

SECTION 2: FINDINGS OF FACTS

In connection with the amendments enacted by Section 2 and 3 relating to the California Fire Code and its appendix, 2022 edition, the El Dorado County Fire Protection District (ECFPD) makes the following findings pursuant to Health and Safety Code Section 17958.5, 17958.7 and 18941.5. The changes are reasonably necessary because of local climatic, topographical, or geological conditions.

ECFPD hereby adopts pursuant to Section 18941.5 of the California Health and Safety Code, the following findings of fact:

(a) Under this adopting ordinance, specific amendments have been established which are of a more restrictive nature than those adopted by the State of California (State Buildings Standards Code, State Housing & Community Development Codes) commonly referred to as Title 24 & Title 25 of the California Code of Regulations. These amendments to the California Fire Code 2022 edition, have been recognized by the ECFPD to address the fire problems, concerns, and future direction by which ECFPD can establish and maintain an environment which will afford a level of fire and life safety to all who live and work within its boundary.

(b) The International Code Council has assumed responsibility for the International Fire Code and International Fire Code Standards. The International Code Council provided a means for participation by all code enforcement officials from throughout the country as well as industry representatives, consultants, and other private parties with an interest in the International Fire Code.

(c) The International Fire Code, being the 2021 edition thereof, published by the International Code Council is a nationally recognized compilation of proposed rules, regulations, and standards of said Association.

(d) Said International Fire Code has been printed and published as a Code in book form within the meaning of Section 50022.1 of the Government Code of the State of California.

(e) Under the provisions of Section 18941.5 of the Health and Safety Code, local amendments are based on climatic, topographical, and geological conditions. The findings of fact contained herein address each of these situations and present the local situation, which either singularly or in combination, caused the amendments to be adopted.

2022 CFC FINDINGS

LOCAL CONDITIONS

A. These amendments are justified based on a local climatic condition. ECFPD is subject to precipitation, relative humidity, temperature extremes, and high velocity winds.

1. Precipitation & relative humidity

a. Conditions

Precipitation. Average annual precipitation ranges from approximately 38 inches per year in rain and 64 inches of snow annually. Approximately 88% of the average rainfall occurs during the months of November through April and 12% from May through October. This area has experienced major droughts in the last two decades: 1986 -1991, 1998 – 2003, 2007 - 2009, and 2011 - 2015. It is possible that more droughts will occur in the future based on the weather cycle pattern.

Relative Humidity. During the summer months (May through September), the daily humidity ranges around 20% and occasionally drops to the low teens.

2. Temperature

a. Conditions

Temperatures. During the summer months (May through September), the daily temperatures commonly exceed 90 degrees Fahrenheit, with temperatures having been recorded as high as 115 degrees Fahrenheit.

3. Winds

a. Conditions

Winds. The summer prevailing winds are out of the south and southwest. However, north winds occur during the spring (April and May), the fall (September and October), and occasionally during the summer months (June, July, and August). Velocities are in the range of five to fifteen miles per hour, gusting to 30 miles per hour during the summer months.

SUMMARY

These local climatic conditions affect the acceleration, intensity, and size of fire in the community. Times of little or no rainfall and elevated temperatures create extremely hazardous conditions, particularly as they relate to residential roof fires and wildfire conflagrations. The climatic conditions are one of the greatest impacts to fire behavior and other major emergency events due to their uncontrollable nature.

2022 CFC FINDINGS

B. These amendments are justified on the basis of a local geologic and topographic conditions. ECD is subject to varied terrain, slopes, increased vegetation, varied surface features, hazardous building operations, and terrain risk factors.

1. Geological location

a. Conditions

Geological Location. El Dorado County Fire Protection District is located in the foothills of the Sierras at an altitude range of approximately 1,400 feet to 5,300 feet above sea level.

2. Size and population

a. Conditions

Size and Population. The ECFPD encompasses approximately 74,000 residents in 281 square miles.

3. Seismic Location

a. Conditions

Seismic Location. The nearest identified fault zone running through the ECFPD is the Bear Mountain Fault. This fault zone splits into multiple branches which transect the area between Folsom and Shingle Springs. The closest branch passes through the west end of the ECFPD along the western edge of Browns Ravine. The next nearest extension of this fault system is located immediately at the north end of the ECFPD and extends from the southeast arm of Folsom Lake, north to the City of Auburn. No recent geologic activity has been observed along this fault. However, studies of the east branch of the fault zone, conducted by Woodward-Clyde Associates for the Auburn Dam, and by Tierra Engineering Consultants near Folsom Lake, indicate that the fault may be reactivating based on recent tectonic trends and should be considered potentially active.

4. Topography

a. Conditions

Topography. The topography of the ECFPD varies from level 0% slope to terrain with over a 40% slope. The valley floor is relatively flat with gentle slopes and consists of grassland and trees. The east and west sides of the valley floor increase to approximately 40% slopes and consist of trees, brush, and grass-covered range land. The slope in all cardinal directions within ECFPD is significant. Hilly terrain throughout the area provides gullies or areas referred to as “chimneys” which accelerate the spread of fire in addition to dense, mature forest land.

2022 CFC FINDINGS

5. Roads and streets

a. Conditions

Roads and Streets. ECFPD has seen a moderate degree of urban and commercial development within the last 15 years. With this development comes the increase of vehicular traffic and congestion which can have a direct effect on the response time of emergency apparatus. Many pre-existing roadways and streets do not conform to current standards and are narrow and winding in design, thus creating an increase in response time by ECFPD apparatus.

6. Building Clearances

a. Conditions

Building Clearances. As residential development continues to occur in the ECFPD, the clearance between homes has decreased which increases the ability of fire to spread from one home to another by both radiation and convection heat. Combined with the wild land urban interface (WUI) and lack of resources for defensible space, risk to life, property and environment is inherently increased.

SUMMARY

The above geological and topographical conditions increase the magnitude, exposure, accessibility problems and fire hazards that ECFPD is responsible to mitigate. Fire following an earthquake has the potential of causing greater loss of life and damage to property than the earthquake itself.

Other variables may tend to increase the situation:

1. The damage that may occur to the water system.
2. The extent of isolation due to roadway damage, overpass collapse and debris blocking the roadway.

2022 CFC FINDINGS

<i>2022 CFC Code Section</i>	<i>Title</i>	<i>Adopted</i>	<i>Amended</i>	<i>Added</i>	<i>Deleted</i>	<i>Finding</i>
101.1	General		X			Administrative
102.6 - 102.12	Applicability	X				Administrative
104.1	Duties and Powers	X				Administrative
104.3 – 104.4	Duties and Powers	X				Administrative
104.6	Official Records	X				Administrative
104.8 – 104.8.2	Approved Materials	X				Administrative
104.9	Modifications	X				Administrative
104.11 – 104.12.3	Fire Investigation	X				Administrative
105.2.3	Time of Application	X				Administrative
105.3.2	Extensions	X				Administrative
105.5	Operational Permits					Administrative
105.5.55	Automobile Wrecking Yards			X		Administrative
105.6	Construction Permits		X			Administrative
105.6.25	Automobile Wrecking Yards			X		Administrative
105.6.9	Fuel Cell	X				Administrative
105.6.12	Hazardous Materials	X				Administrative
105.17	Plant Extraction	X				Administrative
105.18	Private Fire Hydrants	X				Administrative
105.19	Smoke Control	X				Administrative
105.6.21	Special Event Structure	X				Administrative
105.6.22	Spraying or Dipping	X				Administrative
105.6.23	Standpipe Systems	X				Administrative
105.6.24	Tents	X				Administrative
106.1 – 106.4	Construction Documents	X				Administrative
107.1	Fees	X				Administrative
107.5	Related Fees			X		Administrative
107.5.1	Cost Recovery			X		Administrative
107.6	Refunds	X				Administrative
107.7	Administrative Costs			X		Administrative
Section 108	Inspections	X				Administrative
Section 109	Maintenance	X				Administrative
111.5	Appeals			X		Administrative
112.4	Violation Penalties		X			Administrative
112.4.1	Abatement of Violations	X				Administrative
112.4.2	Citations			X		Administrative
Section 113	Stop Work Order					Administrative
113.4	Failure to Comply		X			Administrative

2022 CFC FINDINGS

2022 CFC Code Section	Title	Adopted	Amended	Added	Deleted	Finding
Section 114	Unsafe Structures	X				Administrative
202	Definitions		X			Administrative
Section 302	Definitions					Administrative
Section 303	Asphalt Kettles					A1, A2, A3, B1, B2. B3. B4, B5, B6
302.1	Definitions		X			Administrative
Section 304	Combustible Waste	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
Section 305	Ignition Sources	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
Section 306	Motion Picture	X				B1, B2. B3. B4, B5, B6
Section 307	Open Burning	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
307.4.4	Open Burning			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
Section 308	Open Flames	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
Section 309	Powered Industrial Trucks	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
Section 310	Smoking	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
Section 311	Vacant Premises	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
Section 320	3D Printing	X				B1, B2. B3. B4, B5, B6
Section 321	Artificial Vegetation	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
403.2 – 403.2.4	Group A	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
403.6 – 403.6.1.4	Group F	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
403.9 – 403.9.3.4	Group R	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
503.2.1	Dimensions		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
503.2.5	Dead Ends		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
503.2.6	Bridges		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
503.3.1	No Parking – Fire Lanes			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
503.3.2	No Parking – Fire Hydrants			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
503.3.3	Fire Lane Width			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
503.6	Security Gates		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
505.1	Address		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
507.5.1	Where Required – Fire Hydrants		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
509.3	Fire Control Rooms			X		B1, B2. B3. B4, B5, B6
807.5.2	Group E	X				B1, B2. B3. B4, B5, B6
903.2	Where Required – Fire Sprinklers		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.1.1	Group A		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.1.2	Group A-2		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.1.3	Group A-3		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.1.4	Group A-4		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.3	Group E		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.4	Group F-1		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.7	Group M		X			A1, A2, A3, B1, B2. B3. B4, B5, B6

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2022 CFC Code Section	Title	Adopted	Amended	Added	Deleted	Finding
903.2.7.2	Group M - Mattresses		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.8.5	Manufactured Homes			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.9	Group S-1		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.10	Group S-2		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.10.1	Parking Garages		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.22	Group B			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
903.2.23	Group F-2			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
903.6	Where Required – Fire Sprinklers		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
907.2	Where Required – Fire Alarm Systems		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
907.2.1.4	Group A			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
907.2.2.3	Group B			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
907.2.3.11	Group E			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
907.2.4.1	Group F-1			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
907.2.5.2	Group H			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
907.2.6.6	Group I			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
907.2.7.2	Group M			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
907.2.8.4	Group R-1			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
907.2.9.4	Group R-2, R-2.1, R-2.2			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
907.2.10.1	Group S			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
907.2.30	Type I Hoods			X		B1, B2. B3. B4, B5, B6
907.6.5	Monitoring		X			B1, B2. B3. B4, B5, B6
907.6.2.1	Secondary Power Supply			X		A1, A2, A3, B1, B2. B3. B4, B5, B6
907.9	Where Required – Fire Alarm		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
Section 1101	General	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
Section 1102	Definitions	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
1103.2	Responder Communication	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
1103.5 – 1103.5.5	Sprinkler Systems	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
1103.7 – 1103.7.9.10	Fire Alarm Systems	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
1103.8 – 1103.8.5.3	Smoke Alarms	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
1103.9 – 1103.9.1	Carbon Monoxide Alarms	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
Section 1104	Egress	X				B1, B2. B3. B4, B5, B6
Section 1106	Outdoor Operations	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
1203.1.3	Installation		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
3311.3	Address		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
3313.1	When Required – Water Supply		X			A1, A2, A3, B1, B2. B3. B4, B5, B6

2022 CFC FINDINGS

<i>2022 CFC Code Section</i>	<i>Title</i>	<i>Adopted</i>	<i>Amended</i>	<i>Added</i>	<i>Deleted</i>	<i>Finding</i>
5001.7	Liability for Damages			X		Administrative
5601.2	Permit Required		X			Administrative
5704.2.9.6.1	Locations – Above Ground Tanks		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
5706.2.4.4	Locations – Above Ground Tanks		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
5806.2	Limitations		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
6104.2	Maximum Capacity		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
Chapter 80	Referenced Standards		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
Appendix B Table B105.1 (1)	Fire Flow - Residential		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
Appendix B Table B105.2	Fire Flow - Commercial		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
Appendix D	Fire Apparatus Access Roads	X				A1, A2, A3, B1, B2. B3. B4, B5, B6
Appendix D, D103.1	Access Road Width		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
Appendix D, D103.2	Grade		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
Appendix D, D103.3	Turning Radius		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
Appendix D, D103.5	Gates		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
Appendix D, D103.6.1	Fire Lane Marking		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
Appendix D, D103.6.2	Fire Lane Marking		X			A1, A2, A3, B1, B2. B3. B4, B5, B6
Appendix D, D104.4	Circumferential Fire Access		X			A1, A2, A3, B1, B2. B3. B4, B5, B6