



CHAPTER 8: SERVICES, HEALTH, AND SAFETY



OVERVIEW

Elk Grove's services and amenities, and the quality of its infrastructure, influence the decisions of both residents and businesses about locating in the City. The City strives to provide services that benefit all members of the community, including disadvantaged families, seniors, and youth.



Medical Services in Elk Grove

Blending top-ranked education, first-rate parks, and access to community programs and services with a safe environment, Elk Grove provides community members with a high quality of life. Maintaining quality of life is one of the most important issues expressed by community members as they consider the future of the City, and it is a visible and central focus for City staff and decision-makers as they manage and adapt to changes in Elk Grove. In addition to providing some services directly, the City coordinates with various other agencies and service providers to maintain high levels of infrastructure services, and coordinate disaster management and response to reduce risks to human life and the built environment. The Services, Health, and Safety chapter includes services provided by local government, healthy living strategies, and policies and programs to ensure that the City's residents and businesses are protected from and resilient to known and reasonably foreseeable hazards.

Elk Grove's strategy to maintain and enhance community health, services, and safety is informed by each of the following factors that affect quality of life in the community.

- **Coordinated emergency preparedness and response:** Proactive disaster and emergency response planning helps reduce and mitigate community losses in the event of a disaster. Coordinating with partner agencies early and often improves the community's emergency preparedness.
- **Critical facilities:** Critical facilities in Elk Grove include essential facilities for emergency response, lifeline infrastructure, public-serving structures of very high value, and natural or cultural assets. There are 507 critical facilities that have been identified in Annex B of the Sacramento County Local Hazard Mitigation Plan. Of these, 183 are essential to government operations and emergency response in Elk Grove. Essential government facilities include police stations, fire stations, the City Corporate Yard, Emergency Operations Center, vector control facilities, 911-emergency call centers, and sandbag storage locations. Essential healthcare facilities include assisted living centers, hospitals, and urgent care centers.
- **Resilient design against natural and man-made disasters:** Identifying the potential risk for public health and safety hazards allows for more effective emergency response planning. Potential risks from natural and man-made hazards include accidental exposure to hazardous materials, loss of life or property during flood, earthquake, fire events, accidents at railroad crossings, and an increased severity of natural hazards resulting from a changing climate.



Acknowledging that the City cannot eliminate all risk, the City focuses on reducing risks to acceptable levels.

- **A focus on public safety and emergency responsiveness:** City policies focus on coordination with local police and fire service providers to ensure they are adequately staffed and facilities are available to maintain public safety service levels, including proactive programs and emergency response.
- **High standards for providing and funding urban infrastructure:** Infrastructure, including roadways, bicycle, and pedestrian pathways, water and wastewater service and treatment, solid waste capture and disposal, and drainage facilities, provides valuable urban services. The alignment of infrastructure capacity with service demands enhances the health, safety, welfare, and economic viability of the community. City policies focus on infrastructure phasing and financing strategies to ensure that these basic services are available prior to development to minimize impacts on existing services.
- **Innovative community services:** The exchange and flow of information is a primary factor in how residents and businesses function and relate to the economic vitality of a community. However, anticipating how information is shared can be challenging because of rapidly shifting technologies. City policies focus on accommodating shifts in technology and adapting to how technology infrastructure can be implemented appropriately.
- **Equitable access to programs and services:** Access to community services and programs that support all users can enhance quality of life and increase economic and social opportunities for residents. Access to services should consider both physical and economic access while also recognizing that different populations, including youth, the elderly, and disadvantaged groups, have different accessibility needs.
- **A healthy community:** In order to promote community well-being, accessibility, health, safety, and diversity, Elk Grove is proactively making daily life more healthy and sustainable. Land use decisions that encourage physical activity and access to healthy food options are essential when developing healthy communities. Healthy communities encourage physical activity and good nutrition while facilitating access to healthcare and clean air.

The *Services, Health, and Safety* chapter contains goals and policies addressing the nine topics listed below, which are each assigned a one-, two-, or three-letter acronym. Within each topic, the following goals further the Community Vision and Supporting Principles.

DISASTER AND EMERGENCY MANAGEMENT (EM)

- **GOAL EM-1:** Coordinated Disaster and Emergency Management



DISASTER AND EMERGENCY RISK REDUCTION (ER)

- **GOAL ER-1:** Minimal Risk from Accidental Release of Hazardous Materials
- **GOAL ER-2:** Minimal Damage from Flooding and Drainage
- **GOAL ER-3:** Minimal Risk from Geologic and Seismic Hazards
- **GOAL ER-4:** Minimal Risk from Fire Hazards
- **GOAL ER-5:** Safe Crossings and Goods Movement on Railroads
- **GOAL ER-6:** An Adaptable and Resilient Community

DISASTER AND EMERGENCY RESPONSE AND PUBLIC SAFETY (SAF)

- **GOAL SAF-1:** A Safe Community

Urban Infrastructure (INF)

- **GOAL INF-1:** An Efficient Water Delivery and Storage System
- **GOAL INF-2:** An Efficient Wastewater Collection and Treatment System
- **COMMUNITY INFRASTRUCTURE AND FACILITIES (CIF)**
- **GOAL CIF-1:** Minimal Solid Waste Generation
- **GOAL CIF-2:** Coordinated Utility Infrastructure and Improvements
- **GOAL CIF-3:** Elk Grove is a Leader in Innovative Technology Infrastructure
- **GOAL CIF-4:** Schools Are an Integral Part of the Community
- **GOAL CIF-5:** Community Facilities that Serve the Needs of the Community

Infrastructure Financing and Phasing (IFP)

- **GOAL IFP-1:** Infrastructure Improvement Costs Are Secured Prior to Development

COMMUNITY HEALTH (HTH)

- **GOAL HTH-1:** Healthy Living Options for Residents



COMMUNITY SERVICES (CS)

- **GOAL CS-1:** A Library System That Empowers Public Learning for Residents
- **GOAL CS-2:** Services and Programs Support and Are Accessible to Children, Youth, and Seniors



Elk Grove Library

NOISE (N)

- **GOAL N-1:** Sensitive Uses Are Protected from Noise Intrusion
- **GOAL N-2:** Community Noise Exposure is Minimized

Many of the goals and policies of this chapter correspond to priorities established in the Sacramento County Local Hazard Mitigation Plan, a multijurisdictional plan that includes Sacramento County and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Isleton, Rancho Cordova, and Sacramento, as well as various special districts within the county. Annex chapters of the Sacramento County Local Hazard Mitigation Plan provide specific analysis for each partner city. Annex B of the document is specific to Elk Grove. This plan, which is typically updated every five years, forms the foundation for the City’s long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. The 2021 Sacramento County Local Hazard Mitigation Plan, inclusive of Annex B, fulfills the requirements of Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5165, as amended by the Disaster Mitigation Act of 2000. The Services, Health, and Safety chapter goals, policies, and related standards support and are consistent with the 2017 Local Hazard Mitigation Plan.

In 2006, the state adopted Assembly Bill (AB) 2140 which added provisions specifying what is to be included in a Local Hazard Mitigation Plan (LHMP) and requiring a linkage between a local jurisdiction’s LHMP and the Safety Element of their General Plan. AB 2140 requires a jurisdiction to adopt the LHMP into the Safety Element of the General Plan to be fully eligible for disaster relief funding under the California Disaster Assistance Act. The Services, Health, and Safety chapter goals, policies, and related standards support and are consistent with the 2017 2021 Local Hazard Mitigation Plan. To meet the requirements of AB 2140, the City adopts and incorporates by reference the 2021 LHMP (adopted February 2022) as part of this General Plan, which should be consulted when addressing known hazards to ensure the general health and safety of people within the City. The most recent plan can be found on the City’s website at www.elkgrovecity.org/generalplan.



RELATIONSHIP TO OTHER CHAPTERS

The *Services, Health and Safety* chapter most closely relates to Chapter 7: *Community and Resource Protection*. Chapter 7 establishes goals and policies to foster effective governance and to maintain and preserve natural resources, parks and open spaces, trails and other recreational amenities, cultural and historic assets, and the character of neighborhoods and districts.

SUPPORTING PRINCIPLES

The *Services, Health, and Safety* chapter carries out the following Supporting Principles:

Our Regional Neighbors Know Us & Our Contributions. This principle identifies Elk Grove as a center in the region for recreational opportunities, higher education, job opportunities, and quality neighborhoods. This chapter establishes goals and policies to protect and maintain those resources.

Our Economy is Diverse & Balanced & Enhances Quality of Life. This principle envisions Elk Grove leading the way in innovative technology infrastructure, technical education opportunities, plentiful activities and entertainment, and a safe environment. Policies in this chapter focus on accommodating shifts in technology and adapting to how technology infrastructure can be implemented appropriately. In addition, this chapter provides for coordination with local police and fire services to ensure they are adequately staffed to respond to local needs.

Outdoor Recreation Is Right Outside Our Door. This principle ensures that Elk Grove continues to enhance and maintain recreational open spaces so that they are safe, connected, and accessible to all. Goals and policies in this chapter improve healthy options for all residents, including access to open space.

Clean, Green Practices & Healthy Living. This principle identifies the City's desire to be adaptive to and resilient against climate change. It also recognizes the importance of responsible resource use and working together to conserve and use water and energy. Goals and policies in this chapter address adaptability to disasters, healthy living options, and access to services and programs to improve community health and well-being.



Services for the Needs of All Residents. This principle recognizes that safety and services are important to all members of the community, including youth, seniors, and disadvantaged families. Goals and policies in this chapter ensure services in Elk Grove are responsibly provided and maintained, including disaster and emergency management, police, fire, infrastructure, schools, and libraries.

GOALS AND POLICIES: DISASTER AND EMERGENCY MANAGEMENT (EM)

GOAL EM-1: COORDINATED DISASTER AND EMERGENCY MANAGEMENT

Ground-level assessments, coordination of mutual aid, and resource management, along with disaster planning, can help mitigate community losses in the event of a disaster. Several potential safety hazards exist in Elk Grove, including:

- Potential release of toxic or hazardous substances as the result of accidents on truck routes and/or railroad lines
- Release of toxic or hazardous substances that are used by commercial and industrial businesses
- Potential targets of terrorism, including key service distribution centers, large gathering spots and activities, and military facilities
- Regional seismic activity and other geologic hazards
- Flooding
- Fire hazards
- Traffic accidents at at-grade railroad crossings

POLICIES: COMMUNITY SAFETY AND DISASTER MANAGEMENT

Policy EM-1-1: Seek to maintain acceptable levels of risk of injury, death, and property damage resulting from reasonably foreseeable safety hazards.

Policy EM-1-2: Cooperate with other local, regional, State, and

Acceptable Risk is the determination by public authorities through a process involving industry and the public of levels of risk which are considered acceptable if all reasonably practical measures have been taken to reduce risks. Acceptability depends on trade-offs between risks, costs, and benefits.



federal agencies and with rail carriers in an effort to secure the safety of all residents and businesses.

Policy EM-1-3: Establish local ordinances and programs to guide and support disaster recovery efforts.

GOALS AND POLICIES: DISASTER AND EMERGENCY RISK REDUCTION (ER)

GOAL ER-1: MINIMAL RISK FROM ACCIDENTAL RELEASE OF HAZARDOUS MATERIALS

A hazardous material is any material that, due to its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released. Hazardous materials include, but are not limited to, hazardous substances, hazardous wastes, and any material that a business or local implementing agency has a reasonable basis to believe would be injurious to the health and safety of persons or would be harmful to the environment if released. Factors that influence the health effects of exposure to a hazardous material include the dose to which the person is exposed, the frequency of exposure, the exposure pathway, and individual susceptibility.

Numerous uses throughout Elk Grove—from dry cleaners to filling stations to industrial users—maintain stocks of hazardous substances on-site and therefore raise the potential for the accidental release of these substances. In addition, two freeways, several major surface routes, and two active rail lines traverse the Planning Area. Vehicles and rail cars carrying hazardous materials use all of these routes and bring the risk of an accident involving hazardous substances to large areas of Elk Grove.

A major source of energy supplies in the Planning Area and an additional risk site for hazardous materials risks is propane. Suburban Propane maintains a distribution facility in Elk Grove on Grant Line Road near State Route 99. The facility is one of the largest propane storage facilities in the state and several residential subdivisions are located within less than a half a mile from the storage tanks. The facility has never had a major incident in the past; however, a triggered explosion or fire on the site could result in loss of life and property.

Natural gas pipeline failures are considered to pose an unlikely and low risk to the City; however, occurrences could potentially result in economic losses as a result of service interruptions. The transmission and distribution infrastructure for natural gas consists primarily of underground pipes, which vary widely in size depending on how much natural gas they are required to carry. Large transmission pipes transport the natural gas to a central point, whereas smaller distribution pipelines carry the fuel to the individual end users. Transmission pipelines are also connected to numerous facilities called stations, which help to store gas, maintain pressure and reliability in the pipelines, and add compounds with a strong and recognizable odor so people can perceive if there is a leak.

Pacific Gas and Electric Company (PG&E) owns and operates the natural



gas transmission and distribution infrastructure in its service area. Natural gas transmission lines are located in the following general locations in the Planning Area:

- Along the rail line in western Elk Grove
- Along Elk Grove Boulevard between Interstate 5 and State Highway 99
- Between Elk Grove Boulevard and Franklin Boulevard via Bruceville Road and Big Horn Boulevard
- Roughly along Laguna Boulevard and Bond Road east from Big Horn Boulevard

POLICIES: HAZARDOUS FACILITIES AND ACCEPTABLE RISKS

The reader should also consult Chapter 4: Urban and Rural Development for Development Pattern policies related to transitions between land uses.

Policy ER-1-1: In considering the potential impact of hazardous facilities on the public and/or adjacent or nearby properties, the City will consider the hazards posed by reasonably foreseeable events. Evaluation of such hazards will address the potential for events at facilities to create hazardous physical effects at off-site locations that could result in death, significant injury, or significant property damage. The potential hazardous physical effects of an event need not be considered if the occurrence of an event is not reasonably foreseeable as defined in Policy ER-1-2. Hazardous physical effects shall be determined in

Foreseeable risks and maximum acceptable exposures to risk were determined by the City using definitions and calculations established in the Risk-Based Land Use Planning Guidelines published by the Major Industrial Accidents Council of Canada.

**TABLE 8-1:
ACCEPTABLE PROBABILITY OF REASONABLY FORESEEABLE RISKS TO INDIVIDUALS BY LAND USE**

LAND USE	RISK OF DEATH OVER 365 DAYS OF EXPOSURE
Agriculture, Light Industrial and Industrial Uses involving continuous access and the presence of limited number of people but easy evacuation, e.g., open space, warehouses, manufacturing plants	Between 100 in one million and 10 in one million (10 ⁻⁴ to 10 ⁻⁵)
Commercial Uses involving continuous access but easy evacuation, e.g., commercial uses, offices	Between 10 in one million and 1 in one million (10 ⁻⁵ to 10 ⁻⁶)
Residential All other land uses without restriction including institutional uses, residential areas, etc.	1 in one million and less (10 ⁻⁶)



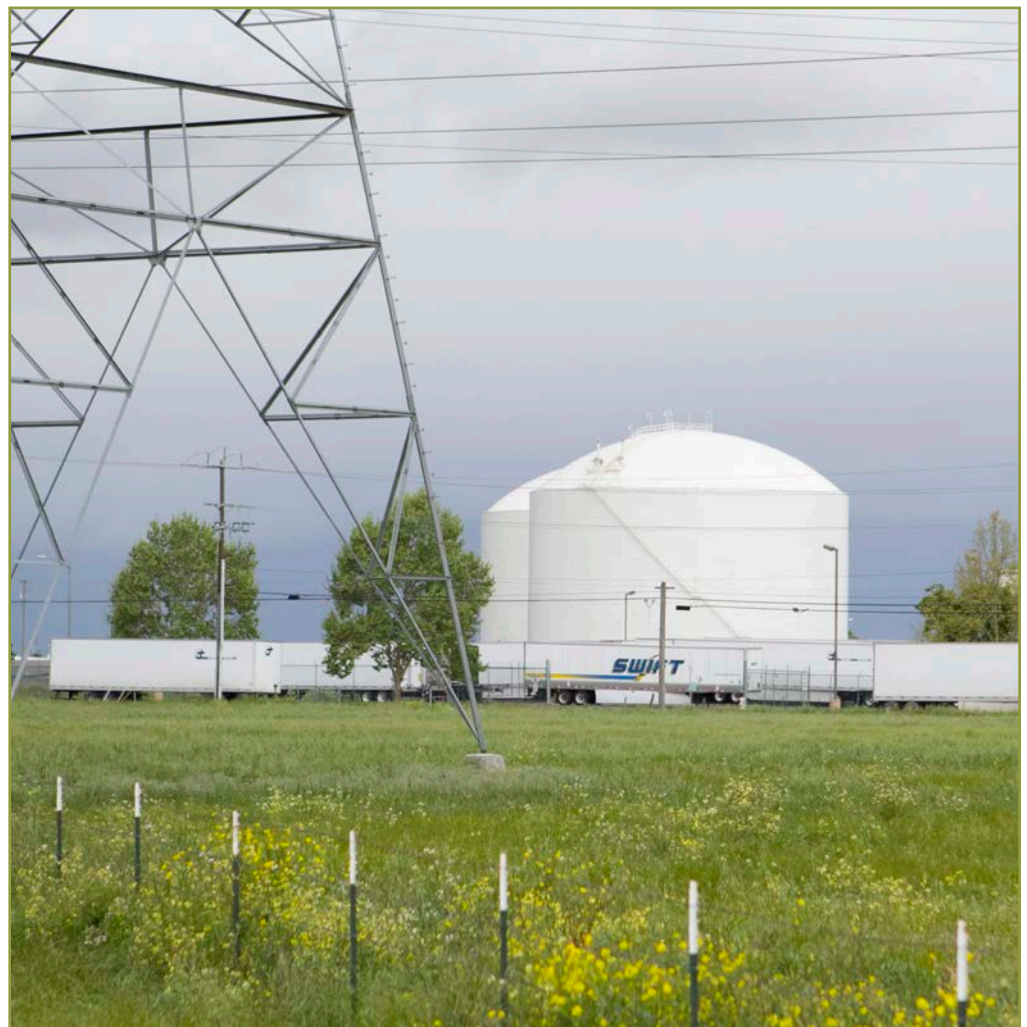
accordance with Policy ER-1-3.

Policy ER-1-2: For the purpose of implementing Policy ER-1-1, the City considers an event to be “reasonably foreseeable” when the probability of the event occurring is as indicated in Table 8-1.

Policy ER-1-3: For the purpose of implementing Policy ER-1-1, use the Threshold of Exposure standards shown in Table 8-2 to determine the potential “hazardous physical effect” from either:

- (a) Placing a use near an existing hazardous facility which could expose the new use to hazardous physical effects, or
- (b) Siting a hazardous facility that could expose

Propane in Elk Grove





**TABLE 8-2:
POLICY THRESHOLD OF EXPOSURE CRITERIA FOR AGRICULTURAL, RESIDENTIAL,
AND NONRESIDENTIAL LAND USES**

LAND USE	MAXIMUM POLICY THRESHOLD OF EXPOSURE			
	Overpressure	Airborne Toxic Substances	Radiant Heat	Shrapnel
Agriculture	3.4 psig ^(a)	Dose = ERPG-2^(b) ppm for 60 min Exposure time = 60 min	Radiant dose = 200 kJ/m ² ^(c) Exposure time = 30 sec	All uses will be located such that the possibility of injury to an unprotected person due to shrapnel released by a reasonably foreseeable event ^(d) is less than 1/10 ⁻⁶ (1/1,000,000)
Residential (all density ranges) ^(e)	1.0 psig	<i>For example: chlorine</i> ERPG-2 = 3 ppm <i>Dose = 3 ppm x 60 min = 180 ppm-min</i> Target concentration = dose/exposure time	Target radiant energy = radiant dose/exposure time <i>Target radiant energy = (200 kJ/m²) / 30 sec</i>	
Office/Commercial	1.0 psig	Target concentration = (180 ppm-min) / 60 min Target concentration = 3 ppm chlorine	<i>Target radiant energy = 6.67 kW/m²</i>	
Light Industrial	1.25 psig	Dose = ERPG-2 ppm for 60 min Exposure time = 30 min <i>For example: chlorine</i> ERPG-2 = 3 ppm <i>Dose = 3 ppm x 60 min = 180 ppm-min</i> Target concentration = dose/exposure time <i>Target concentration = (180 ppm-min) / 30 min</i> Target concentration = 6 ppm chlorine	Radiant dose = 200 kJ/m ² Exposure time = 15 sec Target radiant energy = radiant dose/exposure time	
Industrial	3.4 psig	Dose = ERPG-2 ppm for 60 min Exposure time = 15 min <i>For example: chlorine</i> ERPG-2 = 3 ppm <i>Dose = 3 ppm x 60 min = 180 ppm-min</i> Target concentration = dose/exposure time <i>Target concentration = (180 ppm-min) / 15 min</i> Target concentration = 12 ppm chlorine	Target radiant energy = (200 kJ/m²) / 15 sec Target radiant energy = 13.34 kW/m²	

Notes:

- a. psig: pounds per square inch gauge
- b. ERPG-2: Emergency Response Planning Guidelines. The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms which could impair an individual's ability to take protective action; ppm: parts per million
- c. kJ/m²: kiloJoules per square meter (a measure of radiant heat received); kW/m²: kilowatts per square meter; 1.0 kJ/m² = 1.0 kW/m² for 1 sec = 1 kW/(m²-sec)
- d. As defined in Policy ER-1-2.
- e. Includes schools, parks, libraries, and other similar public gathering places regardless of their location.



other nearby uses to hazardous physical effects.

Reasonably foreseeable level of risk standards may be considered by the City when supported by substantial evidence.

POLICIES: STORAGE OF HAZARDOUS MATERIALS

Policy ER-1-4: Work to identify and eliminate hazardous waste releases from both private companies and public agencies.

Standard ER-1-4a Industries which store and process hazardous or toxic materials shall provide a buffer zone between the installation and the property boundaries sufficient to protect public safety, the adequacy of which will be determined by the City of Elk Grove.

Policy ER-1-5: Storage of hazardous materials and waste will be strictly regulated, consistent with State and federal law.

Standard ER-1-5.a: Future land uses that are anticipated to utilize hazardous materials or waste shall be required to provide adequate containment facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double-containment, levees to contain spills, and monitoring wells for underground storage tanks, as required by local, state and federal standards..

Standard ER-1-5.b Prior to site improvements for properties that are suspected or known to contain hazardous materials and sites that are listed on or identified on any hazardous material/waste database search shall require that the site and surrounding area be reviewed, tested, and remediated for potential hazardous materials in accordance with all local, state, and federal regulations.

Policy ER-1-6: Seek to ensure that all industrial facilities are constructed and operated in accordance with up-to-date safety and environmental protection standards.



POLICIES: TRANSPORT OF HAZARDOUS MATERIAL

- Policy ER-1-7:** To the extent feasible, uses requiring substantial transport of hazardous materials should be located such that traffic is directed away from the City’s residential and commercial areas.
- Policy ER-1-8:** Support continued coordination with the California Office of Emergency Services, the California Department of Toxic Substances Control, the California Highway Patrol, the Sacramento County Department of Environmental Health Services, the Cosumnes Community Services District Fire Department, the Elk Grove Police Department, and other appropriate agencies in hazardous materials route planning and incident response.

GOAL ER-2: MINIMAL DAMAGE FROM FLOODING AND DRAINAGE

Flooding affects a part of the Planning Area. The areas most susceptible to flooding are in the eastern portion of Elk Grove where major drainage facilities have not been built and stormwater flows either in natural channels or in small ditches where capacity is frequently exceeded. Another area susceptible to flooding is the Sheldon area, where local flooding is widespread but generally minor; the flat land causes floodwaters to spread out, reducing threats to life and property.

Finally, along the eastern and southern edges of the Planning Area, the Cosumnes River (and Deer Creek tributary) represents a major flood hazard. The Cosumnes River is the last river in California that remains undammed along its entire length, so flooding caused by this river can be extensive.

A 100-year floodplain zone estimates inundation areas based on a flood that has a 1 percent chance of occurring in any given year. These floodplain zones are often defined by the Federal Emergency Management Agency (FEMA), though some areas of the City remain unmapped in FEMA’s records. In these cases, the City maintains a flood combining district in the Zoning Code to identify all known land covered by rivers, creeks, and streams and land subject to flooding within the City. In Elk Grove, 100-year flood zones include areas along Laguna Creek in the northwest and north-central portion of the City, and along the Cosumnes River to the southeast, primarily outside of the City limits, but within the Planning Area. Flood risk is intensified in the lower stream reaches by the likelihood of coincident high tides and strong offshore winds during heavy rainfall.

Pursuant to Government Code Sections 65007, 65300.2, 65302.9, 65302, 65303.4, 65584.04, 65584.06, 65865.5, 65962, and 66474.6, as well as portions of Chapter 4 of the California Water Code relating to flood management, as amended by Assembly Bill 162 (2007) and Senate Bill 5, the California Department of Water



FIGURE 100-YEAR FLOOD

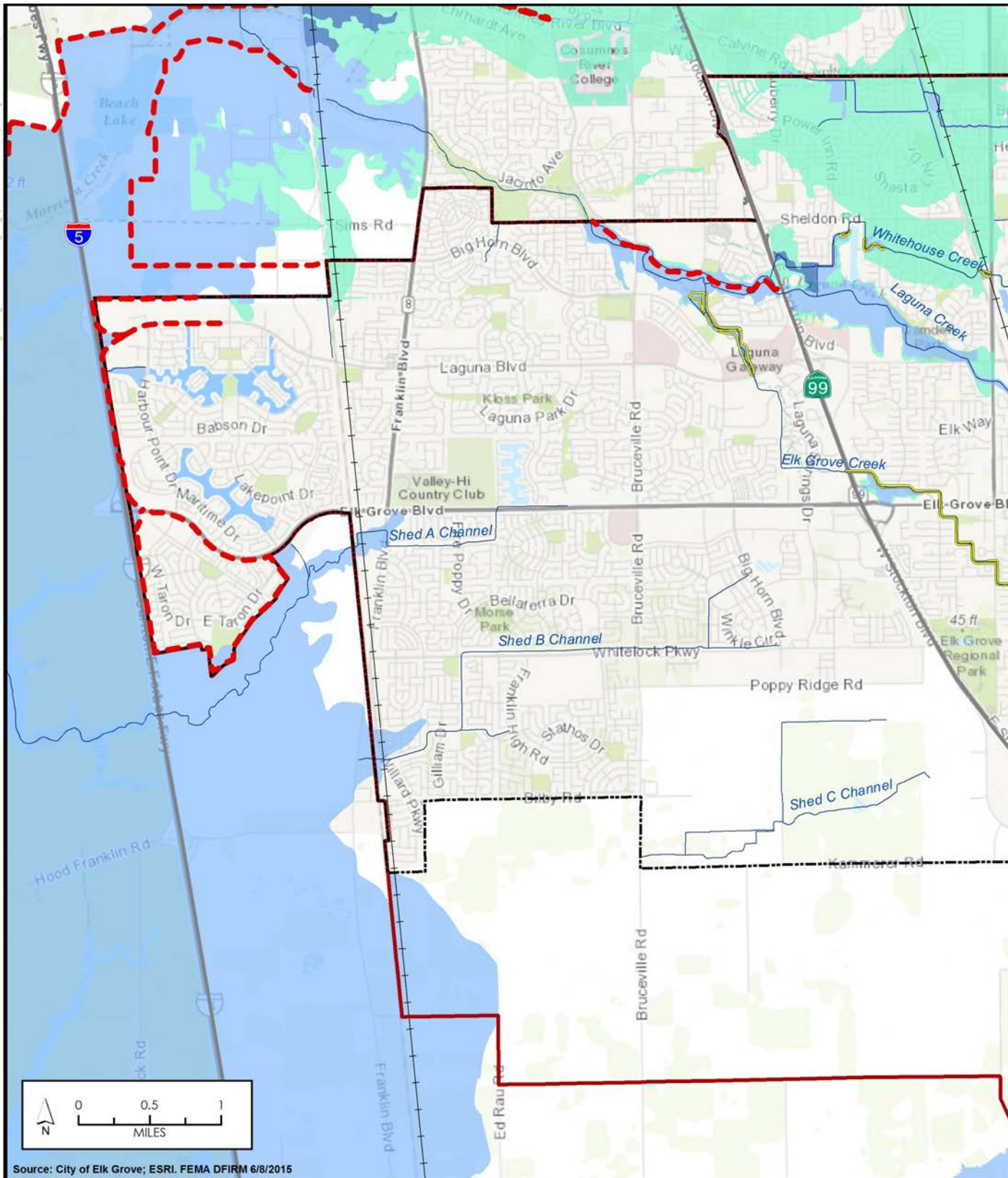
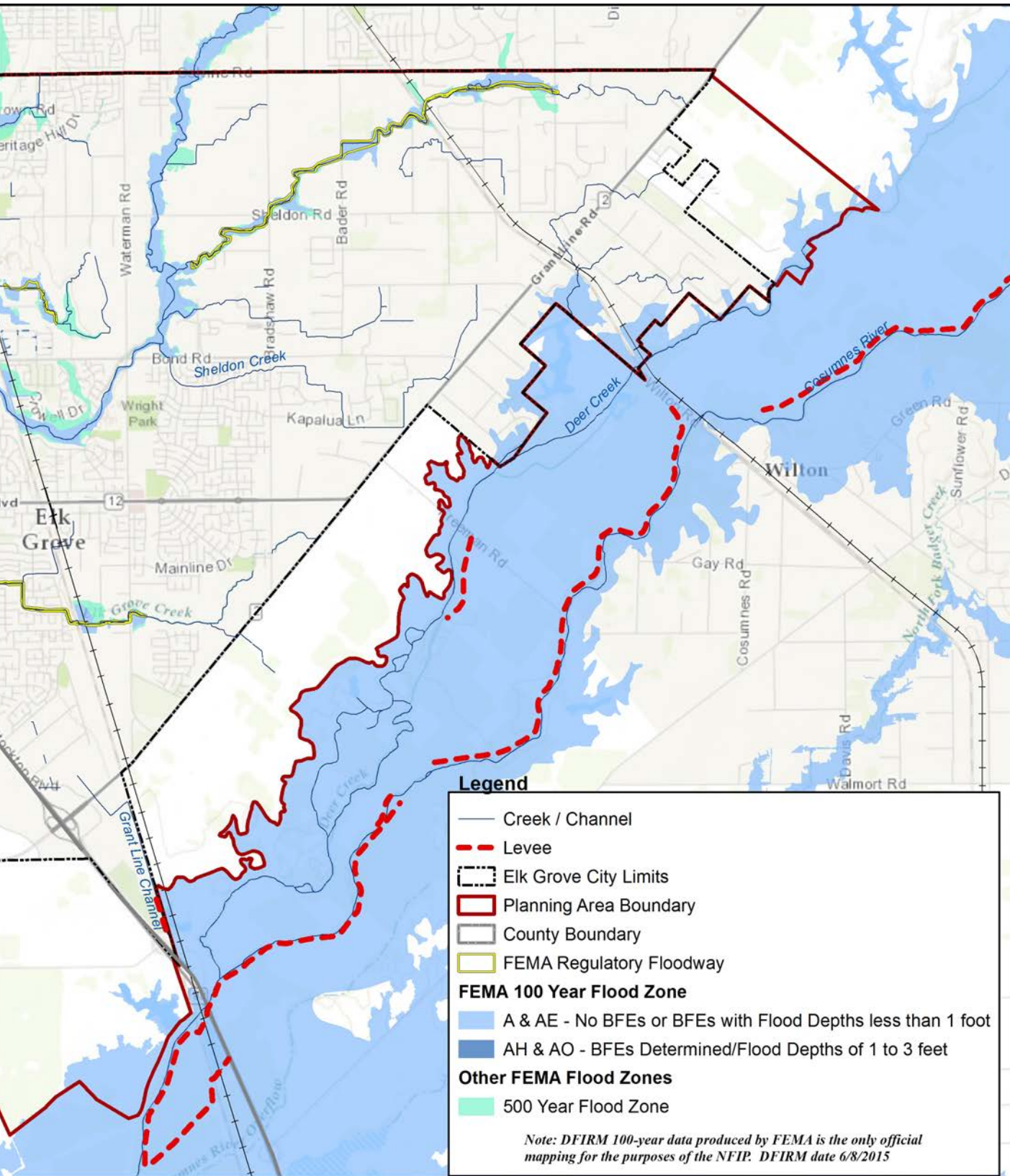




FIGURE 8-1:
PLAIN ZONES





Resources (DWR) and the Central Valley Flood Protection Board (formerly the State Reclamation Board) adopted a Central Valley Flood Protection Plan (CVFPP) in 2012. The amendments established flood protection requirements for local land use decision-making to be aligned with the CVFPP. These laws set a higher standard for flood protection for the Sacramento-San Joaquin Valley area, which covers the entire Delta region and includes the Elk Grove Planning Area. These laws also established a requirement for jurisdictions to attain an urban level of flood protection necessary to withstand a flood with a 1 in 200 chance of occurring in any given year (200-year flood) for areas developed or planned to have a population of at least 10,000. They do not apply to areas of shallow flooding or areas of flooding from local drainage equivalent to less than 3 feet in depth.

Figure 8-1 shows areas within the 100-year floodplain zones. The map uses Flood Insurance Rate Map 100-year floodplain data produced by FEMA. The Flood Insurance Rate Map is the only official mapping for the purposes of National Flood Insurance Program regulations and coverage areas. Additional flood risk data, including 200-year flood data shown in Figure 8-2, described below, is not approved by FEMA for use in relation to the National Flood Insurance Program.

Figure 8-2 shows areas within the 200-year floodplain that are potentially subject to urban level of flood protection requirements when flood depths of 3 feet or greater could occur. This map identifies areas where higher standards of development and **flood protection may be required prior to the issuance of building permits.**



Trail Along Elk Grove Creek



FIGURE 8-2
200-YEAR FLOODPLAIN

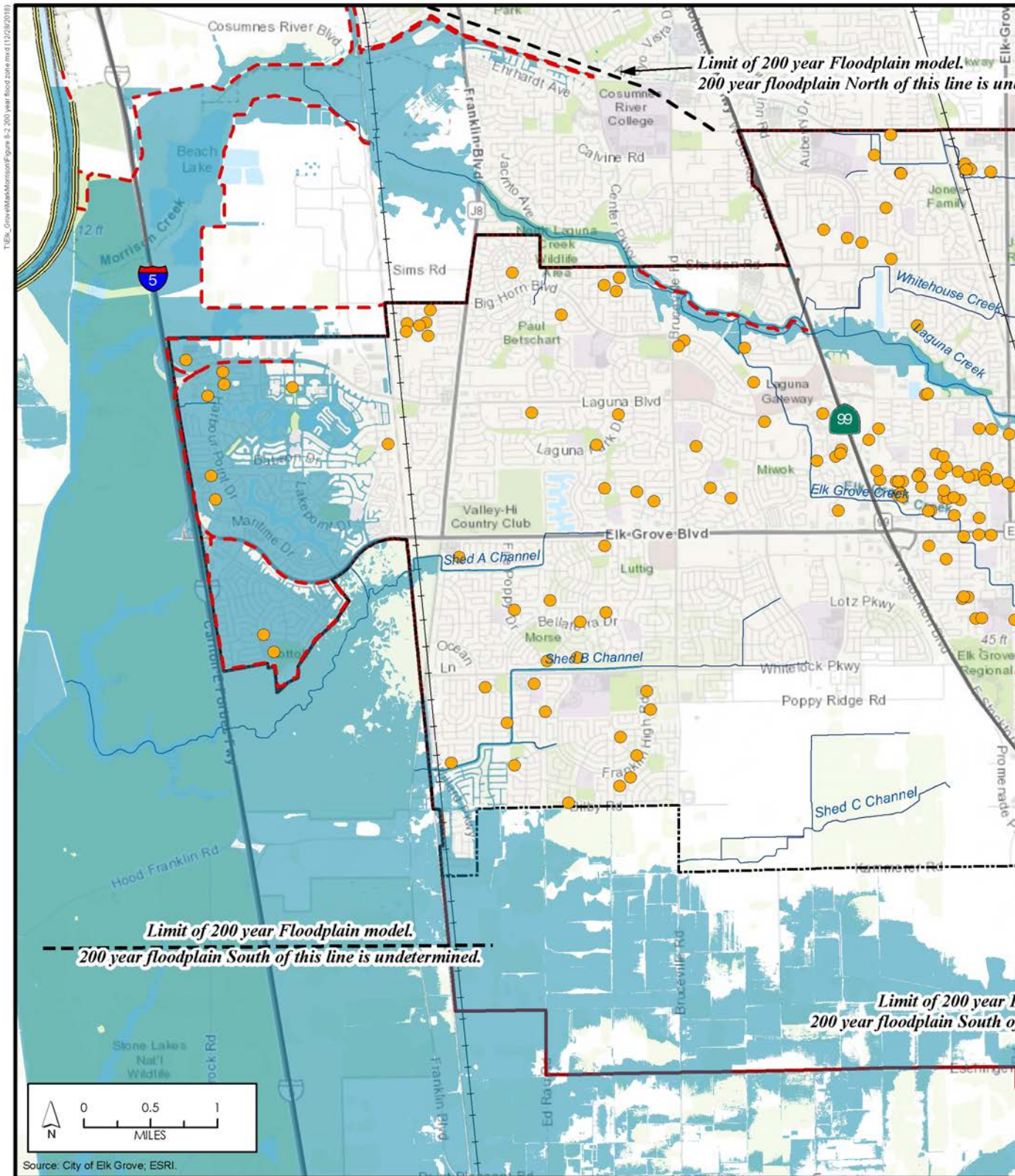




FIGURE 8-2:
FLOODPLAIN ZONES

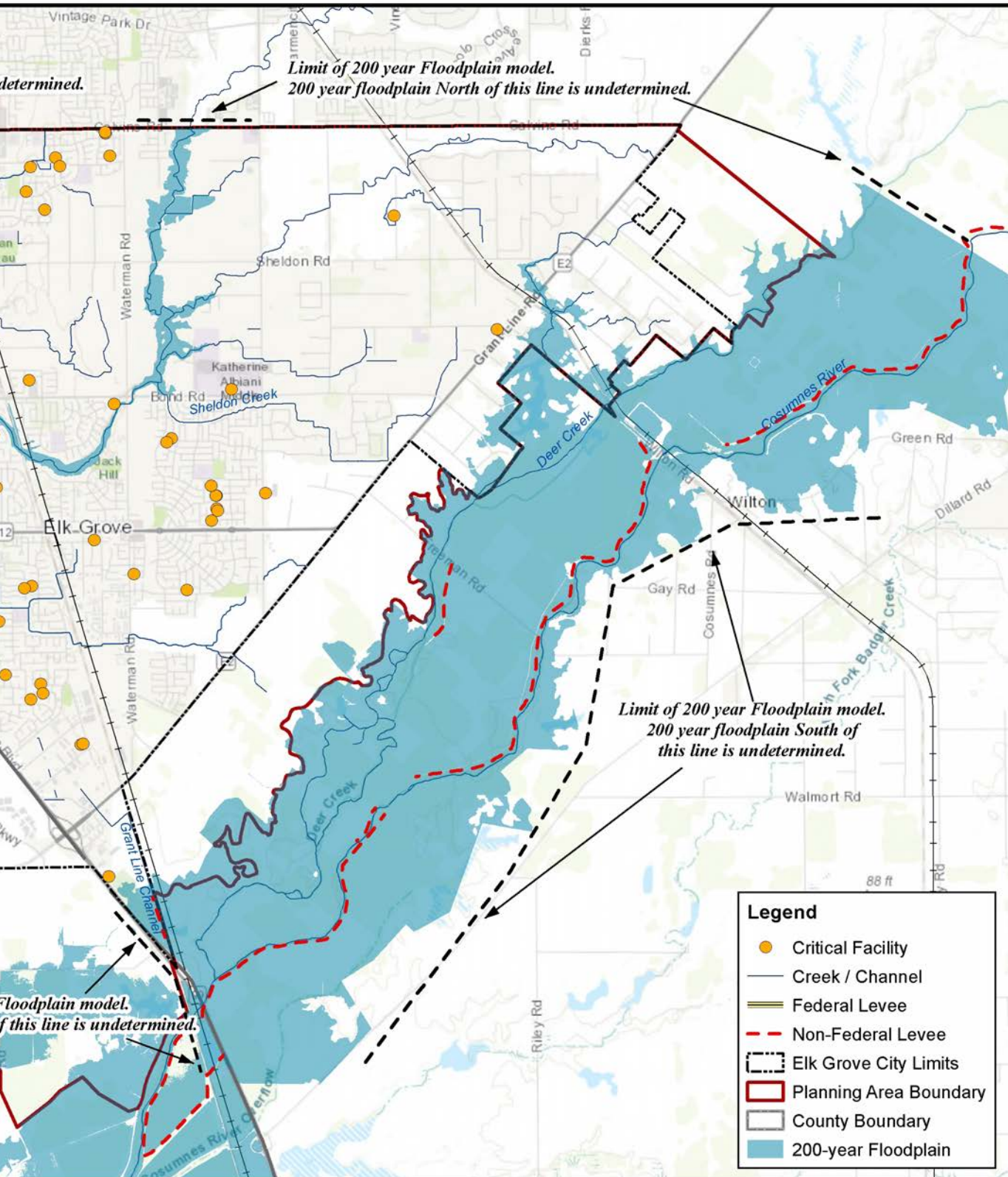




Figure 8-2 was developed using data provided by the DWR, supplemented by floodplain studies commissioned by the City, covering local creek systems that have watershed areas of at least 10 square miles. These areas include the Laguna Creek and Deer Creek/Cosumnes River watersheds, North Delta, and Shed C Channel, as well as the Sacramento River watershed, which affects local creek systems.

The City commissioned hydrologic modeling to supplement the DWR 200-year floodplain mapping of Laguna Creek and the Cosumnes River to account for levee improvements completed or in process that were not included in DWR mapping. The Sacramento Area Flood Control Agency is in the process of implementing a levee improvement project to provide 200-year flood protection for the Sacramento River, and the US Army Corps of Engineers is completing improvements to the Folsom Dam spillway on the American River. These projects were not accounted for on the DWR mapping. Because of these improvements, the City's supplemental 200-year floodplain calculations use a scenario in which the levees and dams along the Sacramento and American Rivers north of the City (except as described below) do not fail.

The City's supplemental mapping also differs from DWR 200-year floodplain mapping by adding 200-year water surface elevations along Deer Creek. The DWR did not assess Deer Creek since no State flood improvement projects are located in this watershed. Levees in this area have not been certified to provide 100-year protection and have failed in the past during large storm events. Therefore, modeling for this area considers the possibility of extensive levee failure, especially along the north bank of the Cosumnes River.

The area potentially affected by a 200-year flood event in Elk Grove is in the southeast portion of the Planning Area, along Deer Creek and the Cosumnes River. Much of this land is preserved for agricultural use and would be at limited risk of damage from flood hazard zones. However, a 200-year flood event caused by levee breaks along the Sacramento River could result in flooding in small portions of Laguna West, an existing residential neighborhood on the western side of the City. If, in the future, the City were to consider expanding beyond its existing Planning Area north or south along Interstate 5, development in these areas would also be at risk in a 200-year flood event.

The City recognizes that flood risk conditions can change over time through natural processes or project improvements on the local or regional scale. Therefore, the 200-year flood map is considered the base case for establishing potential flood risk. The City will keep updated data on the 200-year floodplain through an annual review, accounting for the results of new technical studies and changes in flood protection infrastructure. This updated information is available and will be referenced during the development review process for areas on the base case 200-year flood map, as shown in **Figure 8-2**.

As required by the flood management requirements in the Government Code, the City of Elk Grove has incorporated CVFPP measures into policies under Goal ER-2 of the



General Plan through the inclusion of Urban Level Flood Protection mapping, as well as through more extensive flood risk analysis. The City has also incorporated related measures into Title 23 (Zoning) of the Elk Grove Municipal Code. The City applies these more stringent development standards in identified areas when considering approval of future projects and developments.

Mapping analysis conducted by the City shows that none of the 343 critical facilities in the Planning Area are located within the 100-year floodplain; however, nine essential service facilities are located within the 200-year floodplain, as shown in **Figure 8-2**.

AGENCIES RESPONSIBLE FOR FLOOD PROTECTION

FEDERAL EMERGENCY MANAGEMENT AGENCY

FEMA is a federal agency whose mission is to reduce the loss of life and property from natural and human-made disasters through a comprehensive, risk-based emergency management system. One of the agency's responsibilities is to maintain flood zone maps.

CALIFORNIA DEPARTMENT OF WATER RESOURCES

The DWR implements the California Water Code, including the Cobey-Alquist Flood Plain Management Act. The DWR regulates activities in California's floodways, encourages preventive flood control maintenance, and operates some flood control projects.

CENTRAL VALLEY FLOOD PROTECTION BOARD AND PLAN

The Central Valley Flood Protection Board developed and adopted the CVFPP in 2012 and continues to oversee the plan's implementation. The CVFPP includes conceptual guidance to reduce the risk of flooding for about one million people in California and \$70 billion in infrastructure, homes, and businesses, with a goal of providing 200-year flood protection to urban areas.

SACRAMENTO AREA FLOOD CONTROL AGENCY

The Sacramento Area Flood Control Agency is charged with providing the Sacramento region with increased flood protection along the American and Sacramento Rivers. The agency was formed through a joint powers agreement between the City of Sacramento, the County of Sacramento, the County of Sutter, the American River Flood Control District, and Reclamation District No. 1000. The agency conducts flood control improvement projects such as levee enforcement and dam improvements.

SACRAMENTO COUNTY DEPARTMENT OF WATER RESOURCES



The Sacramento County Department of Water Resources is the county-level agency that manages floodplain information, flood insurance, and the ALERT System and distributes up-to-date information to the community and public agencies on potential flooding in Sacramento County.

ELK GROVE POLICE DEPARTMENT AND CONSUMNES COMMUNITY SERVICES DISTRICT (CCSD) FIRE DEPARTMENT

The City Police Department and CCSD Fire Department play an active role in disaster planning, preparedness, and first response in Elk Grove.

CALIFORNIA OFFICE OF EMERGENCY SERVICES (CAL OES)

Dam inundation occurs when a dam is not structurally sound or is unable to withstand damages resulting from seismic activity. The degree and rapidity of dam failure depend on the dam's structural characteristics. Figure 8-3 shows inundation areas from potential dam failures, based on maps prepared by Cal OES. Cal OES estimates the degree and extent of flooding that would occur in the case of a dam failure.

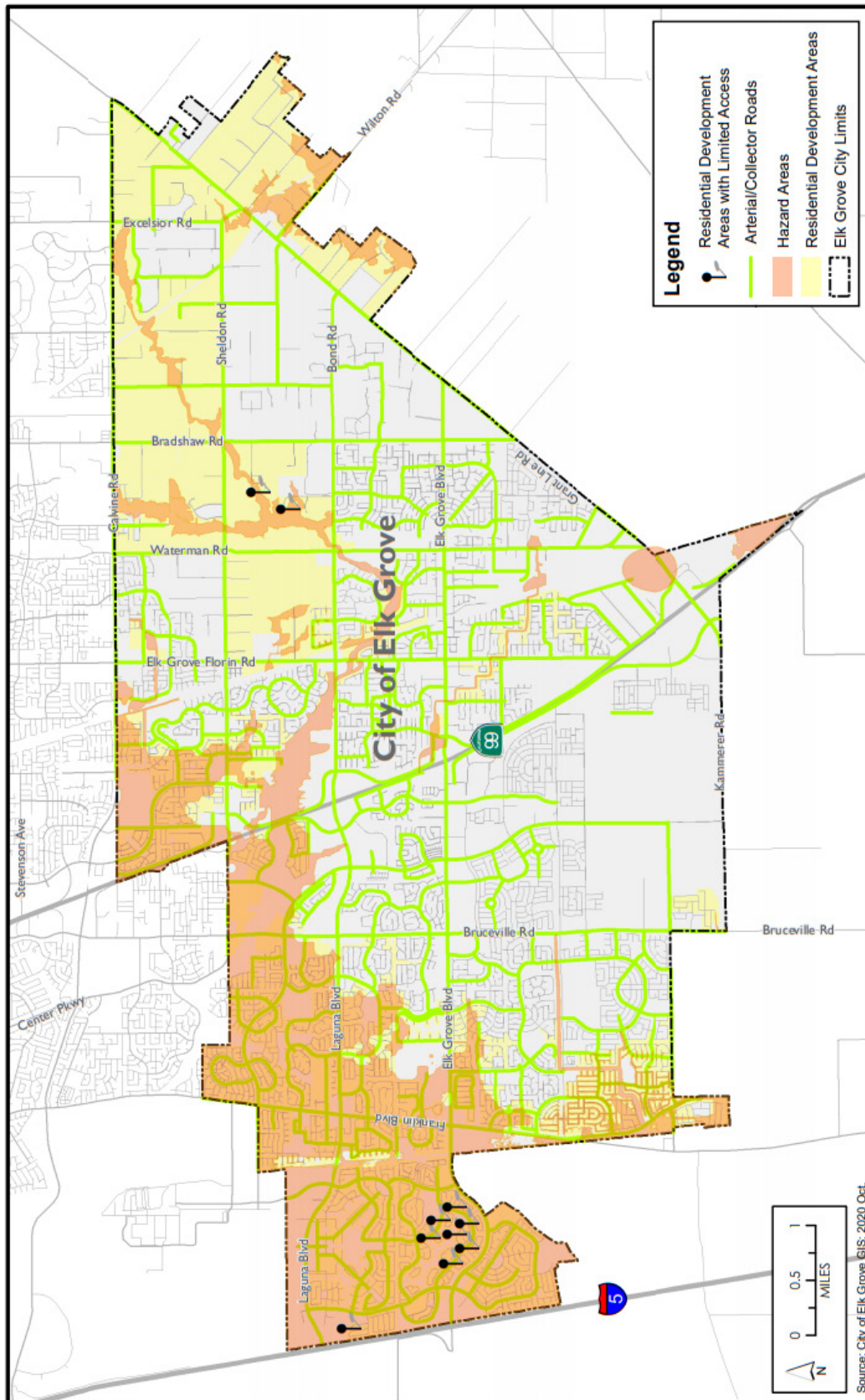
Failure of the regulation dams at Folsom (along the American River and influencing the Sacramento River) and Sly Parks (along the Cosumnes River and influencing Deer Creek) has the potential to cause human injury or loss of life in Elk Grove.



Creek in Elk Grove



FIGURE 8-3:
DAM INUNDATION AREAS





Since neither dam is located in the Planning Area, however, to reduce the likelihood of dam inundation, policies and programs focus on partnerships with regional agencies, including Sacramento County, to track inundation profiles (flood depth) and prepare accordingly, and include requirements for project features that may reduce dam failure hazards.

CANAL OR LEVEE FAILURE

Generally, levees fail due to overtopping or collapse. A catastrophic levee failure resulting from collapse would occur quickly with little warning. Levees may fail because of earthquake-induced slumping, landslides, and liquefaction. The existing levee system in areas surrounding Elk Grove was initially constructed by hand labor, and later by dredging to hold back river floods and tidal influences, to obtain additional lands for grazing and crop growing. Constant maintenance is necessary to hold these levees against the river floods that threaten surrounding areas. Because levees are vulnerable to peat oxidation as well as sand, silt, and peat erosion, new material is continually added to maintain them. Subsiding farmlands adjacent to levees may increase water pressure against the levees, adding to the potential for levee failure. In addition, many levees, known as non-project levees, are not maintained to any specified standard, which can increase the likelihood of failure and inundation. Levee failures can be difficult to predict, since even inspected project levees are prone to failure under certain conditions. Using the best available information, the DWR has identified areas where flood levels would be more than 3 feet deep if a project levee were to fail; these areas are known as Levee Flood Protection Zones.

The Elk Grove Planning Area is protected by a number of project levees that are part of federally authorized flood projects and are considered part of the State Plan of Flood Control. There are no project levees in Elk Grove, but several project levees located outside of the Planning Area affect flooding in the Planning Area along the Sacramento River. A number of non-project levees also provide flood protection to the community. These non-project levees were generally constructed prior to project levees and without federal or State assistance. They are not part of the State Plan of Flood Control. Non-project levees are located along the eastern side of Interstate 5 and along Morrison Creek, Laguna Creek, and the Cosumnes River. Figure 8-4 identifies the locations of project levees, non-project levees, and DWR Levee Flood

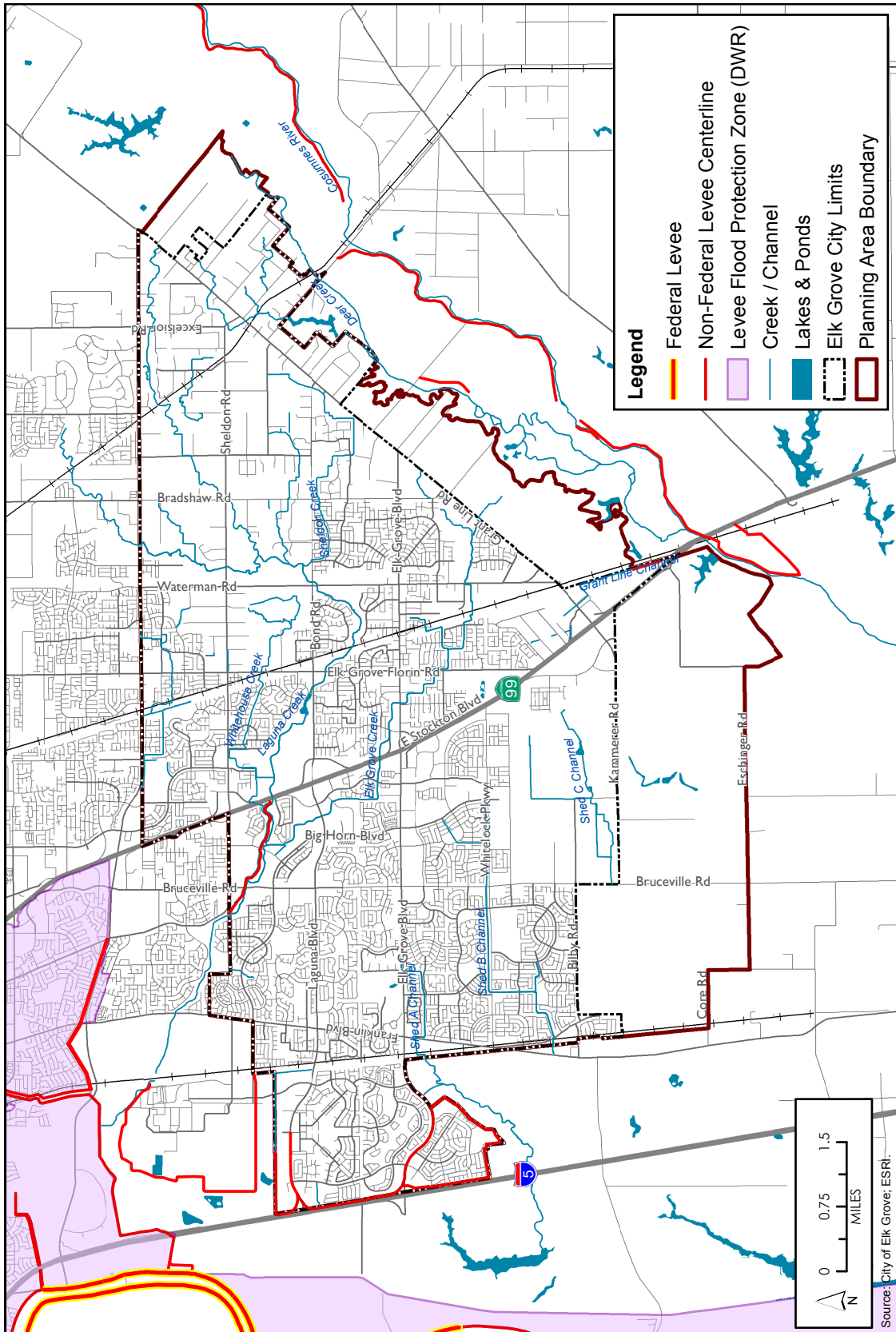


Creek in Elk Grove





FIGURE 8-4:
LEVEES AND LEVEE FLOOD PROTECTION ZONES





Protection Zones that affect the Elk Grove Planning Area.

The City conducts levee operation and maintenance activities that result in recommendations as well as requirements for specific levee inspections and maintenance operations.

CLIMATE CHANGE

The California Climate Change Center, a research arm of the California Energy Commission, has found that climate change will result in new flooding concerns throughout California. Climate change-induced sea level rise is likely to create significant impacts in the San Francisco Bay and Delta. In a 2012 report, the California Natural Resources Agency estimated that sea levels along the California coast will rise between 3 and 5 feet by 2100. A combination of increased storm intensity and saltwater intrusion in the Sacramento-San Joaquin Delta resulting from higher sea levels could increase the risk for flood-caused levee failures, increasing flood risk and contaminating freshwater supplies stored and conveyed in the Delta. The California Ocean Protection Council released sea level rise planning guidance in 2013, which recommends assessing and planning for 5 to 24 inches of sea level rise by mid-century and 17 to 66 inches by the end of the century. The San Francisco Bay Conservation and Development Commission and other State agencies are evaluating expected impacts using these projections. While uncertainty exists regarding the extent of sea level rise, there is consensus that it will increase the frequency, duration, and magnitude of flood events in the San Francisco Bay and Sacramento-San Joaquin Delta (Bay-Delta) area that borders the western edge of Elk Grove.

Given a 1-foot rise in sea level, as predicted in low-end sea level rise projections, the occurrence of a 100-year storm surge-induced flood event would shift to once every 10 years. In other words, the frequency of a 100-year event could increase tenfold. Sea level rise and the associated increases in flood events would place greater strain on existing levee systems and could expand floodplains affecting Elk Grove.

In addition to the pressure resulting from sea level rise, climate change will result in increased severity of winter storms, particularly in El Niño years. Such weather events will produce higher levels of seasonal flooding than those currently experienced. This too will strain levees and increase floodplain areas.

The possible increased flooding risk to Elk Grove as a result of sea level rise may require additional policies or changes to flood mapping. The need for such changes will be considered by the City during the annual review of the General Plan.

POLICIES: FLOODING AND DRAINAGE RISK MITIGATION AND PREPARATION

- Policy ER-2-1:** Oppose the construction of flood management facilities that would alter or reduce flows in the Cosumnes River and support retention of the Cosumnes River floodplain in nonurban uses consistent with location in an area subject to



flooding.

- Policy ER-2-2:** Require that all new projects not result in new or increased flooding impacts on adjoining parcels or on upstream and downstream areas.
- Policy ER-2-3:** Locate, and encourage other agencies to locate, new essential government service facilities and essential healthcare facilities outside of 100-year and 200-year flood hazard zones, except in cases where such locations would compromise facility functioning.
- Policy ER-2-4:** Relocate or harden existing essential government service facilities and essential healthcare facilities that are currently located inside of the 100-year and 200-year flood hazard zones.
- Policy ER-2-5:** Give priority to the designation of appropriate land uses in areas subject to flooding to reduce risks to life and property. Construction of new flood management projects shall have a lower priority, unless land use controls (such as limiting new development in flood-prone areas) are not sufficient to reduce hazards to life and property to acceptable levels.
- Policy ER-2-6:** Development shall not be permitted on land subject to flooding during a 100-year event, based on the most recent floodplain mapping prepared by FEMA or updated mapping acceptable to the City of Elk Grove. Potential development in areas subject to flooding may be clustered onto portions of a site which are not subject to flooding, consistent with other policies of this General Plan.
- Policy ER-2-7:** A buildable area outside the 100-year floodplain must be present on every residential lot sufficient to accommodate a residence and associated structures. Fill may be placed to create a buildable area only if approved by the City and in accordance with all other applicable policies and regulations. The use of fill in the 100-year floodplain to create buildable area is strongly discouraged and shall be subject to review to determine potential impacts on wildlife, habitat, and flooding on other parcels.
- Policy ER-2-8:** The City will not enter into a development agreement, approve a building permit or entitlement, or approve a tentative or parcel map for a project



located within an urban level of flood protection area, identified in Figure 8-2, unless it meets one or more established flood protection findings. Findings shall be based on substantial evidence, and substantial evidence necessary to determine findings shall be consistent with criteria developed by the DWR.

The four potential findings for a development project within the 200-year floodplain, as shown on Figure 8-2, are: 1) the project has an urban level of flood protection from flood management facilities that is not reflected in the most recent map of the 200-year floodplain; 2) conditions imposed on the project will provide for an urban level of flood protection; 3) adequate progress has been made toward construction of a flood protection system to provide an urban level of flood protection for the project, as indicated by the Central Valley Flood Protection Board; or 4) the project is a site improvement that would not result in the development of any structure, and would not increase risk of damage to neighboring development or alter the conveyance area of a watercourse in the case of a flood.

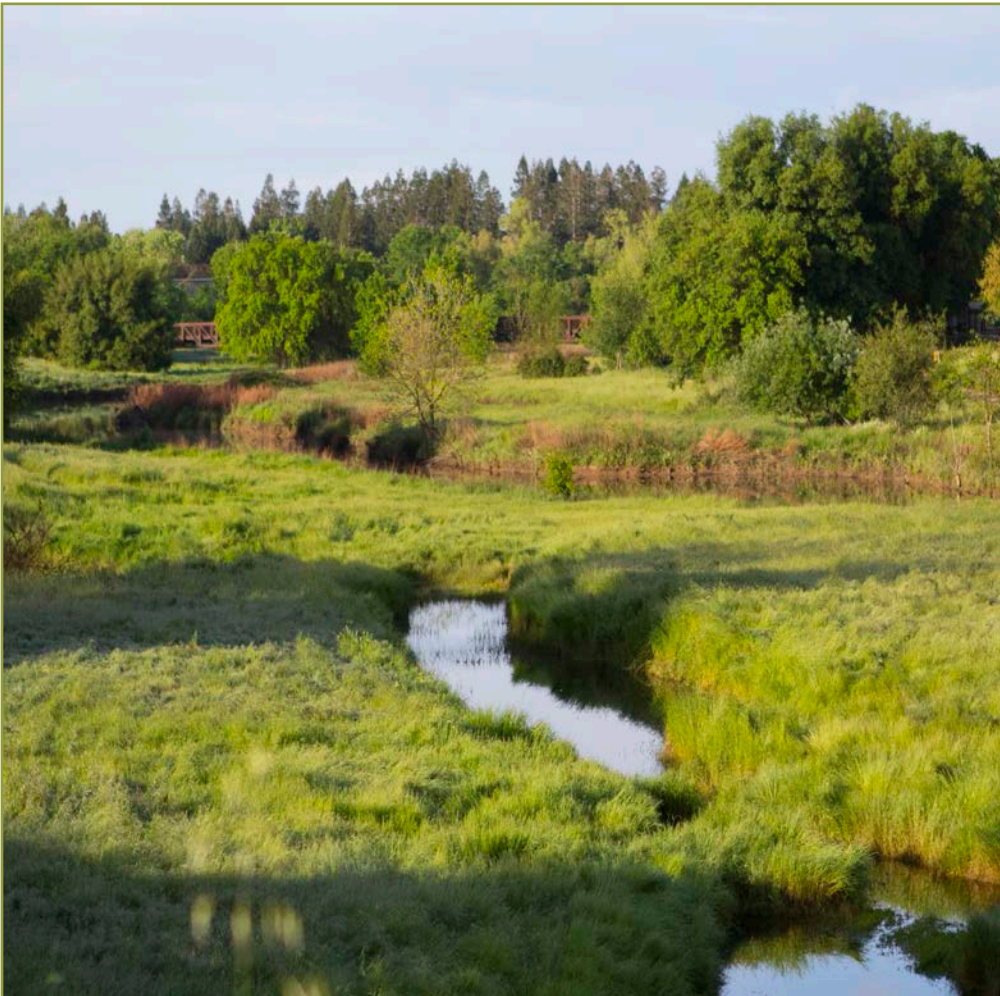
- Policy ER-2-9:** Ensure common understanding and consistent application of urban level of flood protection criteria and conditions.
- Policy ER-2-10:** Work with regional, county, and State agencies to develop mechanisms to finance the design and construction of flood management and drainage facilities to achieve an urban level of flood protection in affected areas.
- Policy ER-2-11:** Vehicular access to the buildable area of all parcels must be at or above the 10-year flood elevation.
- Policy ER-2-12:** Creation of lots whose access will be inundated by flows resulting from a 10-year or greater storm shall not be allowed. Bridges or similar structures may be used to provide access over creeks or inundated areas, subject to applicable local, State, and federal regulations.
- Policy ER-2-13:** Discourage the number of crossings over natural creeks to reduce potential flooding and access problems.
- Policy ER-2-14:** Parcels should not be created where any of the parcel's access or preservation easements, floodplain, marsh or riparian habitat, or other features would



leave insufficient land to build and operate structures. This policy shall not apply to open space lots, landscape corridors, or other City-approved use specifically created for dedication to the City or another appropriate entity for habitat protection, flood hazard management, drainage, or wetland maintenance.

Policy ER-2-15: Where necessary due to clear dangers to life or property, the City will support the construction of flood hazard management projects.

Policy ER-2-16: New and modified bridge structures shall not cause an increase in water surface elevations of the 100-year floodplain exceeding 1 foot unless analysis clearly indicates that the physical and/or economic use of upstream property will not be adversely affected.



Laguna Creek in Elk Grove



Policy ER-2-17: Require all new development projects to incorporate runoff control measures to minimize peak flows of runoff and/or assist in financing or otherwise implementing comprehensive drainage plans.

Policy ER-2-18: Drainage facilities shall be properly maintained to ensure their proper operation during storms.

GOAL ER-3: MINIMAL RISK FROM GEOLOGIC AND SEISMIC HAZARDS

No active or potentially active fault zones are known to pass through Elk Grove or Sacramento County. However, even faults far from the Planning Area have the potential to cause damage in Elk Grove resulting from primary seismic hazards, including ground shaking and fault rupture. Seismic ground shaking is one of the biggest risks to human life and property in an earthquake. The amount of damage from ground shaking varies based on factors such as strength of infrastructure, duration of shaking, and surrounding geology. Fault rupture describes the sudden release of energy that occurs when two parts of the earth's crust slide past one another. If strong enough, fault rupture can create fractures on the earth's surface, damaging infrastructure. Elk Grove's distance from active or potentially active fault zones means that the likelihood of ground shaking, fault rupture, or both is low.

Ground shaking from seismic activity can cause damage in its own right and can set off a chain reaction of secondary natural and man-made hazards that threaten public safety. Landslides and liquefaction are two of the most prominent secondary hazards. In Elk Grove, the ground surface is relatively flat with no major slopes, creating a very low risk for landslides to occur. Liquefaction is the loss of soil strength due to seismic forces generating various types of ground failure. Soil, groundwater, and ground-shaking conditions in Elk Grove pose a low potential for liquefaction. Settlement from seismic events can cause structural damage by rearranging and compacting the minerals in soils beneath structures and infrastructure. Because portions of the City's flood zones are protected by earthen dams, seismic-induced settlement has the potential to create flooding hazards for some residents.

The low risk of ground shaking in Elk Grove minimizes associated seismic hazards. However, adequate preparation, including the implementation of applicable building codes and geotechnical investigations, can ensure that buildings and infrastructure are developed to minimize potential damage resulting from primary or secondary seismic hazards.

POLICIES: GEOTECHNIAL AND SEISMIC ACTIVITY PREPARATION

Policy ER-3-1: Support efforts by federal, State, and other local jurisdictions to investigate local seismic and geological hazards and support those programs that effectively mitigate these hazards.

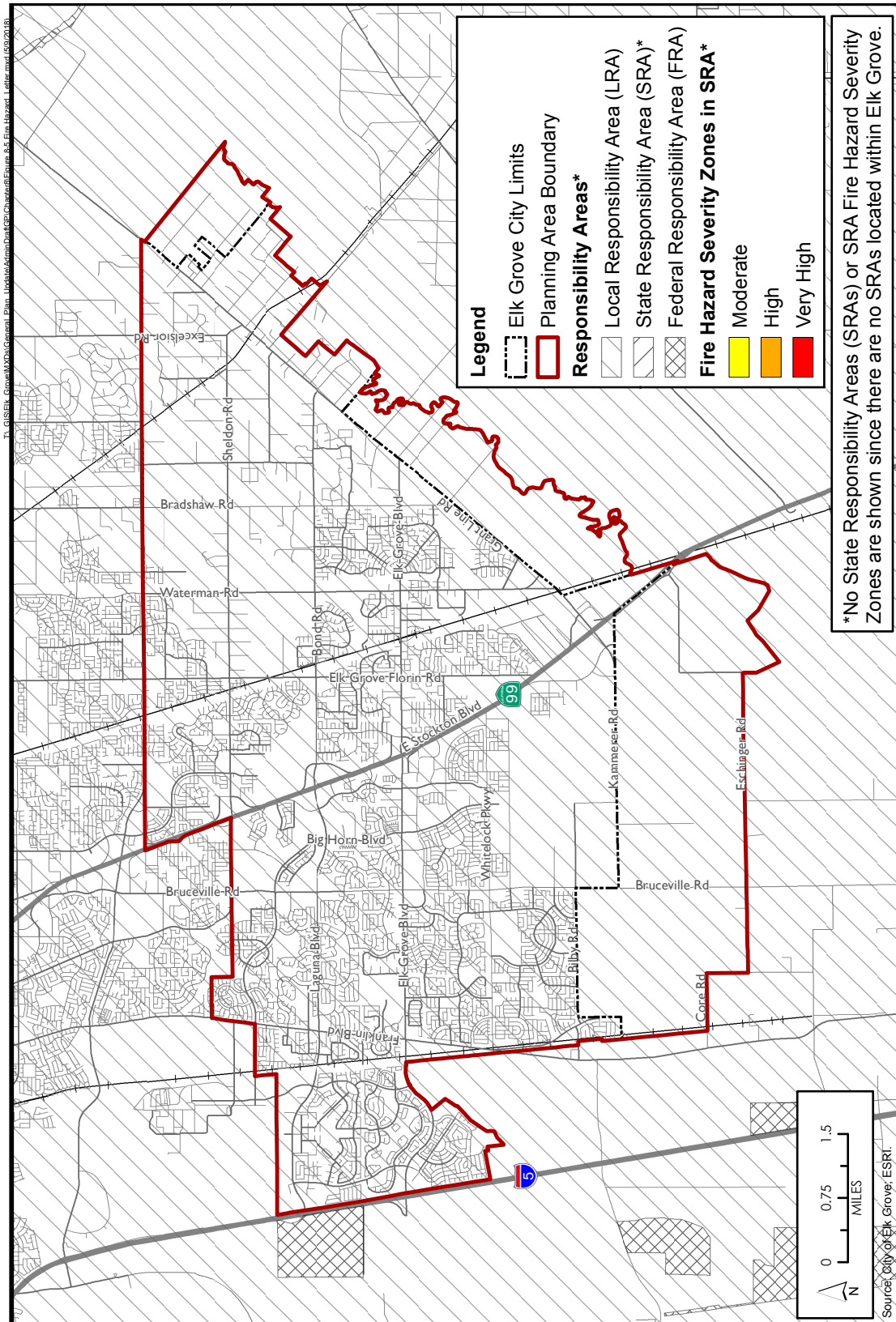
Policy ER-3-2: Seek to ensure that new structures are protected from damage caused by geologic and/or soil conditions.



Firefighter at work in Elk Grove



**FIGURE 8-5:
FIRE RESPONSIBILITY AREAS WITHIN THE PLANNING AREA**





GOAL ER-4: MINIMAL RISK FROM FIRE HAZARDS

Fire hazards within the Planning Area are limited. There are no Moderate, High, or Very High Fire Hazard Severity Zones identified by the California Department of Forestry and Fire Protection (Cal Fire). The Planning Area is located entirely within a Local Responsibility Area and contains no State Responsibility Areas, as shown in **Figure 8-5**.

The City faces greater danger from urban fires, which have the potential to cause property damage, injury, and loss of life. In addition to fire-related hazards from structures in urbanized areas, wildland fire in the Planning Area primarily occurs where natural resource and habitat areas interface with development (for example, undeveloped grassland areas near residential structures in Sheldon). Additionally, several new and proposed developments in the Planning Area contain natural vegetation, which, if ignited, poses safety risks to adjacent and surrounding development. Fire planning and prevention activities in Elk Grove are provided by the Cosumnes Fire Department, part of the CCSD. The CCSD operates a Fire Prevention Bureau that provides community prevention services related to fire, life, occupational hazards, property damage, and environmental safety. Diverse services, including fire safety plan reviews and fire investigations, are a part of what the bureau does to help keep the community safe.

The City's wildfire planning and prevention strategy focuses on techniques that reduce wildfire and other fire source potential and ensure the use of fire-safe building methods. The City provides for coordinated fire protection and emergency medical services that address the needs of Elk Grove residents and businesses. Community members have access to information regarding potential risks and fire prevention techniques, and existing and new development will continue to be required to incorporate fire prevention and suppression measures.

POLICIES: FIRE PROTECTION

Policy ER-4-1: Cooperate with the Cosumnes Community Services District (CCSD) Fire Department to reduce fire hazards, assist in fire suppression, and promote fire safety in Elk Grove.

Standard ER-4-1.a: Require, where appropriate, on-site fire suppression systems for all new commercial and industrial development to reduce the dependence on fire department equipment and personnel.

Standard ER-4-1.b: Require the installation of earthquake-triggered automatic gas shut-off sensors in high-occupancy facilities and in industrial and commercial structures.



Policy ER-4-2: Work with the CCSD to develop a fire prevention plan that lists major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard.

POLICIES: WATER SUPPLY FOR FIRE FIGHTING

Please see Policies: Water Service below for water supply.

GOAL ER-5: SAFE CROSSINGS AND GOODS MOVEMENT ON RAILROADS

Two major rail lines run through the City. One Union Pacific Railroad (UPRR) rail line runs north–south and enters the City limits at the overpass of State Route (SR) 99. The UPRR line bisects some of Elk Grove’s major arterials, including Grant Line Road, Elk Grove Boulevard, Bond Road, Elk Grove Florin Road, Sheldon Road, and Calvine Road. Except for Grant Line Road, all of these crossings are at grade—the roadway crosses the rails, with crossing gates halting vehicle traffic while the train passes through. While at-grade crossings are generally safe, the potential for accidents is present.

Another active UPRR line travels through Elk Grove in the west, which runs north–south and bisects Franklin Boulevard, Elk Grove Boulevard, and Laguna Boulevard. Crossings of this western line at Franklin Boulevard and Bilby Road are at grade, while all other crossings are grade separated – trains and road vehicles cross at physically separate levels (e.g., an underpass beneath elevated tracks) so as to not disrupt the other’s flow.

These rail lines carry a range of goods and products, sometimes including fuel or other materials that could be hazardous in the event of an incident.

POLICIES: RAILROAD CROSSING DESIGN



Train tracks in Elk Grove



- Policy ER-5-1:** Initiate as well as cooperate in improvements at existing at-grade railroad crossings to improve public safety. This may include construction of grade-separated crossings and other appropriate safety features.
- Policy ER-5-2:** Take appropriate measures to ensure that railroad crossings in Elk Grove are made as safe as reasonably possible.

GOAL ER-6: AN ADAPTABLE AND RESILIENT COMMUNITY

Section 65302 of the California Government Code requires every general plan safety element to include a vulnerability assessment identifying the risks that climate change poses and the geographic areas at risk from climate change impacts. The City has conducted a Vulnerability Assessment (VA) consistent with State guidance, as detailed in the California Climate Adaptation Guide, which forms the technical basis informing policies in this section. The full VA is contained within Chapter 12.

The VA provides a best estimate of likely future conditions, based on local demographic projections and the most recently available scientific projections of future climate conditions, given current trends. This Plan considers the expected changes to population and the economy, and the needs of the community as a result of these changes. Note that goals in this chapter and throughout the General Plan contain policies that also provide adaptive capacity to increased risk from climate change.

POLICIES: INCREASED TEMPERATURE, EXTREME HEAT, AND HEAT WAVES

- Policy ER-6-1:** In the event of severe weather conditions such as excessive heat, provide dedicated response services including the deployment of emergency services, opening of local cooling shelters, and community notifications.
- Policy ER-6-2:** Coordinate with Sacramento County Office of Emergency Services and the County Department of Public Health to provide information to vulnerable populations on available resources and key actions to take for mitigation on their property in preparation of excessive heat events and services during events.
- Policy ER-6-3:** Participate in regional activities and initiatives to help reduce risks and economic impacts of potential disasters related to extreme weather.
- Policy ER-6-4:** In construction of new roadways, utilize cool pavements and higher-albedo impervious materials as well as trees and foliage along rights-of-way.



- Policy ER-6-5:** Allocate funds as appropriate to address anticipated additional repairs to damaged infrastructure that will be required due to increased stress from climate effects such as extreme heat and storms.

POLICIES: LOSS OF SNOWPACK AND DECREASED WATER SUPPLY

- Policy ER-6-6:** Work with the Sacramento County Water Agency, Elk Grove Water District, and other water utilities to support programs and conservation activities intended to help water customers voluntarily conserve approximately 10 percent over time.
- Policy ER-6-7:** Enforce the City’s water-efficient landscape ordinance that is as strict as or stricter than the State Water Resources Control Board regulations affecting local water agencies and ensure future state updates are incorporated in some form to the City’s ordinance. Provide opportunity for and encourage public reporting of violations.
- Policy ER-6-8:** Continue to participate in the Sacramento Stormwater Quality Partnership to educate and inform the public about urban runoff pollution, work with industries and businesses to encourage pollution prevention, require construction activities to reduce erosion and pollution, and require developing projects to include pollution controls that will continue to operate after construction is complete.

POLICIES: FIRE PROTECTION ADAPTATION

- Policy ER-6-9:** Participate in the development and implementation of Cosumnes Fire Department’s Community Wildfire Protection Plan (CWPP) for the protection of human life and reduction in loss of property, critical infrastructure, and natural resources associated with wildfire.
- Policy ER-6-10:** Distribute information that Sacramento Metropolitan Air Quality Management District publicizes on the status of air quality on a daily basis, providing alerts on poor air quality days and educational material on the health effects of air pollution.

POLICIES: GENERAL CLIMATE ADAPTATION



Policy ER-6-11: Seek to provide the community with information relating to sustainability, climate change, and innovative development strategies.

GOALS AND POLICIES: DISASTER AND EMERGENCY RESPONSE AND PUBLIC SAFETY (SAF)

GOAL SAF-1: A SAFE COMMUNITY

POLICE SERVICES

Police protection in Elk Grove is provided by the Elk Grove Police Department (EGPD), which operates from its headquarters on Laguna Palms Way and has four divisions: Field Services (Patrol), Investigative Services, Support Services, and Administrative Services. The EGPD is a public safety agency charged with the preservation of constitutional rights, maintenance of civil order, assurance of public health and safety, detection and prevention of crime, enforcement of federal and State law, and administration of the laws, Elk Grove Municipal Code, and regulations of the City.

FIRE AND EMERGENCY MEDICAL SERVICES

The CCSD provides fire protection, fire prevention, and emergency medical and rescue services to the cities of Elk Grove and Galt, as well as unincorporated areas in the region covering over 157 square miles. The CCSD Fire Department operates out of eight fire stations: six in Elk Grove and two in Galt, and a state-of-the-art training facility. The fire stations are currently located in Elk Grove, East Franklin, East Elk Grove, Laguna Creek, Lakeside, the Elk Grove-West Vineyard area and Galt.

Fire Protection

The Cosumnes Fire Department maintains an extensive system of fire stations throughout Elk Grove and a portion of the Planning Area outside the City limits. Because the City of Elk Grove does not furnish fire protection services, this General Plan does not contain policies or action items that provide for the construction or operation of fire stations or related facilities; these facilities will be constructed pursuant to the Cosumnes Fire Department’s Master Plan. This chapter instead focuses on providing for land uses to accommodate fire and other emergency facilities outside potential hazard areas, and policies and action items aimed at coordinating the City’s efforts with those of the Cosumnes Fire Department to ensure an adequate level of fire protection is available at all times in Elk Grove.

The established response time goal for the department is the first unit should arrive on the scene within seven minutes of the receipt of the 911 call in the dispatch center, 90 percent of the time.

What is CPTED?

Community Protection through Environmental Design (CPTED) is a crime prevention philosophy based on the theory that proper design and effective use of the built environment can lead to a reduction of the fear and incidence of crime, as well as an improvement in the quality of life because of the potential increase in safety.

The four principles of CPTED are:

- **Natural surveillance.** *Surveillance or the placing of ‘eyes on the street’ increases the perceived risk to offenders.*
- **Natural access control.** *Natural access control relies on doors, fences, shrubs, and other physical elements to keep unauthorized persons out of a place.*
- **Territorial reinforcement.** *Clear boundaries between public and private areas is a way to express ownership. Identifying intruders is much easier in such well-defined spaces.*
- **Maintenance and management.** *The more dilapidated an area, the more likely it is to attract unwanted activities.*



Emergency Medical Services

The Cosumnes Fire Department also provides Emergency Medical Services (EMS) to Elk Grove. The department includes emergency medical technicians and paramedics, and operates full-time ambulance companies serving both Elk Grove and Galt.

Automatic and Mutual Aid Agreements

The CCSD is the primary fire protection and emergency medical response service within the SOIA Area. Sacramento Metropolitan Fire District (SMFD), the City of Sacramento Fire Department (SFD), and the CCSD share common jurisdictional boundaries and participate in a regional automatic/mutual aid agreement. The CCSD Fire Department also has a mutual aid agreement with the surrounding volunteer fire districts in southern Sacramento County, including Wilton, Courtland, Walnut Grove, and Herald Fire Districts. As a result of the existing automatic and mutual aid agreements the closest unit available is dispatched to an incident and fire district boundaries are not an issue when an incident occurs.



Elk Grove's Police Department

Evacuation Routes

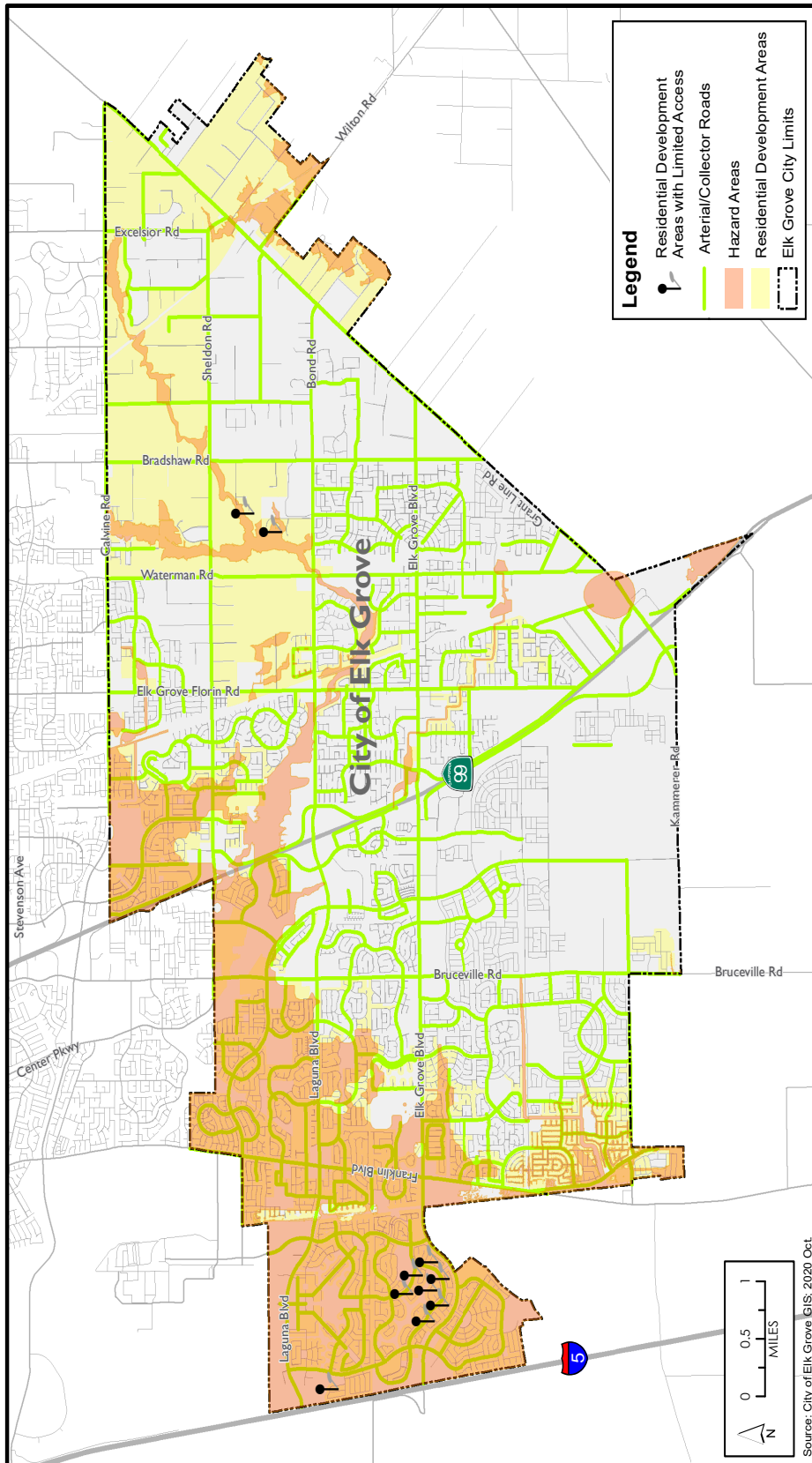
In the event of a major natural disaster or significant incident (e.g., plane crash, explosion), it may be necessary to evacuate portions of the City. The extent of the evacuation and route(s) that may be utilized depend upon the nature of the incident, anticipated extent of the impact, and available routes. Generally, the arterial and collector roadway network illustrated in Figure 3-7 (Elk Grove Roadway Classifications) will be utilized as evacuation routes.

To ensure that viable evacuation routes are available in residential areas of the City, the City requires (through Municipal Code Chapter 22.110) that new subdivision have adequate public access for safety and emergency egress. Specifically, for subdivisions of forty units or more, two points of public access are required unless otherwise approved by the City Engineer through a design exception. Additional design requirement in the Fire Code may also be applicable.

Pursuant to Government Code Section 65302(g)(5), the City has conducted an analysis of existing residential developments within hazard areas in the City. For purposes of this analysis, a hazard area includes both the 100-year and 200-year floodplain (see Figures 8-1 and 8-2), dam inundation areas (see Figure 8-3), fire hazard areas (see Figure 8-5), and risk probability areas (see Tables 8-1 and 8-2). Residential developments that were reviewed in the analysis focused on those that did not have a minimum of two points of access to a arterial or collector roadway as provided in EGMC Chapter 22.110. The results of this analysis are provided in Figure 8-6, Residential Development in Hazards Areas with Limited Access. The analysis shows three unique conditions as follows:



FIGURE 8-6
RESIDENTIAL DEVELOPMENT IN HAZARD AREAS WITH LIMITED ACCESS





- One site in Laguna West has a single primary point of access to Harbour Point Drive, though there is a minor connection to an adjoining subdivision adjoining the Harbour Point Drive access.
- Seven subdivisions in the Lakeside area of Laguna West near Elk Grove Boulevard. These are gated subdivisions. No secondary access is provided to these subdivisions, including emergency vehicle access.

Two sites on the east side of the City are subdivisions with extremely long cul-de-sacs or private drives with multiple residences, or with the potential for further subdivision. One site is in the Rural Area and another is adjacent to the Rural Area.

The City has also completed the analysis required by Government Code Section 65302.15 and has prepared the Evacuation Scenario Analysis Report, which is included as Chapter 12.6 of this General Plan. The Report identifies potential evacuation routes that may be utilized, under a variety of emergency scenarios, and provides recommendations for a best-practice response and evacuation plan for residents, community members, and City staff.

POLICIES: POLICE SERVICES

- Policy SAF-1-1:** Regularly monitor and review the level of police staffing provided in Elk Grove and ensure that sufficient staffing and resources are available to serve local needs.
- Policy SAF-1-2:** Encourage the use of Crime Prevention Through Environmental Design (CPTED) principles in the design of projects and buildings, as well as parks and trails.

POLICIES: FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

- Policy SAF-1-3:** Coordinate with the CCSF Fire Department to ensure that new station siting and resources are available to serve local needs.

POLICIES: EMERGENCY RESPONSE SERVICES

- Policy SAF-1-4:** Expand emergency response services as needed due to community growth.
- Policy SAF-1-5:** Address traffic congestion in areas that have been identified as being detrimental to achieving targeted response times.

POLICIES: EVACUATION ROUTES



A properly planned and implemented roadway system will facilitate the efficient movement of police and firefighting equipment and the safe evacuation of residents. Please refer to Chapter 6: Mobility, for policies related to the City’s overall circulation system.

Policy SAF-1-6: Require adequate emergency access for new development projects.

GOALS AND POLICIES: URBAN INFRASTRUCTURE (INF)

The policies below regarding urban infrastructure do not apply to the Sheldon/Rural Community Plan area, which has a unique rural character and is not intended to accommodate the same kind of development as Elk Grove’s urban areas. Please see Chapter 9: Community and Area Plans for policies related to the Sheldon/Rural Area.

GOAL INF-1: AN EFFICIENT WATER DELIVERY AND STORAGE SYSTEM

Domestic water service in Elk Grove is provided by two public water service providers: the Sacramento County Water Agency (SCWA) and the Elk Grove Water District (EGWD). No residential water service is provided in the Rural Area consistent with City policies. The southern portion of the Planning Area (west of SR-99) is outside of any water district, although is managed by the Sacramento Central Groundwater Authority; homes and businesses located in this area are generally on private well systems but will transition to water service upon urban development.

The water supply serving the Planning Area comes from groundwater and from surface water allocations. Water is provided to the end-user through a delivery system that is maintained by one of the water suppliers. Both the storage (whether in the ground or on the surface) and the delivery of water in urban areas are the focus of the water infrastructure policies in this chapter. Additional policies are included in Chapter 7: Community and Resource Protection, as noted below, regarding the management, use, and quality of water.

POLICIES: WATER SERVICES

Policy INF-1-1: Water supply and delivery systems shall be available in time to meet the demand created by new development.

Standard INF-1-1.a: The following shall be required for all subdivisions to the extent permitted by State law:



Proposed water supply and delivery systems shall be available at the time of tentative map approval to the satisfaction of the City. The water agency providing service to the project may use several alternative methods of supply and/or delivery, provided that each is capable individually of delivering water to the project.

The agency providing water service to the subdivision shall demonstrate prior to the City's approval of the Final Map that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects in the same service area, and other projects that have received commitments for water service.

Off-site and on-site water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the approval of the Final Map or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.

Off-site and on-site water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.

Policy INF-1-2: Require that water flow and pressure be provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.

Policy INF-1-3: Protect the quality and quantity of groundwater resources, including those which serve households and businesses which rely on private wells. The City shall support and participate in local efforts to implement the State's Sustainable Groundwater Management Act.



POLICIES: WATER CONSERVATION

Please refer to Chapter 7: Community and Resource Protection for water conservation policies.

POLICIES: RECYCLED WATER

Policy INF-1-4: Work with Regional San and SCWA to expand recycled water infrastructure for residential, commercial, industrial, and recreational facilities and support the use of reclaimed water for irrigation wherever feasible.

GOAL INF-2: AN EFFICIENT WASTEWATER COLLECTION AND TREATMENT SYSTEM

Two regional entities, the Sacramento Area Sewer District (SASD) and the Sacramento Regional County Sanitation District (Regional San), provide Elk Grove with wastewater collection and treatment. The SASD is responsible for the collection of wastewater from Elk Grove, as well as from other cities in the region and unincorporated areas of Sacramento County. The SASD owns and operates thousands of miles of lower lateral and mainline pipes and is responsible for the day-to-day operations and maintenance of those pipes and related infrastructure (e.g., pump stations). Once wastewater is collected, it flows into the Regional San interceptor system and is ultimately conveyed to the Sacramento Regional Wastewater Treatment Plant located just outside Elk Grove.

POLICIES: WASTEWATER SERVICE

Policy INF-2-1: Sewage conveyance and treatment capacity shall be available in time to meet the demand created by new development.

Standard INF-2-1.a: The following shall be required for all development projects, excluding subdivisions:

Sewer/wastewater treatment capacity shall be available at the time of project approval.

All required sewer/wastewater infrastructure for the project shall be in place at the time of project approval, or shall be assured through the use of bonds or other sureties to the City’s satisfaction.

Standard INF-2-1.b: The following shall be required for all subdivisions to the extent permitted by State law:

Sewage/wastewater treatment capacity shall be available at the time of tentative map approval.

The agency providing sewer service to the subdivision

Policy CIF-2-1
See Standard LU-5-3.b on page 4-39 regarding private undergrounding of existing overhead utilities as part of development project approval.



shall demonstrate prior to the City’s approval of the Final Map that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects using the same conveyance lines, and projects which have received sewage treatment capacity commitments.

On-site and off-site sewage conveyance systems required to serve the subdivision shall be in place prior to the approval of the Final Map, or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.

Sewage conveyance systems in the subdivision shall be in place and connected to the sewage disposal system prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.

Policy INF-2-2: Development along corridors identified by sewer providers in their master plans as locations of future sewerage conveyance facilities shall incorporate appropriate easements as a condition of approval.

POLICIES: SEPTIC SYSTEMS

Also consult Chapter 9: Community and Area Plans for Sheldon/Rural Area Context-Sensitive Services, which differ in some circumstances from sewer system requirements in other areas of the City.



Conduits Installation in Elk Grove

Policy INF-2-3: Reduce the potential for health problems and groundwater contamination resulting from the use of septic systems.

Policy INF-2-4: Residential development on lots smaller than 2 gross acres shall be required to connect to public sewer service, except in the Rural Area. This policy shall not apply to lots smaller than 2 gross acres within the Rural Area Community Plan that existed as legal lots as of November 19, 2003 and these lots shall not be required to connect to public sewer service as a condition of development.

Policy INF-2-5: Independent community sewer systems shall not be established for new development.



GOALS AND POLICIES: COMMUNITY INFRASTRUCTURE AND FACILITIES (CIF)

GOAL CIF-1: MINIMAL SOLID WASTE GENERATION

Elk Grove has implemented regulations to manage waste and promote the reduction, reuse, and recycling of materials. These regulations minimize the use of natural resources and encourage the use of innovative materials and technologies.

POLICIES: REDUCED SOLID WASTE GENERATION

- Policy CIF-1-1:** Facilitate recycling, reduction in the amount of waste, and reuse of materials to reduce the amount of solid waste sent to landfill from Elk Grove.
- Policy CIF-1-2:** Reduce municipal waste through recycling programs and employee education.
- Standard CIF-1-2.a:** Recycle waste materials for all municipal construction and demolition projects.
- Policy CIF-1-3:** Encourage businesses to emphasize resource efficiency and environmental responsibility and to minimize pollution and waste in their daily operations.

GOAL CIF-2: COORDINATED UTILITY INFRASTRUCTURE AND IMPROVEMENTS

To maximize the efficiency of utility infrastructure improvements, Elk Grove can coordinate improvement projects with utility providers. This would allow facilities to be upgraded or installed at the same time to minimize service disruptions and impacts to surrounding properties during construction. Combining utility projects could also result in financial savings.

POLICIES: UTILITY UNDERGROUNDING

- Policy CIF-2-1:** Where existing overhead utilities are undergrounded by the City or a utility at the direction of the City, no future overhead utilities shall be added at that location.

POLICIES: INFRASTRUCTURE IMPROVEMENT COORDINATION

- Policy CIF-2-2:** Require that new utility infrastructure for electrical, telecommunication, natural gas and other services avoid sensitive resources, be located so as to not be visually obtrusive, and, if possible, be located within roadway rights-of-way or existing utility easements.



Policy CIF-2-3: To minimize damage to roadways and reduce inconvenience to residents and businesses, the City shall seek to coordinate roadway utility efforts so that they are installed in a single operation whenever possible. Multiple installations, in which separate utilities are installed at different times and/or in different trenches, are specifically discouraged.

Policy CIF-2-4: Maintain, improve, and modernize existing facilities and services when necessary to meet the needs of Elk Grove residents and businesses.

GOAL CIF-3: ELK GROVE IS A LEADER IN INNOVATIVE TECHNOLOGY INFRASTRUCTURE



Hilltop Cemetery in Elk Grove

To ensure Elk Grove’s competitiveness for businesses and technologically focused residents, the City can partner with telecommunications providers to offer advanced technologies such as fiber optic internet and Citywide information services. Developing the infrastructure necessary for fiber optic internet can be hastened by requiring that fiber conduit be laid in new development areas. These technologies can be a significant incentive to companies and potential residents looking to relocate to Elk Grove.

POLICIES: TECHNOLOGY INFRASTRUCTURE

Policy CIF-3-1: Be a regional leader in technology infrastructure.

Policy CIF-3-2: Encourage and coordinate with service providers to utilize advanced technologies such as fiber optic internet and Citywide information services.

Standard CIF-3-2.a: Conduit to support future technologies shall be laid in new development areas as a condition of project approval.

Policy CIF-3-3: Support technology that builds on the City’s agricultural legacy.

Policy CIF-3-4: Acknowledge and adapt to innovations in technology to facilitate infrastructure investments as appropriate.

GOAL CIF-4: SCHOOLS ARE AN INTEGRAL PART OF THE COMMUNITY

Public schools in the Planning Area are part of the Elk Grove Unified School



District (EGUSD), an independent agency that includes elementary, middle, and high schools, as well as special education facilities and services. A range of private and charter schools also operate in the City. Los Rios Community College's outreach center and Cosumnes River College also serve Elk Grove residents.

The EGUSD is known for the high quality of its schools, which consistently perform well in standardized tests. Continuing growth in the district's service area will result in the need to add new capacity, both at new schools and at existing schools.

Under State law, for the most part, the district can act independently of the City when siting schools with regard to the location, construction, and operation of public schools, subject to certain noticing and hearing requirements. In practice, the City and the EGUSD have enjoyed a cooperative working relationship.

POLICIES: SCHOOL SITING

- Policy CIF-4-1:** While recognizing that public school siting and development are not within the jurisdiction of the City to control, the City strongly encourages the school district to consider the following school siting criteria:
- Traffic impacts on nearby roadways should be addressed and mitigated to meet City standards for roadway performance targets.
 - Schools should not be located on main roadway corridors characterized by high speeds (>35 miles/hr).
 - Schools should serve as a focal point of neighborhood activity and be interrelated with congregation facilities, parks, greenways and off-street paths whenever possible.
 - Almost all residences should be within walking distance of a school (1 mile or less) and all residences should be located within 2 miles of a school whenever possible.
 - New schools should be located adjacent to neighborhood and community parks whenever possible and designed to promote joint use of appropriate facilities.
 - New schools should link with trails, bikeways, and pedestrian paths wherever possible.



What are “zipper streets”?

“Zipper streets” combine narrow and wide sections and are the result of deferred roadway construction policies in place prior to the incorporation of Elk Grove.

Policy CIF-4-2: Require specific plans and other land use master plans to identify existing and planned school sites within their project areas and to propose guidance for incorporating new schools into overall neighborhood design.

Policy CIF-4-3: Support legislative efforts to secure additional State funding for school construction and ensure maintenance of local district priorities for funds in the State school bond program.

GOAL CIF-5: COMMUNITY FACILITIES THAT SERVE THE NEEDS OF THE COMMUNITY

Community facilities serve many purposes in Elk Grove. Some facilities are focused on providing specific services and some facilities offer a variety of activities for the community. The planning and development of community facilities require coordination between the City and numerous service providers to ensure that the needs of the community are met.

POLICIES: COMMUNITY FACILITIES

Policy CIF-5-1: Community facilities should be planned and designed to provide services and programs available for residents.

Policy CIF-5-2: Work with the Elk Grove Cosumnes Cemetery District to site new cemeteries that meet the needs of the community.

GOALS AND POLICIES: INFRASTRUCTURE FINANCING AND PHASING (IFP)

GOAL IFP-1: INFRASTRUCTURE IMPROVEMENT COSTS ARE SECURED PRIOR TO DEVELOPMENT

In Elk Grove, much of the infrastructure development that occurred prior to the City’s incorporation used a “pay-as-you-go” approach (although bond financing was used for some facilities). The policies of Sacramento County also allowed the incremental construction of roadways.

This section discusses the City’s policy to establish protocols for the timing and phasing of infrastructure facilities so that roadways, water and sewer infrastructure, drainage facilities, and other infrastructure can be completed commensurate to the level of construction occurring. This will help avoid the use of interim facilities and the creation of traffic congestion and other problems resulting from insufficient capacity.



POLICIES: INFRASTRUCTURE FINANCING

Policy IFP-1-1: Consider the importance of tax generation (retail, hotel, auto, and business-to-business uses) to support the fiscal health of the community and to fund municipal services.

Policy IFP-1-2: Coordinate with independent public service providers, including schools, parks and recreation, reclamation, water, transit, electric and other service districts, in developing financial and service planning strategies.

Policy IFP-1-3: Require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms in order to provide for the completion of required major public facilities at their full planned widths or capacities consistent with this General Plan and any applicable service master plan. For the purposes of this policy, “major” facilities shall include the following:

- Any roadway of an arterial/collector classification or above, including any roadway shown on the Transportation Network Diagram (Figure 3-6).
- All wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project.
- All sewer trunk and interceptor lines and treatment plants or treatment plant capacity.

Policy IFP-1-4: Use financial capacity to secure financing for major facilities as identified in Policy IFP-1-3 if necessary, including, but not limited to:

- Issuing bonds
- Using City funds directly, with repayment from future development fees



*Exercise Equipment on
Elk Grove Park*

- Fee programs
- Developer financing

Policy IFP-1-5: Fee programs and/or other finance mechanisms for roadway and related infrastructure shall include sufficient funding for all of the following items:

- Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.
- Right of way acquisition, design, engineering, environmental compliance, and construction costs sufficient to ensure that “zipper streets” are not created by nonparticipating owners.
- Drainage and other facilities related to new roadway construction.
- Installation of landscaped medians and streetscaping where appropriate.
- Installation of sidewalks or other facilities where needed to provide safe passage for pedestrians.

Policy IFP-1-6: Fee programs and/or other finance mechanisms shall be reviewed regularly to ensure that sufficient funding will be available to construct all required facilities.

Policy IFP-1-7: New development shall fund its fair share portion of impacts to all public facilities and infrastructure as provided for in State law.

Policy IFP-1-8: Infrastructure improvements must be financed and/or constructed concurrent with or prior to completion of new development.

Standard IFP-1-8.a: Establish concurrency measures to ensure infrastructure adequately serves future development:

1. *Department of Public Health, California Wellness Plan, 2014*
2. *California EPA uses the CalEnviroScreen modeling tool to determine areas of designated disadvantaged communities.*



- Coordinate public facility and service capacity with the demands of new development.
- Require that the provision of public facilities and service to new development does not cause a reduction in established service levels for existing residents.
- Ensure that new infrastructure will meet the required level of service standards set by the City’s General Plan and Municipal Code.

Standard IFP-1-8.b: Phase new development in expansion areas to occur where public services and infrastructure exist or may be extended to serve the public interest with minimal impact.

POLICIES: INFRASTRUCTURE PHASING

Policy IFP-1-9: Public facilities, such as drainage, water, sewer and roadways, should be phased in a logical manner which avoids “leapfrog” development and encourages the orderly development of roadways, water and sewer, and other public facilities. The City shall not provide public financing or assistance for projects that do not comply with the planned phasing of public facilities. Interim facilities may be used only if specifically approved by the City Council.

Policy IFP-1-10: Except when prohibited by state law, the City will endeavor to ensure that sufficient capacity in all public services and facilities will be available on time to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.

GOALS AND POLICIES: COMMUNITY HEALTH (HTH)

GOAL HTH-1: HEALTHY LIVING OPTIONS FOR RESIDENTS

ENVIRONMENTAL EQUITY AND COMMUNITY HEALTH

Environmental equity (also known as environmental justice) ensures that no one group or community receives an unfair share of the harmful effects of pollution or environmental hazards. Clean air and water, access to healthy foods, and access to healthcare should be made available to all community members.



Automobile-centric living and development have created communities that are vulnerable to sedentary lifestyles and unhealthy diets. Exercise and diet are two of the most effective ways of managing or preventing chronic diseases. In addition to being a public health concern, the prevalence of chronic disease also has economic impacts. In 2002, 80 percent of California's healthcare spending went toward people with chronic conditions.

Elk Grove has excellent opportunities to encourage healthy living by providing links between open space and active transportation. Parks and trails can be integrated with new and existing streets. Community gardens in parks and other public spaces can also combine active transportation with the generation of local food, which increases the availability of healthy food options.

DESIGNATED DISADVANTAGED COMMUNITIES

Cities and counties are required to address environmental justice concerns of designated disadvantaged communities in the general plan. Disadvantaged communities are those identified by the California EPA as low income and which are disproportionately affected by environmental pollution, stressors, and social vulnerabilities that can lead to negative health effects, exposure, or environmental degradation.

Per analysis conducted by the City during the 2013-2021 Housing Element update, there are no designated disadvantaged communities in the Elk Grove Planning Area.

While Elk Grove does not have any areas with significant environmental equity concerns, it is nevertheless important that the City continually consider the effects of planning and land use decisions on the lives of residents and ensure that no area or population is disproportionately affected.

POLICIES: ENVIRONMENTAL AND COMMUNITY EQUITY

See also Chapter 4: Urban and Rural Development for Development Pattern policies related to transitions between land uses.

Policy HTH-1-1: Consider proximity to environmental health risks when planning for residential uses.

Policy HTH-1-2: Promote community equity and ensure that new policies, services, and programs support and align with the community's greatest needs, including the needs of persons living in poverty, older adults, children, persons with disabilities, people of color, and immigrants.

Standard HTH-1-2.a: Locate community facilities equitably so that they are accessible to all members of the community.

Standard HTH-1-2.b: Encourage disclosure of potential land use compatibility issues such as noise, dust, odors, etc., in order to provide potential purchasers with complete



information to make informed decisions about purchasing property.

POLICIES: OPPORTUNITIES FOR PHYSICAL ACTIVITY

Policy HTH-1-3: Provide comfortable, safe pedestrian and bicycle connections between residential areas and recreational opportunities.

Standard HTH-1-3.a: Designate recreational-access street corridors and provide inviting infrastructure, especially at street intersections, for people walking and people biking along the corridors.

Policy HTH-1-4: Support programs that promote healthy living.

POLICIES: ACCESS TO HEALTHY FOOD OPTIONS

Policy HTH-1-5: Promote access to healthy food options by preserving and expanding local food production.

Policy HTH-1-6: Support and consider incentives to encourage the development of new retail venues that sell local, fresh produce, including farmers markets, community-supported agriculture programs, and grocery stores, especially in underserved areas and near schools.

Policy HTH-1-7: Strive to increase the number of farmers markets and community gardens throughout the City and provide for urban farming opportunities.

Policy HTH-1-8: Support programs that provide school gardens and garden-based nutrition education and cooking classes for students, parents, and community members.



Traffic in Elk Grove

POLICIES: ACCESS TO MEDIAL AND RELATED HEALTHCARE SERVICES

Policy HTH-1-9: Promote development of one or more community hospitals.

GOALS AND POLICIES: COMMUNITY SERVICES (CS)

GOAL CS-1: A LIBRARY SYSTEM THAT EMPOWERS PUBLIC LEARNING FOR RESIDENTS

Elk Grove is served by the Elk Grove Library and the Franklin Community Library, which is an extension of the Sacramento Public Library Authority. The Sacramento Public Library Authority is governed by a Joint Exercise of Powers Agreement

Adopted | October 20, 2022



**TABLE 8-3:
MAXIMUM ALLOWABLE NOISE EXPOSURE, TRANSPORTATION NOISE SOURCES**

LAND USE	OUTDOOR ACTIVITY AREAS ^{A,B} LDN/DB	INTERIOR SPACES	
		LDN, dB	LEQ, dB ^C
Residential	60 ^{d,g}	45	-
Residential subject to noise from railroad tracks, aircraft overflights, or similar noise sources which produce clearly identifiable, discrete noise events (the passing of a single train, as opposed to relatively steady noise sources as roadways)	60 ^{d,g}	40 ^f	-
Transient Lodging	60 ^{e,g}	45	-
Hospitals, Nursing Homes	60 ^{d,g}	45	-
Theaters, Auditoriums, Music Halls	-	-	35
Churches, Meeting Halls	60 ^{d,g}	-	40
Office Buildings	-	-	45
Schools, Libraries, Museums	-	-	45

- a. *Where the location of outdoor activity areas is unknown, the exterior noise level standards shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patios or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.*
- b. *Transportation projects subject to Caltrans review or approval shall comply with the Federal Highway Administration noise standards for evaluation and abatement of noise impacts.*
- c. *As determined for a typical worst-case hour during periods of use.*
- d. *Where it is not possible to reduce noise in outdoor activity areas to 60dB,Ldn or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB,Ldn may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.*
- e. *In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.*
- f. *The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.*
- g. *In cases where the existing ambient noise level exceeds 60 dbA, the maximum allowable project-related permanent increase in ambient noise levels shall be 3 dBA/Ldn.*



between the County of Sacramento and the Cities of Citrus Heights, Galt, Isleton, Elk Grove, Rancho Cordova, and Sacramento. The Elk Grove Library was established in 1908 and has existed in its current location since 2008. The Franklin Community Library is jointly managed by the EGUSD and the City, and is located adjacent to the Franklin High School campus and serves those students as well as neighboring schools (e.g., Toby Johnson Middle School) and the public.

POLICIES: LIBRARY FACILITIES AND SERVICES

Policy CS-1-1: Cooperate with the Sacramento Public Library Authority in the planning, financing, and implementation of future library facilities and facility expansions in Elk Grove.

Policy CS-1-2: Recognize the role of libraries as multipurpose community centers.

GOAL CS-2: SERVICES AND PROGRAMS SUPPORT AND ARE ACCESSIBLE TO CHILDREN, YOUTH, AND SENIORS

**TABLE 8-4:
NOISE LEVEL PERFORMANCE STANDARDS FOR NEW PROJECTS AFFECTED BY OR INCLUDING NON-TRANSPORTATION NOISE SOURCES***

PERFORMANCE STANDARDS FOR STATIONARY SOURCES	NOISE LEVEL DESCRIPTOR	DAYTIME (7 A.M. TO 10 P.M.)	NIGHTTIME (10 P.M. TO 7 A.M.)
Performance Standards for Typical Stationary Noise Sources ^a	Hourly Leq, dB	55 ^{c,d}	45 ^{c,d}
Performance Standards for Stationary Noise Sources Which Are Tonal, Impulsive, Repetitive, or Consist Primarily of Speech or Music ^b	Hourly Leq, dB	50 ^{c,d}	40 ^{c,d}

** Applies to noise-sensitive land uses only*

a. These standards will apply generally to noise sources that are not tonal, impulsive, or repetitive in nature. Typical noise sources in this category would include HVAC systems, cooling towers, fans, and blowers.

b. These standards apply to noises which are tonal in nature, impulsive, repetitive, or which consist primarily of speech or music (e.g., humming sounds, outdoor speaker systems). Typical noise sources in this category include: pile drivers, drive-through speaker boxes, punch presses, steam valves, and transformer stations. HVAC/pool equipment are exempt from these standards.

c. These noise levels do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwelling). HVAC/pool equipment are exempt from these standards

d. The City may impose noise level standards which are more or less restrictive based upon determination of existing low or high ambient noise levels.



The provision of human services to vulnerable populations supports community members in leading long, healthy, and fulfilling lives, and contributes to a more positive and satisfied community. Policies that support community services will help to sustain the City's current population and secure a promising future for children in Elk Grove.

POLICIES: CHILD, YOUTH, AND SENIOR SERVICES

Policy CS-2-1: Continue to establish and support public and private partnerships to promote community events, services, and/or programs for children, youth, and seniors.

Policy CS-2-2: Promote continuing education and job training for residents.

GOALS AND POLICIES: NOISE (N)

GOAL N-1: SENSITIVE USES ARE PROTECTED FROM NOISE INTRUSION

NOISE SOURCES AND LAND USE COMPATEBILITY

The preservation and enhancement of the acoustical environment relates directly to the quality of life that can be achieved in a community. By recognizing existing sources of noise pollution, taking reasonable steps to mitigate future impacts, and preventing additional sources of noise, the City seeks to achieve a pleasant environment and a comfortable and calming community.

Transportation Noise Sources

The most common source of noise in most rural and semirural environments is transportation-related. Transportation noise sources include automobiles, trucks, other vehicles, aircraft operations, and railroads. Traffic on the City's roadways is the most significant and pervasive source of noise in the City. Several key factors are associated with roadway or traffic noise, including traffic volumes, the speed of the traffic, the type or "mix" of vehicles using a particular roadway, and pavement conditions.

Trains are another source of transportation-related noise. The extent of the noise impact from a passenger and freight train pass-by event will depend on many factors, including the frequency of train operations, the number of railway cars, the type of engine, and the number of grade crossings that require warning bells or horns. In addition, train pass-by events may cause adjacent land uses to be affected by groundborne vibration. Table 8-3 identifies the maximum allowable noise exposure for sensitive land uses resulting from transportation noise sources.

It is anticipated that roadway improvement projects (such as widening of existing roadways) will be needed to accommodate buildout of the General Plan. Therefore, existing noise-sensitive uses may be exposed to increased noise levels due to increased



roadway capacity, higher travel speeds, and other factors. It may not be practical to reduce increased traffic noise levels consistent with those levels shown in Table 8-3.

Non-transportation Noise Sources

Non-transportation-related noise generators are commonly called “stationary” or “point” sources of noise. Industrial processing, mechanical equipment, pumping stations, and heating, ventilating, and air conditioning (HVAC) equipment are examples of stationary non-transportation-related noise sources in the City. Some non-transportation sources are not stationary but are typically assessed as point sources due to the limited area in which they operate, such as truck deliveries and agricultural field machinery. Noise generated by industrial and commercial operations, maintenance, manufacturing, truck traffic (loading docks), and warehouses can affect surrounding noise-sensitive land uses. Table 8-4 identifies noise level performance standards for non-transportation noise sources.

Some noise-generating activities, such as pile-driving as part of construction operations, may also result in excessive levels of groundborne vibration that may affect nearby land uses. Intermittent or temporary neighborhood noise from amplified music, public address systems, barking dogs, landscape maintenance, stand-by power generators, and construction activities are disturbing to residents but are difficult to attenuate and control.

However, noise sources associated with minor maintenance and operation of residential real property such as HVAC, pool equipment, and lawn maintenance equipment are exempt during reasonable daytime hours. Proper land use practices can minimize the proximate placement of conflicting uses. This chapter contains policies that promote methods other than sound walls in all cases and discourage their construction in existing neighborhoods. While the City discourages the use of sound walls because of the potential for unsightly streetscapes they may create, particularly if they are installed in front yard areas and redirect noise to other parts of the community, in some instances their benefits may outweigh their drawbacks, therefore making them the most viable solution to achieve the policies and standards of this General Plan.

NOISE CONTOURS AND IMPACT AREAS

Noise level contours are used as a guide for minimizing the exposure of community residents to noise. Noise contours represent lines of equal noise exposure, just as the lines on a weather map indicate equal temperature or atmospheric pressure. Contours provide a general visualization of sound levels and should not be considered absolute lines of demarcation. Noise contours for major transportation noise sources in the City were developed for future conditions resulting from development as allowed for in this plan. Future noise contours for roadways are presented on Figure 8-7.

Noise impacts can detract from residents’ health and quality of life for noise-sensitive land uses, such as schools, residences, hotels/motels, and community facilities



including hospitals, convalescent homes, and day care facilities. Transportation sources, such as automobiles, trains, and airplanes, can produce noise that interferes with sleep and disrupts communication and relaxation. Railroad noise affects many residential areas in Elk Grove.

POLICIES: NOISE SOURCES AND LAND USE COMPATIBILITY

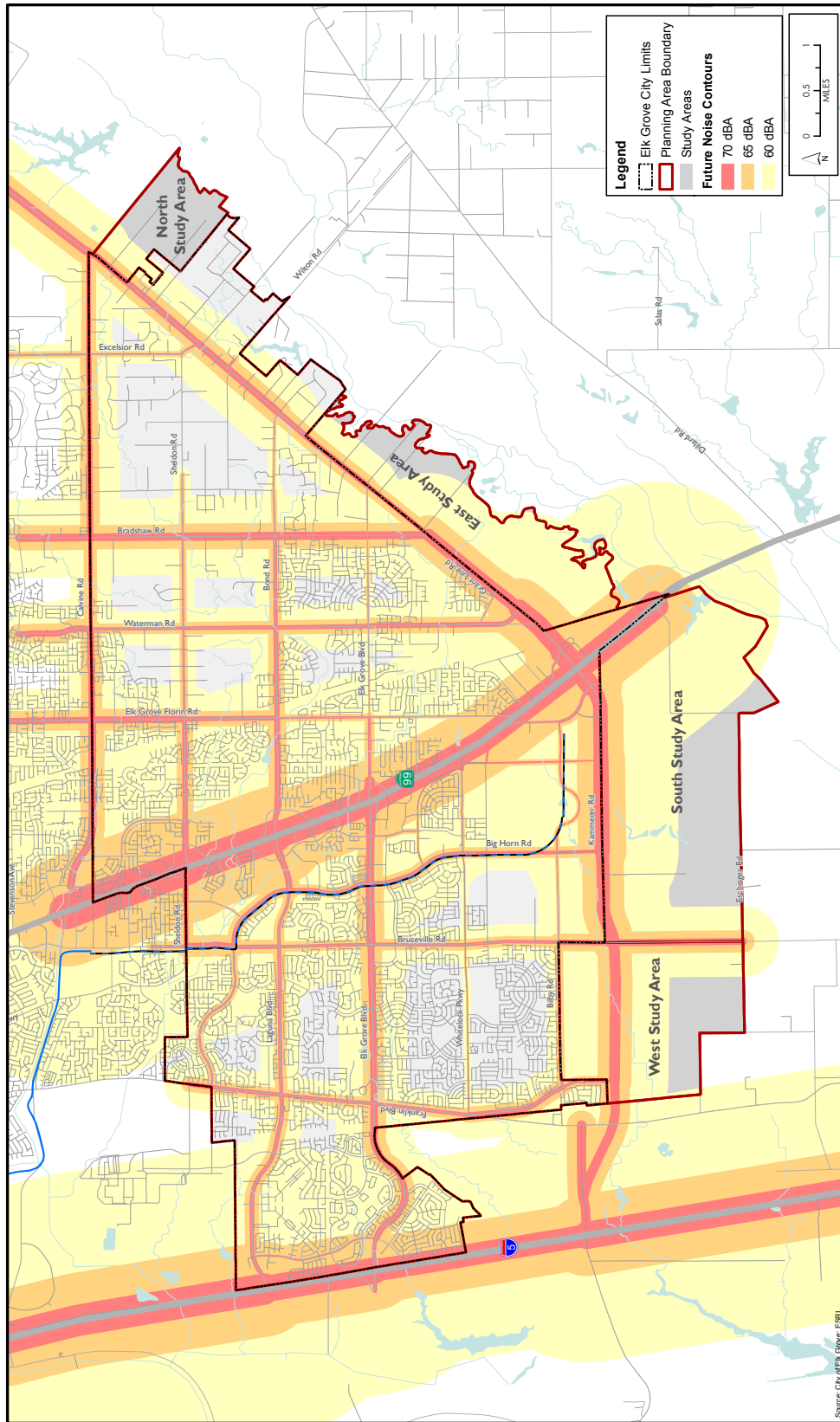
- Policy N-1-1:** New development of the uses listed in Table 8-3 shall conform with the noise levels contained in the table. All indoor and outdoor areas shall be located, constructed, and/or shielded from noise sources in order to achieve compliance with the City's noise standards.
- Policy N-1-2:** Where noise mitigation measures are required to achieve the standards of Tables 8-3 and 8-4, the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures, including the use of distance from noise sources, have been integrated into the project.
- Policy N-1-3:** Use the noise contour mapping identified in Figure 8-7 to inform land use decisions.

POLICIES: SENSITIVE LAND USES

- Policy N-1-4:** Protect noise-sensitive land uses, identified in Table 8-3, from noise impacts.
- Policy N-1-5:** Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table 8-3 or the performance standards of Table 8-4, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.
- Policy N-1-6:** Where proposed nonresidential land uses are likely to produce noise levels exceeding the performance standards of Table 8-4 at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.
- Policy N-1-7:** The standards outlined in Table 8-4 shall not apply to transportation- and City infrastructure-related



FIGURE 8-7
FUTURE NOISE CONTOURS



Noise levels after implementation of General Plan policies and prior to site-specific noise mitigation



construction activities as long as construction occurs between the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends and federally recognized holidays. Work may occur beyond these time frames for construction safety or because of existing congestion that makes completing the work during these time frames infeasible.

Policy N-1-8: For development projects that are subject to discretionary review, the City may require applicants to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on those uses.

Policy N-1-9: For projects involving the use of major vibration-generating equipment (e.g., pile drivers, vibratory rollers) that could generate groundborne vibration levels in excess of 0.2 in/sec ppv, the City may require a project-specific vibration impact assessment to analyze potential groundborne vibrational impacts and may require measures to reduce ground vibration levels.

Policy N-1-10: For new development involving noise-sensitive receptors that could be exposed to high levels of ground vibration levels generated by freight or transit rail, the City may require a project-specific vibration impact assessment to analyze potential groundborne vibrational impacts and may require measures to reduce ground vibrational levels.

GOAL N-2: COMMUNITY NOISE EXPOSURE IS MINIMIZED

The City is committed to implementing best management practices for all development and construction in Elk Grove to help reduce noise sources and exposure to noise. These strategies range from limiting construction hours to limiting commercial vehicle hours, particularly in areas where people live.

POLICIES: NOISE REDUCTION STRATEGIES

Policy N-2-1: Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 8-4 as measured immediately within the property line of lands designated for noise-sensitive uses.

Policy N-2-2: The following criteria shall be used as CEQA significance thresholds for transportation and



stationary noise sources:

- Where existing ambient noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels shall be considered significant; and
- Where existing ambient noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels shall be considered significant; and
- Where existing ambient noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +1.5 dB Ldn increase in noise levels shall be considered significant. Public roadway improvements to alleviate traffic congestion and safety hazards shall utilize FHWA noise standards to allow a reasonable dollar threshold per dwelling to be used in the evaluation and abatement of impacts.
- The standards outlined in Table 8-4 shall not apply to public projects to alleviate traffic **congestion and safety hazards**.

Policy N-2-3: Emphasize methods other than installation of sound walls in front yard areas to reduce noise to acceptable levels in residential areas that were originally constructed without sound walls.

Policy N-2-4: Where sound walls or noise barriers are constructed, strongly encourage and consider requiring a combination of berms and walls to reduce the apparent height of the wall and produce a more aesthetically appealing streetscape.



City of Elk Grove

FUN FACTS

WHAT IS THE GENERAL PLAN?

The City of Elk Grove General Plan is a long-term vision statement that guides the city's growth and development. It is a living document that is updated every five years to reflect the city's changing needs and priorities.

OVERVIEW

What is a General Plan?

The City of Elk Grove General Plan is a long-term vision statement that guides the city's growth and development. It is a living document that is updated every five years to reflect the city's changing needs and priorities.

Why Update the General Plan?

The City of Elk Grove General Plan is a long-term vision statement that guides the city's growth and development. It is a living document that is updated every five years to reflect the city's changing needs and priorities.

Share your ideas!

We want to hear from you! Share your ideas and feedback on the General Plan. Visit our website at www.elkgrove.gov to learn more and get involved.