City Council Meeting

COUNCIL CHAMBERS, 33 SOUTH MAIN STREET, COLFAX, CA

Mayor Trinity Burruss · Mayor Pro Tem Marnie Mendoza
Councilmembers · David Ackerman · Kim Douglass · Sean Lomen

SPECIAL MEETING AGENDA
January 23, 2023
Public Workshop Session 11:00 AM

This Special Meeting of the City Council is being held pursuant to Government Code Section 54953(e) which authorizes meetings to be held by teleconference. The Governor's proclaimed state of emergency remains in effect and the City Council has made or will make the legal findings necessary to hold meetings by teleconference. You may access the meeting and address the Council by any of the following means:

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Facebook Live on our City of Colfax page: City of Colfax, California.You may also submit written comments to the City Clerk via email at city.clerk@colfax-ca.gov, via regular mail to P.O. Box 702, Colfax CA 95713, orby dropping them off at City Hall, 33 S. Main Street, Colfax CA 95713 Comments received will be submitted to Council and made a part of the record.

1 OPEN SESSION

1A. Call Open Session to Order

1B. Roll Call

2 PUBLIC COMMENT

2A. Open Public Comment

Members of the public are permitted to address the Council orally or in writing on matters of concern to the public within the subject matter jurisdiction of the City that are not listed on this agenda. Please make your comments as succinct as possible. Oral comments made at the meeting may not exceed five (5) minutes per speaker. Written comments should not exceed 800 words. Written comments received before the close of an agenda item may be read into the record, with a maximum allowance of five (5) minutes in length. Council cannot act on items not listed on this agenda but may briefly respond to statements made or questions posed, request clarification, refer the matter to staff, or place the matter on a future agenda.

3 WORKSHOP SESSION

The purpose of this workshop is to review a prepared comprehensive, long term plan for the City which serves as a guide for decision making on physical development and provide Council and public input to the City of Colfax General Plan Update processes. Any recommendations or proposed amendments will be presented for Council review and approval at a future regularly scheduled Council Meeting.

3A. General Plan Update Workshop #2

Proposed General Plan 2040 – Land Use Element (Pages 5-19)

Proposed General Plan 2040 – Circulation Element (Pages 20-31)

Proposed General Plan 2040 – Noise Element (Pages 32-43)

Proposed General Plan 2040 – Safety Element (Pages 44-99)

4 ADJOURNMENT

I, Marguerite Bailey, City Clerk for the City of Colfax, declare that this agenda was posted in accordance with the Brown Act at Colfax City Hall and Colfax Post Office. The agenda is also available on the City website at http://colfax-ca.gov/

Marguerite Bailey

Marguerite Bailey, City Clerk

Administrative Remedies must be exhausted prior to action being initiated in a court of law. If you challenge City Council action in court, you may be limited to raising only those issues you or someone else raised at a public hearing described in this notice/agenda, or in written correspondence delivered to the City Clerk of the City of Colfax at, or prior to, said public hearing

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2.0 Land Use Element

2.1 Introduction

The Land Use Element plays a central role in the General Plan as it sets forth specific goals and policies to guide the intensity, location, and distribution of land uses for the City of Colfax and the planning area. The Land Use Element serves as the basis for determining service requirements, including plans for future streets and roads, water and sewer, schools, and police and fire protection services.

The Land Use Element shapes the City's form and character by providing a framework for orderly patterns of growth and development, and by ensuring an appropriate distribution or mixture of land uses.

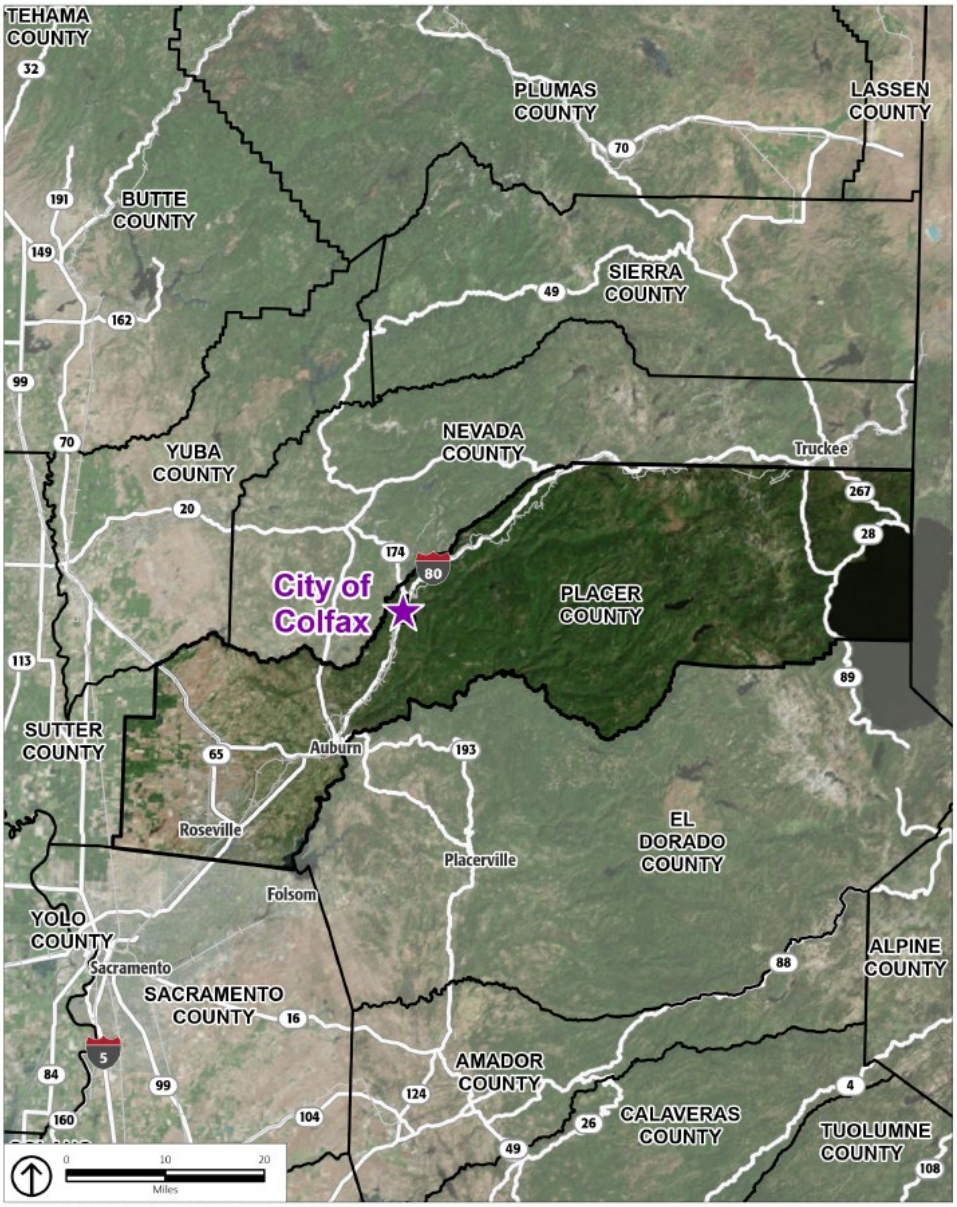
The Guiding Principles for the Land Use Element are:

- Provide land to accommodate housing and employment for the projected growth through the year 2040.
- Ensure land remains available for development beyond the year 2040 to account for unbuildable residential lots, allow for market competition, and provide flexibility in commercial and industrial land uses.
- Incentivize new development in and around existing developed areas while providing design standards.
- Ensure adequate land in the commercial and industrial land use designation to accommodate future demand.
- Capitalize on the freeway-oriented commercial development.
- Support community design standards for the preservation of historic architecture of the downtown and encourage new development that supports the character of Colfax.

2.2 City of Colfax and its Planning Area

The City of Colfax is the eastern-most incorporated city in Placer County, located in the Sierra Nevada Foothills at a general elevation of approximately 2,425 feet. The city covers an area of 1.3 square miles and is bisected by I-80. Colfax is situated a few miles outside the Tahoe National Forest as I-80 begins its climb into the Sierra Nevada mountains. As shown in Figure 1, the City of Colfax is in the western part of Placer County, approximately 46 miles northeast of Sacramento and 68 miles southwest of Reno.

FIGURE 1. REGIONAL LOCATION



Source: City of Colfax, ESRI, PlaceWorks

2.2.1 Requirements

As required by California Government Code Section 65302(a) the Land Use Element of the General Plan must address the following issues:

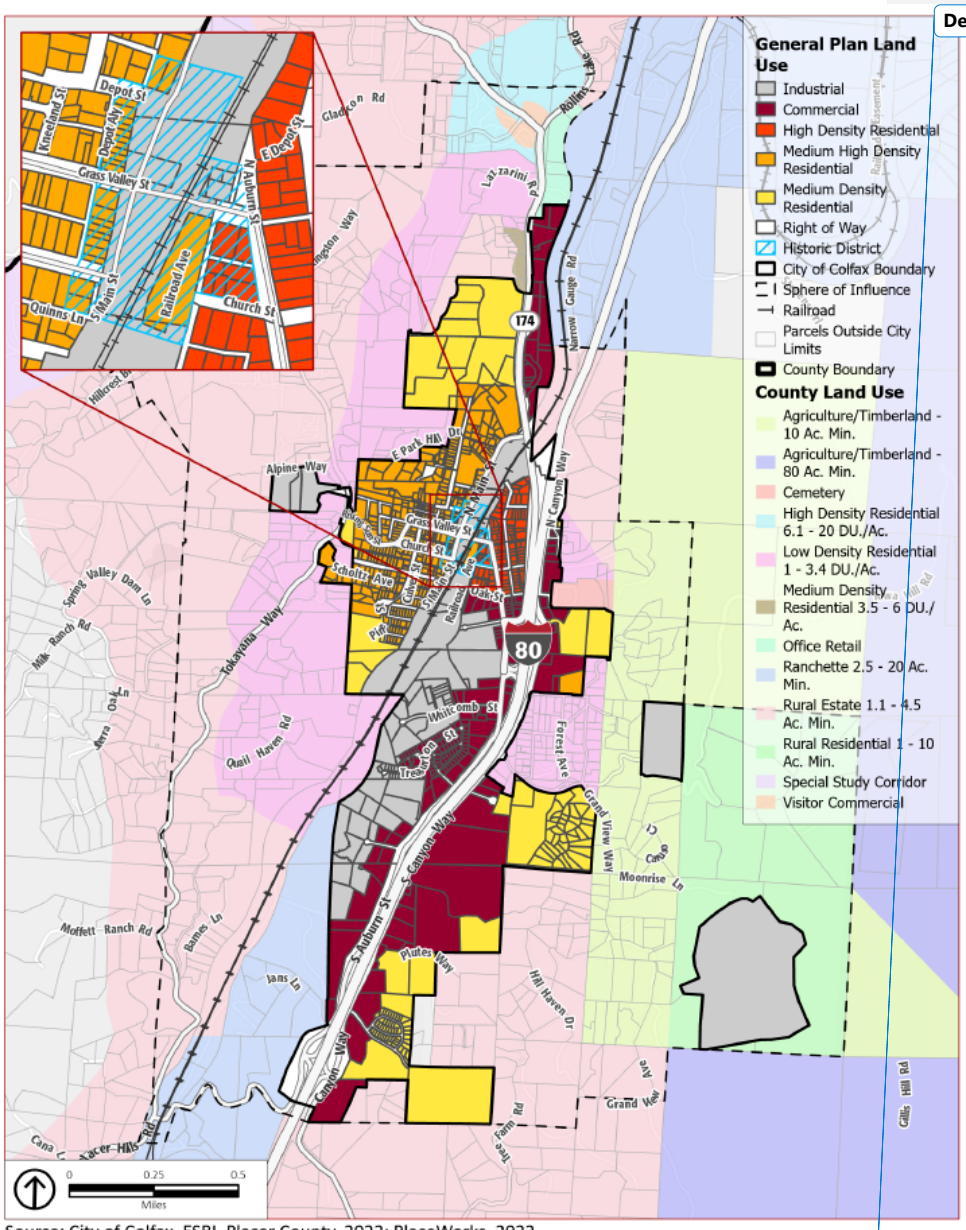
- Distribution, general location, and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings, and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land.
- Standards of population density and building intensity recommended for the various districts and other territory in the plan.

Deleted: and Public Resources Code Section 2762(a)

2.2.2 General Plan Planning Area

The planning area for the General Plan is shown in Figure 2 and includes both the entirety of the City limits, and the area between the city limits and the sphere of influence (SOI). State law requires each city to include in its General Plan all territory within the boundaries of the incorporated area as well as "any land outside its boundaries which in the planning agency's judgment bears relation to its planning" (California Government Code Section 65300). The Colfax planning area encompasses approximately 902 acres (1.41 square miles) within the City limits, and XXX acres (XXX square miles) between the city limits and the SOI. The total land area covered by this General Plan is XXX acres (XXX square miles).

FIGURE 2. LAND USE DIAGRAM



Source: City of Colfax, ESRI, Placer County, 2022; PlaceWorks, 2022

2.3 Sphere of Influence

The Sphere of Influence (SOI) is adopted by the Placer County Local Agency Formation Commission (LAFCo) as the area of probable physical boundaries and service area for the City. LAFCo adopts a sphere of influence for every city and district in its jurisdiction, and reviews them periodically. The law specifies four factors the Commission must take into consideration when determining a sphere of influence:

- The present and planned land uses in the area, including agricultural and open-space lands.
- The present and probable need for public facilities and services in the area.
- The present capacity of public facilities and the adequacy of public services that the agency provides or is authorized to provide.
- The existence of any social or economic communities of interest in the area if the Commission determines that they are relevant to the agency.

Land must be within the SOI before it can be considered for annexation to the city by LAFCo. As the SOI is adopted by another public agency, the city's SOI is shown on Figure 2 for informational purposes only.

2.4 Land Use Pattern

The City of Colfax has a land use pattern that was historically aligned with the railroad, and later to I-80. The railroad-oriented land uses generally comprise the historic center of the city including the downtown as shown in Figure 2, *Land Use Diagram*. Freeway-oriented development caters to the travelling public and is either near the Canyon Way interchange with I-80, or along the frontage roads that provide visibility to the interstate. Industrial and commercial land uses are aligned with both the downtown and interstate depending on their needs.

Deleted: *Colfax Historic Downtown*

Buildings in the Downtown (also referred to as the Historic District), and the associated businesses, have evolved to enhance the pedestrian-oriented character while maintaining the historical elements of Colfax. Most of the downtown core area architecture preserves the history of the community. A few buildings have strayed from the past tradition however, most of the buildings embody quality in construction, craft, and a style the community wants to maintain and replicate. The architectural elements and features in Colfax have a distinct character which is recognizable in many historic town centers throughout the Sierra foothill communities. Homes are generally closer together near the downtown as many of the parcels are smaller. Larger parcels toward the periphery of the city reflect the rural history of the city and tend toward homes that are further apart and considered a "lower density" than those near the downtown. The character of residential development in more rural areas includes space between buildings and open fencing, allowing for greater visibility lending to the rural character.

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2.5 Historic District

The Historic District generally encompasses the intersection of Main Street and Grass Valley Street and reaches to just beyond Depot Street on North Main Street to the north and just beyond South Main Street at Church Street to the south. The buildings in the Historic Core include some of the city's oldest commercial structures with many dating from the last half of the 19th Century.

Another prominent feature of the Historic District is the railroad line which bisects the district from north to south. The identify of Colfax as one of the earliest prominent railroad cities in California is well preserved in the historic passenger and freight depot buildings also found within the Historic District.

The Historic District also includes a variety of other commercial/retail, residential, and light industrial uses. The commercial/retail uses are clustered around the Historic Core and along South Auburn Street. Light industrial uses are situated at the far north and south of the district adjacent to the railroad tracks. The remaining areas of the district are zoned primarily for single family residential uses, except for the area between Oak Street and East Church Street to the west of South Auburn Street.

2.6 Intent

As Colfax continues to grow and develop the City intends to embrace the Historic District as destination for residents and visitors alike. The Historic District is a core attraction for many and representation of the City's unique history. Therefore, preserving Colfax's historic characteristics through appropriate land use patterns, local conditions, and design standards is critical to maintaining the Historic District as a destination for years to come. Furthermore, the City intends to capitalize on its proximity to I-80 by presenting the City as a destination for casual freeway visitors through appropriate signage, wayfinding, urban gateways, attractive public spaces and amenities, and its historic downtown. In doing so, visitors will be encouraged to explore, shop, and enjoy quality time in Colfax.

Deleted: While the Land Use Element is largely a technical update, the City of Colfax aims to accomplish several goals over the next twenty years.

To ensure the city's orderly pattern of growth and development the City will adopt a process for the review of land uses changes. All new development will be consistent and complimentary to the distinctive characteristics of the community. Residential uses will be encouraged near the downtown to increase walkability and reduce VMT. A more walkable community with an attractive historic downtown core will contribute to the social well-being and quality of life that makes Colfax a desirable community to visit and live.

2.7 Land Use Diagram and Standards

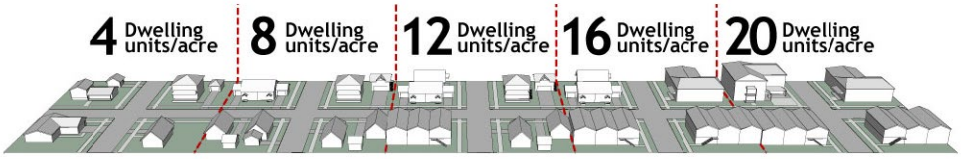
The Land Use Diagram depicts proposed land uses for Colfax through the year 2040 and beyond. The land uses are represented using designations that specify the type and intensity of allowed land uses. The boundary lines between land use designations are delineated as specifically as possible, in most cases following parcel lines.

Development consistent with the Land Use Diagram is implemented through the City's zoning regulations as each land use designation has compatible zoning districts. Because land use designations are intentionally broad, more than one zoning district can be used for implementation. The land use designation provides general guidance and vision, while the zoning districts provide detailed development standards such as permitted or conditionally permitted land uses, building heights, setbacks, lot coverage, and parking requirements.

2.7.1 Development Standards

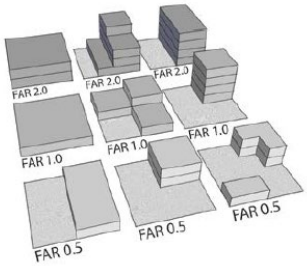
Development standards are legal standards of density for residential uses and standards of building intensity for non-residential and mixed use. The following explains how these standards operate.

Density. Standards of building intensity for residential uses are stated as a range (i.e., minimum and maximum) of allowable number of dwelling units per gross acre. The diagram below shows various building configurations representing different density ranges. Standards of population density can be determined based on an assumption of persons per household.



Floor Area-Ratio (FAR). Standards of building intensity for nonresidential uses, such as mixed-use, commercial, and industrial development, are stated as a range (i.e., minimum and maximum) of FARs. In the case of mixed-use developments that include residential uses, the FAR includes residential building square footage, and the development must meet both FAR and residential density standards.

An FAR is the gross building area on a site, excluding structured parking, to the net developable area of the site. The net developable area is the total area of a site excluding portions that cannot be developed (e.g., right-of-way, public parks). A site includes all contiguous parcels that will share parking or access. For example, on a lot with 25,000 square feet of land area, a FAR of 0.50 will allow 12,500 square feet of useable building floor area to be built, regardless of the number of stories in the building (e.g., 6,250 square feet per floor on two floors or 12,500 square feet on one floor). On the same 25,000- square-foot lot, a FAR of 1.00 would allow 25,000 square feet of useable floor area, and a FAR of 2.00 would allow 50,000 square feet of useable floor area. The diagram below shows various building configurations representing FARs of 0.50, 1.00, and 2.00.



While FAR provides for the overall development size and intensity, it does not specify the form or character of the building. Different interpretations of the same FAR can result in buildings of very different character and can be regulated through qualitative or quantitative development standards.

2.8 Land Use Designations

Table 1 summarizes the existing land uses in Colfax, their allowed density and intensity, as well as their distribution.

TABLE 1
LAND USE DESIGNATIONS

General Plan Land Use	Zones	Allowed Density/Intensity	Vacant Acres	Developed Acres	Total Acres	Percent of Total
Residential Designations						
Low-Density Residential (LDR) This designation allows for single-family homes.	Single-Family Residence (R-1-5, R-1-10, R-1-20)	1–4 Units per Acre	60.75	73.697	134.447	
Medium-Density Residential (MDR) This designation allows detached and attached single-family dwellings.	Multi-Family Residence (RM-1)	4–10 Units per Acre	9.88	236.544	246.424	
Medium High-Density Residential (MHDR) This designation provides for multifamily residential units, including townhouses, condominiums, and apartments.	Multi-Family Residence (RM-2)	10–29 Units per Acre	5.22	117.793	123.013	
Mixed Use Designations						
Mixed-Use		XX-XX FAR				

General Plan Land Use	Zones	Allowed Density/Intensity	Vacant Acres	Developed Acres	Total Acres	Percent of Total
This designation allows for the horizontal and vertical combination of commercial and residential uses that are mutually compatible. This designation allows for multifamily housing as well as shops, restaurants, services, offices, hospitality, and other compatible uses.						
Downtown Mixed-Use This designation allows for the vertical combination of commercial and residential uses in the downtown area. This designation allows for multifamily housing as well as shops, restaurants, services, offices, hospitality, and other compatible uses.		XX-XX FAR				
Employment/Industrial Use Designations						
Industrial This designation allows the processing, manufacturing, assembly, packaging, storage, and distribution of goods and commodities. It also allows for warehouses, storage, logistics	Light Industrial (I-L) Heavy Industrial (I-H)	XX-XX FAR	37.9	202.2	240.1	

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General Plan Land Use	Zones	Allowed Density/Intensity	Vacant Acres	Developed Acres	Total Acres	Percent of Total
centers, trucking terminals, and railroad facilities.						
Commercial This designation provides for a combination of general and highway-oriented, retail, office, business, lodging, and service uses.	Retail Commercial (C-R) Highway Commercial (C-H)	XX-XX FAR	62.8	131.6	194.5	
Public Designations						
Open Space The Open Space land use designation encompasses the preserved natural open space areas of Colfax.		XX-XX FAR				
Parks The Parks land use designation provides for active and passive recreational opportunities in Colfax.		XX-XX FAR				
Overlay Designations						
Historic District Overlay The Historic District Overlay land use designation is intended to maintain the historic resources of Colfax while also enhancing	C-R I-L R-1-5 R-1-10	XX Units per Acre XX-XX FAR				

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General Plan Land Use	Zones	Allowed Density/Intensity	Vacant Acres	Developed Acres	Total Acres	Percent of Total
the city's character and visual appearance. This designation allows for multifamily housing as well as shops, restaurants, services, offices, and other compatible uses.	RM-1 RM-2					
Total			73.51	269		100%

2.9 Land Use Goals and Policies

Goal 2.9.1	**Promote the orderly development of Colfax and its Surroundings.**
Policy 2.9.1.1	The City will coordinate with service providers to provide infrastructure and services, such as water service, libraries, parks and recreational facilities, transportation systems, and fire/police/medical services.
Policy 2.9.1.2	Higher density housing and employment and service will be located in areas that are easily accessible to existing or planned transportation facilities.
Policy 2.9.1.3	The City may approve the clustering of development on sites that preserve historic resources, protect sensitive natural features (such as creeks, native trees, rock outcrops), and avoid potentially hazardous areas (such as steep slopes, flood zones, and unstable soils).
Policy 2.9.1.4	For all residential developments, require clustering where appropriate. Clustered development as defined in this General Plan includes the following considerations: • Clustering of residential development will allow flexibility of site design in responding to the natural features and resources of an individual site. • Clustering means that structures will be located on a site so that larger areas are left as undeveloped open space. • Undeveloped areas may either be preserved in private or public open space, or may be a portion of an individual lot, with deed restrictions prohibiting construction in that portion.

Implementation Measures

2.9.1.C	Support commercial development on arterial streets and at major intersections near I-80 interchanges.
2.9.1.D	Support the railroad by placing supportive land uses near access, and avoid placing sensitive uses where they could jeopardize use of rail.
2.9.1.E	Locate industrial and commercial land uses away from noise sensitive land uses.
2.9.1.F	To protect existing industry and commercial businesses, new sensitive land uses shall not be placed near existing noise generating uses.
Goal 2.9.2	**Ensure that new development pays for the necessary city facilities and services to support it through tax revenues, fees, or other means.**

Deleted: and sewer

Deleted: 2.9.1.G Establish criteria for a general or medium industrial zoning designation.¶

Policy 2.9.2.1 Encourage the location and development of businesses which generate high property and sales taxes, local employment, and are environmentally compatible.

Policy 2.9.2.2 All new residential subdivision, commercial, or industrial land development within the city shall be contingent upon City services including sewer, water, and emergency vehicle access.

Policy 2.9.2.3 Establish and maintain a Capital Improvement Program and impact fees for public facilities improvements that parallels the rate of new land development in the city.

Policy 2.9.2.4 Encourage commercial and employment-generating uses which provide tax revenues and employment to help support planned residential growth, including auxiliary public facilities and services.

Policy 2.9.3.5 Prioritize infill development consistent with goals for reducing vehicle miles travelled and supporting existing businesses. Infill development should be evaluated carefully to ensure that development is consistent with the character of the community and open space is preserved, to the extent feasible. Implementation Measures

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2.9.2.A Develop criteria for utility extension that includes economic feasibility, environmental sensitivity and enforcement of the General Plan Land Use Diagram.

2.9.2B Update the Capital Improvement Program as a means of keeping pace with the needs of future facilities and infrastructure.

2.9.2.C Negotiate a Master Tax Transfer agreement with the County to streamline future annexation requests.

2.9.2.D Investigate funding methods to offset infrastructure development maintenance costs associated with new development.

2.9.2.E Modify the development code to establish standards that would allow higher housing densities by right, mixed use, or increased commercial development, in select infill areas, such as those areas near the downtown.

GOAL 2.9.3	**Conserve and improve aesthetic, historic, neighborhood, open space, and environmental land resources of the community.**
Policy 2.9.3.1	Natural features and materials shall be incorporated into project design as buffers or landscaped areas.
Policy 2.9.3.2	Commercial buildings shall be pedestrian oriented and street facing with parking at the rear or sides of buildings, utilizing materials that compliment surrounding uses.
Policy 2.9.3.3	The City shall require the design of future residential projects to emphasize character, quality, livability, and the provision of necessary services and facilities to ensure their permanent attractiveness.
Policy 2.9.3.4	The City shall encourage the retention and enhancement of natural vegetation along major roadways, drainages, trails, and open space to provide and protect scenic open spaces.
Policy 2.9.3.5	Encourage adaptive reuse of the Historic District and its buildings. New construction and buildings in the Historic District shall compliment the historical character of the community and surrounding architecture.
Policy 2.9.3.6	Adopt and maintain design standards and a development code for the City, including specific design standards for the Historic District.
Policy 2.9.3.7	As part of the Historic District Master Plan, the City will develop a wayfinding program to encourage visitors in the downtown.

Implementation Measures

2.9.3.A	**Adopt and maintain design standards that require the orientation of commercial buildings to ensure sidewalk orientation, natural materials in the façade and lighting, encouraging stone and brick with outside seating compatible with the existing City buildings.**
2.9.3.B	**Adopt and maintain design standards for residential developments that address street improvements, parking, massing and scale, and compatibility with adjacent neighborhoods.**
2.9.3.C	**Adopt objective design standards for adaptive reuse of historic buildings and complementary construction of new buildings.**

3.0 Circulation

3 Circulation

3.1 Authority and Purpose

The Purpose of the Circulation Element of a General Plan is to identify the location and the extent of major thoroughfares, transportation routes, terminals, and other public utilities and facilities, all correlated with the Land Use Element. Transportation systems are essential to any city or county and its economy and can be designed to enhance opportunity and improve equity. Transportation is both a regional and local issue. This Element is required by Government Code Sections 65103(f) and 65080 not to be in conflict with applicable state and regional transportation plans.

3.2 Background

Development of the city was initially linked to the development of the Union Pacific Railroad, and later to Interstate 80. These two features provide the main transportation connections between Colfax and several smaller communities to the northeast and ultimately to the Sacramento metropolitan area about 50 miles to the southwest.

3.2.1 Roadway Classifications

Commented [MB1]: Foresthill/Vista should be designated as collector; also designate Railroad Street as a collector.

Commented [MB2R1]: See revisions below

The City of Colfax is served by five different classifications of roadways as shown on Figure 3-1 and summarized below:

- Freeway – A limited access and high-speed road serving inter-regional movement with no interference from local street patterns or at-grade-crossings. Freeways are divided highways and serve primarily regional and long-distance travel.
- State Highway – Limited access and higher speed road for travel between communities. Medium capacity two-lane roadways with one lane in each direction. The passing of slower vehicles requires the use of the opposing lane where traffic gaps allow.
- Arterial – A street carrying the vehicular traffic of intra-community travel, as well as access to the rest of the county transportation system. Access to arterials is generally by minor arterial, collector, and local streets.
  - Minor Arterial – A street for movement of intra-community traffic and less traveled than arterial streets.
- Collector – These roadways serve traffic between major and local roadways and neighborhoods. Collector streets are used mainly for traffic movements within residential, commercial, and industrial areas.
- Local Street – Roadways used primarily for direct access to residential, commercial, industrial, or other abutting property with on-street parking. They do not generally include roadways carrying through traffic.

FIGURE 3-1
ROADWAY CLASSIFICATIONS

[Pending Discussion with Public Works]

Roadways are usually public lands obtained as a dedication during a development proposal or purchased outright to improve the circulation system. Road right-of-way often contains more than simply pavement for vehicles as underground pipes carry water, wastewater, stormwater, electrical wiring, fiber optic cable and natural gas. The right-of-way must also accommodate all manner of mobility such as bicycles and pedestrians. Table 3-1 shows the right-of-way standards by roadway classification for city streets.

Commented [CM3]: Trying to maintain the "underground pipes carry" theme

TABLE 3-1
RIGHT OF WAY STANDARDS

Supply	Access Control		Typical Number of Lanes	General ROW Requirements
	Minimum Intersection/ Interchange Spacing	Driveways Allowed		
Freeway (I-80)	1 - 2 miles	None	2 – 6	Varies
State Route (174)	Varies	Limited	1 - 2	Varies
Major Arterial	¼ mile	Shared	2 - 4	96' - 120'
Minor Arterial	¼ mile	Shared	2 - 4	70' - 84'
Collector	¼ mile	All Uses	2	60' - 70'
Local	¼ mile	All Uses	2	50' - 60'

3.2.2 Existing Facilities

Local streets are not intended to carry through traffic as the design and capacity of local streets are generally limited. Collector and arterial streets are very important to the circulation system of a community. Congestion or traffic problems usually occur where roadways meet or traffic is impeded, such as at intersections or driveways. Roadways in the City of Colfax include the following list, and are shown on Figure 3-2.

FIGURE 3-2
CIRCULATION MAP

Commented [MB4]: Include Foresthill Road, Railroad Street. Designate these as collectors, or potential collector if they don't have rights.

Commented [MB5R4]: See revisions below and revised figure

- **I-80 (Freeway)** – Interstate 80 is the main transportation route and bisects the City of Colfax; I-80 carries most of the traffic into and out of the city, while at the same time providing a physical barrier to intra-city circulation. The two interchanges located within the City of Colfax are Canyon Way, at the southern edge of the city limits and provides freeway access in the north and south bound direction, and South Auburn Street, which is the northern access point for I-80 in the city providing access to the historic downtown and is available to both north and south bound traffic.
- **Highway 174 (State Highway) –** Highway 174 is the next major traffic carrier and produces a mixing of local and through traffic at strategic intersections. It enters the city limits in the north and is connected to the historic downtown by way of Main Street. Highway 174 overpass crosses the railroad tracks and terminates on South Auburn Street. Highway 174 is used by local and regional traffic and provides access to Grass Valley and Nevada City.
- **South Auburn Street (Collector) –** South Auburn Street is a I-80 frontage street that connects to arterial streets that lead into the city.
- **Grass Valley Street (Collector)** – Grass Valley Street connects to arterial streets that lead into the city.
- Railroad Street (Collector) – Railroad Street connects to arterial streets that lead into the city.
- Foresthill Street (Collector) – Foresthill Street connects to arterial streets that lead into the city.
- Vista Avenue (Collector) – Vista Avenue connects to arterial streets that lead into the city.
- **Depot Street (Local Street) –** Depot Street connects residential areas to the network of collector roadways.
- **Church Street (Collector) –** Church Street connects to arterial streets that lead into the city.
- **Main Street (Collector) –** Main Street connects to arterial streets that lead into the city.
- **Rising Sun Road (Collector) –** Rising Sun Road connects to arterial streets that lead into the city.
- **Culver Street (Local Street) –** Culver Street connects residential areas to the network of collector roadways.
- **Pleasant Street (Local Street) –** Pleasant Street connects residential areas to the network of collector roadways.
- **Canyon Way (Arterial) –** Canyon Way is a I-80 frontage street and is an important arterial that connects to South Auburn Street and Placer Hills Road.
- **Placer Hills (Arterial) –** Placer Hills is an important arterial that connects to South Auburn Street and Canyon Way.

- **Tokayana Way (Arterial) –** Tokayana is an important arterial that connects to South Auburn Street, Placer Hills Road, and Ben Taylor Road. A short segment of this roadway is within the city limits.
- **Ben Taylor Road (Arterial) –** Ben Taylor is an important arterial that connects to South Auburn Street, Grass Valley Street, Church Street, and Main Street. A short segment of this roadway is within the city limits.

3.2.3 Parking

The provision of parking is important to residents as the city, especially for those not within walking distance of downtown as it does not have a robust and convenient transit system. While the General Plan envisions pedestrian and bicycle routes throughout the community, they have not yet been fully implemented to provide full access to the community. Appropriately designed and located parking is important to the historic downtown, as well as other businesses that rely on the travelling public. Parking is expensive to provide and to maintain and can detract from the walkability and aesthetic quality of the built environment if not well designed. Shared parking is encouraged as is satellite parking near shopping, design for rideshare, and flexibility in the requirements for the number of parking spaces.

3.2.4 Bicycle Routes

The only existing bicycle facility within the City of Colfax is a Class II bike lane along one side of Rising Sun Road and Grass Valley Street. The bicycle pathway classifications are defined as follows:

- Class I are bicycle pathways that are fully separated from any traffic lanes, either in a setback landscaped corridor adjacent to the road, or in a totally separated corridor apart from the street.
- Class II bicycle pathways are within the right-of-way of streets, usually collectors and arterials. The lanes are up to seven feet wide, located adjacent to the vehicle travel lanes with signage and striping on the pavement demarking the lane.
- Class III bicycle pathways are shared usage of streets with no specific separation of different modes of traffic. Street signage is often used to designate a roadway as a bicycle route.
- Class IV is a separated bikeway for the exclusive use of bicycles and includes a separation required between the separated bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible posts, inflexible barriers, or on-street parking.

3.2.5 Pedestrians

Pedestrian needs can usually be accommodated by the construction of sidewalks and pathways, and in areas with little or no development, adequate shoulders (4 to 6 feet wide) should be provided for pedestrians. The use of pedestrian and bicycle facilities to link areas of home, work, school, and commercial uses can be used to reduce traffic and air pollution.

3.2.6 Vehicle Miles Traveled (VMT)

The California Environmental Quality Act (CEQA) Guidelines establish criteria for determining the significance of transportation impacts as they would affect greenhouse gas emissions and air quality.

Vehicle Miles Travelled (VMT) estimates the number of vehicle miles needed by resident in the city for work, recreation, and services, and compares the estimate against local or statewide figures. The intent is to reduce the amount of VMT by providing mobility options such as trails, public transit, dedicated paths, and through design by ensuring that homes and services are close enough to encourage active transportation.[1] Active transportation is human-powered mobility, primarily walking or bicycling.

The previous level of service (LOS) metric remains important to determining when roadways should be expanded, but LOS is no longer a threshold for determining environmental impacts. Because LOS remains an important planning tool, the City will retain LOS as a general plan policy but will also adopt VMT standards to evaluate new development. Because of the rural nature of the city, and the lack of regular transit options, the VMT reduction strategies available to the city are limited. There are valid methods of reducing VMT such as connecting sidewalks and trails and making it easier for residents to park once and run several errands. Other means of reducing VMT include encouraging infill development near services, allowing mixed use where commercial and residential uses can share a building or a property, and supporting a vibrant downtown.

3.3 Future Circulation Conditions

Future circulation needs and improvements must be based on the impacts of the land use plan for the entire planning area. The land use plan forecasts future population and its impact on circulation. New development consistent with the General Plan may cause an increase in traffic on affected streets and roadways that could lead to the roadway being widened, or intersection improvements such as signals, timing changes, or redesign. Even with a reduction of VMT realized through land use design and connectivity, it is likely that future development will lead to additional traffic on all the roadways in Colfax.

3.4 Future Road Design

The wide roads of more urban areas are often difficult to achieve in Colfax because of existing buildings, topography, or simply that wide roads in some areas would be counter to the needs of the residents. While curb, gutter, and sidewalk with streetlights, and traffic signals may be appropriate in the downtown or busy commercial areas, a more rural road design with minimal improvements, only the road and individual driveway approaches may be reasonable in low traffic volume areas. The roadway standards, therefore, will vary depending on where in the City the road is located, and what types of land use the road is intended to service.

3.5 Circulation Goals, Policies, and Implementation Measures

Commented [MB6]: Add policy that addresses road conditions, repair, road surface quality.

Commented [MB7R6]: Outside of city limits, but within SOI, there needs to be a policy that also addresses roadway quality.

Commented [MB8R6]: Make sure policy is funding contingent.

Commented [MB9R6]: See new policy below

[1] Active transportation directly replaces motor vehicle miles traveled, so these modes are effective at conservi fuel, reducing vehicle emissions, bridging the first- and last-mile gap, and improving individual and public healt Bicycles, electric bikes, wheelchairs, scooters, and even walking are all considered active transportation.

Goal 3.5.1 Create a problem free and safe transportation system in Colfax.

Policy 3.5.1.1 Strive to maintain a level of service "C" service standard for city intersections and roadways.

Policy 3.5.1.2 Ensure that roadways are built to standards meeting long-term needs by evaluating current and future land uses.

Policy 3.5.1.3 Ensure that roadways are complete streets meeting the needs of all users, including bicyclists, public transit users, children, seniors, persons with disabilities, pedestrians, motorists, and movers of commercial goods.

Policy 3.5.1.4 Use road and intersection improvement projects as an opportunity to improve the aesthetic quality of the intersection, roadway, and frontage improvements. Such improvements could include sidewalk installations, landscaping, medians, improved street lighting or pavement treatments.

Policy 3.5.1.5 To the extent that funding is available, ensure that city roadways are maintained and repaired as needed. The City shall also coordinate with Caltrans and Placer County to address needed maintenance of roadways within the city-limits and City's SOI to provide safe driving conditions in the community.

Implementation Measures

3.5.1.A Monitor standards and requirements for future development of residential and commercial land, noting and prioritizing needed improvements such as streets, wastewater distribution/treatment system and stormwater system. These needed improvements will be included in the City's Capital Improvement Program.

3.5.1.B Update Engineering Design Standards to ensure that all new roadway projects and major reconstruction projects provide appropriate and adequate rights-of-way for all users including bicyclists, pedestrians, transit riders, and motorists, except where pedestrians and bicyclists are prohibited by law from using a given facility.

3.5.1.C Require that dedication and improvements of rights-of-way following City design standards by roadway classification except as determined by the City Council in areas where the City determines that such improvements are either infeasible or undesirable.

3.5.1.D Land uses that generate a high incidence of auto traffic, such as drive-thru facilities, convenience stores, fast food outlets, shopping centers, apartment

projects, and large subdivisions shall be required to submit a site-specific traffic impact report, and commit to improvements, prior to construction or expansion of such facilities.

Goal 3.5.2 Reduce vehicle miles travelled.

Policy 3.5.2.1 Require that design of new construction, and major remodel of existing buildings, allow for alternative forms of transportation by providing necessary facilities, such as bicycle racks, walkways, paths, and connections, as well as ride share parking.

Policy 3.5.2.2 Promote the development of bikeways, sidewalks, pedestrian pathways, and multi-use paths that connect residential neighborhoods with other neighborhoods, schools, employment centers, commercial centers and public open space, and that separate bicyclists, skateboarders, and pedestrians from vehicular traffic whenever possible.

Policy 3.5.2.3 Ensure that pedestrian facilities follow logical routes providing connections between transportation nodes and land uses, including bicycle and pedestrian connections to transit stops, buses that can accommodate bicycles, and park-and-ride lots, so that the pedestrian facilities serve the transportation needs of residents, and are not constructed as "sidewalks to nowhere."

Implementation Measures

3.5.2.A Create an integrated network of pedestrian connections throughout the planning area.

3.5.2.B As appropriate, use transportation systems management techniques to lower vehicle miles traveled and to decrease air pollution emissions.

3.5.2.C Develop a Walkways, Trails, and Bikeways Master Plan that incorporates the recommendations of the City of Colfax Bikeway Master Plan, and other planning proposals as appropriate, to plan the location and development of future trails and active transportation routes in the city and the vicinity. The Master Plan will also consider the following:

- The city bicycle network will connect with the countywide bicycle network. The City will encourage and work with the County in development of a countywide bicycle network.
- Signage should be provided (where automobile traffic merges with or intersects bicycle traffic) to notify automobile drivers of the presence of cyclists.

- Repair or development of railroad crossings should be done in a way that allows safe crossing by bicycles and pedestrians.
- The timing of traffic lights and sensitivity of traffic sensing equipment should accommodate bicycles.

3.5.2.D Partner with others to seek funding for improvements such as the Safe Routes to School program, or other programs to facilitate the planning, design, and implementation of eligible projects to improve the safety and accessibility of pedestrian and bicycle routes.

3.5.2.E Implement traffic calming techniques to protect neighborhoods and residents from adverse traffic impacts.

Goal 3.5.3 **Ensure an efficient network of streets for vehicles, as well as provide an adequate supply of parking.**

Policy 3.5.3.1 Maintain and implement a comprehensive on- and off-street parking system that serves the needs of residents and businesses while supporting the use of multiple modes of transportation.

Policy 3.5.3.2 Require transportation systems planned and constructed in conjunction with significant development projects, including roads, trails, bikeways, and other improvements, to provide links to the existing transportation network.

Policy 3.5.3.3 Limit access points, parking, turn lanes, and intersections of streets and highways based upon the road's classification and function. Access points must be located a sufficient distance away from major intersections to allow for safe, efficient operation.

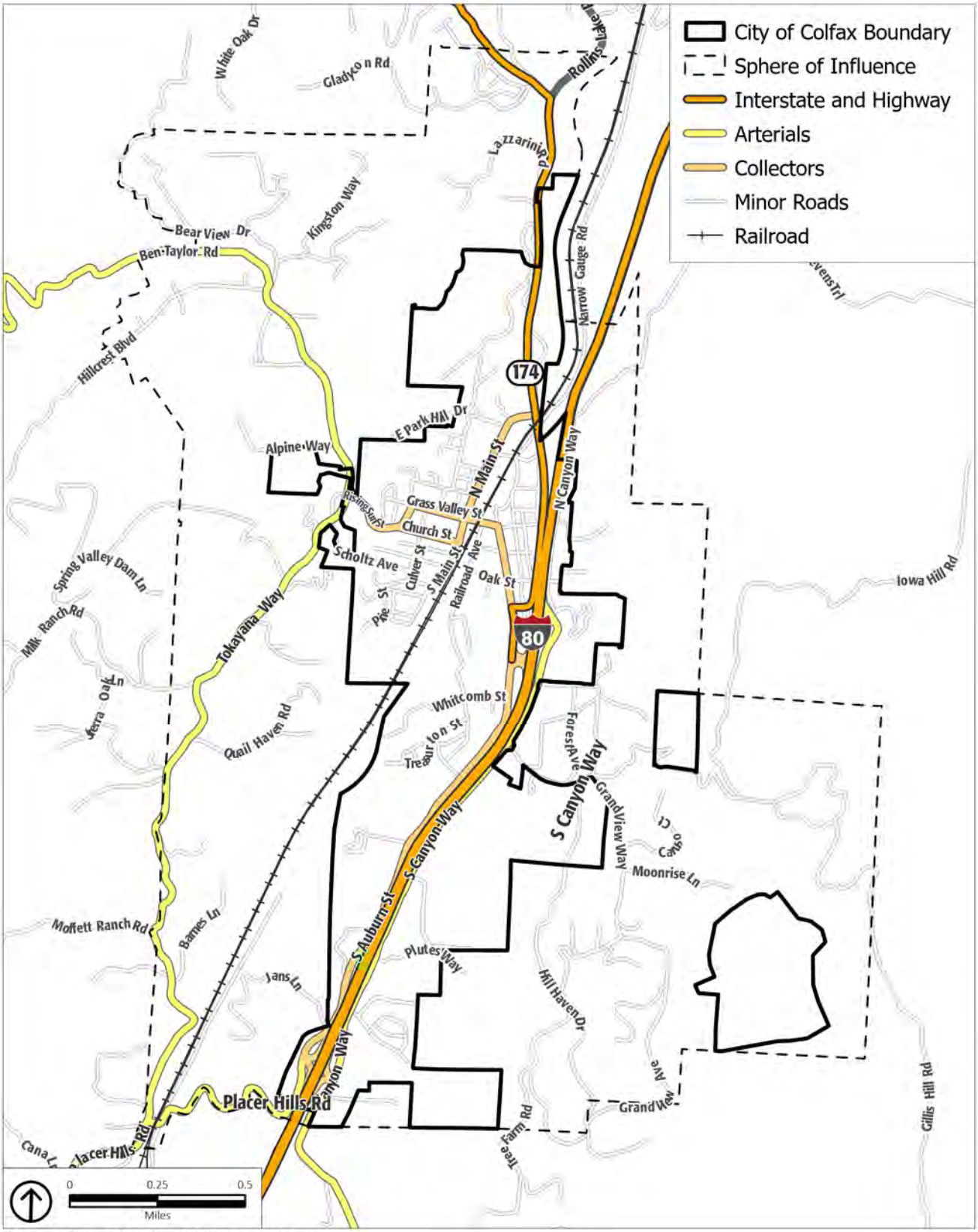
Policy 3.5.3.4 Limit road widening and other major change to the characteristic street pattern, and instead, encourage added traffic to be diverted as directly as possible to Interstate 80.

Implementation Measures

3.5.3.A Develop a long-term parking plan and appropriate development fees for the City as a whole, or for portions as appropriate.

3.5.3.B Develop parking areas in the perimeter of downtown to create an adequate parking supply to serve existing businesses and future development.

3.5.3.C Encourage shared parking arrangements for nearby and compatible land uses.



Source: City of Colfax, ESRI, PlaceWorks

Roadway Circulation

4.0 Noise

4.1 Authority and Purpose

California law requires that a general plan include an element that addresses noise. This element was prepared to meet the requirements of Government Code Section 65302(f)) and addresses both noise and vibration. Noise is recognized as an environmental pollutant that can threaten quality of life and human health by causing annoyance or disrupting sleep and everyday activities. In extreme cases excessive noise can cause health problems. This noise element identifies noise in the City from a variety of sources and supports a pattern of land uses designed to minimize exposure of residents to excessive noise. This element includes methods that could address existing and foreseeable noise problems and areas where more noise may be acceptable.

4.2 Background

All sound levels referred to in this element are in A-weighted which de-emphasizes the very low and very high frequencies of sound much like the human ear. Most community noise standards utilize A-weighting, as it provides a higher degree of correlation with human annoyance and health effects.

4.3 Terminology

A decibel (dB) is a unit of measurement that indicates the relative amplitude of a sound. A measure of 0 decibels indicates the lowest sound level that the healthy, unimpaired human ear can detect. A one dB change is the minimum generally perceivable in a laboratory setting. Typically, it takes a change of 3-5 decibels before the change in noise is perceptible outside of the laboratory.

A single noise event like a car door closing or loud voices can be exceed a noise limit, but likely only for a brief period. It would be unreasonable to regulate for a single event therefore noise studies often use noise averages to describe the character of sound over time. Equivalent Noise Level (Leq) is the measure most used to describe average noise levels. Noise is usually

DEFINITIONS

A-Weighted Sound Level (dB): The sound pressure level obtained by using the A-weighting filter of a sound level meter, expressed in decibels (dB). A-weighted de-emphasizes the very low and very high frequencies of sound in a manner like the human ear.

Community Noise Equivalent Level (CNEL): The sound pressure level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

Day/Night Average Sound Level (Ldn): The sound pressure level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.

Equivalent Sound Level (Leq): The sound pressure level containing the same total energy as a time varying signal over a given sample period. A single value that expresses the time-averaged of a fluctuating sound level. The Leq is typically computed over 1, 8 and 24-hour sample periods.

averaged over the period of an hour, but Leq can describe any series of noise events of arbitrary duration.

People notice noise increases more during the evening and at night because background noise levels are low. Noise can also interfere with the ability to sleep, therefore 24-hour descriptors have been developed that lower noise thresholds during the evening and night. A similar change in acceptable noise threshold can be made for weekend and holiday times when more people are at home and the expectation of quiet is higher.

4.4 Existing Noise Sources

4.4.1 Mobile Sources

The combination of topography, and the closeness of development to these noise sources means that Interstate 80 and the railroad can be heard throughout the City. Figure 4-1 shows the existing and future contours from these noise sources.

-

Other mobile sources include trucks, cars, motorcycles, leaf blowers, lawn mowers, and other portable maintenance equipment. These are considered normal sounds of a City and are regulated by the California Vehicle Code or the City's noise ordinance.

4.4.2 Traffic Noise

Movement of cars on roadways generates noise. While some of the noise comes from the engine and exhaust, at higher speeds tires and wind noise predominate. Major roadways such as I-80, State Route 174, and City arterials carry larger volumes of traffic at higher speeds. Noise from the interstate can be heard throughout the City depending on weather conditions and traffic volume. Table N-X shows the noise levels calculated from projected traffic data for the roads.

Table N-X, Current and Future Noise Contours for Major Roadways- Pending

4.4.3 Union Pacific Railroad

The Union Pacific Railroad runs north and south through Colfax and was essential to the founding of the town and still plays an important role in connecting the country by rail. The railroad has freight and passenger trains that generate intermittent, loud sounds during their journey through the city. Noise is different for each train as the length, weight, locomotive type, speed and whistle all vary. Locomotives can generate maximum noise levels of approximately 80 to 85 dBA while train cars generate noise levels of about 70 to 75 dBA at a distance of 100 feet from the railway tracks.

Trains are required to sound their warning whistle near "at-grade" vehicle crossings. However, because Colfax is designated quiet zone trains that operate along the Union Pacific Railroad have been directed to cease the routine sounding their horns when approaching public highway-rail grade crossings. Train horns may still be used in emergency situations or to comply with other Federal regulations or railroad operating rules.

4.4.4 Construction Noise

As the city develops, infill and rebuilding of sites will occur more frequently. The construction process can be noisy and affect people who live and work nearby. Construction is part of any city and while it can be considered temporary, construction can also last for several years if the project is large or complex. Regardless of duration, construction noise impacts are real and will need to be considered along with any development project. Simple things like setting reasonable construction times, placement of staging areas, ensuring that mufflers and noise suppression features of equipment are working, can help limit the noise intrusion into the surrounding area.

Construction activities would include site preparation, grading, building construction, paving, and architectural coating. Such activities would require graders, scrapers, and tractors during site preparation; graders, dozers, and tractors during grading; cranes, forklifts, generators, tractors, and welders during building construction; pavers, rollers, mixers, tractors, and paving equipment during paving; and air compressors during architectural coating. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. However, low and full power operating cycles could last for several hours, days, or even weeks at a time. Other primary sources of noise would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

The City regulates noise from construction based on time of day and day of the week, recognizing that most residents are home in the evening and on holidays and have an expectation of quiet during those times. The federal transit agency considers 80 dBA to be the threshold for noise during construction near residential areas. Portable sound reducing fences, mufflers, and even selecting different types of equipment can all affect noise from construction. In general, construction in Colfax is for low to mid-rise buildings and unlikely to need large construction equipment. Should a large or

complex project be proposed, the project-specific environmental analysis, and the required noise study will calculate the anticipated noise and recommend mitigation to address the impact.

4.4.5 Construction Truck Trips

Construction activities would also cause increased noise along access routes to and from the site due to movement of equipment and workers. Mobile source noise would increase along access routes to and from the project site during construction. However, this source of noise would be temporary and would cease upon completion of the proposed project. It is anticipated that hauling would occur along major city roadways and may travel in areas near homes or other noise sensitive uses. While individual trucks will generate noise as they pass by a receptor, the intermittent noise would not exceed a noise threshold which is based on hourly or daily noise levels. Additionally, construction activities would only take place within the allowable hours specified by City code.

4.4.6 Fixed Noise Sources

Any fixed or mobile source not preempted from local control by federal or state regulations. Fixed noise sources which are typically of concern include HVAC systems, generators, gas or diesel motors, transforms, outdoor speakers, air compressors and similar equipment. The types of uses which may typically operate the noise sources described above include, but are not limited to: industrial facilities, lumber mills, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up restaurant windows, car washes, loading docks, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and athletic fields.

The following terms are used in this element and in the noise ordinance to describe land uses that are sensitive to noise.

Noise-Sensitive Land Uses:

- Residential development, except temporary dwellings
- Schools: preschool to secondary, college and university, and specialized education and training
- Hospitals, nursing, and personal care
- Churches
- Hotels, motels, and bed and breakfast lodging

Outdoor Activity Areas: Common outdoor activity areas of multi-family dwellings, back yards of single-family dwellings, and designated outdoor recreation/activity areas for transient lodging, hospitals, nursing, and personal care facilities.

4.4.7 Fixed Noise Sources in Colfax

Stationary noise sources range from loudspeakers at restaurant drive-through ordering kiosks, to compressors at garages, and machinery or mechanical equipment associated with industrial uses. For this reason, land uses are often grouped together so that the noise generated by one land use is tolerated by adjacent and similar land use. Industrial land uses for example are best located near busy roads and railroads and away from homes. Key stationary noise sources in the city include the lumber mill, railroad operations, and commercial auto and truck repair. These uses are essential to the commercial needs of the City and policies in this element are designed to help protect their ability to function by limiting new sensitive receptors,

4.5 Effects of Noise

Hearing Loss

When sounds are too intense and prolonged, the hearing receptor cells, or "hair cells", can be damaged. The inner ear (cochlea) is a coiled tube about 34 millimeters long, containing about 17,000 hair cells. Hearing loss can occur along all parts of the cochlea. The degree of hearing loss depends not only on the injury at any one location but upon the spread of hearing loss in the inner ear. Hearing loss usually occurs above the speaking ranges and spreads downward. Damage can, therefore, be substantial before hearing loss is noticed.

Most experts believe that noise levels of 70 dBA or more contribute to loss of hearing over a lifetime. Clear evidence is available that noises above 80 dBA can contribute to inner ear damage and eventually hearing loss if they are frequently and regularly encountered. Trucks, trains, sports cars, and motorcycles all exceed 80 dBA at 50 feet. Amplified music at close range may reach 120 dBA. In industry, excessively loud machinery is common. Generally, noise levels above 80 dBA in a work environment require some form of ear protection. The Occupational Safety and Health Administration (OSHA) Occupational Noise Exposure (§1926.52) sets noise level standards for workers exposed to noise for an extended duration of time. OSHA sets the sound level as 90 dBA for an 8-hour work week. When noise level is increased by 5dBA, the amount of time a person is exposed to a continuous level of noise is cut in half (noise level increases to 95 dBA, time exposed to noise is cut to four hours). Personal Protective and Life Saving Equipment (§1926.101) requires ear protective devices be provided and used whenever the noise level or duration to exposures specified in Permissible Noise Exposures, in § 1926.52, cannot be reduced.

Speech and Sleep Interference

Speech interference begins occurring at about 40-45 dBA and becomes severe at 60 dBA and above. For this reason, the department of Housing and Urban Development (HUD) establishes an interior noise level of 45 dBA L_{dn} (day-night average sound level) as stated in § 51.101 of Title 24 of the Code of Federal Regulation (24 CFR) and §1207.4 of the California Building Code (CBC). Excessive background noise can reduce the amount and quality of verbal exchange and adversely affect education, family lifestyles, occupational efficiency, and quality of one's relaxation.

To protect a person from sleep interference sound levels should not rise above 35-40 dBA. Whether a person is actively awakened by a particular noise will depend upon noise levels, characteristics of noise, stage of sleep, the person's motivation to awaken, age, sex, and so on. Elderly people and persons who are ill are particularly susceptible to sleep interference caused by noise.

Stress Inducement

Noise as a source of stress is a likely contributor to what many medical authorities believe are stress related diseases such as ulcers, high blood pressure, heart disease, and arthritis. As a source of stress, noise may also be a contributing factor in mental illness, anxiety, and psychological distress. This distress, in turn, can lead to instability, sexual impotency, headaches, nausea, general anxiety, and changes in general mood.

Performance and Learning

Work performance can be adversely affected by noise through distraction and through the physical reactions previously described. While noise does not seem to affect overall work productivity, it can reduce accuracy of work, particularly of complex tasks, and inhibit learning. Noise can also increase fatigue, distraction, and irritability on the part of the employee or student. Studies conducted in Europe recommend 55 dBA as an upper limit for peak-interfering noise in classrooms. Studies conducted in the United States determined typical mean levels for primary school are 56 dBA when students are participating in quiet activities (Viet et al. 2014).

Annoyance

Many factors affect how annoyed people will be by environmental noise. A first consideration is the characteristics of the noise itself including loudness, duration, steadiness, or whether it contains speech or music. Secondly, background noise levels affect the determination of how intrusive a particular noise is perceived. Thirdly, the time of day and seasonal variations can make a difference. People are most likely to be disturbed at home, at night, and during warm weather when windows and doors are open.

4.6 Noise Standards

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Code. These noise standards are applied to new construction for the purpose of providing suitable interior noise environments. Noise studies must be prepared when a project seeks to place people near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. A project must demonstrate that structures have been designed to limit interior noise in habitable rooms to meet the Noise Compatibility Standards set forth in Table 4-1, Noise Compatibility Standards for People.

Table 4-1 provides the City with a tool to gauge the compatibility of land uses relative to existing and future noise levels. The City allows for flexibility for outdoor events such as fairs, concerts, outdoor dining, etc. This is essential for the events to be successful and reflects support for these activities.

TABLE 4-1
NOISE COMPATIBILITY STANDARDS

Type of Development	Exterior Noise Standard (CNEL)	Interior Noise Standard (CNEL)
Low Density Residential (single-family, duplex, mobile-home)	60[b]	45
Medium or High Density Residential (Multi-Family, Apartments)	65[c]	45[d]
Lodging (Motels/Hotels)	65	45[d]
Mixed Use/Infill Development	70	45[d]
Schools, Libraries, Community Centers, Religious Institutions, Hospitals, Nursing Homes	70	45
Auditoriums, Concert Halls, Amphitheaters	70	N/A
Playgrounds, Neighborhood Parks	70	N/A
Outdoor Recreation (Commercial and Public)	75	N/A
Commercial (Office/Retail)	70	60
Industrial, Manufacturing, and Utilities	75	70

For new development that generates noise a stationary noise threshold is important as the noise can be intermittent and therefore not exceed a 24-hour CNEL threshold, but still cause disturbance affecting the surrounding land uses. For these types of noise an Leq threshold is appropriate and would cover noise from land uses such as carwashes, compressors, and loudspeakers.

4.7 Vibration

Sources of vibration include natural phenomena (e.g., earthquakes, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery) or transient in nature (e.g., construction). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. The range of interest is from approximately 50 vibration decibels (VdB), which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Construction activities can generate enough ground vibrations to pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants.

Indoor sources of vibration can come from heating, ventilation, and air conditioning (HVAC) equipment, and manufacturing processes. Even the fan on a personal computer can cause a small vibration. Most of the interior sources can be screened, or isolated to avoid affecting people who live and work near the source.

Usually, vibration is an annoyance, but with fragile buildings, addressing vibration impacts is important. Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV and RMS vibration velocity are normally described in inches per second (in/sec) or in millimeters per second. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in monitoring transient and impact vibration and has been found to correlate well with the stresses experienced by buildings.

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB). The typical background vibration-velocity level in residential areas is approximately 50 VdB. Ground vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels.

One of the impacts of construction is vibration that can be felt by people. Vibration can be a short-term sensation like when a heavy truck passes, however if several trucks were to pass by, or machinery nearby creates a constant vibration, the vibration can have negative effects on people. What starts as a minor irritation in people from vibration, over time turns into feelings of unease, disruption of sleep, and result in a constant annoyance that reduces the enjoyment of their home. Vibration can also disrupt delicate procedures such as surgery and manufacturing.

Vibrations generated by construction activity can be transient, random, or continuous. Transient construction vibrations are generated by blasting, impact pile driving, and wrecking balls. Continuous vibrations result from vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment. Table 4-2 describes the general human response to different ground vibration-velocity levels.

TABLE 4-2
HUMAN RESPONSE TO DIFFERENT LEVELS OF GROUND NOISE AND VIBRATION

Vibration-Velocity Level	Human Reactions
65 VdB	Approximate threshold of perception.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Notes: VdB = vibration decibels referenced to 1 micro inch per second and based on the root-mean-square (RMS) velocity amplitude.
Source: FTA 2018

4.8 Noise Goals, Policies, and Implementation Measures

GOAL 4.8.1	**A city with appropriate noise and vibration levels that support a range of places from quiet neighborhoods to active outdoor events.**
Policy 4.8.1.1	Noise Levels. Require new development to meet the noise compatibility standards identified in Table 4-1.
Policy 4.8.1.2	Noise Barriers, Buffers and Sound Walls. Require the use of integrated design-related noise reduction measures for both interior and exterior areas prior to the use of noise barriers, buffers, or walls to reduce noise levels generated by or affected by new development.
Policy 4.8.1.3	Non-Architectural Noise Attenuation. Non-architectural noise attenuation measures such as sound walls, setbacks, barriers, and berms shall be integrated into the design of the project and must be complementary in appearance to the surrounding neighborhood.
Policy 4.8.1.4	New Development Near Major Noise Sources. Require development proposing to add people in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, aircraft, industrial or other non-transportation noise sources) to conduct a project level noise analysis and implement recommended noise reduction measures.
Policy 4.8.1.5	Maintain the Rail Crossing Quiet Zone Allow the establishment of a full or partial at-grade rail crossing quiet zone.
Policy 4.8.1.6	Entertainment. Ensure the municipal code includes standards for exterior noise that would allow for special events and outdoor entertainment.
Policy 4.8.1.7	Vibration Impact Assessment. Require new development to reduce vibration to 85 VdB or below at the property line.
Goal 4.8.2	**Exposure to excessive noise is minimized by ensuring compatible land uses relative to noise sources.**
Policy 4.8.2.1	Require that effective noise mitigation measures be incorporated into the design of new noise-generating and new noise-sensitive land uses.
Policy 4.8.2.2	Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas.

Policy 4.8.2.3 **Revise the municipal code to include appropriate interior and exterior noise level standards for existing and future residential areas.**

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7 Safety

Tables

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Figure 4 Fault Lines 16¶
Figure 5 Landslide Risk 19¶

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7.0 Safety Element

7.1 Purpose and Content

The Colfax Safety Element is a is a state-mandated General Plan element that must identify potential natural and human-created hazards that could affect the City of Colfax's (City) residents, businesses, and services. The purpose of the Safety Element is to establish a framework that anticipates these hazards and prepares the community to minimize exposure to these risks.

The Safety Element conveys the City's goals, policies, and implementation measures to minimize the hazardous situations and protect and improve public health in and around Colfax. It identifies the natural and human-caused hazards that affect existing and future development, describes present and expected future conditions, and sets policies and standards for improved public safety. This includes efforts to minimize physical harm to the buildings and infrastructure in and around Colfax to reduce damage to local economic systems, community services, and ecosystems.

Some degree of risk is inevitable because the potential for many disasters cannot be eliminated completely, and the ability to predict when such disasters may occur is limited. However, the Safety Element aims to reduce this risk through the following functions:

- Develop a framework to introduce safety and public health considerations into the land use planning process.
- Establish a policy framework for periodic updates of the hazard mitigation plan.
- Facilitate the identification and mitigation of hazards for new development and strengthen existing codes, project review, and permitting processes.
- Present policies directed at identifying and reducing hazards in existing developed areas.
- Support efforts to improve community health, emphasizing equity and comprehensive health issues.
- Strengthen preparedness planning and post-disaster reconstruction policies for earthquake, flood, dam inundation, wildland fire, and other relevant hazards.
- Identify how natural and climate-related hazards are likely to increase in frequency and intensity in the future, and provide policies to increase community resilience through preparedness and adaptation.

The Safety Element addresses the topic of public health and safety following state requirements, as presented in Section 65302(g) of the California Government Code. State law requires that the Safety Element contain background information and policies to address multiple natural hazards, analyze the vulnerabilities from climate change and contain policies to improve climate change resilience, and assess

1

Commented [MB1]: Human-caused risk (include): PSPS events, power outages related to fire and snow events. Fuel handling risk with generators, perhaps a policy that informs safety associated with these events.

Need policy that addresses this.

Informational brochure that informs safety during PSPS events?

Commented [MB2R1]: Union Pacific tracks - no maintenance regarding downed trees, dead trees, etc. This presents risk.

Coordination with local agencies, public agencies, state agencies to address risk presented by external factors.

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Deleted: and provide guidelines for protecting residents and other community members from injury and death. It

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Deleted: The Safety Element reflects Colfax's regard for the health and safety of its residents, and the well-being of other community assets. The element addresses issues that the community believes would require government intervention to effectively achieve public safety. It is the responsibility of the City of Colfax to protect community members from danger and harm. The Safety Element will help guide new development, as well as community programs and other efforts, with the intent of reducing the potential for harm from natural and human-caused hazards within Colfax and the planning area.¶

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Deleted: The goal of the Safety Element is to reduce the risk of injury, death, property loss, and other hardships to acceptable levels. In accordance with California law, the Safety Element serves the following purposes

Deleted: <#>Protect the community from risks associated with a variety of hazards, including seismic activity, landslides, flooding, and wildfire, as required by the California Government Code Section 65302(g)(1).¶

residential areas with evacuation constraints. The public safety issues in Colfax include emergency preparedness and response, fire hazards, seismic and geologic hazards, hazardous waste and materials, crime, as well as climate-related hazards such as drought, extreme heat, and severe weather. The Safety Element identifies goals and policies for these hazards and other public health and safety issues.

7.2 Relationship to Other Documents

The Safety Element does not exist in a vacuum but is one of several plans that address community public safety and related topics, including other General Plan elements, the Placer County Local Hazard Mitigation Plan (LHMP), and various local regulations. The Safety Element should be consistent with these other elements and plans to minimize conflicts between documents and ensure that the City has a unified strategy to address public safety issues. The Safety Element incorporates information, technical analyses, and policies from these other documents where appropriate to help support this consistency.

7.2.1 Other General Plan Elements

The Safety Element is one of several elements of the Colfax General Plan. Other social, economic, political, and aesthetic factors must be considered and balanced with safety needs. The Safety Element provides policy direction and identifies safety improvements that complement the intent and policies of other General Plan elements. Crucial relationships exist between the Safety Element and the other General Plan elements. How land uses are determined in areas prone to natural hazards, what regulations limit development in these areas, and how hazards are mitigated for existing development are among the issues that tie the elements together. For instance, the Land Use Element diagram and policies must consider the potential for various hazards identified in the Safety Element and must be consistent with the policies to address those hazards. Safety Element policies, especially those concerning evacuation routes and critical facilities, must also be consistent with those of the Circulation Element. Interstate (I-) 80 is Colfax's primary evacuation route, supported by routes designated as major or primary arterials in the city. This Safety Element is consistent with the other elements of the Colfax General Plan.

7.2.2 Placer County Local Hazard Mitigation Plan

In collaboration with the City and other local agencies and special districts, Placer County led preparation of the LHMP. The LHMP assesses hazard vulnerabilities from natural and human-caused hazards, including risk to people and facilities, and identifies mitigation actions to reduce or eliminate hazard risks in Placer County, including in incorporated communities. The LHMP includes a dedicated annex for Colfax, which discusses additional information specific to the community, with a focus on providing additional details on the planning process, risk assessment, and mitigation strategy for the city. The current LHMP was developed in accordance with the Disaster Mitigation Act of 2000 and follow's FEMA's 2011 Local Hazard Mitigation Plan guidance. The current LHMP, as approved by FEMA, is incorporated into this element by reference, as permitted by California Government Code Section 65302.6, and available online at https://www.placer.ca.gov/1381/Local-Hazard-Mitigation-Plan.

The LHMP and Safety Element address similar issues, but the Safety Element provides a higher-level framework and policies that pertain to the safety of the city, while the LHMP focuses on more specific mitigation, often short-term, and actions to enable jurisdictions to better protect lives, property, and natural systems. Hazard mitigation plans form the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage.

3

7.3 Climate Change Vulnerability

Changes to the global climate system are expected to affect future occurrences of natural hazards in and around Colfax. Many hazards are projected to become more frequent and intense in coming years and decades, and in some cases, these trends have already begun. Key climate change considerations that affect Colfax include increasing temperatures, changes in precipitation, wildfire, and drought. Overall, precipitation levels are expected to increase slightly; however, there are likely to be more years of extreme precipitation events and droughts that last longer and are more severe. According to California's Fourth Climate Change Assessment, Colfax can expect to experience various changes to climate-related hazard events.[1]

What Is Vulnerability?

Vulnerability is the degree to which natural, built, and human systems are susceptible to harm from exposure to stresses associated with environmental and social change and from the absence of a capacity to adapt.

Source: California Governor's Office of Emergency Services. 2020. California Adaptation Planning Guide. https://resilientca.org/apg/

Both droughts and floods are expected to become more frequent because rain is expected to fall in fewer, more intense storms due to climate change. Dry ground as a result of drought can also increase runoff, leading to floods. Drought conditions may also affect Colfax's sources of water in the long term. More rapid melting of the Sierra snowpack is likely to increase the risk of spring flooding, while droughts may become more likely in the late summer and autumn.

- Severe weather events, such as lightning, hail, heavy rainfall, and high winds, may become more frequent and intense due to climate change. Climate change is expected to cause an increase in severe weather, such as intense rainfall and high winds. This may also contribute to an increased risk of landslides in the hills around Colfax. Increases in severe wind may coincide more frequently with wildfire conditions. This can cause fires to grow and spread more rapidly and cause more frequent public safety power shutoff (PSPS) events to prevent wildfires from sparking.
- Warmer temperatures are projected to cause an increase in extreme heat events, rising from a historical annual average of 4 to an average of 53 days per year by the end of the century. In addition to the increases in extreme heat events, Colfax is expected to see an increase in the average warmer nights.
- Hotter, drier weather because of climate change is expected to lead to an increase in wildfires in the surrounding area and across Placer County. While locations higher in the Sierra face the greatest risk, the areas immediately around Colfax are still projected to see an increase in wildfire activity. According to the *Placer County Sustainability Plan*, wildfire activity across Placer County is expected

[1] Louise Bedsworth, Dan Cayan, Guido Franco, Leah Fisher, and Sonya Ziaja, "Statewide Summary Report," in *California's Fourth Climate Change Assessment*, publication number: SUMCCCA4-2018-013, California Governor's Office of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, California Public Utilities Commission, 2018.

to increase approximately 127 percent above historic levels by the end of the century. Across the region, more frequent and intense wildfires may also create poor air quality for Colfax.

» Pests and organisms that cause or spread disease may be active for a longer period due to warmer temperatures. Changes in temperature and precipitation patterns could cause new pests and diseases to be active in and around Colfax. Such pests and diseases may not only affect human health but could harm local ecosystems and agricultural activities.

7.3.1 Vulnerability Assessment Results

Under California law, the Safety Element is required to include a vulnerability assessment that looks at how people, buildings, infrastructure, and other key community assets may be affected by climate change. The City conducted a Climate Change Vulnerability Assessment in the spring of 2022 to analyze Colfax's susceptibility to climate-related hazards. Colfax's vulnerability assessment, prepared in accordance with the most recent available guidance in the California Adaptation Planning Guide, assesses how eight different climate-related hazards (agricultural pests and diseases, drought, extreme heat, flooding, human health hazards, landslides, severe storms, and wildfire and smoke) may affect 46 different population groups and community assets. Each population or asset received a score of V1 (minimal vulnerability) to V5 (severe vulnerability) for each climate-related hazard. The Climate Change Vulnerability Assessment indicates that Colfax's populations and assets are most vulnerable to wildfire, severe weather, and extreme heat.

Overall, populations in Colfax tend to be most vulnerable to severe weather, extreme heat, wildfire and smoke, and human health hazards, which directly affect health outcomes. The most vulnerable communities include households in poverty, outdoor workers, and senior citizens living alone, all of which are highly or severely vulnerable to most climate change hazards. Additional highly vulnerable populations include immigrant communities, persons experiencing homelessness, and persons with chronic illnesses and/or disabilities.

Climate change could affect the transportation network, including passenger and goods movement. Transportation infrastructure such as roadways, bridges, and railways are all potentially at increased risk due to landslides, wildfire, and severe weather events. When parts of the transportation infrastructure network fail, typical travel routes for both passenger travel and goods movement may be disrupted, including I-80.

Localized disruption of these local transportation roadways due to hazards such as landslides, wildfires, or severe weather could significantly impact the transportation of goods, services in the city, the economic vitality of the community, the ability to evacuate during an emergency, and the livelihood of many businesses, particularly if the impacted areas include key nodes of Colfax's transportation network.

Citywide, energy delivery is vulnerable to multiple hazards, including severe weather, such as high winds that can trigger PSPS events, extreme heat that reduces the capacity and strains the system, and wildfires that damage the system, ultimately disrupting energy service. Electrical transmission infrastructure is also subject to harm from landslides, which can undermine the foundations of transmission towers. Loss of energy service can create loss of cooling (particularly dangerous during extreme heat events), disrupt medically necessary electric devices, and reduce access to the internet or other information systems. Many businesses are forced to close

during power outages, causing economic hardships and depriving community members of important services such as grocery stores, gas stations, and banks/ATMs. Power outages can also be harmful to people who depend on electrically powered medical devices.

The Safety Element includes goals, policies, and implementation measures to increase community resilience and help lower vulnerability scores, particularly for the populations and assets that received a score of V4 or V5 in the Vulnerability Assessment. A full list of the Vulnerability Assessment results can be found in Appendix A.

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7.4 Public Safety Issues

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This section outlines the existing hazardous conditions and likely future hazardous conditions and other public safety issues in Colfax and policy responses to these issues. The public safety issues in Colfax include:

- Emergency preparedness and response
- Fire hazards
- Seismic and geologic hazards
- Hazardous waste and materials
- Crime
- Additional climate-related hazards (drought, extreme heat, and severe weather)

This section provides details pertaining to probable locations where each hazard or issue is likely to occur (per availability of data), past notable events in and around Colfax, agencies responsible for providing protection, and other background information as required by California Government Code Section 65302(g)(4).

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The results of the Vulnerability Assessment are integrated into the hazards and other public safety issues previously mentioned.

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7.4.1 Emergency Preparation and Response

Local Emergency Response

The Placer County Sheriff's Office and the California Department of Forestry and Fire Protection (CAL FIRE) conduct emergency preparedness activities in Colfax.

Placer County Sheriff's Office

Police protection in the City of Colfax is provided by Placer County Sheriff's Office. The Placer County Sheriff's Office has a substation located at 10 Culver Street. In an agreement that began in 1996, the City contracted with the County to supply all law enforcement services including patrol, detectives, juvenile services, traffic enforcement, and traffic accident investigation. The County provides service on a 24 hour per day basis. The Sheriff's Office plays a significant role in the safety and quality of life within the community. Some of the Police Department's crime prevention programs include Business

Watch, Crime Stoppers, Identify Theft, Chaplaincy, Megan's Law, National Night Out, and Neighborhood Watch.

CAL FIRE

Fire protection in the City of Colfax is provided by CAL FIRE. The City contracts with CAL FIRE to provide fire safety services. The 24 hour per day service includes a paid part-time Fire Chief, fire marshal services, dispatch, and staffing. CAL FIRE maintains an active volunteer program with 17 members. The City maintains two volunteer staffed fire stations. The City of Colfax participates in the Western Placer County Fire Chief's Association Cooperative Response Agreement, where fire agencies have agreed to automatically support each other on incidents using the closest available resource concept.

Community Warning Systems

The City of Colfax participates in the Placer County Alert Network, which operates an emergency notification system that allows public safety agencies to help protect lives and property by providing critical information to residents during emergencies and dangerous situations. The Placer County Alert Network is managed by the Placer County Sheriff's Office and allows public safety agencies to quickly send an emergency alert to citizens in any affected geographic area within Placer, Sacramento, and Yolo Counties. This system enables the Placer County Sheriff's Office to provide residents with critical information quickly in a variety of situations, such as severe weather, unexpected road closures, missing persons, and evacuations of buildings or neighborhoods. Placer Alert provides community members with emergency notifications through telephone call, text message, and email notifications.

Mutual Aid Agreements

Additional emergency management and response services in Colfax are assisted through the California Master Mutual Aid Agreement. This agreement is signed by the Governor of California and managed by the California Office of Emergency Services (Cal OES) with a purpose "to provide for systematic mobilization, organization, and operation of necessary fire and rescue resources of the state and its political subdivisions in mitigating the effects of disasters, whether natural or man-caused."

Other systems include the Emergency Alert Systems (EAS) and the Emergency Digital Information System (EDIS). The EAS is a national public warning system commonly used by state and local authorities to deliver important emergency information, such as weather and AMBER alerts, to affected communities. EAS participants include radio and television broadcasters, cable systems, satellite radio and television providers, and wireline video providers. FEMA, the Federal Communications System, and the National Oceanic and Atmospheric Administration's National Weather Service work collaboratively to maintain the EAS and Wireless Emergency Alerts, which are the two main components of the national public warning system and enable authorities at all levels of government to send urgent emergency information to the public. The EDIS is a wireless emergency and disaster

information service operated by the California Governor's Office of Emergency Services and is an enhancement to the EAS. These systems are available in multiple languages.

Public Safety Power Shutoffs

Electricity utilities throughout California, including PG&E, have begun to occasionally "de-energize," or turn off the electricity for power lines that run through areas where there is an elevated fire risk. This is intended to reduce the risk of power lines sparking or being damaged and starting a wildfire. As previously described, these activities, called PSPS events, result in a loss of power for customers served by the affected power lines. A PSPS event may occur at any time of the year, usually during high wind events and dry conditions. PSPS events may be limited to specific communities or they may affect broad swaths of the state. In October 2020, PG&E conducted one large-scale PSPS event, shutting off power to approximately 345,470 customers, including customers in Colfax. In September 2020, PG&E conducted two large-scale PSPS event, shutting off power to approximately 236,244 customers, including customers in Colfax. While smaller, these events still affected thousands of PG&E customers across Placer County, including Colfax.

PSPS events can impact emergency management activities. A loss of power can make it more difficult for homes or businesses to receive emergency notifications if needed. PSPS events can also create vulnerabilities for community members that lack backup power supplies and depend on electricity for heating or cooling homes and buildings, lighting, and internet. PSPS events may also be harmful to people who depend on electrically powered medical devices. Additionally, community members may be faced with economic hardships and be deprived of important services, such as grocery stores, gas stations, and banks/ATMs. Traffic lights and other traffic-control systems may not work, which can complicate any evacuation needs and may hinder emergency response. Although critical public health and safety facilities often have backup generators, the loss of power may also disable other key infrastructure systems.

Emergency Evacuation

With advanced warning, evacuation can be effective in reducing injury and loss of life during a catastrophic event. Figure 1 shows residential parcels with evacuation constraints. All parcels identified as having evacuation constraints are at last a half mile from a major roadway and may have access to only one emergency evacuation route. The lack of multiple emergency access points limits roadway access for these properties, which may create difficulties if there is a need to evacuate. Figure 2 shows the evacuation routes throughout the city. Primary emergency access and evacuation routes include I-80, which intersects the city from north to south, as well as other local roadways that connect to this primary evacuation route. In the event of widespread disruption to local evacuation routes, remaining evacuation routes may become congested, slowing down evacuation of the community or specific neighborhoods. This issue could be compounded because evacuation routes for Colfax will also likely serve as evacuation routes for surrounding communities, and so potential disruptions may have regional effects.

Disaster Preparedness

In recent years, Placer County has expanded its emergency preparedness planning. The County is required under state law to prepare and maintain a Standardized Emergency Management System (SEMS) Multi-hazard Functional Plan. The California Governor's Office of Emergency Services has extensive guidelines outlining the requirements of the Placer County SEMS.

FIGURE 2
EVACUATION ROUTES

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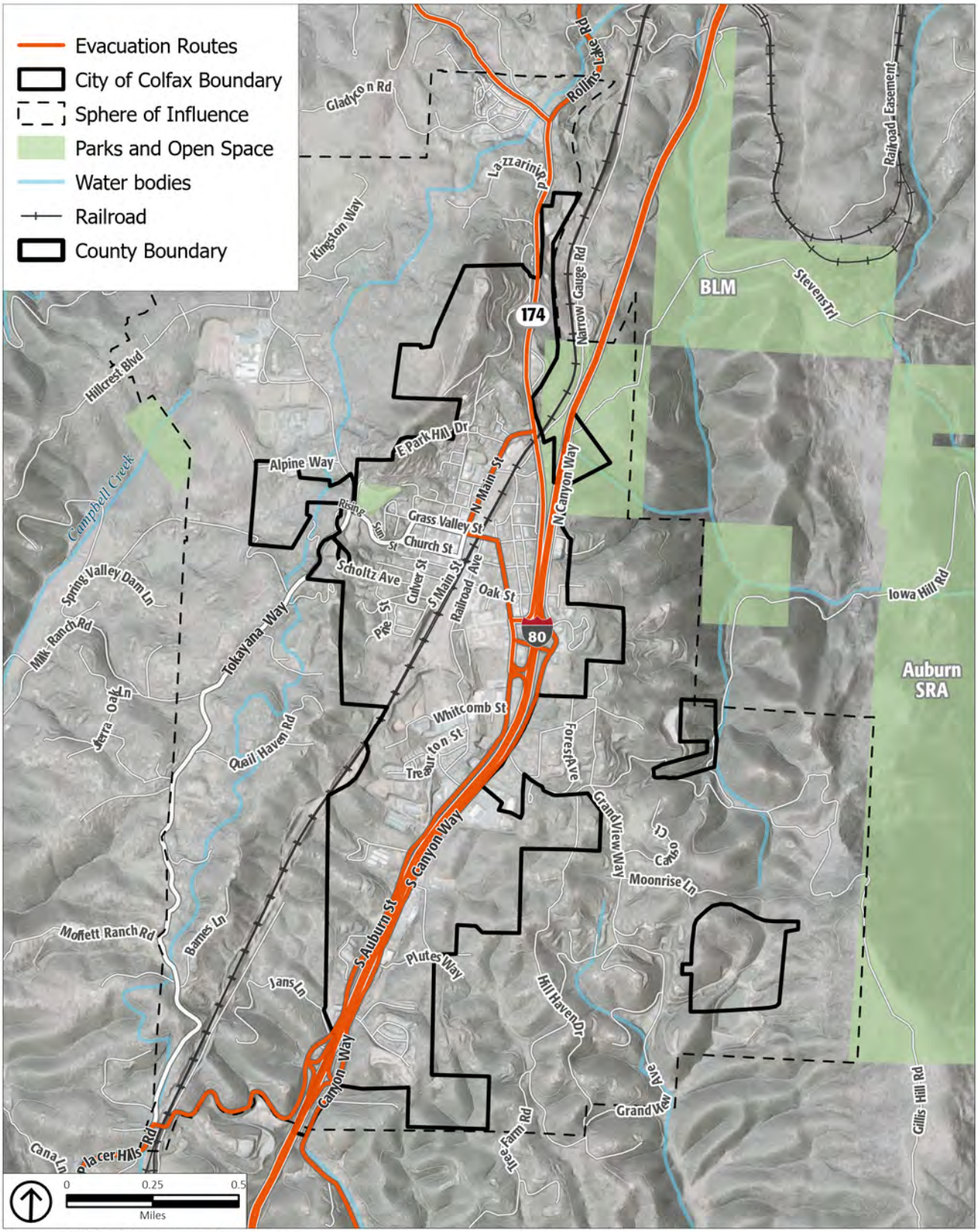

Source: ESRI, 2020; PlaceWorks, 2022

Figure 5
Evacuation Routes

7.4.2 Fire Hazards

Fire hazards can come in the form of both wildfires and urban fires. California is recognized as one of the most fire-prone and consequently fire-adapted landscapes in the world. The combination of complex terrain, Mediterranean climate, and productive natural plant communities, along with ample natural ignition sources, has created conditions for extensive wildfires. Wildfire is an ongoing concern for communities in Placer County. Generally, the fire season extends from early spring through late fall of each year during the hotter, dryer months. Fire conditions arise from a combination of high temperatures, low moisture content in the air and fuel, an accumulation of vegetation, and high winds.

Three types of fires are of concern to the City of Colfax: (1) wildfires, (2) wildland-urban interface (WUI) fires, and (3) to a lesser extent, structural fires.

Wildfires

Wildfires occur on mountains, hillsides, and grasslands. Vegetation, wind, temperature, humidity, and slope are all factors that affect how these fires spread. In Colfax, native vegetation, such as chaparral, oak woodlands, and grasslands provide fuel that allows fire to spread easily across large tracts of land. These plant species are capable of regeneration after a fire, making periodic wildfires a natural part of the ecology of these areas. The climate of the Colfax region keeps the grass dry and more readily combustible during fire season. Steep slopes bring grass and brush within reach of upward flames while impeding the access of fire-fighting equipment. Seasonal drought conditions exacerbate fire hazards.

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Because areas of the city with natural vegetation are extremely flammable during late summer and fall, wildfire is a serious hazard in undeveloped areas. Grassland fires are easily ignited, particularly in dry seasons. These fires are relatively easily controlled if they can be reached by fire equipment, although after a fire, the burned slopes are highly subject to erosion and gullying. While brush-lands are naturally adapted to frequent small fires, fire protection in recent decades has resulted in heavy fuel accumulation on the ground. Brush fires, particularly near the end of the dry season, tend to burn fast and very hot, threatening homes and leading to serious destruction of vegetative cover. A brush fire that spreads to a woodland can generate a destructive crown fire, which burns materials at the top of trees and jumps from treetop to treetop. Crown fires can be very intense and difficult to contain.

Many species of oaks are tolerant to fire and are known to be part of California's fire-dependent ecosystem. In general, oak woodlands are well adapted to periodic fire in the landscape. However, fire suppression in the 20th century led to the buildup of a dense understory of conifers, hardwoods, and shrubs in woodlands throughout the region. The buildup of dense understories and the higher density of small trees, especially conifers, enhance the risk of high-severity fires under hot, dry, and windy conditions. The combustibility of the fuel depends on its moisture content, physical structure, and chemical content. The drier the fuel, the more flammable it will be. Regardless, all vegetation in the region reaches some degree of combustibility during the dry summer months and, under certain conditions, during the winter months.

In addition, tree mortality due to drought and sudden oak death have increased densities of dead fuels and likely contributed to higher fire risk. Under moderate drought conditions, oak woodlands generally present low fire risk, and treatments that remove understory fuels further reduce risk of high-severity fire. High-intensity fires increase the likelihood of a fire growing and spreading quickly. Furthermore, production of burning embers carried through the wind can lead to spot fires beyond the immediate perimeter, and these are often the primary cause of ignition for structures. In Colfax, an oak woodland wildfire has the potential to spread rapidly and may be very difficult to contain due to the community's topography, fuel load, and climatic conditions during the summer and fall.

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Wildfire Smoke

Increasing local and regional fire frequency can create recurring air quality degradation events, leading to respiratory health effects. Wildfire smoke consists of a mix of gases and fine particulate matter from burning vegetation and materials. The pollutant of most concern from wildfire smoke is fine particulate matter ($PM_{2.5}$). $PM_{2.5}$ from wildfire smoke is damaging to human health due to its ability to deeply penetrate lung tissue and affect the heart and circulatory system. Although wildfire smoke presents a health risk to everyone, sensitive groups may experience more severe acute and chronic symptoms from exposure to wildfire smoke, such as children, older adults, people with chronic respiratory or cardiovascular disease, or people with low socioeconomic status.

Wildland-Urban Interface Fires

The wildland-urban interface is an area where buildings and infrastructure (e.g., cell towers, schools, water supply facilities) are in or adjacent to areas prone to wildfire. Wildfires and urban interface fires have occurred close to or encroached into the city, especially in the heavily fueled areas. The WUI is composed of both interface and intermix communities. The distinction between these is based on the characteristics and distribution of houses and wildland vegetation across the landscape. Intermix WUI refers to areas where housing and wildland vegetation intermingle, and interface WUI refers to areas where housing is in the vicinity of a large area of dense wildland vegetation. The influence WUI zone refers to an area consisting of wildfire-susceptible vegetation up to 1.5 miles from the WUI. According to a publication in the *International Journal of Wildfire*, 50 percent of all buildings destroyed by wildfires in California are in the interface WUI, compared to 32 percent in the intermix WUI. And wildfires destroyed an average of 15.6 percent of all buildings in the interface WUI compared to 11 to 14 percent of all buildings in other zones. The results demonstrated that the interface WUI is where most buildings were destroyed in California, despite less wildland fuel.[1] Humans are the leading cause of wildland fires, and with thousands of people living near and visiting wildland areas, the frequency of human-caused fires is growing.

In the wildland-urban interface, efforts to prevent ignitions and limit wildfire losses hinge on hardening structures and creating defensible space through a multi-faceted approach, which includes engineering, enforcement, education, emergency response, and economic incentive. Different strategies in the defense and threat zones of the WUI help to limit the spread of fire and reduce the risk to people and property.

Wildfire is a constant threat to the City of Colfax. Wildfire and wildland-urban interface fires occur relatively frequently. The entire city and surrounding areas are at a very high threat of wildfire.

Structural Fires

Colfax is also at risk from structural fires. These fires occur in built-up environments, destroying buildings and other human-made structures. These disasters are often due to faulty wiring or mechanical equipment, combustible construction materials. The absence of fire alarms and sprinkler systems often exacerbate the damages associated with a structural fire. Structural fires are largely from human accidents, although deliberate fires (arson) may be a cause of some events. Older buildings that lack modern fire safety features may face greater risk of damage from fires. To minimize fire damage and loss, the City's Fire Code, based on the State Fire Code, sets standards for building and construction. They require the provision of adequate water supply for firefighting, fire retardant construction, and minimum street widths, among other things.

Fire Hazard Severity Zones

CAL FIRE establishes Fire Hazard Severity Zones (FHSZ), designating each as moderate, high, or very high severity. Incorporated areas, such as Colfax, are considered local responsibility areas (LRA). CAL FIRE only designates very high fire hazard severity zones within LRAs. In unincorporated areas where state agencies provide fire protection services (known as State Responsibility Areas or SRAs), the state has identified moderate, high, and very high FHSZs.

State Responsibility Areas

SRAs are areas where CAL FIRE has responsibility for wildfire protection. SRAs are generally unincorporated areas that are not federally owned, are undeveloped, and are covered by wildland vegetation or rangeland. Most of the land around Colfax city limits is an SRA.

Local Responsibility Areas

LRAs are areas protected by local agencies, including city and county fire departments, local fire protection districts, and CAL FIRE when under contract to local governments. Most land in the City of Colfax is an LRA.

Areas of wildland/urban interface, where high-value structures such as homes meet highly flammable native vegetation, are more vulnerable and, as a result of serious wildland fires throughout the state in recent years, are more stringently subject to fire-prevention regulations on development.

Residential development in the WUI, the introduction and proliferation of exotic species, accumulated fuel because of the exclusion of naturally occurring fire, and climate-change-driven compression of the historical rainy season exacerbate the fire problem. Taken together, these factors result in more people, property, critical infrastructure, and natural resources in harm's way on a more frequent basis. Though large-scale wildfires do not occur every year, wildfire incidents driven by extreme weather conditions have repeatedly been difficult to contain.

Deleted: Figure 1 shows the wildfire risk zones in and around Colfax, and Figure 2 shows the parcels in the very high severity zones.

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A combination of factors, including weather, topography, and vegetation, put Colfax, including both the high FHSZ and the WUI, at a high risk. Figure 3 shows the wildfire hazard severity zones in and around Colfax, Figure 4 shows the parcels in the very high severity zones, and Figure 5 identifies the WUI.

Federal Responsibility Areas

FRAs are areas that are managed by a federal agency, including the U.S. Forest Service, the U.S. F and Wildlife Service, and the Bureau of Land Management. The federally-owned open space alo the American River is an FRA.

Moved up [1]: <#>SRAs are areas where CAL FIRE has responsibility for wildfire protection. SRAs are generally unincorporated areas that are not federally owned, are undeveloped, and are covered by wildland vegetation or rangeland. Most of the land around Colfax city limits is an SRA.¶

FIGURE 3
FIRE HAZARD SEVERITY ZONES

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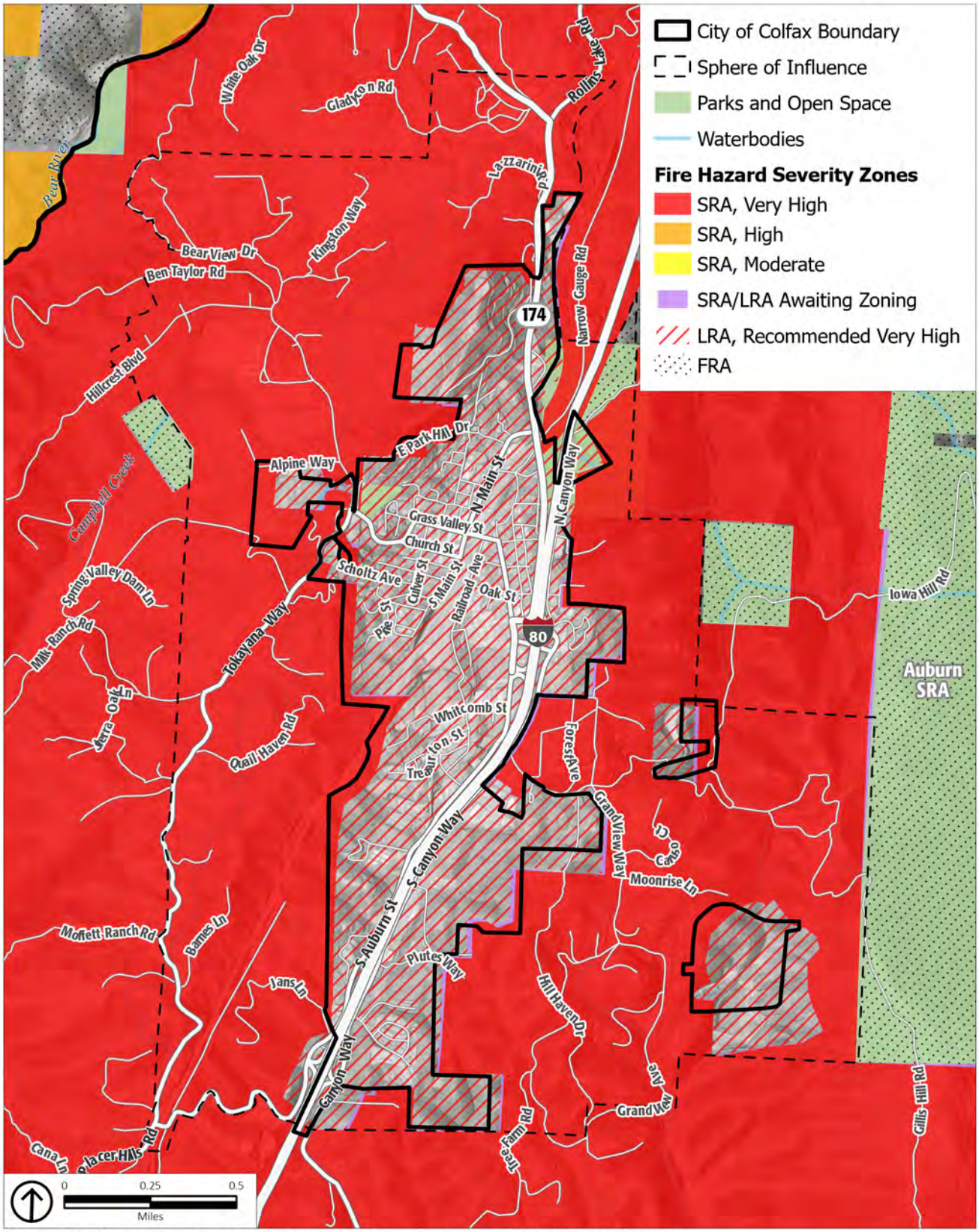

Source: California Department of Forestry and Fire Protection (CALFIRE); ESRI, 2020.

Figure 1
CALFIRE Fire Hazard Severity Zones and Responsibility Areas

FIGURE 4
PARCELS IN VERY HIGH FIRE HAZARD SEVERITY ZONES

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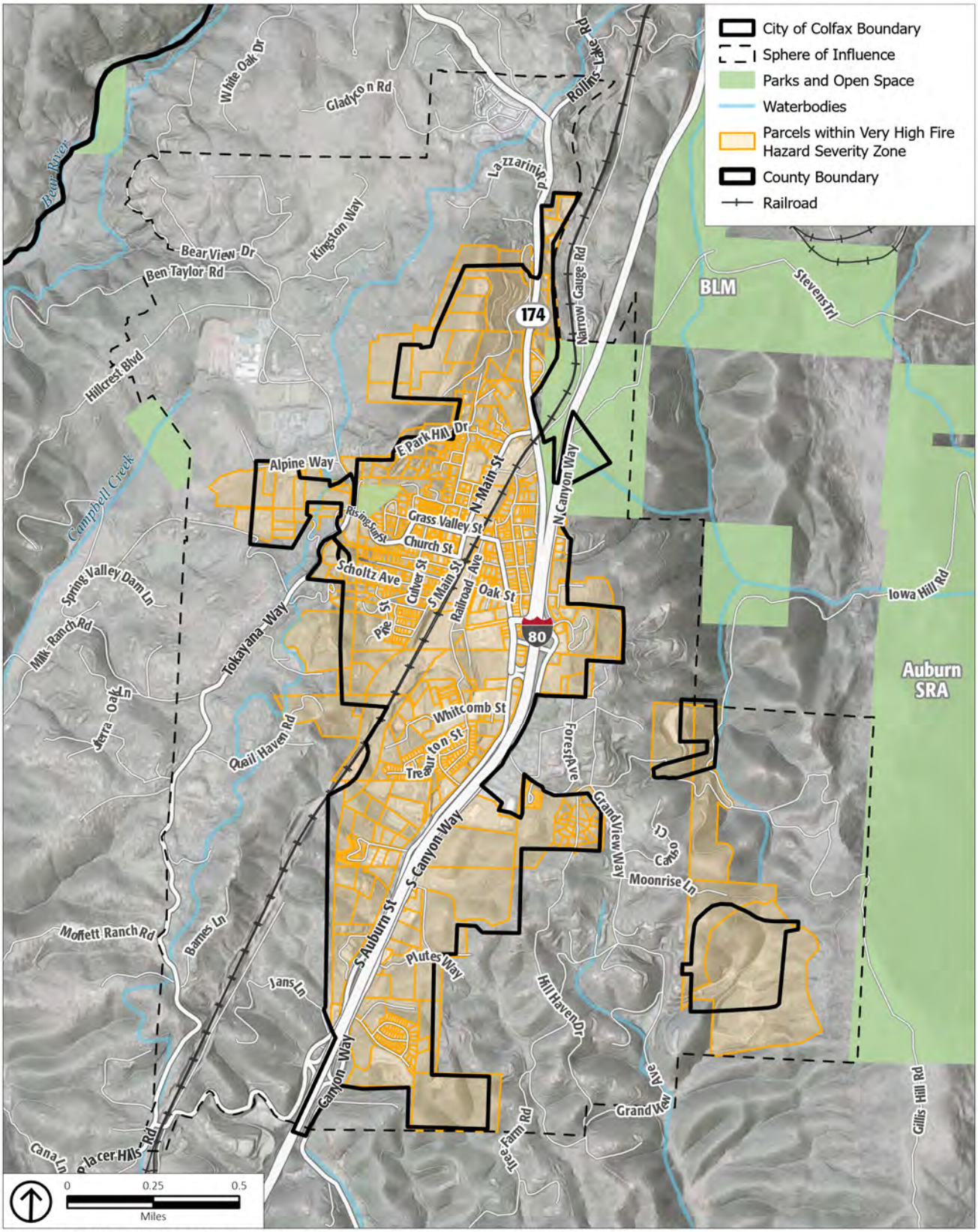

Source: California Department of Forestry and Fire Protection (CALFIRE); ESRI, 2020.

Figure 2
Parcels in Very High Fire Severity Zone

FIGURE 5
WILDLAND-URBAN INTERFACE ZONES

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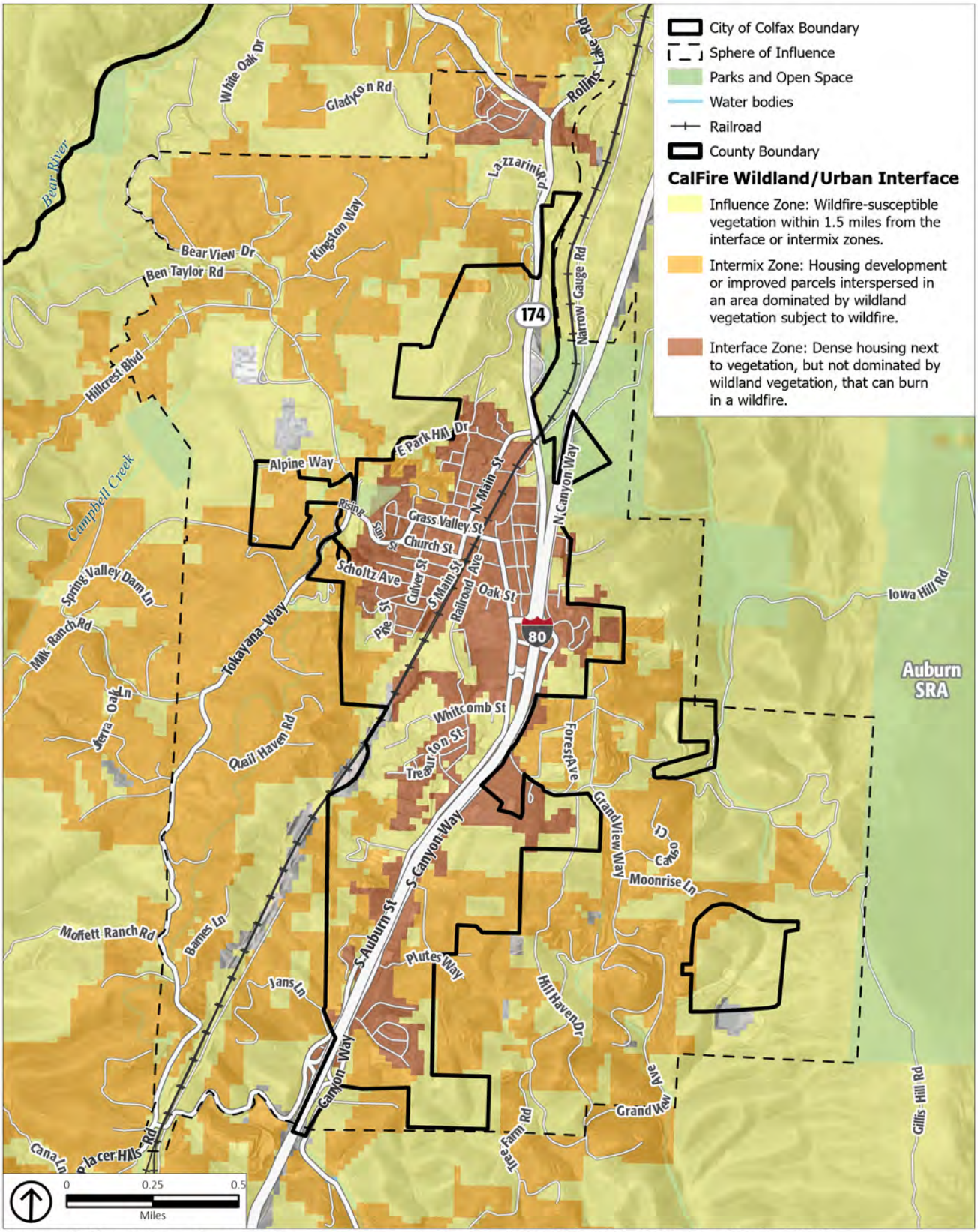

Source: California Department of Forestry and Fire Protection (CALFIRE); ESRI, 2020; PlaceWorks, 2022

Figure 2
Wildland-Urban Interface

Analysis results for the City of Colfax are summarized in Table 1, including total parcel coun
improved parcel counts, and their improved and land values by property use.

TABLE 1
COUNT AND VALUE OF PARCELS BY FIRE SEVERITY ZONE

Total Parcel Count	Improved parcel Count	Total Land Value	Improved Structure Value	Estimated Contents Value	Total Value
Very High Fire Severity					
988	711	$64,997,967	$ 152,168,583	$104,699,837	$321,866,387
High Fire Severity					
0	0	$0	$0		$0
Moderate Fire Severity					
0	0	$0	$0		$0
Urbanized Un-zoned Fire Severity					
0	0	$0	$0		$0
Non-Wildland/Non-Urban Fire Severity					
0	0	$0	$0		$0
None Assigned					
0	0	$0	$0		$0
Total					
988	711	$64,997,967	$ 152,168,583	$104,699,837	$321,866,387

Source: Placer County 2021 Local Hazard Mitigation Plan (LHMP)

Past Occurrences

There is no record of historical fires within the Colfax city limits. However, seven historical fires ha
occurred near the city. In 1975 and 1977, the Sawmill Fire and another fire occurred three miles no
of Colfax. In 2001, the Narrow Gauge Fire burned 30 acres. Notably, in 2004, the Stevens F
threatened the city and burned 934 acres. In recent years, the River Fire, Bear Fire, Oak Fire, a
Mosquito Fire occurred near the City of Colfax. Figure 6 shows the areas burned by historic wildfi
in and around Colfax.

1975/1977 Sawmill Fire – The Sawmill Fire and another fire occurred in the area of Cape Horn and t
Alpine Meadows subdivision, just three miles northeast of Colfax.

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1990 Placer County Fire – This fire burned approximately 300 acres of grass, brush, and oaks in the area of Placer Canyon. The fire resulted in evacuations and destroyed several outbuildings.

2000 Heather Glen Fire – The Heather Glen Fire, caused by sparks from a lost trailer wheel along Interstate (I-) 80, destroyed one home and forced a neighborhood evacuation in Applegate. While only 10 acres in size, this fire resulted in $350,000 in damage.

2000 American Fire – The American Fire occurred below the City of Auburn in what is now known as "China Bar" on the American River. The fire consumed approximately 200 acres and posed a threat to development in the southern portion of Auburn. No structures losses or structure damaged was reported in this incident.

August 12-20, 2001, Narrow Gauge Fire – This fire near Colfax burned 30 acres and forced closure of I-80 for about an hour due to dense smoke. This fire, blamed on a catalytic converter, was quickly contained as CAL FIRE air tankers were already in the area and able to respond quickly.

2002 Sierra Fire – Within the communities of Loomis and Granite Bay, approximately 595 acres of grass, brush, and oaks burned in the area of I-80, Barton Road, Wells Avenue, Morgan Place, Indian Springs, and Cavitt-Stallman Road. The fire destroyed six structures and threatened two schools.

2004 Stevens Fire – The Stevens Fire, located at Cape Horn/Iowa Hill near Colfax, was 100 percent contained at 934 acres.

September 2006 Ralston Fire – The Ralston Fire was a large wildfire in the area of the North Fork of the Middle Fork of the American River. Approximately 8,400 acres burned.

June-July 2008 American River Complex Fire – Several large wildfires resulted from a system of major lightning storms that impacted the entire Northern California region. In Placer County, approximately 10 wildfires resulted from the lightning storm, and four grew to major fires, which later were collectively labeled the American River Complex (ARC) fires. The ARC fires were in Tahoe National Forest in the North Fork American River watershed northeast of Foresthill, California. The fires consumed approximately 20,500 acres of forest land.

September 2008 Gladding Fire – The wind-driven fire started northeast of Lincoln and consumed approximately 960 acres, 6 residences, and 10 outbuildings.

September 2009 49 Fire – The wind-driven fire started about 2 pm near Highway 49 and Rock Creek Road near Auburn. The fire burned 343 acres before being contained. Sixty-three residences and three commercial buildings were destroyed, and another three residences and six commercial properties were severely damaged. The damages were concentrated in neighborhoods east and south of Dry Creek Road. Three people were injured in the wildfire. Most notable about this fire was its location in a well-developed area and the speed at which the fire consumed nearby structures.

2012 Robbers Fire – The Robbers Fire was a human-caused fire that was ignited on July 11, 2012. The fire was located northwest of Foresthill, near Shirttail Canyon Road and Yankee Jims Road. The fire

SEPTEMBER 2022

burned 2,650 acres, destroyed one residence and four outbuildings, and caused 12 injuries. 912 fire personnel were involved in the firefighting efforts. A 28-year-old Sacramento man was charged with unlawfully causing a fire. Firefighting costs and damages were estimated at $12.4 million.

2013 American Fire – On August 10, 2013, the American Fire was ignited near Deadwood Ridge, northeast of Foresthill. Located in Tahoe National Forest, the American Fire burned in steep and hazardous terrain as well as timber fuels that had not burned in several decades. Consumption of heavy fuels contributed to heavy smoke in the surrounding areas. Approximately 540 Forest Service and CAL FIRE personnel were assigned to the fire, which burned 27,440 acres.

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2014 King Fire – Hazard Mitigation Planning Committee representatives from Placer Hills and Foresthill Fire Protection Districts noted damaging wildfires that occurred in the Foresthill and Applegate areas during the winter of 2014. Specific information on this can be found in their respective annexes to this plan. The fire started in El Dorado County and crossed into Placer County. An estimated 97,717 acres burned, 12 residences were destroyed, along with 68 other minor structures. Twelve injuries occurred that can be attributed to the fire.

2014 Applegate Fire – A fire occurred on the east side of I-80 in the Applegate area of Placer County. The fire started on October 8, 2014, and its cause was unknown. The fire burned 459 acres before containment. Six residences and four outbuildings were destroyed. Two injuries were reported; however, no deaths were reported.

2021 River Fire – The River Fire burned 2,619 acres in the Colfax area in Nevada County. The fire was first reported on August 4, 2021, and was fully contained on August 13, 2021. The River Fire destroyed 142 structures, damaged 21 structures, and resulted in four injuries to firefighters and civilians. It was the fifth most destructive fire of 2021 in California. The cause of the fire is unknown, however CAL FIRE officials stated after an investigation that it had been determined to be of human cause, originating in the overnight camping area of Bear River Campground west of Colfax.

2022 Bear Fire – On July 28, 2022, the Bear Fire ignited in the Bear River drainage area near the Bear River Bridge and Highway 174. The fire burned 9.7 acres which briefly caused evacuation warnings in the area of Gladycon Road and Highway 174 outside of Colfax. The fire was contained within one day and no death or injuries were reported.

2022 Oak Fire – On August 15, 2022, the Oak Fire was ignited near Weimar, along Live Oak Road & Smothers Ravine Road. The fire burned 22 acres total. The Oak Fire was contained 16 days later on August 31, 2022. The cause of the fire remains under investigation. No deaths were reported, and no structures were damaged or destroyed.

2022 Mosquito Fire – On September 6, 2022, the Mosquito Fire was ignited near Mosquito Road and Oxbow Reservoir, approximately four miles east of Foresthill. The fire encompassed the Tahoe and Eldorado National Forests in Placer and El Dorado counties, respectively. The fire burned 76,788 acres total. The Mosquito Fire was contained 50 days later on October 27, 2022. The cause of the fire remains under investigation. No deaths were reported as a result of the Mosquito Fire, but at least two firefighter injuries were noted. Additionally, at least 78 structures were destroyed and 13 damaged.

Potential Changes to Fire Risk in Future Years

Likelihood of Future Occurrence

The wildfire season in Placer County historically lasts from May through October. Extreme weather conditions during periods of low humidity, low fuel moisture, and high winds also contribute to the severity of any potential wildfires. Extreme weather conditions during periods of low humidity, low fuel moisture, and high winds also contribute to the severity of any potential wildfires. Fires that start during these times typically burn hot and fast and are difficult to control without immediate initial suppression. According to the California Governor's Office of Emergency Services, the wildfire recurrence rate in Colfax is approximately five years. The threat of wildfire and potential losses are constantly increasing as human development and population increase and the wildland-urban interface areas expand. Due to its high fuel load and long, dry summers, most of Placer County continues to be at risk from wildfire, and smoke impacts from local and regional wildfires are likely to remain problematic. The likelihood of structural fires in the city is low since these fires are usually associated with human accidents or mechanical issues in buildings that rarely happen.

Shifts in Climate Norms and Wildfire

Changing climate conditions are expected to increase the wildfire risk in and around Colfax. Warmer temperatures brought on by shifts in climate conditions can exacerbate drought conditions. Droughts can kill or dry out plants, creating more fuel for wildfires. Warmer temperatures are also expected to increase the number of pest outbreaks, such as the western pine beetle, creating more dead trees and increasing the fuel load. Hot, dry spells may also increase disease and insect infestations, resulting in higher fuel loads. Increased winds may result in more erratic fire behavior, making fires harder to contain. Warmer temperatures are also expected to occur later in the year, extending the wildfire season, which is likely to begin earlier in the year and extend later than it has historically.

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FIGURE 6
COLFAX WILDFIRE HISTORY

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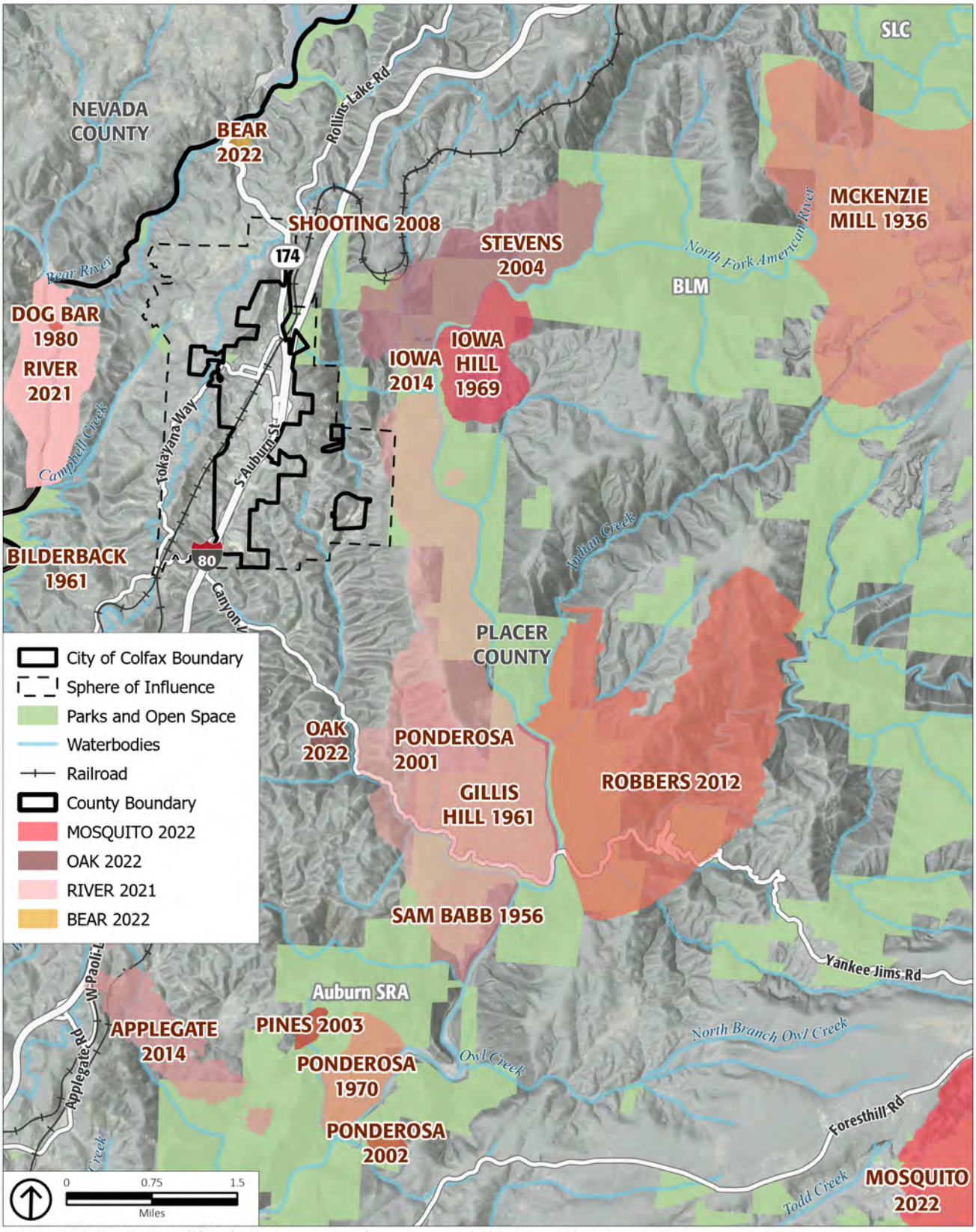

Source: ESRI, 2020; California Department of Forestry and Fire Protection, 2022.

Figure 3
Wildfire History

FIGURE 1
RESIDENTIAL PARCELS WITH EVACUATION CONSTRAINTS

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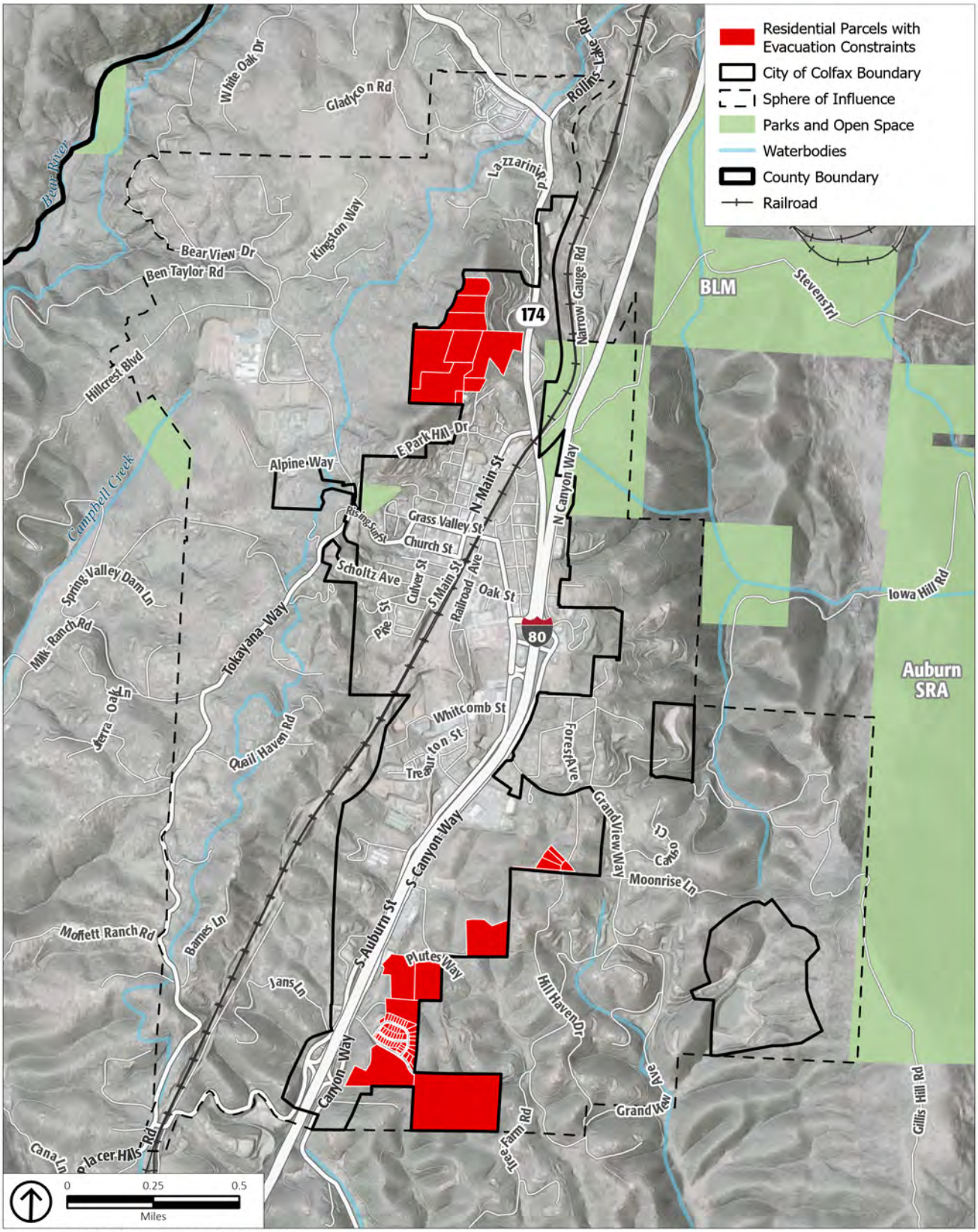

Source: ESRI, 2020; PlaceWorks, 2022

Figure 6
Residential Parcels with Evacuation Constraints

7.4.3 Seismic and Geologic Hazards

Seismic and geologic hazards are risks caused by the movement of different parts of the Earth's crust, or surface. Seismic hazards are the hazards associated with potential earthquakes in a particular area. Geologic hazards are other hazards involving land movements that are not linked to seismic activity and are capable of inflicting harm to people or property.

Seismic Hazards

The City of Colfax is in a seismically active region, and there is a high potential that the area will be subject to at least moderate earthquakes one or more times over the next century. Seismic activity occurs along boundaries in the Earth's crust, called faults. Pressure along the faults builds over time and is ultimately released, resulting in ground shaking that we refer to as an earthquake. Earthquakes can also trigger other hazards, including surface rupture (cracks in the ground surface), liquefaction (causing loose soil to lose its strength), landslides, and subsidence (sinking of the ground surface). Earthquakes and other seismic hazards often damage or destroy property and public infrastructure, including utility lines, and falling objects or structures pose a risk of injury or death.

Earthquakes

Active and potentially active faults pose risk to the City of Colfax. Active faults have experienced displacement in historic time, suggesting that future displacement may be expected, whereas potentially active faults are those that have shown displacement within the last 1.6 million years and may or may not have a reasonable chance of creating future earthquakes.

- Structures most likely to be affected are those that are old or near earthquake faults, such as the Bear Mountain Fault and Melones Fault. These faults are situated approximately three to four miles west and east from Colfax, respectively. These faults would have the greatest potential for damaging buildings in Colfax, especially the unreinforced masonry structures in the older part of the city and structures built before 1960 without adequate anchorage of framing and foundations.
- The closest identified active fault is the Cleveland Hills fault, approximately 20 miles northwesterly of Colfax. This fault is considered one of the most active in the area in terms of destructive potential and was the source of a strong earthquake in 1975 around the City of Oroville.
- Another potential earthquake source is the Midland Fault Zone to the west, where an 1892 earthquake centered between Vacaville and Winters caused minor damage in nearby Lincoln.
- Active faults located between 50 and 100 miles from Colfax include the Mohawk Valley Fault, the Stampede Valley Fault, and the Fort Sage Fault; all located northeast of Colfax. Given the

Deleted: Fire Protection¶
Fire protection in the planning area is provided by the City of Colfax and CAL FIRE. The City of Colfax Volunteer Fire Department participates in the Western Placer County Fire Chief's Association Cooperative Response Agreement, where fire agencies have agreed to automatically support each other on incidents using the closest available resource concept.

Deleted: [CONFIRM WITH CITY] CAL FIRE is contracted by County to oversee volunteer companies and serve in various service areas. CAL FIRE and the Placer County Fire Department manages the City of Colfax Volunteer Fire Department. The department consists of one paid part-time captain and several volunteer fire fighters. The department is not in a fire district and receives its funding from property taxes. The Colfax Volunteer Fire Department provides fire protection, emergency medical services, and disaster preparedness and response. Colfax has one fire station located at 33 West Church Street.

Deleted: <#>Drought¶
A drought is a long period when precipitation levels are well below normal. This makes less water available for people (especially if the local water supply depends on surface water) and natural systems. The City of Colfax may experience water shortages during drought conditions, which could lead to mandatory water use restrictions. Farmers may need to cut back on irrigation activities, and ranchers may need to reduce their number of livestock. Less snow falling in mountainous areas causes water levels in lakes and reservoirs to drop, which can affect recreation activities. Local ecosystems that are not well adapted to drought conditions can be more easily harmed by it. During drought events, the flow of water in creeks and streams is reduced, creating more slow-moving or standing water. This can concentrate sediment and toxins in the low water levels, causing harm to plants and animals. Many fish species also prefer specific stream flow speeds, especially for spawning and egg incubation, and changes to stream ...

Deleted: <#>, less precipitation is expected to fall as snow, leading to a smaller snowpack. More precipitation falling as rain and warmer temperatures over the course of the year are expected to cause the snowpack that does build up to melt faster. This may make water levels particularly low in late summer and early autumn, which are also often the hottest parts of the year.¶
Severe Weather¶
Severe weather includes strong winds, hail, and lightning. Severe weather is usually caused by intense ...

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relationship to these various active faults, there is a high potential that the area will be subject to at least moderate earthquake shaking one or more times over the next century.

Additionally, Colfax may experience minor ground shaking from distant major to great earthquakes on faults to the west and east. For example, to the west, both the San Andreas Fault (source of the 8.0-estimated Richter magnitude San Francisco earthquake that damaged Sacramento in 1906) and the closer Hayward Fault have the potential for experiencing major to great events. To the east in Nevada, the several faults associated with the series of earthquakes in 1954, especially the major (7.1 Richter magnitude) December 16, 1954, Fairview Peak event (about 100 miles east of Carson City) could cause minor ground shaking in Colfax. The San Andreas Fault near San Francisco and the Hayward Fault in the East Bay area are 116 and 110 miles, respectively, from Colfax.

Figure 7 shows the fault lines in and around Colfax.

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FIGURE 7
FAULT LINES

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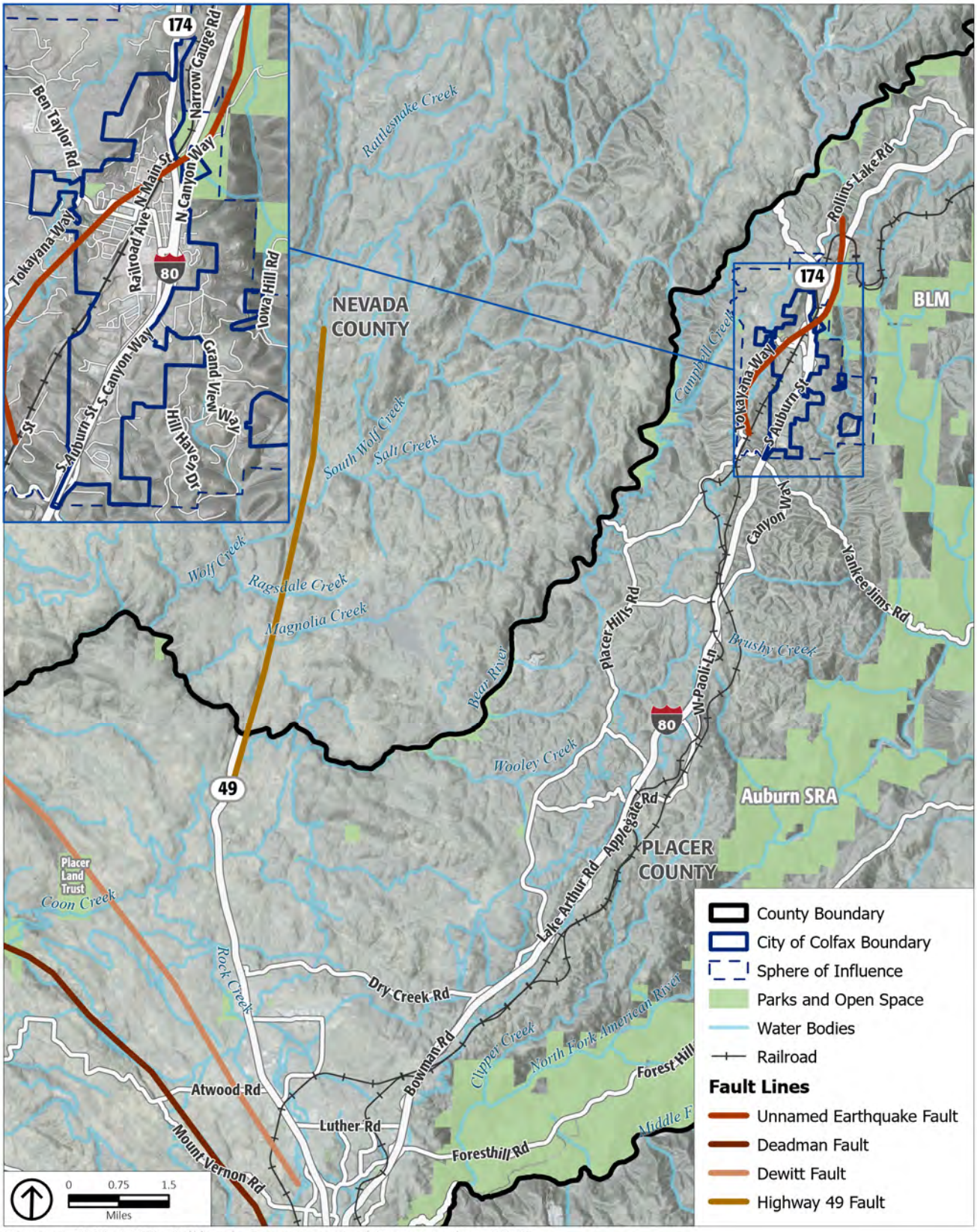

Source: ESRI, 2020; California Department of Conservation, 2019.

Figure 4
Fault Lines

In case of a major earthquake in the region, critical damage may occur to public and private buildings, homes, and structures, including those that provide emergency services (hospitals, fire stations, schools, emergency shelters) and essential services and infrastructure such as roads and utility lines for water, gas, power, telephone, sewer, and storm drainage. Access and continuity of services may be disjointed, and services could be offline for extended periods. Damage to essential and critical structures require special attention in the public safety programs of the city. Damage to the following infrastructure systems could occur, in addition to the damage to public and private buildings:

- Unreinforced masonry buildings: Unreinforced masonry buildings are vulnerable structures that may be subject to damage or collapse because of an earthquake.
- I-80: There are several overpasses on I-80 that could possibly be threatened in the event of a severe earthquake, greater than those previously experienced. Under such a scenario, the County would be virtually cut in half between the eastern and western portions. Similar conditions have resulted from past winter storms requiring limited emergency measures.
- Train derailments: Union Pacific Railroad tracks run adjacent to I-80. Passenger trains r between Sacramento and Reno through the I-80 corridor. A derailment in the high elevations would pose logistics problems involved in freeing passengers, especially tho caught in snowsheds during winter months. A derailment resulting from an earthquake could also cause a hazardous materials release.
- Telephone communications: Telephone communications could be adversely affected due to overloading resulting from post-earthquake calls within the area and from outside, and the electronics needed to support communication systems could be damaged. The situation could be further complicated by physical damage to equipment due to ground shaking, loss of services due to loss of electrical power, and lack of access to maintain auxiliary power and the subsequent failure of some power sources.
- Propane: Properties in Colfax rely on propane for fuel. Earthquakes could cause damage t propane tanks by knocking them off their foundations, posing potential fire hazards.

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Geologic Hazards

Geologic hazards, such as landslides, depend on the geologic composition of the area. Landslid and rock falls may occur in sloped areas, especially areas with steep slopes, and usually in areas loose and fragmented soil. Landslides, rockfalls, and debris flows occur continuously on all slop some processes act very slowly, but others happen very suddenly, often with disastrous results. The are predictable relationships between local geology and landslides, rockfalls, and debris flows. Slo stability is dependent on many factors and interrelationships, including rock type, pore water pressu slope steepness, and natural or human-made undercutting.

Landslides are often triggered by other natural hazards, such as earthquakes, heavy rain, floods, wildfires, so landslide frequency is often related to the frequency of these other hazards. In Placer County, landslides typically occur during and after severe storms, so the potential for landslides largely coincides with the potential for sequential severe storms that saturate steep, vulnerable soils. In Placer

County, landslides and mudslides are a common occurrence and have caused damage to homes, public facilities, roads, parks, and sewer lines in particular.

In Colfax, consolidated rocks make up the mountains and rocky buttes while alluvial soils are found on stream beds and the valley floor. Beneath the alluvial soils are the same hard rocks found in the mountain areas. Geologic hazards are present in the form of unstable soils and certain ground formations that render some areas unsuitable for intensive human activity. Colfax has steep and unstable slopes with areas subject to erosion and landslides. Increased excavation on these slopes can expose more weaknesses of the underlying rock mass, creating a greater potential for failure. Lands around major fault zones are exposed to greater geologic hazards as a result of repeated fault movement, which creates looser ground material that is more likely to move. The area around Colfax also includes highly expansive soils, which can shrink and swell as ground moisture levels change.

Figure 8 shows the landslide risk in and around Colfax. Rock Strength and slope are combined to create classes of landslide susceptibility which range from 0 to X (i.e., very low to very high). These classes express the generalization that on very low slopes, landslide susceptibility is low even in weak materials, and that landslide susceptibility increases with slope and in weaker rocks. Very high landslide susceptibility, classes VIII, IX, and X, includes very steep slopes in hard rocks and moderate to very steep slopes in weak rocks.

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Potential Changes to Geologic and Seismic Risk in Future Years

Likelihood of Future Occurrence

Seismic Risk

Earthquakes are likely to continue to occur on an occasional basis. Most earthquakes are likely to be small. They may cause no substantive damage and may not even be felt by most people. Major earthquakes are rare, but a possibility in the region. If serious shaking does occur, newer construction is in general more earthquake resistant than older construction because of improved building codes. Manufactured housing is very susceptible to damage because their foundation systems are rarely braced for earthquake motions.

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Earthquake losses would vary across Placer County depending on the source and magnitude of the event. Although new growth and development corridors would fall in the area affected by earthquake, given the small chance of major earthquake and the building codes in effect, development in the earthquake area would continue to occur.

Geologic Risk

Minor landslides and similar geologic hazards have occurred in the past, probably over the last several hundred years, as evidenced both by past deposits exposed in erosion gullies and recent landslide events. With significant rainfall, additional failures are likely to occur within the identified landslide hazard areas. Given the nature of localized problems identified within the county, minor landslides will

likely continue to impact the area when heavy precipitation occurs, as they have in the past. In addition, areas affected by recent fires show an increased area of landslide risk.

Shifts in Climate Norms and Geologic and Seismic Hazards

While shifts in climate conditions are unlikely to increase earthquake frequency or strength, the threat from seismic and geologic hazards are expected to continue. Changes to climate conditions may result in precipitation extremes (i.e., wetter wet periods and drier dry periods). Total average annual rainfall may not change significantly, but rainfall may be concentrated into more intense precipitation events. Heavy rainfall or snowfall could cause an increase in the number of landslides or make landslides larger than normal. Increased wildfire frequency can destabilize hillsides, due to loss of vegetation, and change soil composition, which can contribute to greater runoff and erosion. The combination of a generally drier climate in the future, which will increase the chance of drought and wildfires, and the occasional extreme downpour is likely to cause more mudslides and landslides. Impacts from these conditions would compound landslide potential for the most susceptible locations.

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FIGURE 8
LANDSLIDE RISK

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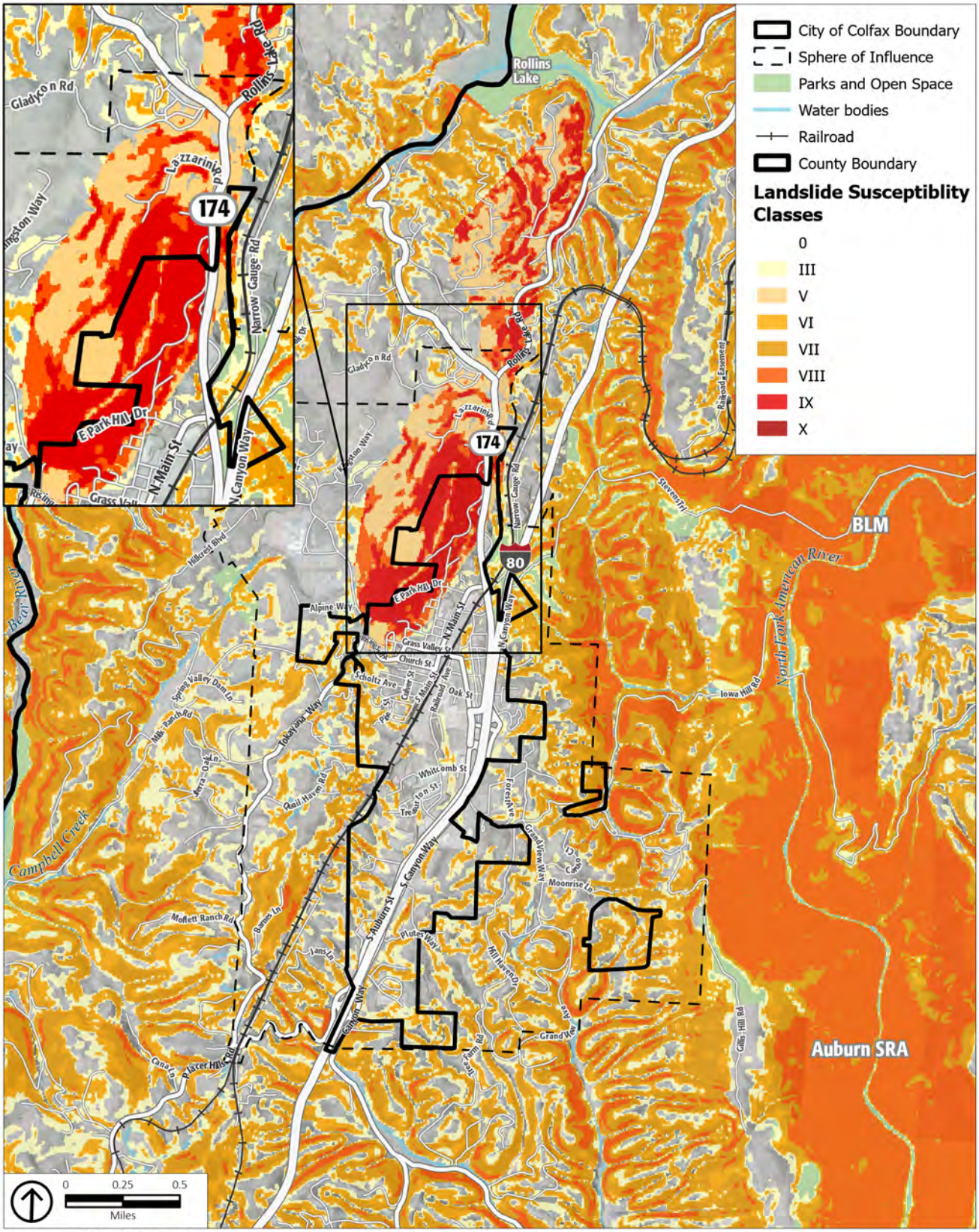

Source: ESRI, 2020; California Geological Deep Seated Susceptibility, 2019.

Figure 5
Landslide Risk

7.4.4 Hazardous Waste and Materials

Hazardous materials pose a significant risk to public safety or human or environmental health. The include toxic chemicals, flammable or corrosive materials, petroleum products, and unstable dangerously reactive materials. They can be released through human error, malfunctioning or brok equipment, or as an indirect consequence of other emergencies (e.g., if a flood damages a hazardous material storage tank). Hazardous materials can also be released accidentally during transportation, as a consequence of vehicle accidents and train derailment.

Most hazardous materials in the community are transported on truck routes along major roadwa that pass through Colfax, such as I-80. The bulk of truck-carried hazardous materials that enter t county do so via I-80. The cargos consist of a wide range of hazardous substances. Although I-80 well maintained and a controlled access roadway, there are some steep and sharp turns that sever tax the brakes and handling ability of semi-trailer trucks.

In addition to highway traffic, other hazardous materials are transported through Colfax on the Unio Pacific Railroad. Hazardous materials are regularly shipped via the rail line and, while unlikely bas on past occurrences, an incident involving a rail accident within the city could have devastating effec The City has little control over the types of materials that are shipped via the rail line. With regard to government activities, the content of shipments may be confidential for reasons of security and/or is generally unknown to the City. While the City has little influence over the types of material transported via the rail line, the potential for rail incidents can be reduced by ensuring that at-grade crossings within the city are operating in a safe and effective manner. In the event of an emergency involving hazardous materials, there is potential for extreme risk to life and property.

Federal, State, and local laws regulate the production, storage, handling, and disposal of hazardo materials and waste. These are materials that pose a significant hazard to human health and safety or to the environment, including industrial wastes, pesticides, radioactive wastes, asbestos, and combustible fuels. Hazardous materials commonly used in the home include garden pesticides, waste oil, paint supplies, car batteries, and pool chemicals. Limited quantities of household hazardous waste may be transported to and dropped off at a recycling center.

Both the State and the federal government require businesses that store or handle hazardous materials to comply with inventory and reporting programs. Businesses that store more than 55 gallons of hazardous liquids, 500 pounds of solids, or 200 cubic feet of compressed gases must also file an annual business plan to establish incident prevention measures, hazardous-materials handling protocols, and emergency response and evacuation procedures.

Hazardous materials and waste within Colfax are managed by the Certified Unified Program Agency (CUPA), a local administrative agency within the Placer County Environmental Division of Environmental Health. The CUPA consolidates, coordinates, and makes consistent the regulatory activities of several hazardous materials and hazardous waste programs, including Hazardous Materials Management, California Accidental Release Prevention, Hazardous Waste Management, Underground Storage Tanks, Aboveground Storage Tanks, and Emergency Response.

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Several state agencies monitor hazardous materials/waste facilities. Potential and known contamination sites are monitored and documented by the Department of Health Services (DHS) and the Regional Water Quality Control Board (RWQCB). A review of the leaking underground storage tank list produced by the RWQCB, and the Hazardous Waste and Substances Sites List produced by the Office of Planning and Research indicates no hazardous waste sites in Colfax.

If a hazardous material spill poses an imminent public health threat, the City will support local regulating agencies in notifying the public. The transport of hazardous materials/wastes and explosives through the planning area is regulated by the California Department of Transportation (Caltrans). Transporters of hazardous wastes are required to be certified by the United States Department of Transportation, and manifests are required to track the hazardous waste during transport. The danger of hazardous materials/waste spills during transport does exist and will potentially increase as transportation of these materials increases on I-80 and the railroad. The Placer County Office of Emergency Services (OES), Placer County Division of Environmental Health, the Placer County Sheriff's Office, and CAL FIRE are responsible for hazardous materials accidents at all locations within the City.

Potential Changes to Hazardous Materials in Future Years

Likelihood of Future Occurrence

The Union Pacific Railroad line passes through the City of Colfax. Hazardous materials are regularly shipped via the rail line and, while unlikely based on past occurrences, an incident involving a rail accident within the city could have devastating effects.

The City has little control over the types of materials that are shipped via the rail line. With regard to government activities, the content of shipments may be confidential for reasons of security and/or is generally unknown to the City. While the City has little influence over the types of material transported via the rail line, the potential for rail incidents can be reduced by ensuring that at-grade crossings within the city are operating in a safe and effective manner. I-80 passes through the city which is a designated Caltrans haz-mat route. According to Caltrans, most incidents are related to releases of fluids from the transporting vehicles themselves and not the cargo. The likelihood of a significant hazardous materials release within the city from either transportation or stationary sources is considered low, but possible.

Shifts in Climate Norms and Hazardous Materials

Shifts in climate conditions are unlikely to affect hazardous materials transportation incidents. However, increases in the frequency and intensity of severe storms may create a greater risk of hazardous materials releases during these events.

7.4.5 Crime

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Crime and other acts of violence undermine the community's sense of security and threaten public safety. As Colfax develops, the increasing concentration of population will bring increasing criminal activities, although not necessarily increasing the crime rate (number of crimes per 1,000 population). While it is expected that individuals will take normal precautions to protect themselves from danger, the City provides additional protection from harm brought on by the malicious intent of others. T Sheriff's Office plays a significant role in the safety and quality of life within the community. Some the Police Department's crime prevention programs include Business Watch, Crime Stoppers, Ident Theft, Chaplaincy, Megan's Law, National Night Out, and Neighborhood Watch.

7.4.6 Additional Climate-Related Hazards

Drought

A drought is an extended period when precipitation levels are well below normal. Drought is a norm part of the climate cycle. Drought may contribute to wildfire or affect domestic water supply, ener production, public health, and wildlife. Like most of California and the western United States, Colf chronically experiences drought cycles. Drought impacts the city's water supply, which may, in seve instances, make less water available for people, businesses, and natural systems.

Less snow falling in mountainous areas causes water levels in lakes and reservoirs to drop, which c affect recreation activities. Local ecosystems that are not well adapted to drought conditions can more easily harmed by it. During drought events, the flow of water in creeks and streams is reduce creating more slow-moving or standing water. This can concentrate sediment and toxins in the l water levels, causing harm to plants and animals. Many fish species also prefer specific stream fl speeds, especially for spawning and egg incubation, and changes to stream velocity as a result drought conditions can affect reproduction. Droughts can also indirectly lead to more wildfires, a the stress caused by water shortages can weaken plants, making them more susceptible to pests a diseases.

The US Drought Monitor recognizes a five-point scale for drought events: D0 (abnormally dry), (moderate drought), D2 (severe drought), D3 (extreme drought), and D4 (exceptional drough According to the US Drought Monitor, the most intense drought conditions in recent years we during most of 2016, when all of Placer County was classified in "exceptional" drought. More recent in 2021, from May through the end of the year, the county was also classified in "extreme" droug As of November 2022, Placer County, including Colfax, was classified in "severe" drought. Duri severe drought conditions, water shortages are common, and water restrictions may be imposed as to meet essential community needs.

Domestic water for the City of Colfax is provided by the Placer County Water Agency. The source water for the City of Colfax is the South Fork of the Yuba River and the Bear River. The water conveyed from Lake Spaulding via the PG&E Drum Canal, into the Agency's Boardman Canal, a then in a pipe to the Colfax Water Treatment Plant. Near the City's ballpark, the Agency has additional 1.0-million-gallon reservoir.

Deleted: Police protection in the City of Colfax is provided by Placer County Sheriff's Department. In an agreement that began in 1996, the City contracted with the County to supply all law enforcement services including patrol, detectives, juvenile services, traffic enforcement, and traffic accident investigation. The County provides service on a 24 hour per day basis.

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Deleted: <#>Climate Change¶
Changes to the global climate system are expected to affect future natural hazards in and around Colfax. Many natural hazards are expected to become more frequent and intense in coming years and decades, although some changes are already visible. According to state reports and the *Placer County Sustainability Plan*, Colfax can expect the following changes to climate-related hazards:¶
Periods of both very high and very low precipitation are likely to become more common, which is expected to increase the frequency of both droughts and floods. More rapid melting of the Sierra snowpack is likely to increase the risk of spring flooding, while droughts may become more likely in the late summer and autumn.¶
Higher temperatures are expected to cause an increase in extreme heat days. Historically, Colfax experiences an average of four extreme heat days each year, which is any day where temperatures exceed 102°F. These extreme heat days are projected to occur 21 to 24 times each year by around 2050, and 30 to 54 times annually by the end of the century.¶
Severe weather events, such as intense storms and high winds are expected to become more frequent and intense. Colfax may experience an increase in hazardous events, such as landslides as a result.¶
Wildfires are expected to occur more frequently around Colfax due to hotter, drier conditions. While locations higher in the Sierra face the greatest risk, the areas immediately around Colfax are still projected to see an increase in wildfire activity. According to the *Placer County Sustainability Plan*, wildfire activity across Placer County is expected to increase approximately 127 percent above historic levels by the end of the century.¶
Pests and organisms that cause or spread disease may be active for a longer period of time due to warmer temperatures. Changes in temperature and precipitation patterns could cause new pests and diseases to be active in and around Colfax. Such pests and diseases may not only affect human health but could harm local ecosystems and agricultural activities. ¶

A multiple year drought can severely compromise the water supply within the district and adversely impact natural resources. In 2014, after 2 years of below-average rainfall and very low snowmelt run off, Governor Brown declared a state of emergency for drought conditions statewide. The final California Department of Water Resources showed snowpack water content at only 5 percent of normal. On October 19, 2021, Governor Newsome declared a drought emergency for the entire state of California. With the unknowns of drought and globally changing climate conditions, the City continues to promote water conservation throughout the community.

Commented [WH54]: Should they reference more recent drought declared by Newsom?

Commented [MB55R54]: Revised

Potential Changes to Drought in Future Years

Likelihood of Future Occurrence

Drought is different than many of the other natural hazards in that it is not a distinct event and usually has a slow onset. Drought can severely impact a region both physically and economically, affecting different sectors in different ways and with varying intensities. Adequate water is the most critical issue for commercial and domestic use. As the population in the city continues to grow, so will the demand for water.

Based on historical information, the occurrence of drought in California, including Placer County, is cyclical, driven by weather patterns. Drought has occurred in the past and will occur in the future. Periods of actual drought with adverse impacts can vary in duration, and the period between droughts is often extended. Although an area may be under an extended dry period, determining when it becomes a drought is based on comparing observed precipitation with what is normal (climatologic), comparing soil moisture and crop conditions with what is normal (agricultural), or by looking at how much water is contained in snow, the level or flow rate of moving water, water in reservoirs, or groundwater levels (hydrologic). However, how individuals recognize drought depends on the ways in which it affects them. The impacts from drought include reduction in water supply and an increase in dry fuels.

Shifts in Climate Norms and Drought

Although droughts are a regular feature of California's climate, scientists expect that climate change will lead to more frequent and intense droughts statewide. Overall, precipitation levels are expected to stay similar and may even increase in some places. However, the state's current data say that there will be more years with extreme levels of precipitation, both high and low, as a result of climate change. This is expected to cause more frequent and intense droughts, compared to historical norms, that cause soil to dry out and become hard. When precipitation does return, more water runs off the surface than is absorbed into the ground, which can lead to floods. Higher air temperatures are expected to increase evaporation, causing more water loss from lakes and reservoirs and exacerbating drought conditions. Reduced winter precipitation levels and warmer temperatures have greatly decreased the Sierra Nevada snowpack (the volume of accumulated snow), which in turn makes less fresh water available for communities throughout California. Continued decline in the Sierra Nevada snowpack is expected, which may lead to lower volumes of available imported water. Depending on the location and emissions levels, the state Cal-Adapt database indicates the snowpack (i.e., snow water equivalent) for the Tahoe-Sierra Integrated Regional Water Management Region in the spring

is expected to decline from a historical average of 16.1 inches to an average of 7.8 inches (a 52 percent decrease) by the middle of the century (2035 to 2064) and an average of 2.9 inches (an 82 percent decrease) by the end of the century (2070 to 2099).

If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. How much snowpack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under wetter climate projections, the loss of snowpack would pose potential water shortage issues and exacerbate drought conditions.

Extreme Heat

While there is no universal definition of extreme heat, California guidance documents define extreme heat as temperatures that are hotter than 98 percent of the historical high temperatures for the area, as measured between April and October of 1961 to 1990. Days that reach this level are called extreme heat days. In Colfax, the extreme heat threshold is 100.1°F. An event with five extreme heat days in a row is called a heat wave.

In the foothills of Placer County, monthly average maximum temperatures in the warmest months (May through October) range from the mid-70s to the low 90s. From late spring through fall, it is not unusual for temperatures to exceed 90°F and higher. The highest recorded daily extreme was 118°F in August of 1933. In a typical year, maximum temperatures exceed 90°F on 89 days.

Health impacts are the primary concern with this hazard, though economic impacts are also an issue. The Centers for Disease Control and Prevention recognize extreme heat as a substantial public health concern. Historically, National Oceanic and Atmospheric Administration data indicate that about 175 Americans succumb to summer heat, although this number has increased in recent years. From 2004 to 2018, studies by the US Department of Health and Human Services indicate an average of 702 deaths annually that are directly or indirectly linked to extreme heat.

Extreme heat events are dangerous because people exposed to extreme heat can suffer a number of heat-related illnesses, including heat cramps, heat exhaustion, and (most severely) heat stroke. As reflected in the Vulnerability Assessment, elderly persons, small children, chronic invalids, those on certain medications or drugs, and persons with weight and alcohol problems are particularly susceptible to heat reactions. The elderly and individuals below the poverty level are the most vulnerable to extreme heat. Nursing homes and elder-care facilities are especially vulnerable to extreme heat events if power outages occur and air conditioning is not available. Individuals below the poverty level may be at increased risk to extreme heat if air conditioning is not affordable. Areas with lower extreme heat thresholds are not necessarily at lower risk, because persons and community assets used to cooler temperatures may be less prepared for extreme heat events.

Trees and other vegetation in the natural and urban environment help to lower surface and air temperatures by providing shade and through evapotranspiration. Evapotranspiration, alone or in combination with shading, can help reduce peak summer temperatures by 2°F to 9°F.[ii, iii]

Very high temperatures can harm plants and animals that are not well adapted to them, including natural ecosystems. Extreme heat can increase the temperature of water in lakes, streams, creeks, and other water bodies, especially during drought events when water levels are lower. In some cases, water temperatures may exceed comfortable levels for several plants and animals, causing ecological harm. Outdoor workers in construction or landscaping are also much more exposed to the elements than most people, so they are more susceptible to extreme heat conditions and the potential illnesses associated with very high temperatures.

Indirectly, extreme heat puts more stress on power lines, causing them to run less efficiently. The heat also causes more demand for electricity (usually to run air conditioning units), and in combination with the stress on the power lines, may lead to brownouts and blackouts.

Potential Changes to Extreme Heat in Future Years

Likelihood of Future Occurrence

Extreme heat occurs on an annual basis, most commonly at the peak of the summer season. From late spring through fall, days with temperatures exceeding 90°F and higher will increase.

Shifts in Climate Norms and Extreme Heat

The warmer temperatures brought on by shifts in climate conditions are likely to cause an increase in extreme heat events. Depending on the location and emissions levels, the state Cal-Adapt database indicates the number of extreme heat days is expected to rise from a historical annual average of 4 to 26 by the middle of the century (2035 to 2064), and an average of 53 by the end of the century (2070 to 2099), with some years occasionally experiencing much more extreme heat days.

Overall, Colfax is expected to see an increase in the average daily high temperatures. Depending on the future severity of climate change, the state Cal-Adapt database indicates the annual average maximum temperature is expected to increase from a historical annual average of 71.2°F to an average of up to 75.3°F by the middle of the century (2035 to 2064), and an average of up to 76.9°F by the end of the century (2070 to 2099). Although the temperature increases may appear modest, the projected high temperatures are substantially greater than historical norms. These increases also make it more likely that an above-average high temperature will cross the extreme heat threshold. As temperatures increase, Colfax is expected to face increased risk of death from dehydration, heat stroke, heat exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Severe Weather

Severe weather includes strong winds, hail, and lightning. Severe weather is usually caused by intense storm systems, although types of strong winds can occur without a storm. The types of dangers posed by severe weather vary widely and may include injuries or deaths, damage to buildings and structures, fallen trees, roads and railways blocked by debris, and fires sparked by lightning. In Placer County, most severe weather is linked to high winds. Hail events are rare, and there have been no reported

injuries from hail in Colfax. Lightning happens occasionally, although there has been no direct injury or damage from lightning reported in Colfax.

According to the Placer County Sustainability Plan, severe winter weather includes heavy snowfall, storms, extreme cold, and similar events. In Placer County these events are usually limited to the Sie Nevada region, although in rare cases severe winter weather can occur at lower elevations, such the City of Colfax.

Potential Changes to Severe Weather in Future Years

Likelihood of Future Occurrence

According to historical hazard data, severe weather is an annual occurrence in the City of Col Damage and disaster declarations related to severe weather have occurred and will continue to oc in the future. Heavy rain and thunderstorms are the most frequent type of severe weather occurren in the area. Wind and lightning often accompany these storms and have caused damage in the p and could contribute to future wildfires. Although unlikely, severe winter storms may also bring hea snowfall to the City of Colfax. In addition to localized flooding issues, the storms can cause seve mudslides and lightning can cause many electrical poles to short with a resultant loss of pow hazardous downed lines, and the potential for fire.

Problems associated with the primary effects of severe weather include flooding, paveme deterioration, and debris clogging of drainages and roadways. Areas located on S. Main Street a the areas of the city most often affected during these heavy storm events.

Shifts in Climate Norms and Severe Weather

Shifts in climate norms are expected to cause an increase in intense rainfall and in some instanc snowfall, which is usually associated with strong storm systems. This means that Colfax could see mo intense storms in the coming years and decades. Such an increase may not affect all forms of seve weather and may not always be apparent. For example, hail is rare enough in Colfax that even i does become more common, the increase and any effects may not be apparent. Overall, shifts climate norms are expected to increase average temperatures, so the total number of days with coo temperatures is expected to drop. However, a change in global climate conditions may increase t number of severe storms affecting Placer County, including Colfax. These intense storm systems cou create severe winter weather conditions in the Sierra Nevada and more severe winter weather ever in areas such as Colfax.

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Constraints to public safety are a result of both natural events and the activities of humans. Natural hazards are caused by excess rainfall, seismic activity, landslides, or high winds. Human-made hazards are the result of crime, hazardous materials spills, and fires. The following are some of the factors that constrain protection of the public:¶

Unpredictability. Natural disasters are often unpredictable. To reduce the danger of disaster, precautionary measures are required. Avoidance of flood-prone areas and flood-control measures are necessary. Construction to earthquake standards has proven effective to reduce losses in seismic events. Emergency plans that include evacuation, medical aid, and temporary food and shelter are important.¶

Existing land development. Prior settlement patterns and very dense development often present difficult access problems for emergency vehicles. Undefined evacuation routes and lack of emergency communication lines are also problems for emergency service providers. ¶

Priorities. Public safety may be described as the preservation of human life and the protection of property. These values underlie the concept of human settlement; however, the relative importance of saving lives or saving property is sometimes a subjective decision.¶

Human carelessness. Carelessness often leads to accidents, which can involve automobiles, airplanes, hazardous materials spills, urban fires, and forest fires. Public education and safety rules and regulations are important to avoid careless attitudes and actions.¶

Individual precaution. Citizens often are the cause of their own disasters through lack of available or at-hand precautions, i.e., not locking doors at night or when away, swimming alone, drinking and driving, or smoking in bed.¶

Economics. Economic considerations often play an important role in providing for public safety. Budget limitations force difficult decisions related to deciding which safety measures are more important or cost-effective.¶

7.5 Safety Goals, Policies, and Implementation Measures

GOAL 7.3.1 Protect the life and property of residents, businesses, and visitors to Colfax from natural and human-caused hazards.

Policy 7.3.1.1 Require a review of all potential hazards in areas identified for development.

Policy 7.3.1.2 Continue to partner with Placer County and other cities within the county to regularly update and implement the Placer County LHMP.

Policy 7.3.1.3 Incorporate by reference the current Placer County Local Hazard Mitigation Plan and subsequent local updates into the Safety Element.

Policy 7.3.1.4 Enhance public education and awareness of natural and climate-related induced hazards and public understanding of disasters.

Policy 7.3.1.5 Identify and, as feasible, retrofit any City-owned buildings and facilities in areas prone to landslide/debris flows or wildfire to maximize defensible space and outdoor fireproofing, stabilize nearby slopes, and take other actions to harden the property as needed.

Policy 7.3.1.6 Work with local and regional transportation agencies to help protect primary evacuation routes from being blocked or damaged by a hazard event.

Policy 7.3.1.7 Provide the public with information on specified emergency evacuation routes.

Implementation Measures

7.3.1.A Make information relating to potential hazards on site specific areas in the City available to all City agencies and staff.

7.3.1.B Continue to work with the County to update the LHMP upon its expiration to ensure that Colfax maintains eligibility for pre-disaster mitigation funding.

7.3.1.C Review and update as needed the Safety Element at least once every eight years, ideally concurrent with updates to the County's LHMP or the Colfax Housing Element so that the best available hazard data is concurrently incorporated into the Safety Element. The LHMP, most recently approved by FEMA in June 2021, is incorporated by reference into this Safety Element, as permitted by California Government Code Section 65302.6.

7.3.1.D Encourage all persons in hazard-prone areas, especially those living in neighborhoods along single-access roads to prepare and keep an emergency and evacuation kit.

Commented [MB62]: Add evacuation routes and signage policy - primary and alterative, routes, and flip over sign.

Have emergency responders weigh in.

Add human-caused risks (i.e., backup generators) handling fuel, generators, PG&E meters.

Create a policy for an informational brochure that informs the community about hazards and emergency response.

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7.3.1.E Create a community support network in partnership with community-bas organizations to check on socially vulnerable or isolated persons duri dangerous conditions. Similarly, the City will use said network to provi information and services related to hazard mitigation and emerger preparation to persons with limited access to transportation, communicatio and other lifeline resources and services.

7.3.1.F When identifying projects for inclusion in the Capital Improvements Program li note any potential vulnerabilities to climate-related hazards and ensure that t project maximizes its resilience potential and minimizes any clima vulnerabilities.

7.3.1.D Provide the public with information and training on what to do until help arriv in emergency situations.

GOAL 7.3.2 Minimal risk of injuries, loss of life, property damage, and economic and social disruption resulting from seismic and geologic hazards in Colfax.

Policy 7.3.2.1 Identify opportunities to strengthen or relocate existing weak criti structures and lifeline utilities to increase public safety and minimize or avoid potential damage from seismic and geologic hazards.

Policy 7.3.2.2 Incorporate resilient design features for roads and trails that are on or below steep slopes and have a history of being damaged or blocked by landslide events.

Policy 7.3.2.3 Continually identify areas of Colfax susceptible to damage from seismic shaking, liquefaction, subsidence, and other geologic risks.

Policy 7.3.2.4 Require detailed soils and geologic studies prior to approval for development in potentially hazardous areas. Require mitigation measures if significant hazards are identified.

Policy 7.3.2.5 Avoid development in areas of steep slope and high erosion potential.

Policy 7.3.2.6 Encourage upgrading of unreinforced masonry buildings to prevent disastrous earthquake damage.

Implementation Measures

7.3.2.A Work to stabilize burned slopes located above developed areas, importa infrastructure, or key transportation corridors as soon as possible after a wildf event. The City will cooperate with the Placer County Department of Public Works and/or the DOT when necessary.

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"Fire safe" guidance policy.

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7.3.2.D	Work to make single-access roads and key trails less vulnerable to landslides and mudflows through the use of retaining walls, slope stabilization techniques, and other strategies.
7.3.2.E	Ensure that site development on steep slopes is designed to avoid creating areas that may be subject to slippage or movement from storm events.
7.3.2.F	Continue to implement the California Building Code.
7.3.2.G	Encourage clustering of development away from areas considered geologically unstable.
GOAL 7.3.3	Minimal risk of injuries, property damage, and economic loss resulting from urban and wildland fires in Colfax.
Policy 7.3.3.1	Continually identify any areas of likely wildfire risks or urban conflagration in Colfax.
Policy 7.3.3.2	Prevent fuel accumulation around any City-owned infrastructure where fires are known to occur.
Policy 7.3.3.3	Maintain an adequate peak load water supply for fire suppression efforts in Colfax.
Policy 7.3.3.4	Continue to enforce and, as necessary, adopt new development standards to reduce fire hazard risks for new and existing development in the wildland-urban interface to minimize property damage and loss of life.
Policy 7.3.3.5	Continue to work with Placer County, state agencies, and federal agencies to support wildfire fuel management activities in areas devastated by bark beetle and other pests.
Policy 7.3.3.6	Continue to partner with Placer County and other entities within the County to regularly update and implement the Placer County Community Wildfire Protection Plan (CWPP).
Policy 7.3.3.7	Promote the use of fire-resistant landscaping in public and private developments.
Policy 7.3.3.7	Require review by the Planning Department prior to the issuance of development permits for proposed construction projects and conceptual landscaping plans. Plans for proposed development shall include, at a minimum:

Deleted: 7.3.2.B The City shall conduct structural retrofits of at-risk bridges

Deleted: to protect against landslides/debris flows. The City shall coordinate with the DOT to achieve this implementation program when necessary.¶
7.3.2.C Develop programs in cooperation with public agencies to increase awareness of geologic and seismic hazards and educate residents on actions that can help to avoid and minimize injury and property damage associated with geologic and seismic events. ¶

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Deleted: 7.3.2.F Encourage the use of density transfer to avoid new private construction in areas of steep slopes or high erosion potential.¶

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1. Site plan, planting plan, planting palette, and irrigation plan to reduce the risk of fire hazards and with consideration to site conditions, including slope, structures, and adjacencies.
2. Development and maintenance of defensible space.
3. Multiple points of ingress and egress to improve evacuation, emergency response, and fire equipment access, and adequate water infrastructure for water supply and fire flow.
4. Class A roof materials for new and replacement roofs.
5. Location and source of anticipated water supply.

Policy 7.3.3.8 **Enforce fire-resistant landscaping and defensible space requirements for new residential and commercial development. All new residential development must comply with California Fire Safe Regulations (Section 1276 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Article 5), as well as Chapter 17.122 of the Municipal Code, which requires a landscape design plan for projects in fire-prone areas that addresses fire safety and prevention, as well as defensible space.**

Policy 7.3.3.9 **Coordinate with CAL FIRE to identify and maintain evacuation routes to ensure adequate capacity, safety, and viability of those routes in the event of an emergency.**

Implementation Measures

7.3.3.A Identify funding opportunities to support new or expanded fuel-reduction projects, including those that provide assistance for biomass facilities.

7.3.3.B Require each new large-scale development to submit a water usage plan showing that Colfax's water system can supply the new development with minimum water amounts while maintaining optimal water supply for fire suppression work.

7.3.3.C Continue to enforce requirements to provide defensible space around homes and other buildings in fire-prone areas, and strengthen standards as needed to provide adequate protection in response to changing fire regimes.

7.3.3.D Seek to develop a fire-safe assessment to use prior to issuing a building permit or other formal approval for significant retrofits to buildings, including installation of sprinklers and fire-safe exterior materials as feasible.

7.3.3.E Require new developments to include fuel reduction plans. These plans must include a finance plan, necessary fees for maintenance of fuel break areas, and maintenance requirements in any applicable covenants, conditions, and restrictions.

7.3.3.F Continue to work with the County to update the CWPP upon its expiration to ensure that Auburn maintains eligibility for pre-disaster mitigation funding and applies mitigation measures to protect the City of Auburn from wildfire.

GOAL 7.3.4	The city shall work to reduce crime levels in Colfax.

Policy 7.3.4.1 Maintain police response times sufficient to rapidly respond to 911 calls.

Policy 7.3.4.2 Ensure that new development projects use environmental design to reduce the risk of crime.

Policy 7.3.4.3 Promote citizen engagement in crime awareness in existing crime reduction programs.

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Implementation Measures

7.3.4.A Work with the Placer County Sheriff's Office to address law enforceme personnel needs in Colfax resulting from future population growth.

7.3.4.B Work with the Placer County Sheriff's Office to evaluate new project design reduce the potential for crime. The City and Sheriff's Office may draft and ado a set of Crime Prevention Through Environmental Design (CPTED) guidelines use by project applicants during project design and by City staff during perm and plan review.

7.3.4.C Coordinate with the Placer County Sheriff's Office to continue its Citize Awareness Academy and Neighborhood-Business Watch Program.

GOAL 7.3.5 Reduced likelihood of hazardous materials release, exposure, a contamination in Colfax.

Policy 7.3.5.1 Encourage commercial or industrial development using hazardous materi in areas away from residential uses and discourage commercial and industr development using hazardous materials in areas of identified wildfire risk.

Policy 7.3.5.2 Collaborate with other cities/towns, Placer County, and regional hazardo waste management organizations to limit the risk of hazardous materi release.

Policy 7.3.5.3 Reduce the risk of exposure to hazardous materials in Colfax.

GOAL 7.3.6 City and ecological resiliency to climate-related hazards.

Policy 7.3.6.1 Encourage collaboration with regional organizations and agencies increase resilience.

Policy 7.3.6.2 Ensure that there are safe places for community members to gather duri hazardous events like extreme heat.

Policy 7.3.6.3 Coordinate with Placer County Water Agency to reduce drought risks a ensure Colfax has a healthy and reliable water supply.

Policy 7.3.6.4 Reduce health and economic risks associated with extreme heat and hum health hazards.

Implementation Measures

7.3.6.A Coordinate climate resiliency efforts with the Capital Region Climate Readine Collaborative, the Sierra Climate Adaptation and Mitigation Partnership, a other regional bodies.

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The City of Sacramento also describes this concept and its principles well: https://www.cityofwestsacramento.org/government/departments/police/crime-prevention-outreach/cpted

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7.3.5.A Discourage new uses of hazardous materials within identified wildland fire risk areas or within a 0.25-mile radius. New hazardous material uses within a 0.25-mile radius of residences shall include a green buffer around property.¶
7.3.5.A The City shall require the proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fire, or the release of harmful fumes. The City shall maintain information channels to the residential and business communities about the illegality of dumping hazardous materials and waste in the storm drain system or in creeks.¶

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7.3.6.B Engage in partnerships and support local and regional interagency efforts to assess climate-related impacts and to develop and implement strategies that increase resilience of vulnerable ecosystems.

7.3.6.C Work with regional, state, and federal plant and wildlife management agencies and organizations to protect vulnerable habitat and improve ecosystem connectivity.

7.3.6.D Work to ensure that its facilities used as cooling centers or resilience hubs are equipped with backup power supplies, including on-site renewable energy generation and energy storage systems.

7.3.6.E Provide shaded areas, air conditioners, and other features at City community centers, parks, and other outdoor spaces that can offer refuge from extreme heat and weather events.

7.3.6.F Continue to promote water conservation programs to reduce water use in the City of Colfax.

7.3.6.G Support and cooperate with the Placer County Water Agency during updates to its urban water management plan to support ongoing efforts to plan for sustainable, long-term drinking water supply for City residents and businesses.

7.3.6.H Encourage projects that include landscaping to use plants that will continue to be viable in the area under long-term future climate conditions.

7.3.6.I Coordinate with Placer County Public Health Department to ensure that free or reduced-cost vaccinations for vector-borne diseases are widely available for Colfax residents.

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