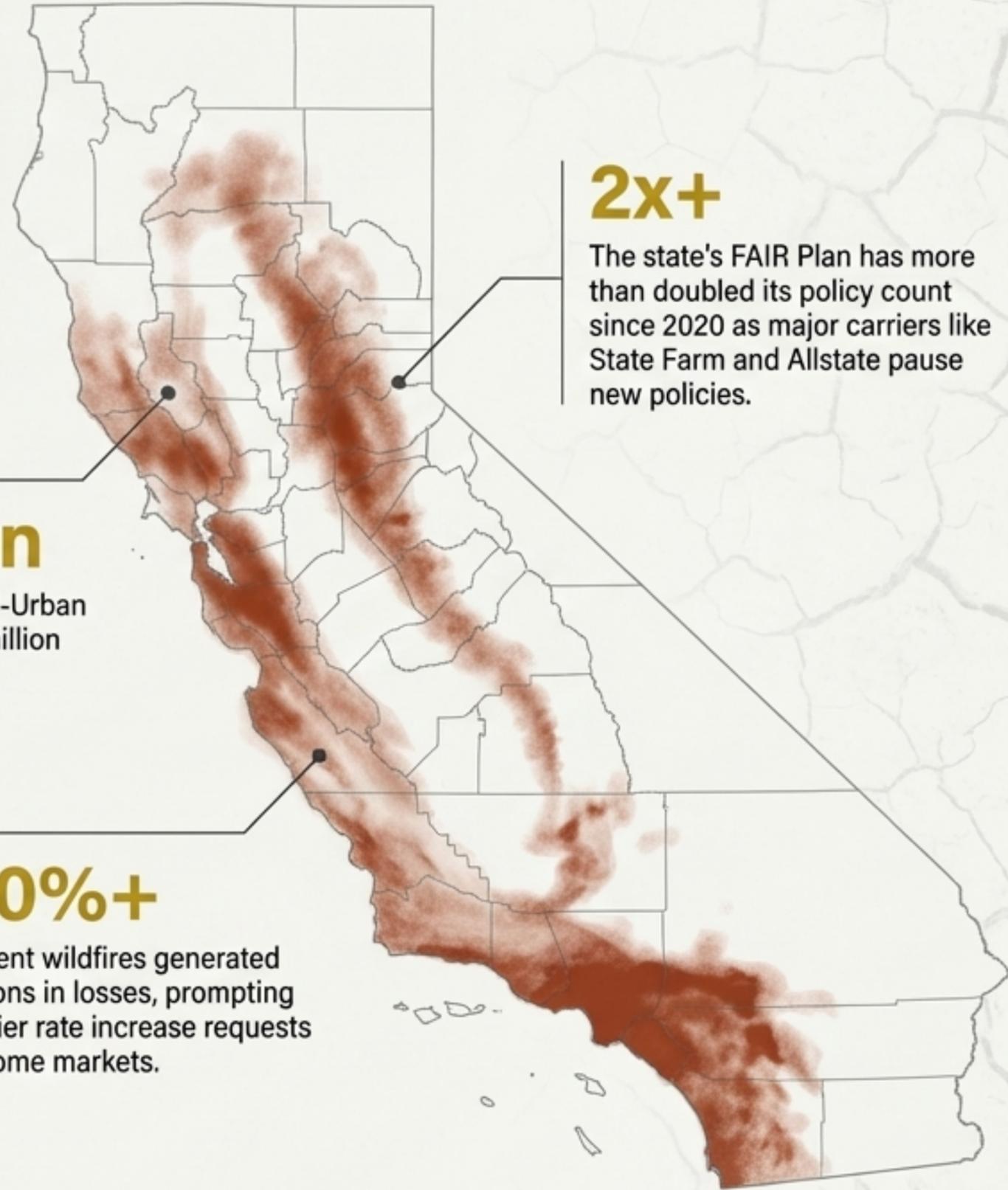


# The Geo-Core The Geo-Core Defense System™

Vertical Infrastructure for a Burning World.

YesCraft LLC

# The Wildland-Urban Interface is at a Breaking Point



“Homeowners’ insurance coverage in the wildland-urban interface (WUI) is increasingly difficult to obtain and, if available, is unaffordable to many that need it.”

— California Department of Insurance, cited in the NAIC Report



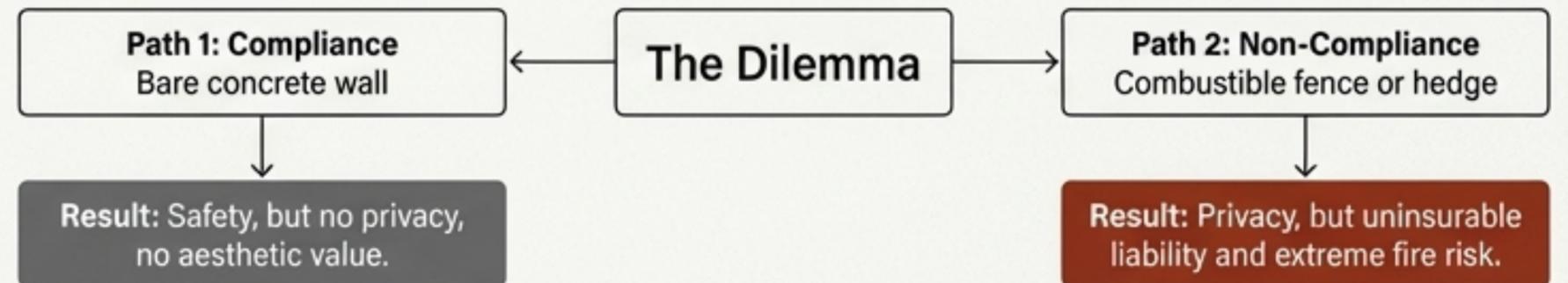
The Center for Insurance Policy and Research

# The Traditional Fence is a Fuse to the Home



## Core Thesis

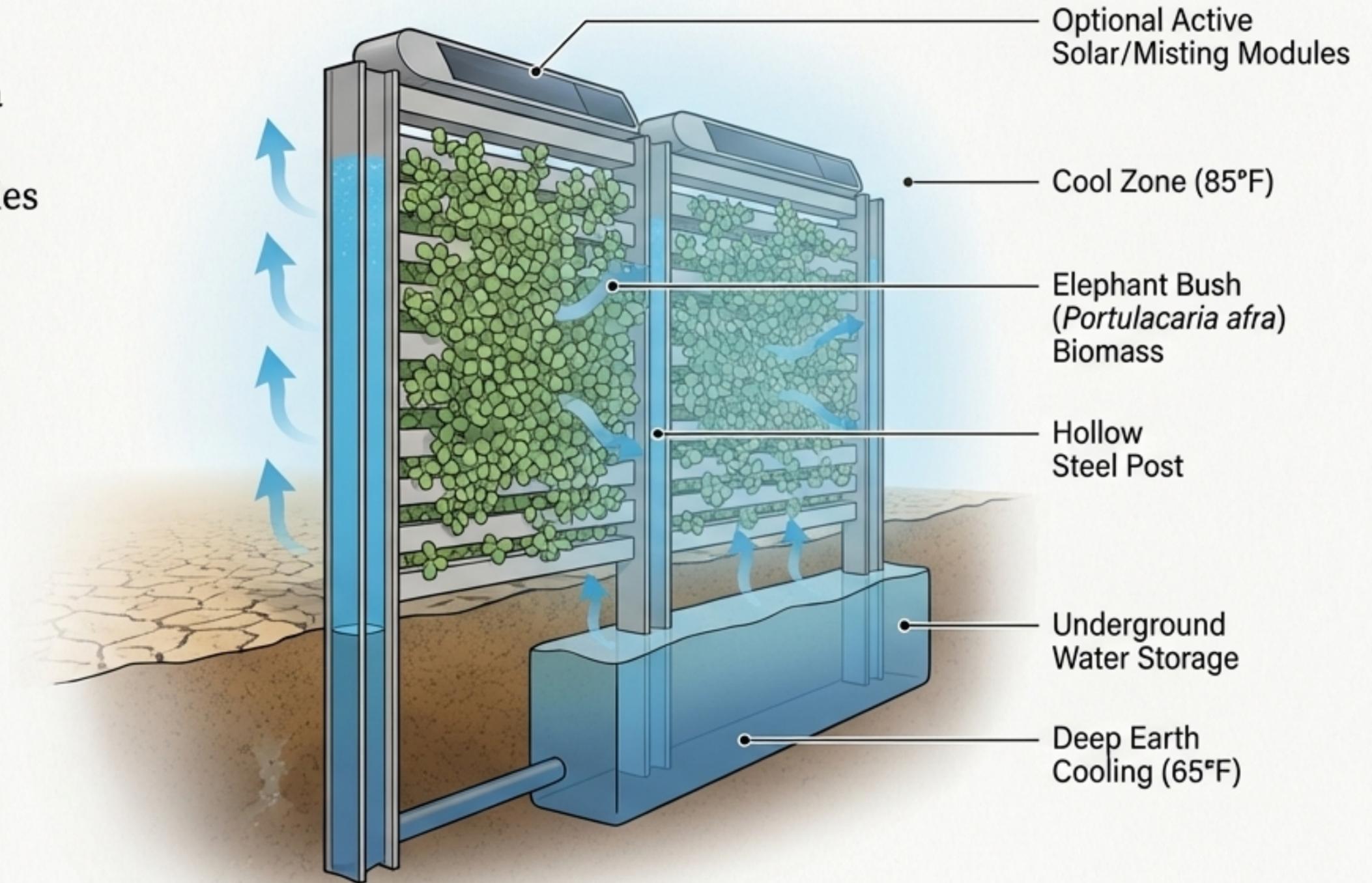
In the era of mega-fires, a wood or vinyl fence is an obsolete liability. It violates new “Zone 0” defensible space mandates (California AB 3074), which require a 0-5ft “Ember-Resistant Zone.”



Homeowners are currently forced to choose between Safety and Privacy. There is an immediate need for Privacy without Flammability.

# A New Category of Defense: The Hydrated Firewall

The Geo-Core Defense System™ is a modular infrastructure platform that replaces combustible boundaries with deep-earth steel reservoirs. It utilizes subterranean geothermal cooling and fooling and harvested rainwater to create a permanent, passive fire and flood defense system that operates without power.



# The Science of Resilience: Geothermal Cooling

**The 'Thermal Delta' Principle:** Our system leverages the stable temperature of the earth (avg. 65°F) to create a powerful thermal buffer.

**1. Heat Source:**  
Wildfire approaches



**2. The Barrier:**  
Hollow steel  
thermal reservoir



**3. The Heat Sink:** Deep-earth embedment provides constant cooling to ~65°F via passive heat exchange.



**4. The Result:** The system acts as a "cool radiator," creating a micro-climate that keeps the living biomass hydrated and below ignition temperature.



This is a **Thermodynamic Fire Barrier**, not just a physical one.

**IP Note:** This core principle—using the earth to cool a fire barrier, rather than using water to cool a building—is the foundation of our patent strategy.

# The Living Component: A High-Performance Biomass



## Introducing *Portulacaria afra* (Elephant Bush)

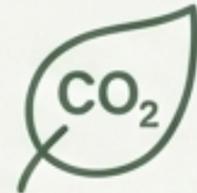
A succulent specified for the Geo-Core system for its unique combination of resilience and ecological benefits.



**Fire-Resistant:** High moisture content and succulent nature make it difficult to ignite.



**Drought-Tolerant:** Utilizes Crassulacean acid metabolism (CAM) to maximize water-use efficiency, thriving on harvested rainwater. (Source: Guralnick & Gladsky, 2017)



**Exceptional Carbon Sequestration:** Capable of sequestering up to 15.4t CO<sub>2</sub> per hectare per year. (Source: Mills & Cowling, 2014)



**Ecological Keystone:** Its growth helps restore soil and create a more hospitable environment for other native species.

# Engineered to Pipeline Standards for a 50+ Year Asset Life

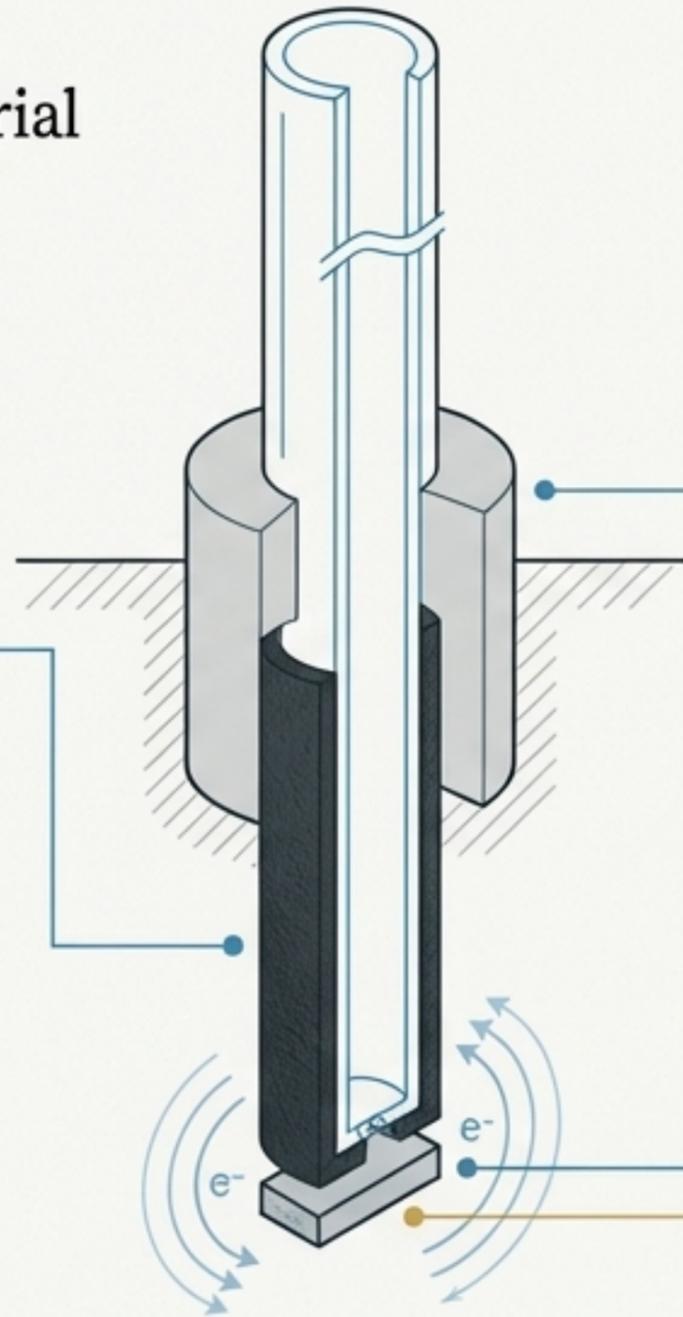
We have rejected PVC and hybrid designs. The Geo-Core system is built using industrial pipeline standards to guarantee longevity and performance.

## The "Rust-Proof" Protocol



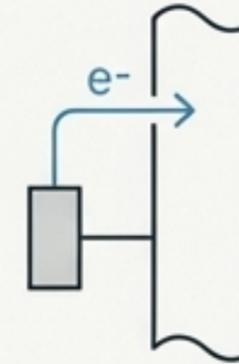
### 1. Bituminous Epoxy Shield:

All subterranean steel is dip-coated in marine-grade coal tar epoxy.



### 2. Cathodic Protection:

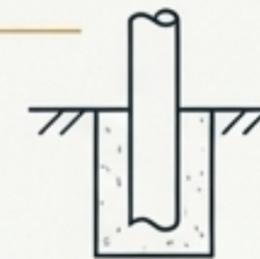
- Every post is fitted with a Sacrificial Zinc Anode at its base. The earth's galvanic action corrodes the zinc, preserving the steel.



Sacrificial Zinc Anode

### 3. Concrete Locking Collar:

The top 24" of embedment for Class B systems are encased in concrete, preventing shear and locking the post in place.

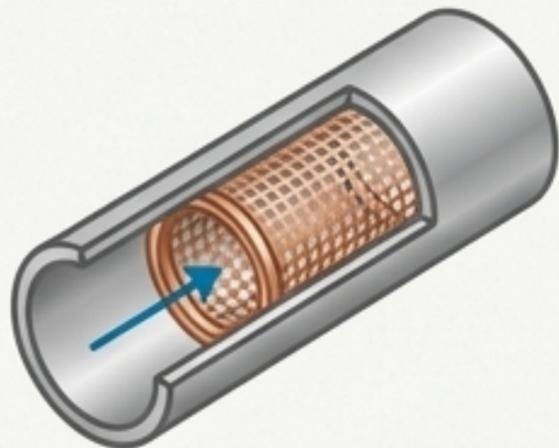


A durable, low-maintenance asset that aligns with 'Resilient Infrastructure' grant requirements.

# Anticipating Challenges: Red Team Analysis & Integrated Solutions

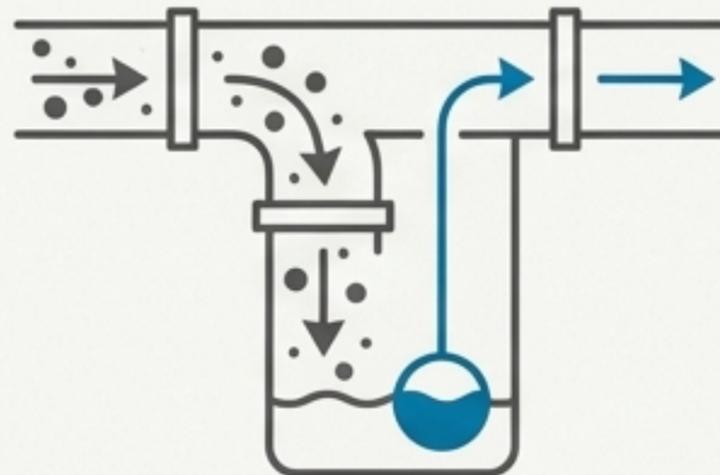
## It's a Legionella trap.

The **Copper-Ion Bio-Safety Interface**. All inlet manifolds contain copper mesh. This passive, power-free, and proven anti-microbial material inhibits Legionella and biofilm formation. This is a patentable method claim.



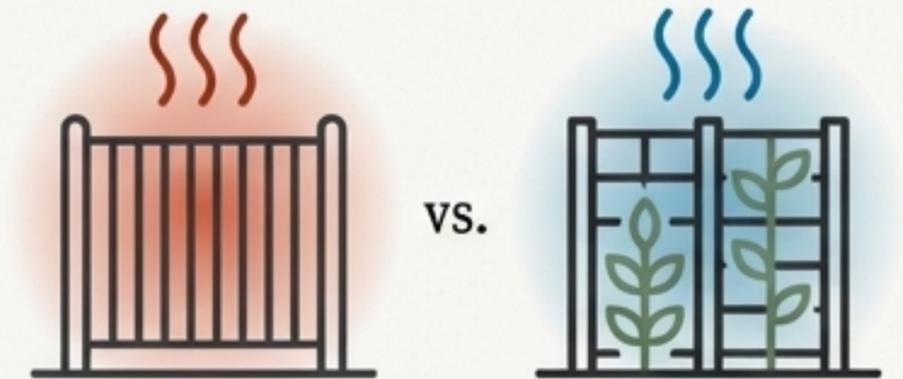
## The reservoir will fill with mud and debris.

**Mandatory "First Flush" Diverter**. All downspout connections are fitted with a diverter that automatically bypasses the first 5-10 gallons of runoff—the "sludge"—ensuring only cleaner water enters the reservoir.



## A simple steel fence (e.g., BarrierBoss) is cheaper.

BarrierBoss is a **passive "radiator" that heats the yard**. Geo-Core is an **active "cooler" that creates a resilient micro-climate**. BarrierBoss worsens flooding; we are a key part of the solution.



# More Than a Firewall: A Distributed Flood Control Network

THE PARADOX



## Wildfire Risk

Mandating the removal of flammable vegetation.



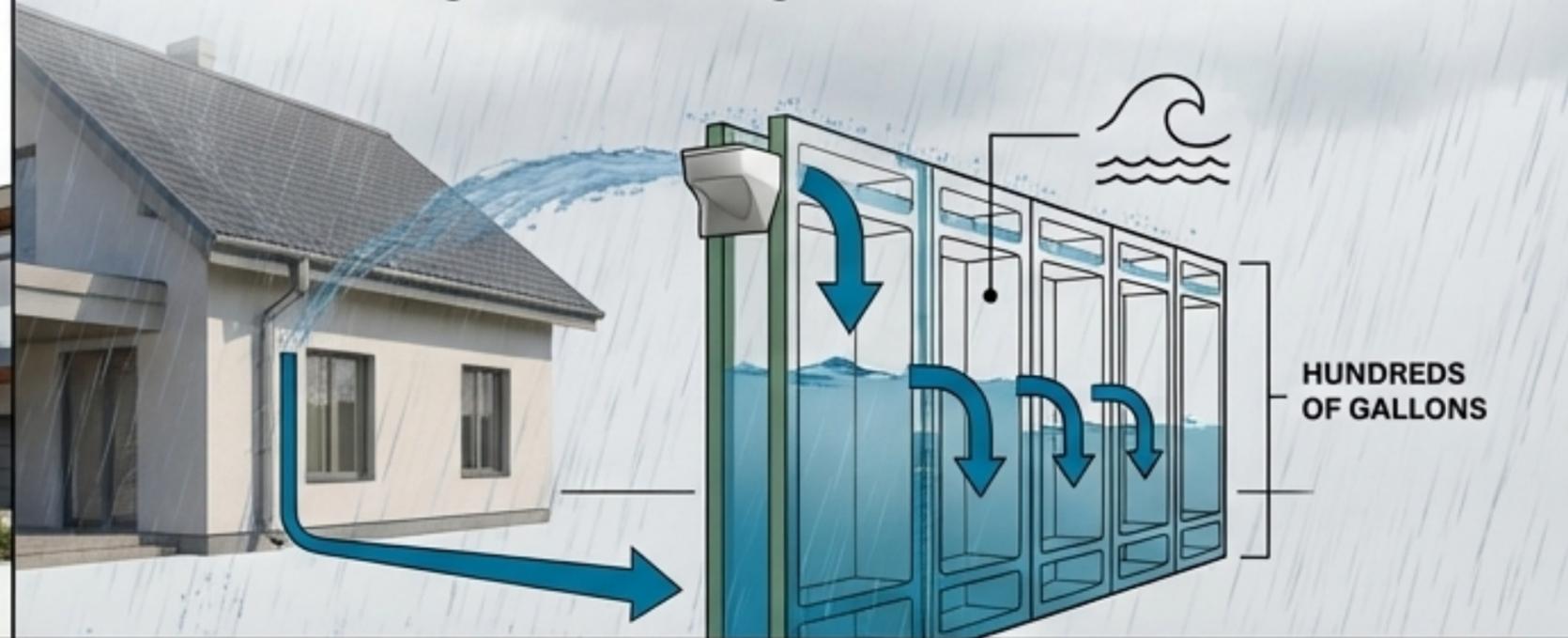
## Stormwater Runoff

Mandating stormwater capture to prevent flooding (LID ordinances).

**Benefit 1 (Fire):** Provides a non-combustible, hydrated vertical fuel break.



**Benefit 2 (Flood):** Each section sequesters hundreds of gallons, acting as a distributed cistern.



A neighborhood of 100 homes with the standard “Geo-Core” system creates a **25,000-gallon** distributed detention basin, reducing peak storm runoff and helping satisfy municipal LID permits.

# The Go-to-Market: A Phased Product Portfolio

Our 'Tesla Strategy': We will enter the market with three distinct tiers, built on a shared IP chassis but optimized for specific economic and climatic zones.



## "The Sentinel" (Luxury / Active)

**Target:** High-Net-Worth WUI (Malibu, Napa). 10-12ft privacy walls.

**Tech:** Deep geothermal wells, solar-direct pumps, active misting.

**Price:** ~\$1,500 / linear foot.



## "The Phoenix" (Desert / Hybrid)

**Target:** Sun Belt production homes (AZ, NV, TX).

**Tech:** HVAC condensate harvesting, porous masonry for evaporative cooling.

**Price:** ~\$400 / linear foot.



## "The Geo-Core" (Mass Market / Passive)

**Target:** Foothill communities, global semi-arid regions.

**Tech:** Standard 6x6" steel posts, gravity wicking, *Portulacaria afra*.

**Price:** ~\$150 / linear foot (Competes with premium vinyl/cedar).

# Funding the Vision with Non-Dilutive Capital

We will leverage public grants to fund pilot phases, validate the technology, and build key partnerships.



## Phase 1: Fire Prevention & Research

**Target Grant:** CalFire Wildfire Prevention Grant (Research & Demonstration).

**Narrative:** “Testing Vertical Fuel Break Efficiency in Zone 0.” We are not selling a fence; we are proving a safety concept that allows homeowners to maintain privacy while complying with new regulations.

**Ask:** \$250k for 3 Pilot Home Installs + Data Monitoring.



**FEMA**



## Phase 2: Flood Mitigation & Infrastructure

**Target Grant:** FEMA Building Resilient Infrastructure and Communities (BRIC).

**Narrative:** “Distributed Community Flood Control.” A municipal pilot on a public building (e.g., a fire station) will demonstrate how our system reduces storm surge and protects critical infrastructure.

**Alignment:** The BRIC program specifically encourages “green infrastructure, aquifer storage and recovery, and flood diversion and storage.” (Source: US EPA)

# The Path to Scale: A Three-Year Expansion Plan

## Year 1: Validation & Status (SoCal)

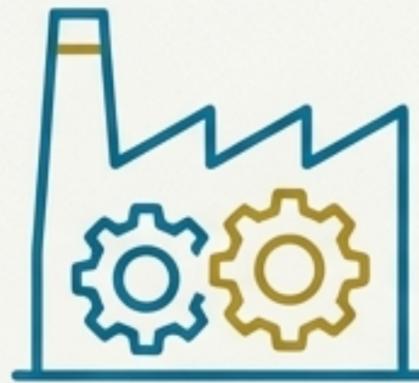


**Focus:** Install 10 'Sentinel' units in high-profile WUI locations (Brentwood, Malibu).

**Milestone:** Secure an official 'Zone 0 Exemption Letter' from CalFire/LADBS, creating a powerful regulatory moat.

**Action:** Fabricate pilot units for validation and marketing.

## Year 2: Licensing & B2B Pivot (Sun Belt)



**Focus:** License the 'Condensate Harvesting Port' IP to production homebuilders (Lennar, KB Home) and HVAC installers in AZ, NV.

**Model:** Sell a 'Geo-Core Kit' (pre-drilled posts, linkage) as a 'Green/LEED' upgrade, creating a scalable B2B revenue stream.

## Year 3: Mass Market Democratization (Global)



**Focus:** Retail distribution of the flat-pack 'Foothill Geo-Core' kit.

**Channels:** Target wholesale channels like Home Depot Pro and SiteOne.

**Marketing Tagline:** "The Fire-Proof Upgrade for Your Downspout."

# Building a Defensive Moat: Our Intellectual Property Strategy



## Core Utility Patent Application: "Thermodynamically Active Structural Barrier"

A modular boundary system comprising hollow structural members functioning as subterranean thermal reservoirs, configured to circulate fluid for the thermal regulation of fire-resistant biomass in a Zone 0 environment.



## Supporting Method Claims for a Layered Defense

1. **"The 'Aero-Gap' Thermal Rail":\*** A method for mounting photovoltaic laminates to a structural rail with a convective cooling channel to prevent thermal derating."
2. **"The 'Copper-Ion Bio-Safety Interface':\*** A passive sanitization manifold using a copper/silver matrix to inhibit biofilm formation without external power."
3. **"HVAC Condensate Harvesting Method":\*** A system interface to route, filter, and mineralize AC condensate into the structural core for micro-climate regulation."

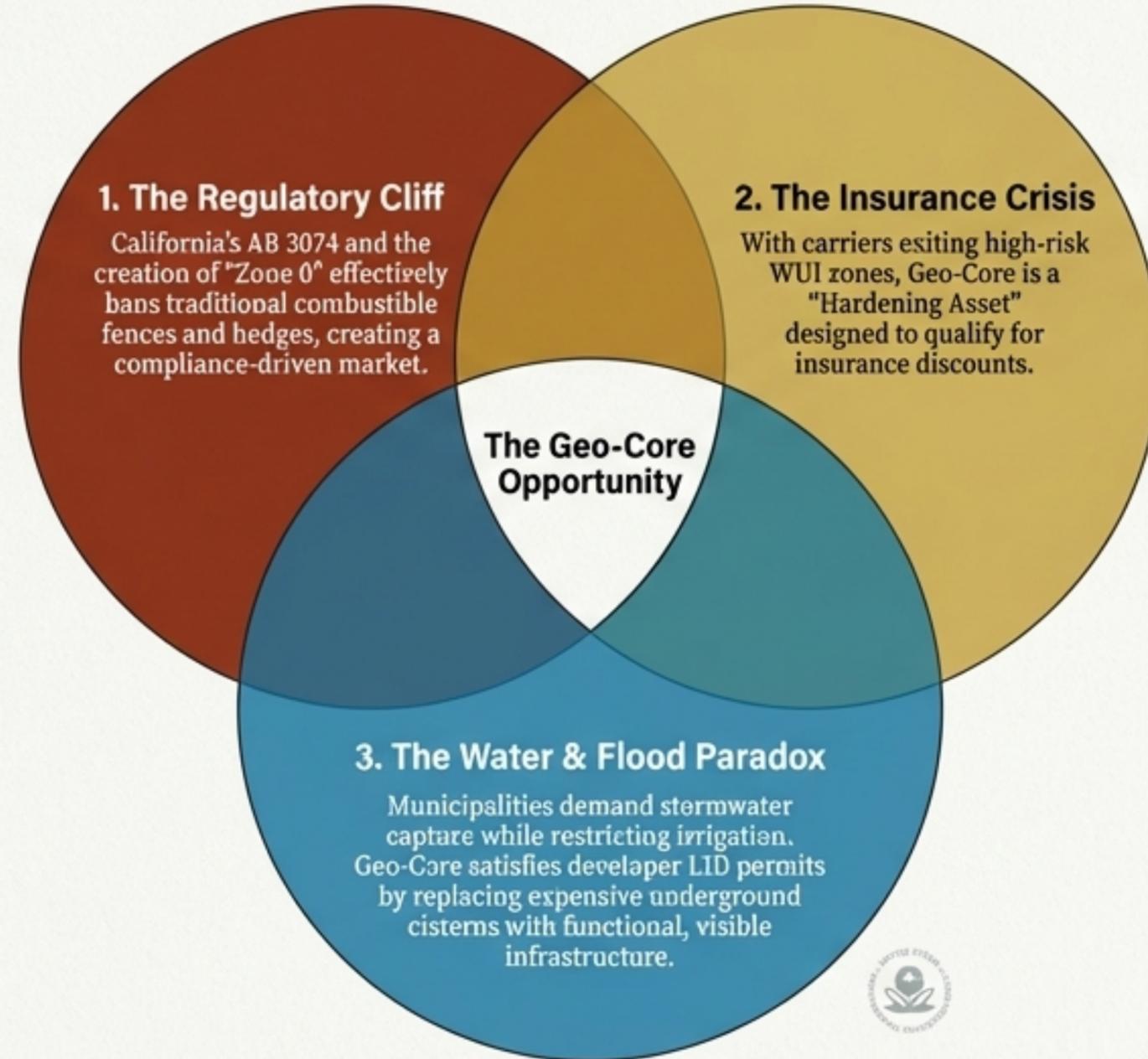


**Immediate Next Step:** Submit Provisional Patent Application (PPA) with these specific claims.

# The Opportunity: A Perfect Storm of Market-Forcing Functions

## 1. The Regulatory Cliff

California's AB 3074 and the creation of "Zone 0" effectively bans traditional combustible fences and hedges, creating a compliance-driven market.



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### 2. The Insurance Crisis

With carriers exiting high-risk WUI zones, Geo-Core is a "Hardening Asset" designed to qualify for insurance discounts.

**The Geo-Core Opportunity**

### 3. The Water & Flood Paradox

Municipalities demand stormwater capture while restricting irrigation. Geo-Core satisfies developer LID permits by replacing expensive underground cisterns with functional, visible infrastructure.

## 2. The Insurance Crisis

With carriers exiting high-risk WUI zones, Geo-Core is a "Hardening Asset" designed to qualify for insurance discounts.

Research shows structural and vegetation modifications can reduce wildfire to reduce wildfire risk by up to 75%.

(Source: NAIC Report)

*NAIC*

The market demands a new category: **Structural Climate Defense Infrastructure.**

# From Combustible Boundaries to Resilient Communities

We are not just building better fences; we are creating the enabling infrastructure for the next generation of the Wildland-Urban Interface. A future where communities are seamlessly integrated with their environment, protected from the twin threats of fire and flood.



**For Homeowners:**  
Privacy, beauty, and safety.  
A permanent asset that  
reduces insurance costs.



**For Municipalities:**  
A distributed, passive  
infrastructure network for  
fire and flood resilience.



**For Investors:**  
A category-defining company with  
a deep IP moat, solving an urgent,  
multi-billion dollar climate challenge.