

VIA: PublicComments@bof.ca.gov

January 19, 2022

Chair J. Keith Gilless Vice Chair Darcy Wheeles Member Mike Jani Member Rich Wade Member Susan Husari Member Marc Los Huertas Member Katie Delbar Member Christopher Chase Supplemental comments on the Board of Forestry's proposed Fire Safe Regulations Page 2 January 19, 2022

Board of Forestry and Fire Protection Attn: Edith Hannigan Executive Officer P.O. Box 944246 Sacramento, CA 94244-2460

Re: Supplemental comments on the Board of Forestry's proposed Fire Safe Regulations by Ruben Grijalva and a Coalition of California Home Builders and Businesses

Dear Chair Gilless,

As a former State Fire Marshal and Director of the California Department of Forestry and Fire Protection, and on behalf of the broad coalition of California home builders and businesses that have co-signed, we stand behind the Board of Forestry's efforts to improve the health and safety of Californians given the unprecedented wildfires we have witnessed in recent years and the growing threat of climate change. In the midst of a deepening housing crisis, we recognize the critical need to provide fire safe housing. We also appreciate the Board's and staff's efforts to consider and review our comments.

We remain deeply concerned, however, that the current draft Fire Safe Regulations undermine the Governor's efforts to solve the housing crisis by preventing the construction of new fire safe homes. Our prior comments, reiterated below, have not been addressed. The unintended consequences of the current draft will harm housing production without a commensurate fire safety benefit.

Master-planned communities built to modern standards offer a tremendous opportunity to deliver critical, resilient and fire safe housing to Californians. The State Fire Marshal's statistics and our detailed analysis¹ demonstrate that homes built to California Building Code standards adopted in Chapter 7A effectively reduce fire risks to homes built in the wildland urban interface (WUI). Remarkably, when those homes are built as part of a properly planned and mitigated master-planned community, the risk of significant structural loss is extremely low.² Despite the headlines in recent years about the loss of homes to California wildfires, it has gone substantially unreported that no master-planned community built after the adoption of California Building Code Chapter 7A has suffered extensive structural losses.

The evidence demonstrates that California's wildland fire problem comes from the existing home stock built before modern Chapter 7A standards or poorly-planned developments

¹ See Exhibit A (State Fire Marshal Housing Data Analysis). We extensively analyzed State Fire Marshal data regarding recent impacts from California's mega-fires and the data shows overwhelmingly that over 98.5% of structural damage or loss occurs with homes built before modern Chapter 7A standards, and even of those new homes that were damaged, most involved isolated new construction surrounded by existing, high-risk homes (e.g., new homes lost in the Camp fire). See our comments for additional details.

² See attached Exhibit B (Master-Planned Community Case Studies).

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located in high-risk areas. These are homes commonly built in the WUI that are overgrown by many drought-ridden fuel types (brush, shrubs, trees, etc.) that are ready to burn rapidly. Many have narrow roads, inadequate fire access and evacuation routes, and inadequate water supplies.

In stark contrast, new master-planned communities must go through a strenuous environmental review under the California Environmental Quality Act and are typically planned, approved and implemented with numerous fire-safety features and measures, such as:

- Fire-hardened homes built to the latest Chapter 7A standards
- Community-wide fuel breaks, fire-resistant landscaping, and green belting
- Perpetual funding, maintenance and enforcement through an HOA
- Appropriate and reliable fire access and evacuation routes
- Adequate water supplies (studied pursuant to SB 610)
- Residential fire sprinklers
- Undergrounded project utilities
- Community design and siting to minimize fire risks (e.g., slope setbacks)
- New fire stations, fire equipment and/or funding for firefighters to provide for a rapid initial fire attack where it did not previously exist.

As currently drafted, the regulations would hamper or stop new, fire safe, master-planned communities, resulting in a blow to housing. The regulations do not account for fundamental differences between master-planned communities and one-off development. For example, the non-retroactivity provision does not account for the multiple phases of master approvals, village-level projects, subsequent internal maps, and minor amendments over time that are standard practice for master-planned communities. In short, unintended consequence from these regulations (as currently written) will obstruct master-planned communities without providing a fire safety benefit.

We respectfully request that the Board consider our detailed comments, attached. Our global concerns include:

- 1. Approved master-planned communities that address fire safety and protection should be grandfathered to avoid a regulatory do-loop that would severely harm the production of much needed housing.
- 2. The regulations must account for (and take advantage of) the differences and fire safety benefits associated with master-planned communities.

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3. The regulations must provide flexibility and a right to seek exceptions to avoid unintended consequences, the risk of which is high given the substantial expansion in regulatory scope from the State Responsibility Area to the Local Responsibility Area.

The California wildfire problem and housing crisis did not happen overnight. These entrenched problems will not be resolved quickly. But master-planned communities present a unique opportunity for critical, resilient and fire safe housing. We once again thank the Board for this opportunity to comment. We remain committed to working with staff to address our comments and offer insights from our unique coalition of California home builders and businesses.

Sincerely,

Ruben Grijalva

Former State Fire Marshal and CalFire Director

Dan C. Dunmoyer President and CEO California Building Industry Association

Matthew Hargrove President & Chief Executive Officer California Business Properties Association Also on behalf of: NAIOP California Building Owners and Managers Association of California (BOMA Cal) Institute of Real Estate Management (IREM) ICSC

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Steve McCarthy Vice President, Government and Regulatory Affairs California Retailers Association

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John Kabateck California State Director National Federation of Independent Business (NFIB)



MEMORANDUM

January 18, 2022

To: Dan Dunmoyer, President and CEO of CBIA
From: Bob Raymer¹
Subject: Analysis of State Fire Marshal Property Loss Data

This memorandum evaluates Office of the State Fire Marshal data to determine how new homes constructed after January 1, 2010 fared in the ten worst property-loss fires dating back to 2017, compared to homes built prior to 2010.

I. METHODS

The State Fire Marshal maintains an extensive data retrieval service of fire incidents across the state, including those related to fires occurring in the Wildland-Urban Interface (WUI).² For the nine worst property-loss fires dating back to 2017, CBIA requested residential data that identified:

- Whether the dwelling was single-family or multifamily;
- damage assessment (destroyed, major damage, affected, no damage);
- valuation of the structure; and
- year the structure was built

The data provided by the State Fire Marshal is attached hereto. Regulatory standards applicable to new construction include:

• The State Fire Marshal's "fire hardening" building standards³

¹ Bob Raymer has degrees in Mechanical Engineering (Bachelor of Science), Engineering Technology/Physics (Bachelor of Science and Environmental Science (Bachelor of Arts). He is a licensed Professional Engineer in the State of California and has been involved in building code development and implementation at the state and national level for 40+ years.

² See California Incident Data and Statistics Program, available at <u>https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/california-incident-data-and-statistics-program/</u>.

³ Cal. Code. Regs Title 24, Part 2, Chapter 7A

- Defensible space mandates⁴
- Cal Fire's Fire Safe Development Standards⁵

We selected January 1, 2010 as a conservative date after which these rules were being consistently implemented in new construction in the WUI in California. The results of our analysis are provided below.

II. SUMMARY OF FINDINGS

On average, for the nine worst property-loss fires dating back to 2017, only approximately 1% of the homes and apartments destroyed, damaged, or affected were new dwellings (built after 1/1/10) even though new dwellings make up roughly 7% of the state's total housing stock.

Between 1/1/10-1/1/2020, roughly 1 million homes and apartments were built out of a total housing stock of 14 million, based on building permit data tracked by the Construction Industry Research Board (CIRB). For all these fires, evidence indicates that substantial, initial residential development took place in the period of 1945-1980, decades before these critical rules were put in place.⁶

New homes fared extremely well compared with older neighborhoods during these major fires. Of the 31,000 data points retrieved from the State Fire Marshal, it was extremely rare to see more than two new homes on the samestreet destroyed or affected by the fires, while it was commonplace for entire neighborhoods of older dwellings to be destroyed. As opposed to custom home production where a single home is done separate of others, production-style home development is done in phases, usually 8-15 homes at a time. This typical production-style construction creates blocks or areas of fire-resistant homes, which are much more effective at withstanding wildfire intrusion and decreasing home-to-home spread. Notably, we are not aware of any master-planned community in California constructed after January 1, 2010 (i.e., a planned community with all new homes and typically including measures such as fuel breaks) suffering significant structural loss even during extreme fire events.

As illustrated below, we analyzed data from the nine worst property loss fires over the past seven years, and there was no case of more than three "new homes" in the same contiguous area being destroyed. There was only one case where three new homes next to each other were destroyed. These findings are in stark contrast to older homes, where it was commonplace for groups of homes to be destroyed at the same time, even entire neighborhoods. In this way, new

⁴ Pub. Res. Code 4291.

⁵ Cal. Code Regs. Title 14, Division 1.5, Chapter 7 Fire Protection, Subchapter 2, Articles 1-5 (SRA Fire Safe Regulations).

⁶ See age-of-dwelling data provided by the State Fire Marshal as described herein.

homes not only are more fire protective individually as compared to older homes, but new homes (particularly aggregations of new homes) help resist the spread of fire within residential areas by decreasing home-to-home spread and ember intrusion-based spread.

III. FIRE SPECIFIC DATA⁷

- A. Camp Fire
 - **1.** Total Structures Affected or Destroyed: 10,582



- Homes Built After 2010: 136
- Homes Built Before 2010: 10,446
- 2. Data

Total Homes Destroyed/Major Damage/Affected: 10,582

Built after 1/1/10:	112 destroyed = 0.0106	(3 homes on same
street)		
	$\underline{24 \text{ affected}} = 0.0022$	

 $1\overline{36}$ total = 0.0129 or 1.3%

B. Carr Fire

1. Total Structures Affected or Destroyed: 1,082

⁷ Information taken from State Fire Marshal data attached hereto.



- Homes Built After 2010: 36
- Homes Built Before 2010: 1,046
- 2. Data

Total Homes Destroyed/Major Damage/Affected: 1,082

	36 total	= 0.0333 or	3.3%
	12 affected	= 0.0111	
same street)			
Built after 1/1/10:	24 destroyed	= 0.0222	(9 homes on

C. CZU Lightening Fire

1. Total Structures Affected or Destroyed: 998



- Homes Built After 2010: 7
- Homes Built Before 2010: 992

2. Data

Total Homes Destroyed/Major Damage/Affected: 998

Built after 1/1/10:	5 destroyed	= 0.0050	(no homes on
same street)			
	1 affected	= 0.0010	
	1 inaccessible	e = 0.0010	
	7 total	= 0.0070 or 0.7%	

D. Glass Fire

1. Total Structures Affected or Destroyed: 737



- Homes Built After 2010: 10
- Homes Built Before 2010: 727
- 2. Data

Total Homes Destroyed/Major Damage/Affected: 737

	10 Total	= 0.0136 or 1	1.4%
	6 affected	= 0.0081	
street)			
Built after 1/1/10:	4 destroyed	= 0.0054	(No homes on same

E. LNU Lightening Fire

1. Total Structures Affected or Destroyed: 1,559



- Homes Built After 2010: 12
- Homes Built Before 2010: 1,547
- 2. Data

Total Homes Destroyed/Major Damage/Affected: 1,559

	12 Total	= 0.0077 or	0.8%
	7 affected	= 0.0045	
street)			
Built after 1/1/10:	5 destroyed	= 0.0032	(2 homes on same

F. North Complex Fire

1. Total Structures Affected or Destroyed: 732



- Homes Built After 2010: 8
- Homes Built Before 2010: 724

2. Data

Total Homes Destroyed/Major Damage/Affected: 732

	8 Total	= 0.	0109 or 1.1%	
	1 affected	= 0.0014		
street)				
Built after 2010:	7 destroyed	= 0.0096	(No homes on sa	me
Ruilt after 2010.	7 destroyed	- 0.0096	(No homes on sa	

G. Nuns Fire

1. Total Structures Affected or Destroyed: 687



- Homes Built After 2010: 12
- Homes Built Before 2010: 675
- 2. Data

Total Homes Destroyed/Major Damage/Affected: 687

	12 Total	= 0.0175 or 1.	8%
	2 affected	= 0.0029	
street)			
Built after 2010:	10 destroyed	= 0.0146	(2 homes on same

H. Thomas Fire

1. Total Structures Affected or Destroyed: 855



- Homes Built After 2010: 6
- Homes Built Before 2010: 848
- 2. Data

Total Homes Destroyed/Major Damage/Affected: 855

	6 Total	= 0.0	0070 or 0.7%
	1 affected	= 0.0012	
street)			
Built after 1/1/10:	5 destroyed	= 0.0058	(4 homes on same

I. Woolsey Fire

1. Total Structures Affected or Destroyed: 1,319



- Homes Built After 2010: 19
- Homes Built Before 2010: 1,300

2. Data

Total Homes Destroyed/Major Damage/Affected: 1,319

Built after 1/1/10:	12 destroyed	= 0.0091	(2 homes on same
street)			
	7 affected	= 0.0053	

19 Total = 0.0144 or 1.4%

Exhibit B - Master-Planned Communities Case Studies





Silverado Fire 2020

re protection plan took

ominate wind directions into

Irrigated Fuel Modification (Zone B) Thinning Fuel Modification (Zone C)

No structures lost or damaged

Fire burned on all side of development withou loss or damage

In framing stage

for the curan

Fuel modification installed prior to construction



No structures lost or damaged

emergency access and evacuation routes

Topography used to advantage

protection plan took dominate wind directions into

CARE AND CON

evacuation routes

Irrigated Fuel Modification (Zone B)

Thinning Fuel Modification (Zone C)

Orchards used to advantage

No structures lost or damaged

The second

Fire-resistant homes with non-

In framing stage

Heat damage to orchards not homes

Fuel modification distance

used to advantage

Fire protection plan took predominate wind directions into account

Irrigated Fuel Modification (Zone B) Thinning Fuel Modification (Zone C)

No structures lost or damaged

Fuel modification worked as designed

Fire protection plan took predominate wind directions into account

Buffer zone: Low growth, irrigated, properly spaced, maintained

No structures lost or damaged

"Notably, all the homes damaged or destroyed in the Freeway Complex Fire were constructed prior to 1996. Thus, they were not protected by the CFC provisions required by the City's ordinance for WUI areas. However, the homes in Casino Ridge met the requirements of the 1996 ordinance. They were also protected by a relatively new fuel modification program. Firefighters stated they were able to focus resources and efforts on other areas of the city as this community was developed to withstand a wildfire with little firefighting intervention." (OCFA After Action Report – Freeway Complex Fire 2008) **NOTE:** Current Codes provides even more protection



Fire front approaching the Casino Ridge community

No Homes lost or damaged in Casino **Ridge with fire on all four sides**

Yorba Linda, Orange County, CA Casino Ridge Community (Freeway Complex Fire 2008)







LA County - Stevenson Ranch

Additional Materials

1. L. Sommer, *Living With Fire: This California Neighborhood Was Built to Survive a Wildfire. And It Worked*, KQED (June 3, 2019), available at https://www.kqed.org/science/1941685/this-california-neighborhood-was-built-to-survive-a-wildfire-and-it-worked.

"On Oct. 21, 2007, the Santa Ana winds carried the Witch Fire into town, the flames funneled through low valleys or "avenues of fire," as Cox calls them. 'It was like raining fire,' he said. 'I remember going down some streets down here, La Breccia, and it's like, man, if I go down there, I don't know if I'm going to make it back out.' Even before the fire actually hit, Cox had a problem.

'The fire wasn't even close, but we had homes burning,' he said. 'I would drive down the road and it was, like: How did that house catch on fire?' The answer was embers, blown far ahead of the fire front. They'd land on a wood roof or leaffilled gutter, or even get sucked into an attic vent. In many fires, the majority of homes are ignited this way. Cox and his crew rushed around the evacuated neighborhoods, trying to stop the flames from spreading to neighboring homes.

But then they got to one subdivision that was, surprisingly, calm.

'The only thing we had to do was put out a couple palm trees and the plastic trash cans that were burning,' Cox said.'The houses were perfectly OK. It was amazing.'

Why? The neighborhood had been designed and built with wildfire in mind."

(Emphasis added.)

2. D. Kessler, P. Reese, *Millions bracing for wildfire season wonder if their homes are safe*, Sacramento Bee (April 11, 2019), available at <u>https://www.redding.com/in-depth/news/2019/04/11/california-wildfire-prevention-protection-home/3412609002/</u>.

"A landmark 2008 building code designed for California's fire-prone regions — requiring fire-resistant roofs, siding and other safeguards — *appears to have protected the Carrells' home and dozens of others like it from the Camp Fire.*"

(Emphasis added.)

3. A. Fausto, *Silverado fire evacuees return to O.C. neighborhoods surrounded by scorched earth, but no homes destroyed*, OC Register (October 30, 2020), available at https://www.ocregister.com/2020/10/28/firefighters-make-big-progress-on-silverado-fire-reaching-25-containment/.

"No homes were reported damaged so far, as firefighters continued to make progress against the blaze. Crews working overnight held the fire to 13,354 acres, with no growth from Tuesday night. It grew by 36 acres through the course of Wednesday, and had charred 13,390 acres by 7 p.m. Wednesday, Cal Fire officials said. Containment rose to 32%, up from 5% Tuesday night."

4. D. Murphy, *In California's Inferno, an Oasis of Fire Safety Planning Stands Out*, New York Times (November 2, 2003), available at https://www.nytimes.com/2003/11/02/us/in-california-s-inferno-an-oasis-of-fire-safety-planning-stands-out.html.

"But as Southern Californians search for lessons from the state's worst fire season on record, this *planned community at the edge of the Santa Susana Mountains is being viewed as a primer in fire survival*.

'Not one house lost, not one life lost,' said Gail Ortiz, who works for the City of Santa Clarita. 'It is what everyone is talking about.'

...

But with much of Southern California ablaze, and thousands of firefighters deployed in losing battles from the mountains to the desert, *Stevenson Ranch became a dream firefighting assignment* as winds unexpectedly pushed flames from the so-called Simi fire into the Santa Clarita Valley."

(Emphasis added.)

5. *Fire Adapted Communities: The Next Step in Wildfire Preparedness*, University of Nevada, SP-11-01 (2019), available at <u>https://surviving-wildfire.extension.org/wp-content/uploads/2019/08/UNCE_FAC_sp1101.pdf</u>.

"Fire Adapted Community: Carson City's Wellington Crescent subdivision was threatened by the Waterfall Fire in 2004. *The community fuelbreak, good access, ignition-resistant building construction and defensible landscapes helped ensure that no homes or lives were lost.*"

(Emphasis added.)

 Land use planning can reduce wildfire risk to homes and communities, Headwaters Economic (April 2020), available at <u>https://headwaterseconomics.org/wp-</u> <u>content/uploads/HeadwatersEconomics_LUPLanning_Wildfire_Report_April_2020.pdf</u>.

> "Wildfires are crucial to ecosystem functionality and revitalization of forests and landscapes. Attempting to extinguish all wildfires is costly, dangerous, and unrealistic. Homes and communities need to be designed ahead of time to survive a wildfire. *By applying land use planning tools—such as development plans, regulations, and building codes—communities can become better fire-adapted and resilient in the face of increasing wildfire potential.*"