



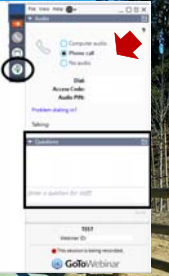
Fire Safe Regulations Update

Public Workshops – November 18 & 24, 2020

Photo Credit: WPI

Logistics


- GoToWebinar automatically mutes participants
- If you have a comment or question, use the “raise hand” tool or type a question into the “questions” pane
- If you plan on speaking, we recommend you view the presentation on your computer but call in for the highest quality audio
- Verbal comments will be limited to 2 minutes per person
- We might not be able to respond to or address every comment, but this webinar is being recorded so we can review them in depth later



Today's Agenda & Format

Time	Topic
9:00 – 9:15 AM	Introductions / Overview
9:15 – 10:10 AM	Article 1 Presentation, including Q&A
10:10-10:15 AM	BREAK
10:15 – 11:05 AM	Article 2 Presentation, including Q&A
11:05-11:25 AM	Article 3 Presentation, including Q&A
11:25-11:30 AM	BREAK
11:30 – 12:00 PM	Article 4 Presentation, including Q&A
12:00-12:50 PM	Article 5 Presentation, including Q&A
12:50-1:00 PM	Wrap up / next steps

Introductions




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Molly Mowery, AICP
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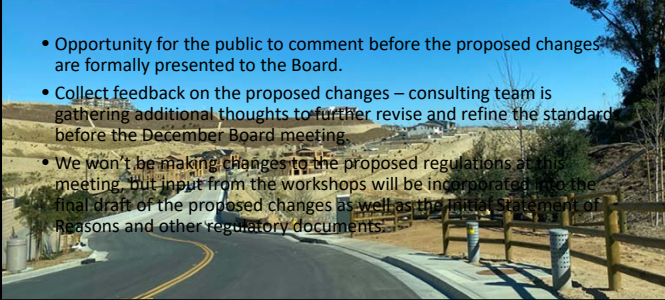
About the Fire Safe Regulations

- Since 1991, the Fire Safe Regulations have set the floor for fire safety standards for “perimeters and access to all residential, commercial, and industrial building construction” in the SRA, addressing:
 - Road standards for fire equipment access
 - Standards for road and building signs
 - Minimum private water supplies for emergency fire use
 - Fuel breaks and greenbelts
- Starting on July 1, 2021, these requirements will also apply in the LRA VHFHSZ (SB 901).
- SB 901 also requires these regulations to address construction on firelines.



Today’s Purpose & Goals

- Opportunity for the public to comment before the proposed changes are formally presented to the Board.
- Collect feedback on the proposed changes – consulting team is gathering additional thoughts to further revise and refine the standard before the December Board meeting.
- We won’t be making changes to the proposed regulations at this meeting, but input from the workshops will be incorporated into the final draft of the proposed changes as well as the Initial Statement of Reasons and other regulatory documents.



Additional opportunities to comment

- Email anytime: Edith.Hannigan@bof.ca.gov
- Public workshops: November 18, November 24 (recordings available at bof.fire.ca.gov)
- Board Committee Meeting: December 8
- Board Committee Meeting/Full Board Meeting: January 19 and 20
- APA formal rulemaking Public Comment period (approx. February 5 – March 23)



Article 1: Administration

Overview of Significant Changes

- Defined “building construction” and other terms for greater clarity regarding to what development activities these regulations apply.
- Established applicability to LRA VHFHSZ based on amendments to PRC 4290.
- Changed option for “same practical effect” to “alternative means of compliance” to improve the consistent application of the regulations.



Article 1: Key Proposed Changes

Current Section	Proposed Change
1270.00 Title	• “SRA Fire Safe Regulations” => “State Fire Safe Regulations”
1270.01 Purpose	• Simplified language to establish these minimum regulations are for fire safety in Building Construction
1270.02 Scope	• Simplified scope – defined “Building Construction” rather than spell out all the possible development processes the regulations might or might not apply to • Maintained exemption for building permits on pre-1991 parcel maps in the SRA, and for roads exclusively used for agriculture, mining, and timber harvesting
1270.03 Provisions for Application of these Regulations	• Editorial fixes

More on § 1270.02 Scope

Proposed Change

- (a) These regulations shall apply to ~~the~~ the perimeters and ~~a~~Access to all residential, commercial, and industrial ~~building~~ ~~Construction~~ within the SRA approved after January 1, 1991, ~~and within the LRA VHFHSZ approved after July 1, 2021,~~ except as set forth below in subsections (b-) and (c).
- (b) These regulations do not apply where an application for a building permit in the SRA is filed after January 1, 1991 for ~~building~~ ~~Construction~~ on a parcel that was formed from a parcel map or tentative map (if the final map for the tentative map is approved within the time prescribed by the local ordinance) approved prior to January 1, 1991, to the extent that conditions relating to the perimeters and access to the buildings were imposed by the parcel map or final tentative map approved prior to January 1, 1991.
- (c) ~~EXEMPTION - Roads - These regulations shall not apply to Roads~~ used solely for agricultural, mining, or the management and harvesting of wood products.

More on § 1270.02 Scope, con't

Simplifying to reduce confusion

- Existing language tries to list all relevant planning and development processes that might be subject to these regulations
- We are proposing that by using some key defined terms instead, this section will be clearer and easier to implement

Key Defined Terms

- New terms -
 - "Access"
 - "Building Construction"
- Existing terms remaining unchanged -
 - "Roads"
 - "Structures"

More on § 1270.02 Scope, con't

"Access"

- *The ability or means to enter or approach a Structure subject to this Subchapter, including all Roads that provide fire apparatus ingress and egress from a fire station to a Structure.*
- Heavily borrowed from definition of "fire apparatus access road" in CFC sec. 202
 - A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as fire lane, public street, private street, parking lot lane and access roadway.

"Building Construction"

- *Any modification to a parcel(s), road(s), driveway(s), or structure(s) that increases the number of residential units; increases the service capacity of a commercial enterprise or commercial use; or increases the number of persons on the premises of an industrial site. "Building Construction" does not include the replacement of lost structures due to disaster, to the degree that replacement does not increase site intensity as described.*

Article 1: Key Proposed Changes

Current Section	Proposed Change
1270.04 Local Ordinances	<ul style="list-style-type: none"> No certification process Re-iterates statutory requirement that these standards do not supersede stricter local requirements. Provides standards for establishing whether a local requirement equals or exceeds these standards.
1270.05 Inspections	<ul style="list-style-type: none"> New subsection establishes criteria for delegation of inspection authority from CAL FIRE to local jurisdictions.

More on § 1270.04 Local Ordinances

Proposed Change
<ul style="list-style-type: none"> No certification process (a) These regulations shall serve as the minimum standards applied in SRA and LRA VHFHSZ. However, these regulations do not supersede local regulations which equal or exceed the minimum standards of this subchapter. (b) A local regulation may equal or exceed a minimum standard of this Subchapter where the local regulation meets or exceeds the performance- or prescriptive-based standard in this Subchapter. (c) A local regulation shall not equal or exceed a minimum standard adopted by the state where the local regulation does not meet the performance or prescriptive based standard in this subchapter. (d) A local regulation shall not equal or exceed the minimum standards of this Subchapter if such regulation includes exemptions or exceptions to Building Construction that are not enumerated in this Subchapter. Exemptions requested and approved in conformance with § 1270.06 may be granted on a case-by-case basis. Exemptions not enumerated in these regulations shall not be granted.

More on § 1270.05 Inspections

Proposed Change
<ul style="list-style-type: none"> Existing language in subsections (a), (b), (c), and (d) remains unchanged except for renumbering (b)-(d) as (c)-(e) and some cleanup to address LRA VHFHSZ applicability. New subsection (b) establishes criteria under which the Director may delegate CAL FIRE's inspection authority to local jurisdictions. <ul style="list-style-type: none"> Local jurisdiction has enough resources to conduct inspections Local jurisdiction acknowledges that CAL FIRE's authorities under subsection (c) (previously (b)) are not waived or restricted Director may impose additional criteria to the delegation to ensure that the delegated inspection authority is performed responsibly. Local jurisdiction consents to the delegation Director may revoke the delegation at any time Delegation of authority, or revocation of authority, shall be documented in writing and retained on file at the CAL FIRE unit headquarters.

Article 1: Key Proposed Changes

Current Section	Proposed Change
1270.06 Exceptions to Standards	<ul style="list-style-type: none"> Defined "Exception" Exceptions from the standards must propose an alternative means of compliance Where a local jurisdiction approves an Exception appeal that the fire inspector denied, the jurisdiction must make findings relating to the ability of the Exception to provide for fire safety and include a statement of reasons for overriding the fire inspector.
1271.00 Definitions	<ul style="list-style-type: none"> Defined key terms to simplify the regulatory standards, particularly in regards to terms used in Article 1 and Article 5. General cleanup.

More on § 1270.06 Exceptions

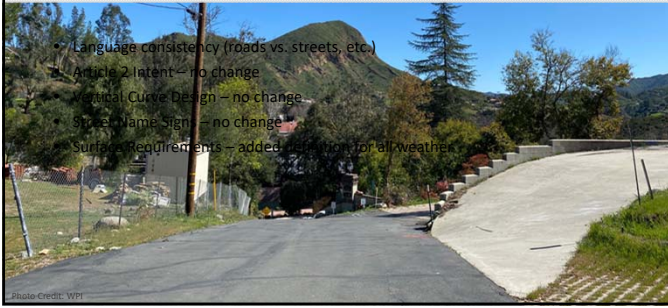
Proposed Change
<ul style="list-style-type: none"> Specifies that the requirements in this section apply to exception requests from standards in the State Fire Safe Regulations as well as exceptions from local standards determined to equal or exceed the State standards. More specific requirements for demonstrating the need for the exception and allowable alternatives to the specified standard. <ul style="list-style-type: none"> Exceptions shall only be granted where the applicant provides for an alternative means to substantially comply with the minimum standards provided in this subchapter. More specific requirements for overriding an inspector when the inspector has denied an exception request <ul style="list-style-type: none"> (e) If an appeal is granted, the local jurisdiction shall make findings that the Exception decision meets the minimum standards in this subchapter. intent of providing defensible space consistent with these regulations. Such findings shall include a statement of reasons for overriding the decision of the inspector.

Article 2: Access and Egress

(previously called Emergency Access and Egress)

Existing Sections	Proposed Sections
1273.00 Intent	1273.00 Intent
1273.01 Width	1273.01 Road Alignment and Curvature <ul style="list-style-type: none"> Horizontal and Vertical Curves/ Curb Radii
1273.02 Road Surfaces	<ul style="list-style-type: none"> Surface Elevated or Bridge Structures Grades
1273.03 Grades	
1273.04 Radius	1273.02 Road Dimensions and Clearance <ul style="list-style-type: none"> Width and Horizontal Clearances Vertical Clearances
1273.05 Turnarounds	<ul style="list-style-type: none"> Maximum Lengths of One-Way Roads Maximum Lengths of Dead-End Roads Secondary Access/Egress
1273.06 Turnouts	<ul style="list-style-type: none"> Turnouts Turnarounds
1273.07 Road and Driveway Structures	<ul style="list-style-type: none"> Gate Entrances/Driveways
1273.08 Dead-End Roads	
1273.09 Gate Entrances	

Article 2: Small Changes or Limited Effect



- Language consistency (roads vs. streets, etc.)
- Article 2 latent – no change
- Vertical Curve Design – no change
- Street Name Sign – no change
- Surface Requirements – added provision for all-weather

Article 2: Key Proposed Changes

Topic	Proposed Change
Lane Width	<ul style="list-style-type: none"> • Existing standard required 10' travel lanes (two way), and 12' lane for one-way streets. • Proposed to maintain lane width requirements, but added detail/allowances for the following: <ul style="list-style-type: none"> • Traffic calming, bike facilities, parking, etc. can be accounted for in the width requirements • Added graphics depicting width and curb radii requirements

Article 2: Key Proposed Changes

Topic	Proposed Change
Horizontal Curvature	<ul style="list-style-type: none"> • Existing standard requires minimum 50' inside radius of curvature plus with 4' shoulders; 2' shoulders for 100'+ radii • Clarity added r.e. where to measure curvature from (center of outside travel lane). • 4' shoulder maintained; reduced 100'+ radii shoulder requirement to 1' • Added detail/allowances for the following: <ul style="list-style-type: none"> • Traffic calming, bike facilities, parking, etc. can be accounted for in the width requirements

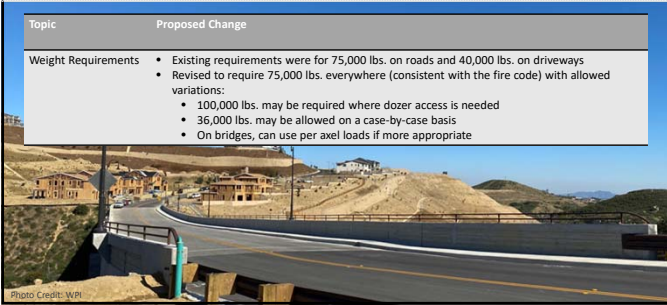
Article 2: Key Proposed Changes

Topic	Proposed Change
Height	<ul style="list-style-type: none"> Existing height requirement of 13'6" was identified for driveways and gate entrances. Now included for all facilities consistent with fire apparatus requirements



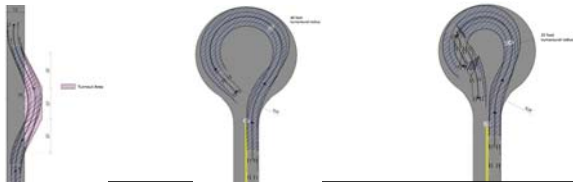
Article 2: Key Proposed Changes

Topic	Proposed Change
Weight Requirements	<ul style="list-style-type: none"> Existing requirements were for 75,000 lbs. on roads and 40,000 lbs. on driveways Revised to require 75,000 lbs. everywhere (consistent with the fire code) with allowed variations: <ul style="list-style-type: none"> 100,000 lbs. may be required where dozer access is needed 36,000 lbs. may be allowed on a case-by-case basis On bridges, can use per axel loads if more appropriate



Article 2: Key Proposed Changes

Topic	Proposed Change
Turnout/Turnaround Requirements	<ul style="list-style-type: none"> Existing turnout standard is 12' wide, 30' long, with 25' transitions Proposed turnout modified based on design vehicle turning template reducing length by 8' Existing turnaround design included a 40' radius Proposed remained the same; provided options for design variations if needed



Article 2: Key Proposed Changes

Topic	Proposed Change
Grade	<ul style="list-style-type: none"> Existing standard is a maximum grade of 16%; grades between 16% and 20% can be allowed if designed to achieve the same practical effect Proposed is similar, but added detail for design variations <ul style="list-style-type: none"> Surface treatments for grades between 16% and 20% Added maximum approach and departure grade requirements Noted that extreme weather areas may require a lower grade requirement

Table 1. Requirements for Grades of 16-20%

Grade Range	Surface Treatment	Additional Design Requirements
16.01-18%	Minimum 3" HMA ¹ over 5" of Class 2 AB ²	
18.01-20%	Minimum 3" HMA over 5" of Class 2 AB or approved equal designed by licensed engineer	Includes a transition zone of 50' of road immediately before and after with a grade less than 10%; sustained grades of 18% shall be limited to a maximum length of 200 feet.

Note: When road grades higher than 10 percent are used, transition lengths and surface treatments are required to prevent slippage or icing by the fire separator, per the requirements of § 1273.02, OR S.

Article 2: Key Proposed Changes

Topic	Proposed Change
Dead-End Roads	<ul style="list-style-type: none"> Existing requirement dependent on density, but maximum length was 5,280' Proposed Reduces maximum length of dead-end road to 2,640 feet Changed allowable lengths based on development intensity



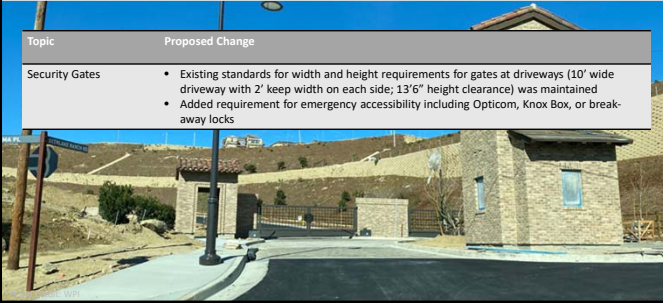
Article 2: Key Proposed Changes

Topic	Proposed Change
Secondary Access	<ul style="list-style-type: none"> Added access requirement intent when road exceeds dead-end requirement OR population/occupancy can exceed 100 persons



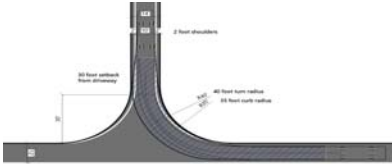
Article 2: Key Proposed Changes

Topic	Proposed Change
Security Gates	<ul style="list-style-type: none"> Existing standards for width and height requirements for gates at driveways (10' wide driveway with 2' keep width on each side; 13'6" height clearance) was maintained Added requirement for emergency accessibility including Opticom, Knox Box, or break-away locks



Article 2: Key Proposed Changes

Topic	Proposed Change
Driveway Access	<ul style="list-style-type: none"> Existing width requirement of 10' and 14' unobstructed width was maintained; maintained 13'6" height clearance Turnarounds required for driveways over 300' maintained Added graphic showing turn radius requirement for driveway access



Article 3: Signing and Building Numbering

Existing Sections	Proposed Sections
1274.00 Intent	1274.00 Intent
1274.01 Road Signs	1274.01 Road Name Signs
1274.02 Road Sign Installation, Location, and Visibility	1274.02 Road Sign Installation, Location, and Visibility
1274.03 Addresses for Buildings	1274.03 Addresses for Buildings
1274.04 Address Installation, Location, and Visibility	

Article 3: Key Proposed Changes

Topic	Proposed Change
Road Sign Installation, Location, and Visibility	<ul style="list-style-type: none"> Added references to CA MUTCD, FHWA for consistency Added specifications for letter heights based on speed and volume, retroreflectivity Added updated guidance for placement of advanced warning signs
Address Visibility	<ul style="list-style-type: none"> Kept retroreflectivity requirement; deleted remainder of section as it is covered in the building and fire codes

Figure 3A.4. Relative Locations of Regulatory Warning and Guide Signs on an Intersection Approach

Article 4: Fire Water Supply (previously called Emergency Water Standards)

Existing Sections	Proposed Sections
1275.00 Intent	1275.00 Intent
1275.01 Application	1275.01 Application
1275.02 Water Supply	1275.02 Approved Fire Water Supply
1275.03 Hydrants and Fire Valves	1275.03 Identification of Water Sources
1275.04 Signing of Water Sources	1275.04 Access to Water Sources
	1275.05 Municipal Water System Hydrants and Fire Valves
	1275.06 Dry Hydrants
	1275.07 Alternative Water Supply
	1275.08 Mobile Water Supply (Water Tenders)
	1275.09 Protection of Fire Water Supply Infrastructure from Wildfire

Article 4: Key Proposed Changes

Current Section	Proposed Change
Intent	<ul style="list-style-type: none"> Water supply for fire protection shall be available, accessible, and maintained in quantities and locations specified in this section for firefighting and emergency responder use
Application	<ul style="list-style-type: none"> Currently no change, but will re-evaluate for consistency with Article 1

Article 4: Key Proposed Changes

Current Section	Proposed Change
Approved Fire Water Supply	<ul style="list-style-type: none"> Added minimum requirements for flow that align with California Fire Code, California Code of Regulations Title 24, Part 9, Appendix B and Appendix BB Alternative/ performance-based measures reference NFPA 1142 (2017) as referenced in the California Fire Code Added requirement for fire water system to be installed and serviceable; unless alternative measures have been approved by the local jurisdiction

Article 4: Key Proposed Changes

Current Section	Proposed Change
Identification of Water Sources	<ul style="list-style-type: none"> Added requirements for identification of water sources with specific signage reflective and non-combustible properties and location requirements for driveways and roads Reference State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988

Article 4: Key Proposed Changes

Current Section	Proposed Change
Access to Water Sources (New)	<ul style="list-style-type: none"> Reference Article 2 requirements for water supplies that are accessible by roads regulated by Article 2 International Fire Code Appendix D by reference for additional performance-based requirements

Article 4: Key Proposed Changes

Current Section	Proposed Change
Municipal Water System Hydrants and Fire Valves (Updated)	<ul style="list-style-type: none">Added a performance-based alternative that will meet the minimum requirements of 500 gpm

Article 4: Key Proposed Changes

Current Section	Proposed Change
Dry Hydrants (New)	<ul style="list-style-type: none">Referenced NFPA 1142 (2017) Chapter 8 (8.3, 8.4, 8.5, 8.6, 8.7 and 8.8) for design standards of dry hydrants

Article 4: Key Proposed Changes

Current Section	Proposed Change
Alternative Water Supply	<ul style="list-style-type: none">Requirements for the NFPA 1142 (2017) Annex B as the minimum requirements for each alternative to be presented for approval by the local jurisdiction

Article 4: Key Proposed Changes

Current Section	Proposed Change
Mobile Water Tenders (New)	<ul style="list-style-type: none"> Will be allowed as an alternative water supply: <ul style="list-style-type: none"> During the construction phase of a new development, prior to the permanent fire water delivery system installation When the local jurisdiction, through a finding of fact, has determine that all other means of water supply is unachievable. The mobile water supply must be capable of providing 500 gpm for a 1-hour duration within 5 minutes of the arrival of the first apparatus The NFPA 1142 (2017) Annex C will be used for guidance to mobile water supplies to achieve minimum fire flow requirements

Article 4: Key Proposed Changes

Current Section	Proposed Change
Protection of Fire Water Supply Infrastructure (New)	<ul style="list-style-type: none"> Requirements for protecting fire water supply infrastructure from radiant and convective heat, by: <ul style="list-style-type: none"> Burial Construction with non-combustible materials Installation of defensible space Buildings to meet the California Building Code, California Code of Regulations Title 24, Part 2, Chapter 7A requirements

Article 5: Building Siting, Setbacks & Fuel Modification (previously called Fuel Modification Standards)

Existing Sections	Proposed Sections
1276.00 Intent	1276.00 Intent
1276.01 Setback for Structure Defensible Space	1276.01 Applicability
1276.02 Maintenance of Defensible Space Measures	1276.02 Lot and Block Design Plan
1276.03 Disposal of Flammable Vegetation and Fuels	1276.03 Building and Parcel Siting and Setbacks
1276.04 Greenbelts	1276.04 Ridgelines
	1276.05 Fuel Breaks
	1276.06 Greenbelts
	1276.07 Maintenance of Fuel Breaks
	1276.08 Disposal of Flammable Vegetation and Fuels

Article 5: Key Proposed Changes

Section	Proposed Change
Intent (Updated)	<ul style="list-style-type: none"> Incorporation of natural resource protection and enhancement under consideration
Applicability (New)	<ul style="list-style-type: none"> For the tentative and parcel map process when new parcels are approved by the local jurisdiction <ul style="list-style-type: none"> Lot and Block Design Plan Building and Parcel Siting and Setbacks (hazardous fuels, slopes, other buildings, ridgelines) Fuel breaks Greenbelts Maintenance of Fuel Breaks Disposal of Flammable Vegetation and Fuels For individual buildings approved by the local jurisdiction through a building permitting process, <ul style="list-style-type: none"> Building and Parcel Siting and Setbacks (hazardous fuels, slopes, other buildings, ridgelines) Disposal of Flammable Vegetation and Fuels

Article 5: Key Proposed Changes

Section	Proposed Change
Lot and Block Design Plan (New)	<ul style="list-style-type: none"> Added requirement to provide a lot and block design plan for the tentative and parcel map process Includes building envelope locations, fuel break, green space locations, access locations, grade and topography, prescribed measures and performance-based measures

Article 5: Key Proposed Changes

Section	Proposed Change
Building and Parcel Siting and Setbacks (Updated)	<ul style="list-style-type: none"> Added structure siting and slope adjustment considerations to meet PRC 4291 (Defensible Space) in private land portion: <ul style="list-style-type: none"> hazardous vegetation that can produce damaging levels of radiant and convective heat slopes greater than 15% within 100 feet of ridgelines Updated alternative measures to mitigate limitations such as development density, low-carbon targets, sensitive habitat and topography Alternative measures refer to non-combustible requirements of Building Code Chapter 7A

Article 5: Key Proposed Changes

NEW Sections	Proposed Change
Ridgelines (New)	<ul style="list-style-type: none"> Prohibition of new development within 100 feet of ridgelines to reduce structure vulnerability and provide strategic fire suppression opportunities (per legislative requirements) Ridgelines are defined as: the line of intersection at the top of any two opposing slope aspects where at least one of the slope aspects has a grade of 15% or greater, measured over a 100-foot slope distance, and the opposing slope aspect has a 0% grade or greater. The local jurisdiction shall identify ridgelines that are strategically important for fire suppression operations

Photo Credit: Wildland Professional Solutions

Article 5: Key Proposed Changes

NEW Sections	Proposed Change
Fuel Breaks (New)	<ul style="list-style-type: none"> Criteria for strategic fuel break locations <ul style="list-style-type: none"> Directly adjacent to: <ul style="list-style-type: none"> defensible space access and egress routes hazardous land uses Strategically located along ridgelines, greenbelts or other locations to manage embers or support community level fire suppression tactics Specific performance-based criteria: limit rate of spread, crown fire potential and ember production under 97th percentile weather conditions based on fire behavior modeling methodologies Required two points of access (fire suppression) for heavy equipment, engines, or firefighters

Article 5: Key Proposed Changes

NEW Sections	Proposed Change
Greenbelts (Updated)	<p>New Greenbelt definition: Land use designation intended to protect agricultural lands, open space, parks, wildlands, or a combination thereof, which surround a city or urbanized area, and restrict or prohibit development.</p> <ul style="list-style-type: none"> Referenced back to Fuel Break requirements for portions of the Greenbelts that are strategic Fuel Breaks Added large sports fields, golf courses, or some agricultural fields (depending on crop) that can serve as areas of refuge for public/ potential safety zones for firefighters which must meet minimum standards that are acceptable to the local jurisdiction <p><small>Note: Greenbelt areas intended for public areas of refuge, or firefighter safety zones must be carefully evaluated by fire behavior experts for this potential under local "worst case" fire scenarios and the fire behavior limitations and thresholds clearly understood</small></p>

Article 5: Key Proposed Changes

NEW Sections	Proposed Change
Maintenance of Fuel Breaks (Updated title only)	<ul style="list-style-type: none"> No changes (except the title)
Disposal of Flammable Vegetation and Fuels	<ul style="list-style-type: none"> Added site impact and cumulative effect consideration, such as ecological, aesthetics, safety, and other factors.

Wrap-Up & Next Steps

- Strikeout version available – December 1, 2020
- Presentations to the Board of Forestry and Fire Protection – December 8, 2020
- Final proposal to the Board of Forestry and Fire Protection – January 19, 2021
- Formal 45-day Public Comment Period begins – February 5- March 23, 2021



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