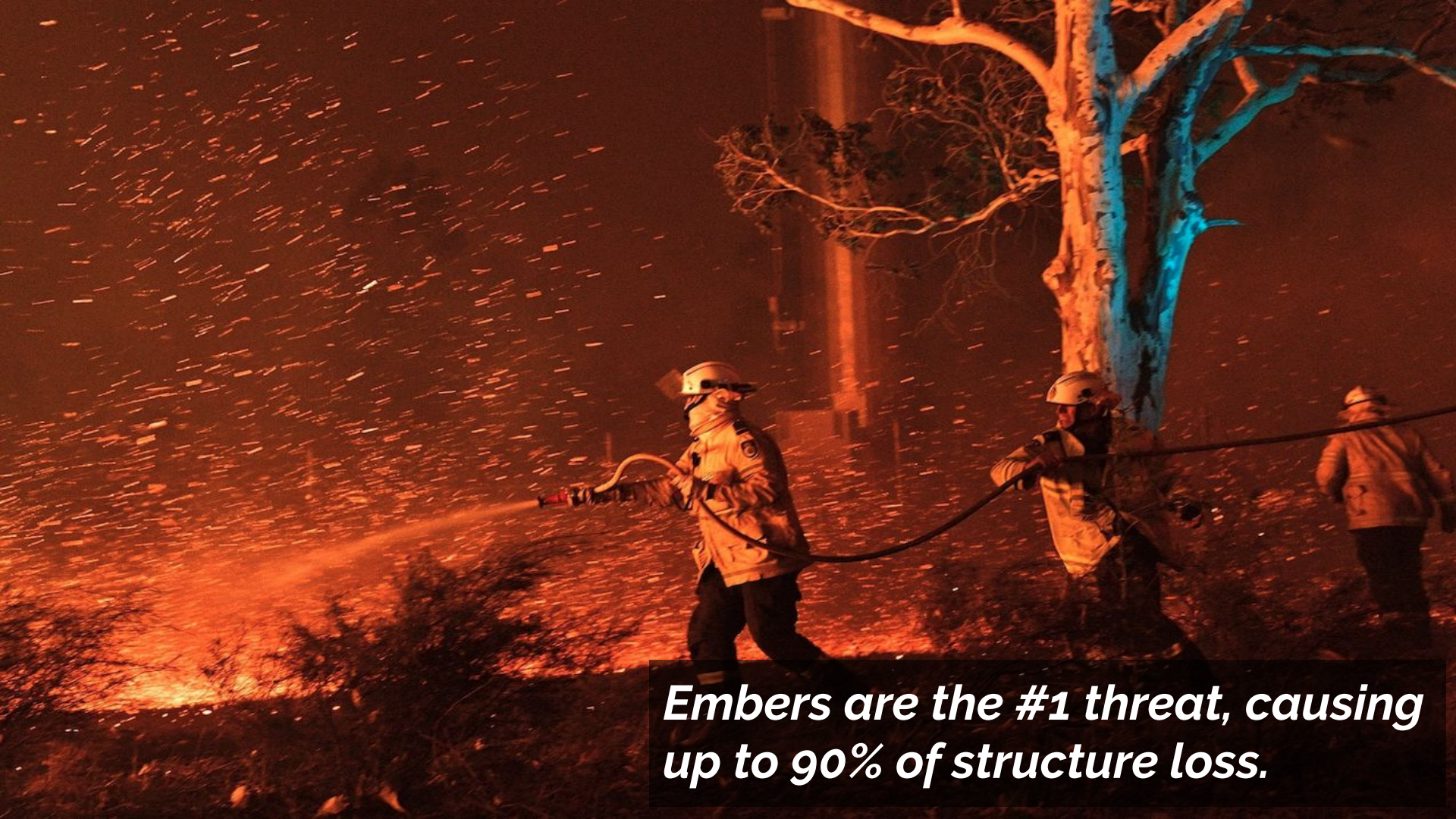
FRONTLINE®
WILDFIRE DEFENSE

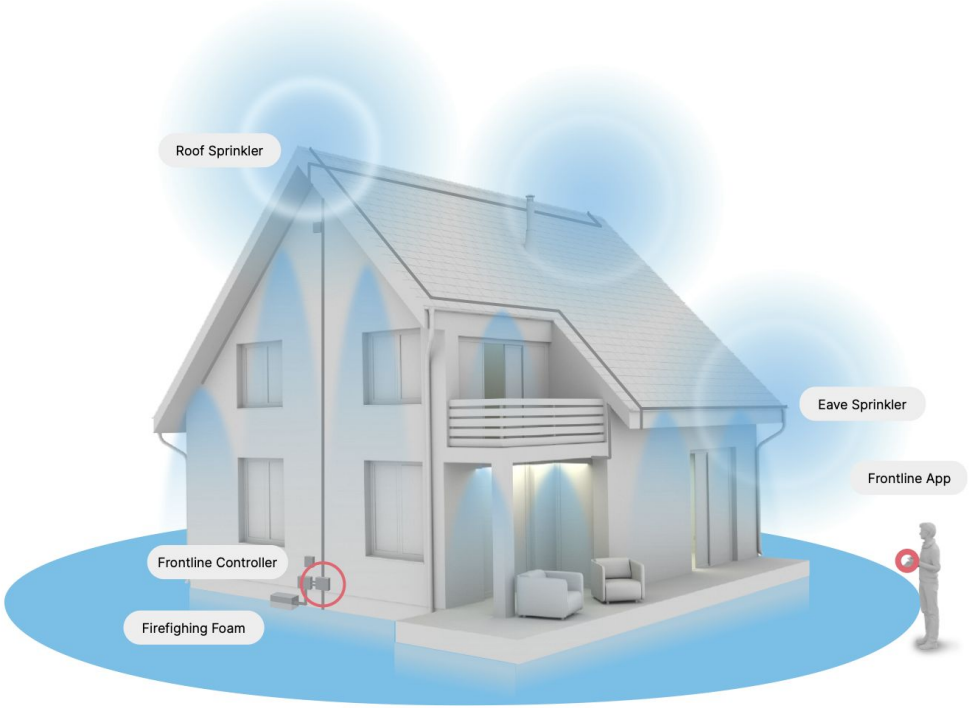
Frontline: Solutions for Wineries

Richard Hart | 06.22.22


Embers are the #1 threat, causing up to 90% of structure loss.

The Frontline Wildfire Defense System: Proactive, continuous hydration prevents ember ignition.

- Customized design & installation
- Class A, biodegradable firefighting foam (optional)
- Remote activation with the Frontline App
- WiFi, cell, & satellite connectivity
- Five day+ backup power supply
- Backup water supply options



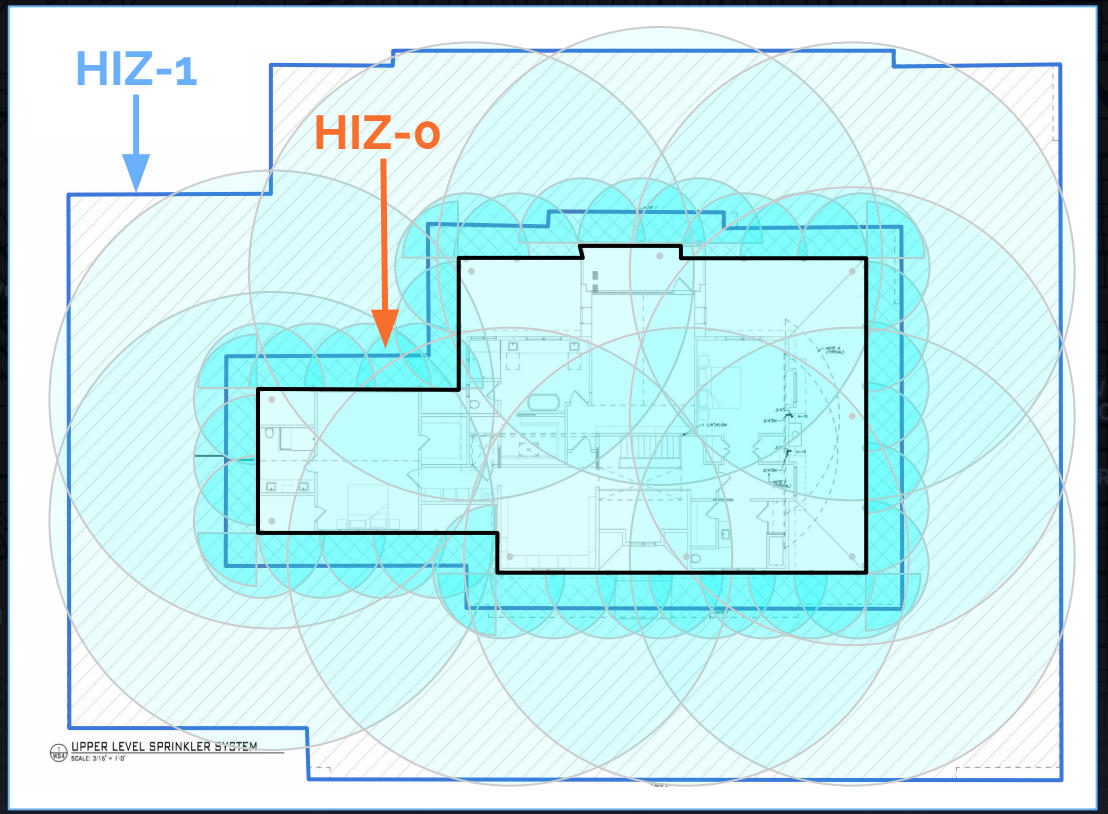
Each system is custom designed to achieve the Frontline hydration prescription.

Critical Zone: HIZ-0

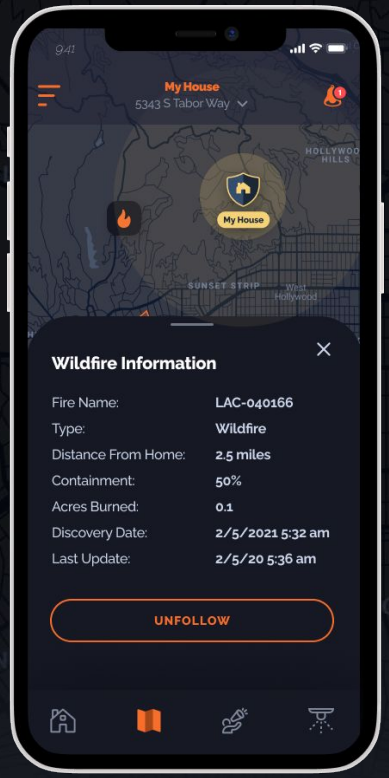
- Eave sprays
- 100% overlap
- Applying a density of 0.9”/hour (0.95 gpm/100 sq ft)

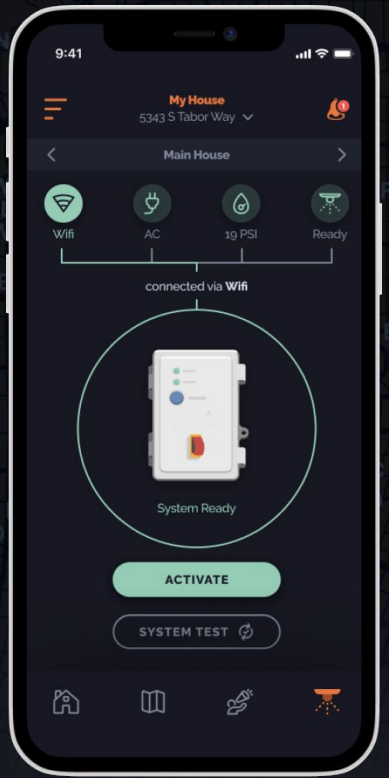
Intermediate Zone: HIZ-1

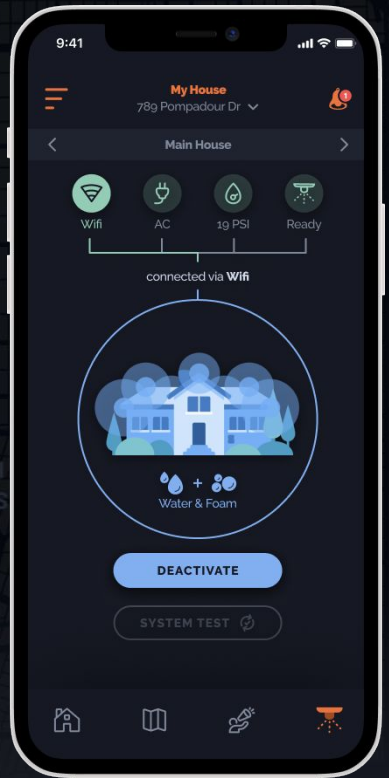
- Roof rotors
- 60%-70% overlap
  Applying a density of 0.18”/hour (0.19 gpm/100 sq ft)



The Frontline app allows you to monitor fire in the area and control your system from anywhere.








ACTIVE
FRONTLINE®
WILDFIRE DEFENSE

To discuss Frontline for your business please contact:

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Thank you!

Frontline Stats

3,250+ Frontline system activations since 2019

$1B in real estate protected

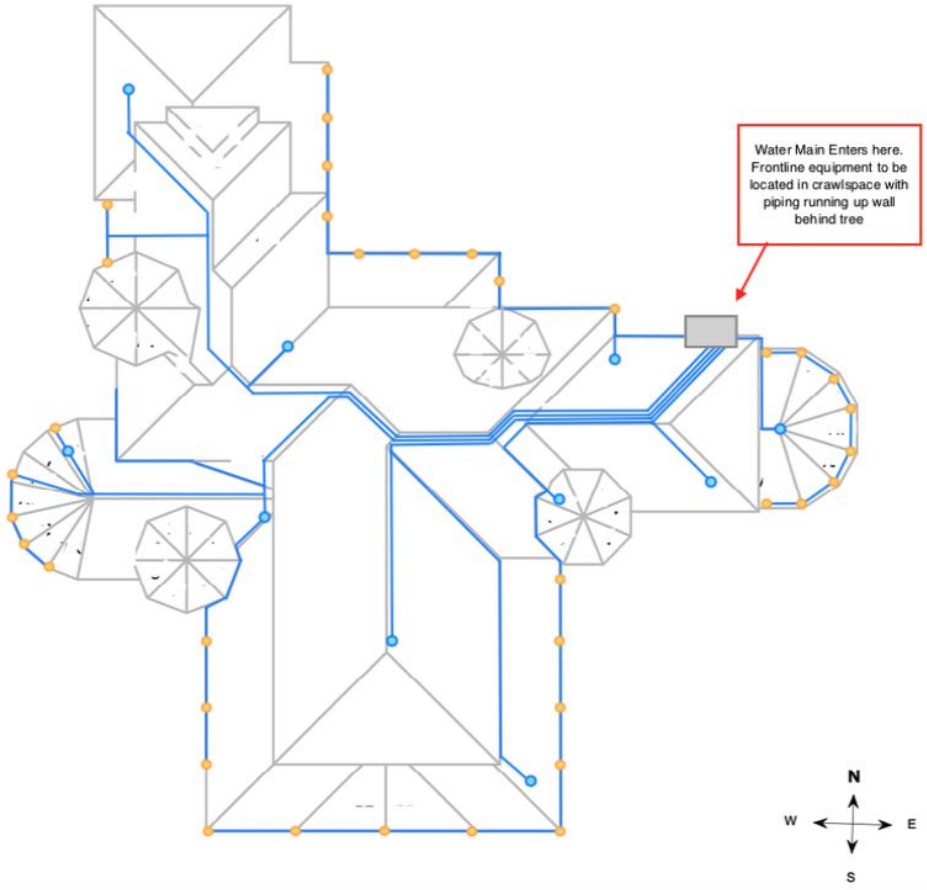
200 systems installed

2x - Frontline revenue growth every year since 2019

Zero Frontline protected structures lost to wildfire

APPENDIX

Sample System layout - Tasting Room



Notes:

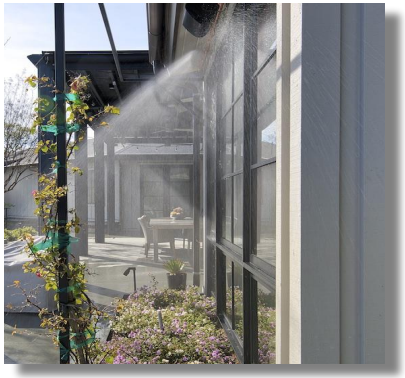
- Blue dots represent Roof Sprinklers, and Orange dots represent Eave Sprinklers
- Proposed equipment location is at NE corner of building with piping running up behind the tree there
- Piping will be run below ridges, along sides with less ground visibility.
- Adjustments can be made during installation as well

Spray Heads - below are examples of spray heads we use. Actual hardware will be determined by specific project parameters.

Location on on building: Roof

Specification: 6" Tall, Stainless Steel Body Encapsulated in Plastic Housing, or Open Honeycomb Body

Radius Treated: 30' to 60' (subject to hydraulic pressure)



Location on building: Eaves, Overhangs, Ceilings

Specification: 3/4" Diameter, Brass Body

Radius Treated: 15' (subject to hydraulic pressure)

Eave Zone Activations - below are examples of Eave Zones in action. Zones activate in a cyclical fashion to maximize available water.

Water Supply - A Hardened, Modular, and Redundant Approach

Primary Source

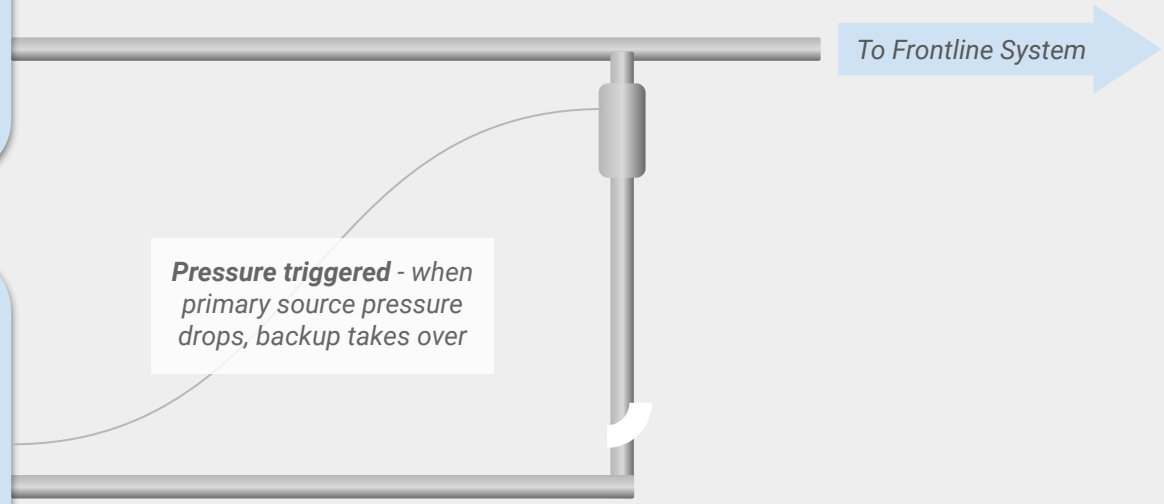
- Municipal, Well, or Tank

NOTE: if well or tank requires a pump, that pump will require a backup power source

Backup Source (optional add-on to Primary Source)

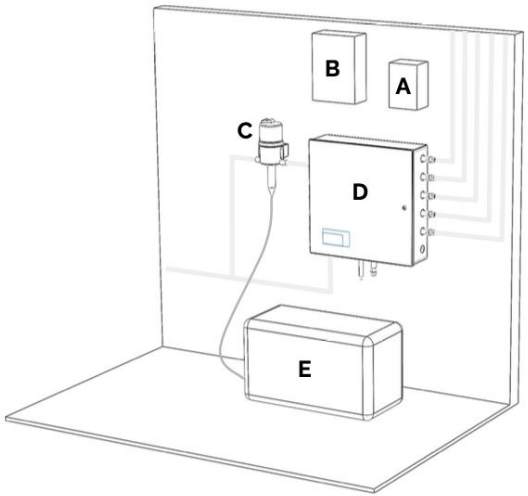
- Pool
- Storage Tank
- Well

Typically pump driven, and as mentioned above, that pump will require a backup power source



Core Frontline System

Below are the Frontline equipment schematic and a recent installation



FRONTLINE SYSTEM LAYOUT

LEGEND			
ID	QTY	DESCRIPTION	DIMENSIONS (W x H x D)
A	1	FRONTLINE CONTROLLER	8" x 12" x 6"
B	1	UPS - BACKUP POWER SYSTEM	13" x 18" x 6"
C	1	FOAM PROPORTIONER	10" x 21" x 8"
D	1	1-6 ZONE MANIFOLD *[7-9 ZONE MANIFOLD]*	30" x 30" x 8" *[30" x 24" x 12"]*
E	1	50 GALLON FOAM TANK *[30 GALLON FOAM TANK]* *[100 GALLON FOAM TANK]* *OTHER SIZES AND FORM FACTORS CAN BE REQUESTED*	38" x 22" x 19" *[24" x 22" x 19"]* *[38" x 30" x 30"]*

July 1, 2022 Release

Effectiveness of Exterior Sprinkler Systems

Exterior Fully Automated Fire Sprinkler Systems are an Effective Solution Recognized by the Insurance Industry

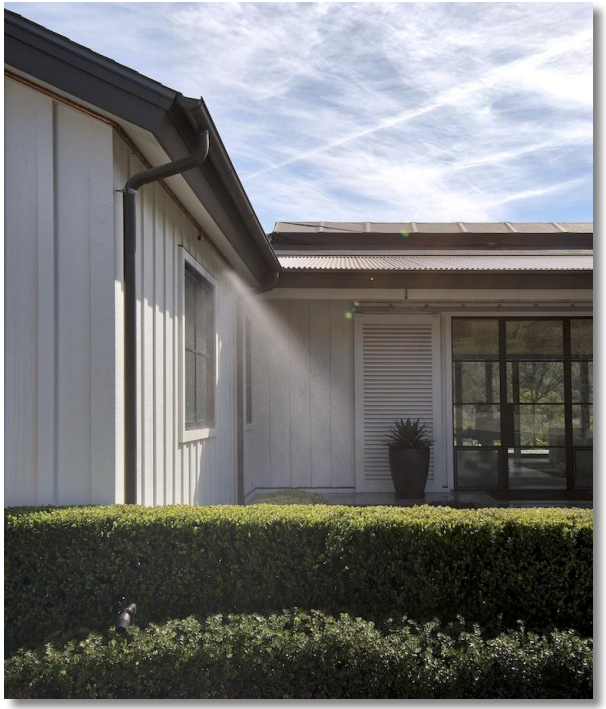
- 2nd most effective risk reduction strategy after Class A Roofing material
- More effective than defensible space or community awareness on their own
- One of four key elements of comprehensive risk reduction (**Sprinklers**, Structure Materials, Defensible Space, Community Program)

U.S. Wildfire Model
Accounts for Structure and Mitigation

Mitigation	AAL Reduction*
Roofing Material	
Class A Roof - Highest Fire Rating - ASTM E-108	59%
Class B Roof – Moderate Fire Resistance	39%
Class C Roof – Light Fire Resistance	18%
Exterior Walls	
Fire Rated Siding	6%
Fire Rated Windows	2%
Sprinkler Systems	
External Fully Automated Sprinkler System	50%
Perimeters	
Non Combustible Zone (0-5 feet)	2%
Lean, Clean and Green (5-30 feet + above)	7%
Reduced Fuel Zone (30-100 feet + above)	31%
Community	
Fire Aware Community Program (Full Adopted)	10%
All Mitigations and Remediations Applied	
Best Structure Materials + Sprinklers + Perimeters + Community Program	96%

* Using a 2-Storey Wood Frame House with Unrated Roof For Fire as the Baseline

Class A Foam Concentrate



- At the user's command, the Frontline System deploys **PHOS-CHEK First Response Class A Foam Concentrate** for extra protection during an imminent threat
- Foam acts as a **surfactant**, breaking the surface tension of the water and allowing for easier absorption into combustible materials
- Approved for use by the United States Forest Service as a Fully Qualified Class A Foam for wildland fire management
- Fully biodegradable and non-toxic

FIRST RESPONSE
CLASS A FOAM CONCENTRATE

PHOS-CHEK
FIRE RETARDANT | FOAM | GEL