses interagency cooperation, emergency functions, continuity of government, and public awareness. In addition, the plan provides for the operation of police, fire, and health services, as well as transportation alternatives, in the event of an emergency. City evacuation procedures are submitted to the State Office of Emergency Services (OES) for approval. *(Policies 8 and 9)*

16. National Fire Incident Reporting System (NFIRS)

(Existing)

Continue to develop and expand upon the NFIRS structured database for capturing essential fire service information. Performance indicators are routinely reviewed to evaluate capability and coverage, demand for service, and trends. Key components of the system include Geographical Information Systems (GIS) and mapping, fire

incident reporting, emergency medical management, personnel and training management, inspection management, and equipment and supplies inventory management. Fire Department incident data is computer captured and submitted to the State Fire Marshal's Office. (*Policies 3 and 6*)

17. Standards of Cover

(Existing)

Continue to respond to calls and meet level of service requirements to emergency and non-emergency calls as outlined by the Standards of Cover. The Council adopted Standards of Cover document contains minimum requirements relating to the organization and deployment of fire operations, emergency medical operations, and special operations to the public by the Fire Department. Standards of cover are distribution, concentration, response reliability, and station location efficiency. These are measures used to objectively and quantitatively analyze the relationship between existing or new fire station locations, equipment and the fire department's capacity and capabilities. The Standards of Cover systems approach consists of the following eight components: Existing Deployment, Risk Identification, Risk Expectations, Service Level Objectives, Distribution, Concentration, Performance and Reliability, and Overall Evaluation. (*Policy 2*)

HAZARDOUS MATERIALS

A. SETTING

This component focuses on the storage, transportation, clean-up, and emergency response aspects surrounding the management of hazardous materials. The federal government, under Title 49 of the Code of Federal Regulations, lists thousands of hazardous materials. These include radioactive waste and explosives as well as substances such as gasoline, insecticides, and household cleaning products. The handling of hazardous materials is an element of daily activity that affects all residents within the City of Roseville.

STORAGE

Proper storage of hazardous materials incorporates a variety of techniques depending on the type of material being stored. Underground storage tanks (USTs) and above-ground storage tanks (AST's) are commonly used for the storage of hazardous materials, especially petroleum products. These storage devices are found most often at gas stations and businesses operating vehicle fleets. There are several sites within the City that have been contaminated by UST leakage. As a result of these unauthorized releases, varying on-site mitigation measures have been required to address the contaminated areas. Sites which have adversely impacted underground water due to unauthorized releases of product from tanks are under clean-up orders by the Regional Water Quality Control Board in coordination with the Roseville Fire Department.

Hazardous materials used in many household products (e.g., drain cleaners, waste oil, cleaning fluids, insecticides, and car batteries) are often improperly disposed of as a part of normal household trash. Consequently, these can interact with other chemicals to cause serious dumpster fires. Furthermore, there is risk to the community from exposure or explosion caused by adding hazardous waste to landfills that are not equipped to handle them.

In order to avert spills or contamination, the Roseville Fire Department (RFD) regularly monitors hazardous material generators and storage facilities in the City for compliance with state regulations. As it relates to hazardous

waste generators, effective April 1, 2001, the Roseville Fire Department agreed to implement enforcement procedures recognized by the state Department of Toxics Substances Control. The largest hazardous waste generators, and hazardous material storage facilities in the Roseville area include NEC, Hewlett-Packard, Union Pacific Railroad, and H. B. Fuller Company.

All hazardous materials handlers, which store in excess of 55 gallons, 500 pounds or 200 cubic feet of gas are required to submit Hazardous Materials Management (Business) Plans. From these plans, emergency responders are provided emergency contact information, site specific chemical inventories, and vicinity as well as facility maps. Facilities storing materials which are "acutely" hazardous, and in excess of the quantity listed in Title 19, Tables I, II, or III, must submit a more comprehensive Risk Management Plan which includes off-site consequences analysis, maintenance and training programs, and an executive summary. Owners/operators of aboveground tanks containing in excess of 660 gallons of petroleum hydrocarbons (or an aggregate quantity of 1,320 gallons), must comply with the state Aboveground Petroleum Storage Act which requires the preparation of a Spill Prevention and Countermeasure Plan.

TRANSPORTATION

Hazardous materials are routinely transported by truck over state and federal highways as well as local roads every day (e.g., gasoline tankers). The California Vehicle Code §31303 requires that hazardous materials be transported via routes with the least overall travel time. Although the choice of routes is left primarily to the discretion of the transporter, the California Vehicle Code prohibits the transportation of hazardous materials through residential neighborhoods.

There are no designated routes for the transportation of hazardous materials within the City of Roseville. Most of these materials are transported by truck, and the City has designated truck routes that attempt to divert traffic away from residential areas (see Circulation Element). The California Highway Patrol (CHP) has created plans for the transportation of hazardous materials on state and federal highways,

including I-80 and Highway 65. Allowable routes depend on the type of hazardous materials being transported.

Hazardous materials are also transported on the Union Pacific Railroad. As a major rail switching yard, rail cards may remain on site for various lengths of time. The state requires that materials remaining on site for 30 days or more must comply with state regulations for the storage of hazardous materials. As a transportation company, Union Pacific disputes its need to comply with these restrictions.

CLEAN-UP

Within the Roseville City limits, the Union Pacific Railroad yard presents a challenge to the management of hazardous materials. Defective USTs, lead-contaminated grit waste, and groundwater contamination from diesel fuel are clean-up issues that have required assistance from outside the Union Pacific Transportation Company. In recognition of significant contamination on the property and in accordance with federal law, the Environmental Protection Agency (EPA) proposed in October 1984 that the site be placed on the National Priorities List, more commonly known as the Superfund Site List. This list identifies, assesses, and provides for clean-up of hazardous sites.

Under a clean-up agreement with EPA, Southern Pacific arranged the removal of 30 USTs and had permanently closed eight others by 1990. Upon being removed from the Superfund List in September 1989, SPRR arranged with the State Department of Health Services, as lead agency, to continue remedial action toward additional clean-up of soil and groundwater.

EMERGENCY RESPONSE

Response to a hazardous waste spill varies according to the circumstances under which it is released.

Hazardous materials spills on state and federal highways are the responsibility of Caltrans and the CHP, which provide on-scene management of the spill site and coordinate with the Environmental Health Department, Office of Emergency Services, and the local fire department as part of the City's Hazardous Materials Emergency Response Plan.

Primary responsibility for handling these events within the City is assigned to the Roseville Fire Department (RFD). The RFD is staffed with its own Hazardous Materials Response Team, which also assists or provides back-up for industry response teams or for the Placer County and Sacramento City Hazardous Materials Response Teams. To ensure proper handling of a hazardous materials release, RFD has developed its own Hazardous Materials Response Plan. This plan discusses the participants, responsibilities, organization, and operational duties in the event of a hazardous materials emergency, including clean-up and decontamination procedures.

HAZARDOUS WASTE MASTER PLAN

A Hazardous Waste Master Plan has been developed by Placer County in accordance with the Tanner Bill (AB 2948) of 1986. The purpose of this legislation was to counteract the tendency of some counties to prohibit hazardous waste facilities, thereby placing a greater burden on other counties to provide adequate facilities. The County's Plan, submitted to the California Department of Health Services, was - as were the plans of most counties in the state - rejected because of its reference to limiting the size of facilities to "fair share" capacity. While some counties have adopted their plans without the approval of DHS, Placer County has taken no action pending the outcome of a challenge to the DHS assessment by the Supervisors Association of California. As a result, the City of Roseville has not yet taken action on this Plan.

B. OUTLOOK

State and federal legislation, which address concerns regarding hazardous materials, provide much of the framework within which Roseville will work to manage this safety issue. A variety of laws are now in effect that regulate hazardous materials clean-up, storage, testing procedures, and financial assistance for hazardous waste reduction.

The City is addressing improper disposal of household hazardous waste by organizing special hazardous household waste pickups. Initial pickup began in September 1991. The program was very successful and has been

implemented on a regular basis. In addition, the City will be sponsoring additional pickups for waste oil, paint, and batteries for transport to a hazardous waste facility. This program will be analyzed to determine its success in disposing of hazardous household wastes.

D. IMPLEMENTATION MEASURES

1. Hazardous Materials Listing *(Ongoing)*

Continue to require the submittal of lists of hazardous materials used in existing and proposed industrial and commercial businesses by those businesses. This list shall be maintained by the Fire Department and updated through periodic review. *(Policy 1)*

2. Development Review Process *(Ongoing)*

Refer any development proposal that may be impacted by, or cause an impact related to, the storage, handling, or disposal of hazardous materials to the Fire Department and other appropriate agencies responsible for hazardous materials. Consider input from the Fire Department and other agencies in the development review process.

Continue to require Hazardous Materials Management Plans and, where necessary, Risk Management Prevention Plans pursuant to state law. The use of toxic or hazardous materials requiring the filing of a business plan for emergency response pursuant to Section 25503.5 of the California Health and Safety Code, or materials identified in Section 5194, Title 8 of the California Code of Regulations, shall be critically analyzed by the City when considering any use. All users shall submit a list of hazardous and toxic materials with a qualified discussion of potential chronic and acute long-term health hazards and toxicological effects, including those on children, from acute short-term or chronic long-term exposure.

In addition, a plan shall be submitted specifying procedures for mitigating the emissions of toxic substances and groundwater monitoring and for identifying methods of hazardous waste disposal. All projects shall be reviewed for compliance with the Placer County Hazardous Waste Management Plan. *(Policy 1)*

3. Hazardous Waste Management Plan *(Proposed)*

Upon state and City adoption of the Hazardous Waste Management Plan require, in accordance with AB 2948, that all land use approvals be consistent with the management plan's siting criteria. *(Policy 1)*

4. Intergovernmental Coordination *(Ongoing)*

Work cooperatively with other local and state agencies in a coordinated effort to inform and educate the public regarding the storage, handling, and disposal of household hazardous materials. This will include continued coordination with the Placer County Hazardous Materials Response Team. *(Policy 2)*

5. Hazardous Waste Pickup *(Ongoing)*

Continue the City's hazardous waste pickup program. This includes periodic drop-off and pickup programs for hazardous materials. *(Policy 2)*

6. Hazardous Materials Data Base *(Ongoing)*

The City is developing a Hazardous Materials Information Data Base to protect the public from potential dangers created by hazardous materials and to assist emergency personnel by increasing the safety and efficiency factors associated with hazardous materials. With this informational tool, properly-trained employees can identify the material, identify if it is hazardous, and implement clean-up with a minimum of danger to the public. *(Policy 2)*

7. Interagency Cooperation *(Ongoing)*

Respond, in accordance with the City of Roseville Hazardous Materials Emergency Response Plan, to hazardous materials emergencies. Both the California Highway Patrol (CHP) and the City of Roseville have developed a Hazardous Materials Emergency Plan that discusses the participants, responsibilities, organization, and operation to be complied with in the event of a hazardous materials emergency, including clean-up and decontamination procedures. *(Policy 3)*

8. Hazardous Materials Truck Route *(Proposed)*

Develop a program to limit and establish hazardous materials transport routes within the City. The routes and program should be coordinated with Caltrans and the California Highway Patrol. *(Policy 4)*

9. Hazardous Materials Fee Program *(Proposed)*

Continue to pursue the implementation of a permit/fee program for hazardous material users. *(Policy 5)*

HEALTH SERVICES

A. SETTING

Emergency Medical Services (EMS) is provided by the Roseville Fire Department and a private ambulance transport provider. The Roseville Fire Department delivers Advanced Life Support (ALS) via paramedic engine and truck companies.

The private ambulance transport provider, under contract with the County of Placer, delivers ALS service via ambulances staffed with one Paramedic and one EMT. The County has established a response performance measure for the private ambulance provider, of arrival at an emergency scene within an 8 minute total response time.

Roseville's role in health services has changed dramatically over ~~the past several yearstime~~. The City ~~sold the used to run the~~ Roseville Community Hospital. ~~Since that time and the~~ Sutter Medical Corporation (SRMC) and Roseville Kaiser Permanente facilities ~~have—has~~ assumed responsibilities for a significant component of the hospital services in this area. The Sutter Roseville Medical Center is located one Medical Plaza, opened in 1997 and is a 232-358 bed modern and comprehensive medical facility that hosts a Level II Trauma Center. SRMC is an acute care medical facility and is a level II American College of Surgeons verified Trauma Center serving a seven-county region that includes Placer, Yolo, Nevada, Sutter and Yuba counties, and portions of Sacramento and El Dorado counties. The closest Level I Trauma Center is still UC Davis Medical Center in Sacramento. Major pediatric and burn patients are transported to the UC Davis Medical Center where definitive care can be rendered. The Sutter Roseville Medical Center is also cooperating with CALSTAR Helicopter Services, which handles most air transports to UC Davis.

The Roseville Kaiser Permanente Medical Center located on the southwest corner of Eureka Road and Douglas Boulevard became fully operational in 1998. The hospital has a capacity of 340 beds and a fully functional emergency room. The Women and Children's Center has one of the largest neonatal intensive care units in Placer County and one of the largest teams of pediatric specialist in the greater Sacramento area.

~~The Roseville Kaiser Permanente Medical~~

~~Center became fully operational in 1998. The~~

~~hospital has a capacity of 158 beds and a fully~~

~~functional emergency room.~~

Additional health care facilities in Roseville include several residential and commercial nursing care facilities. Health care for the indigent population is an area of concern. Many individuals requesting services at the Sutter Roseville Medical Center are unable to afford the services, or are covered by Medi-Cal, which covers only a fraction of the costs of providing said services.

The Placer County Health Department operates a satellite clinic in Roseville, offering a variety of medical services. These services include physical examinations, pregnancy testing and counseling, HIV and sexually-transmitted disease testing and treatment, and home visits. The main clinic, located in Auburn, provides these services in addition to immunizations. As a public health clinic, services are available to all members of the community. Payment for services is determined by the patient's income level. The City is not directly involved in the provision of medical or social service provided by Placer County.

Emergency Medical Services (EMS) is provided by the Roseville Fire Department and a private ambulance transport provider. The Roseville Fire Department delivers Advanced Life Support (ALS) via a three person engine company, which includes a Firefighter/Paramedic. Each company also includes a Fire Captain and an Engineer, which are certified as Emergency Medical Technicians (EMT). The engine company strives for a four-minute response time, eighty percent of the time. The private ambulance transport provider delivers ALS service via ambulances staffed with one Paramedic and one EMT. According to Placer County all areas within the City of Roseville are classified as "Placer Urban", and there are no official response time standards adopted within the Placer County Code.

B. OUTLOOK

Both the Sutter Roseville Medical Center and Kaiser Permanente Hospital have made major commitments to the City of Roseville. Both organizations plan to expand services through their out-patient clinics, integration of physician offices, special medical care, and other ancillary services.

Emergency Medical Services will continue to evolve. The Roseville Fire Department is committed to monitoring the EMS response times for both transporting and non-transporting emergency units within the City's service delivery boundaries. It is the Fire Department's goal to ensure that the best possible Emergency Medical Services are provided to its citizenry. The City also looks forward to continue with cooperative and collaborative efforts with other allied EMS agencies. Other on-going progressive efforts involving EMS injury prevention and public education include the Buckle-Up Baby, and Safe House programs. Hospital, pre-hospital, and other long-term medical care organizations have a great deal to gain from these opportunities.

C. GOALS AND POLICIES

GOALS: HEALTH SERVICES

Goal Ensure, to the extent feasible, an adequate level of health care services for all members of the City.

Policies:	Health Services	<i>Implementation Measures</i>
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1.	Encourage the establishment of a trauma center to service the South Placer area.	- <i>Public/Private Cooperation</i>
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2.	Encourage all health care facilities to adopt a "fair share" policy in the treatment of medically-indigent patients.	- <i>Public/Private Cooperation</i>
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D. IMPLEMENTATION MEASURES

1. Public/Private Cooperation

(Proposed)

Continue City policy of cooperation with health care providers who accept their "fair share" of medically-indigent patients and increase efforts to assist others to adopt this policy. *(Policies 1 and 2)*

2. Public Education and Injury Prevention

(Proposed)

Continue to explore opportunities to educate the public in accident prevention and Emergency Medical Services. Communicate with other agencies that have the same concerns and develop coalitions to create strategies of implementation.

(Policies 1, 2, and 3)

3. Fire Incident Reports and Emergency Medical Services Standards of Cover

(Existing)

Continue to monitor private agencies that provide EMS within the City's service delivery boundaries. Continue to report statistical incident data related to EMS through the Fire Department Records Management System. Continue to monitor and update the standards for EMS response times. *(Policies 1, 2, 3, and 4)*

ELECTROMAGNETIC FIELDS

A. SETTING

Research conducted over the past decade has raised much debate over the health effects of electromagnetic fields (EMFs) and extremely low frequency fields (ELFs), a very specific type of EMF. Magnetic fields result from movement of electricity; everything conducting an electric alternating current has an EMF and every 60 cycle electric circuit an ELF. The intensity of EMFs varies with the type of electricity source, the magnitude of electric current, and the distance between the point of measurement and the source. For example, household appliances generate lower intensity fields than radar equipment or high voltage electric lines. However, the actual field experienced from an appliance can be much greater than from a power line due to distance. In any case, the relationship between intensity and any health effects has not been proven by research of EMFs.

Electric and electromagnetic fields are not solely a product of human activity. They are an essential part of nature, found in all living things. The human body, for example, uses these fields to operate the nervous system. Electricity is an integral part of nature, whether of technological or natural origin.

Scientists have yet to establish which factors are most important when determining the effects of EMFs. Two important factors to consider are shield capability and distance as they relate to weakening the fields. EMFs consist of an electric field and a magnetic field. Only the electric field can be shielded by objects, such as buildings or trees. The magnetic field is able to pass through most common objects without being affected. While burying power lines greatly decreases electric fields, the procedure's effect on magnetic fields largely depends on the design and loading of the underground cable. Additionally, the strength of an EMF drops sharply with distance. Therefore, burying power lines may increase the magnetic field by bringing it closer to adjacent development.

In addition to EMF concerns, other factors limit use within electrical transmission line easement land. These include building and height limitations. As a result of all of these factors, the City has adopted a policy to limit the use of areas

within electrical power line easements to passive recreational uses.

B. OUTLOOK

Additional state and federal studies are anticipated to examine any possible health implications of EMFs on humans. While the danger of exposure has not yet been determined, Roseville recognizes the public concern for potential adverse health effects. Therefore, Roseville's policy language with respect to EMF safety translates into prudent action that will avoid dangers and minimize risk to City residents.

C. GOALS AND POLICIES

GOALS: ELECTROMAGNETIC FIELDS

Goal Minimize electromagnetic field (EMF) exposure at a reasonable cost and help alleviate public concern.

Policies:	Electromagnetic Fields	<i>Implementation Measures</i>
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1.	Ensure implementation of the Electric Department's policy of "prudent action" with respect to EMF issues.	- <i>EMF Plan</i>
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2.	Limit public use within electrical power line easements to parking and low-density recreational activities such as undeveloped nature areas, bicycle, or jogging paths.	- <i>Development Review Process</i> - <i>Specific Plans</i>
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D. IMPLEMENTATION MEASURES

1. EMF Plan (Ongoing)

The City of Roseville is committed to a policy of "prudent action" relating to EMF. The City acknowledges there may be public concern about EMF and is committed to gathering and sharing information about this issue as it becomes available. The City, through its Electric Department, will take the following steps to control EMF at a modest cost to electric utility customers until the impact of EMF is better understood:

- **Monitor EMF research and studies** The Electric Department will continue to review research and studies about EMF from the Department of Energy and other sources and update the City's analysis as new findings emerge.
- **Share information with the Roseville community** The Electric Department will continue to share new information on EMF through brochures, articles in the City and departmental newsletters, and at Roseville Public Utility Commission meetings. Reference materials will be available at the main branch of the Roseville Library.
- **Institute a measuring program** ~~The Electric Department has begun and will continue to measure electric and magnetic fields along transmission lines, substations, and other electrical equipment. In addition, measurements will be made on customers' premises at their request. An EMDEX – a portable device for measuring field strength – has been purchased by the Department.~~ Roseville Electric will take EMF measurements at customer premises upon the property owner's request using a portable device purchased by the Electric Department.
- **Consider EMF when designing distribution systems** The Electric Department will evaluate standards or guidelines for power lines and rights-of-way that may put current practices into policy or amend current practices.

- **Share information with other utilities** The Electric Department will continue to share information with other utilities. Organizations that are involved with EMF issues may assist in this inter-utility communication.
- **Support future EMF research efforts** In accordance with the American Public Power Association's (APPA) (of which Roseville is a member) resolution, the City will support efforts to provide timely, accurate, and complete information on electric and magnetic field effects to electric customers and the general public. Roseville should continue to support APPA and other organizations involved in EMF research. (Policy 1)

2. Development Review Process (Ongoing)

Refer any development proposal located within electric power line easements to the Electric Department and other agencies that may have jurisdiction over such easements. Consider the comments of the Electric Department and other agencies in the development review process. (Policy 2)

3. Specific Plans (Ongoing)

Ensure that specific plans are consistent with the goals and policies of the General Plan. Specific plans shall include direction for the treatment and use areas under and adjacent to major power line easements. (Policy 2)