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Comprehensive solutions to catastrophic wildfires in California

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M I C H A E L W A R A

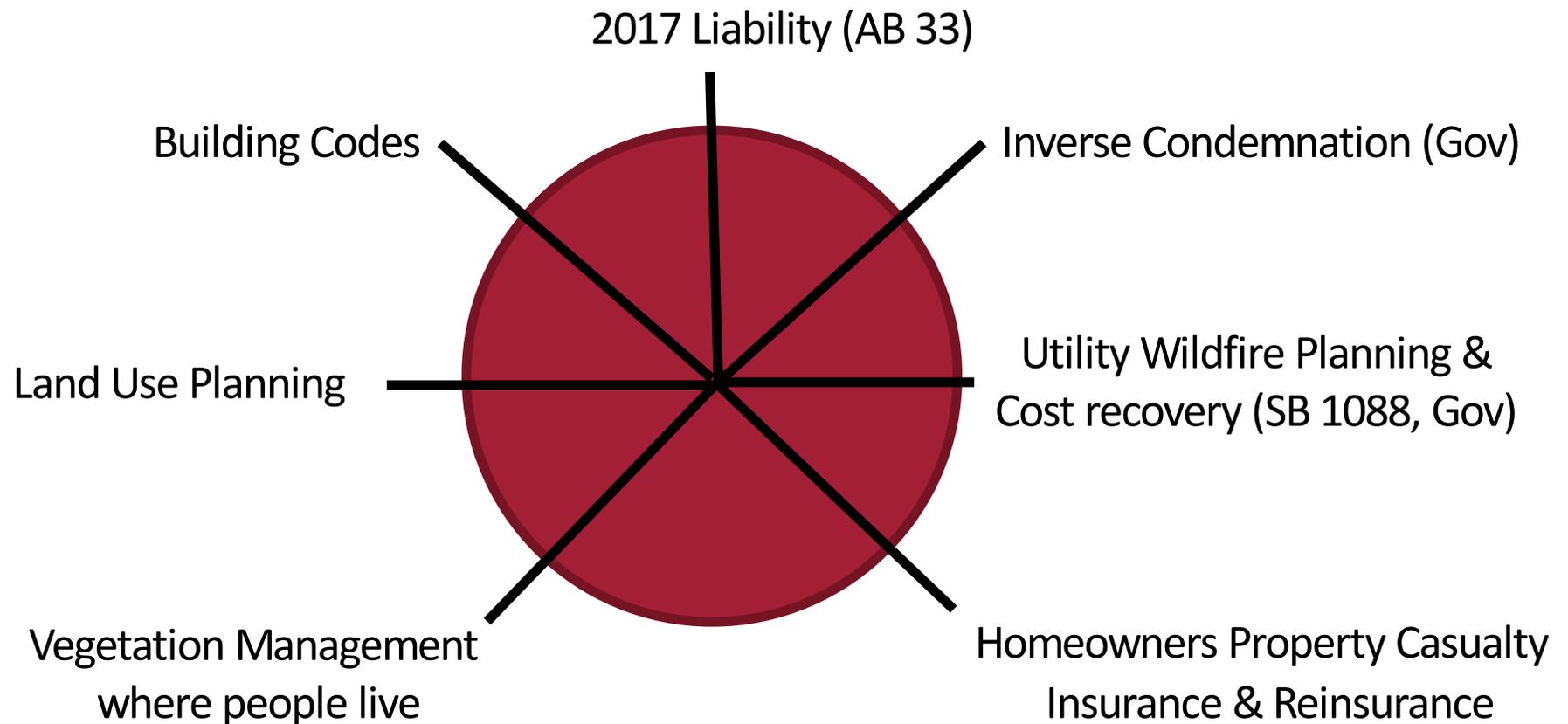
Wildfires are a catastrophic risk to California

Fundamental Problem: Current system for allocating and managing risks of wildfires in California is unsustainable.

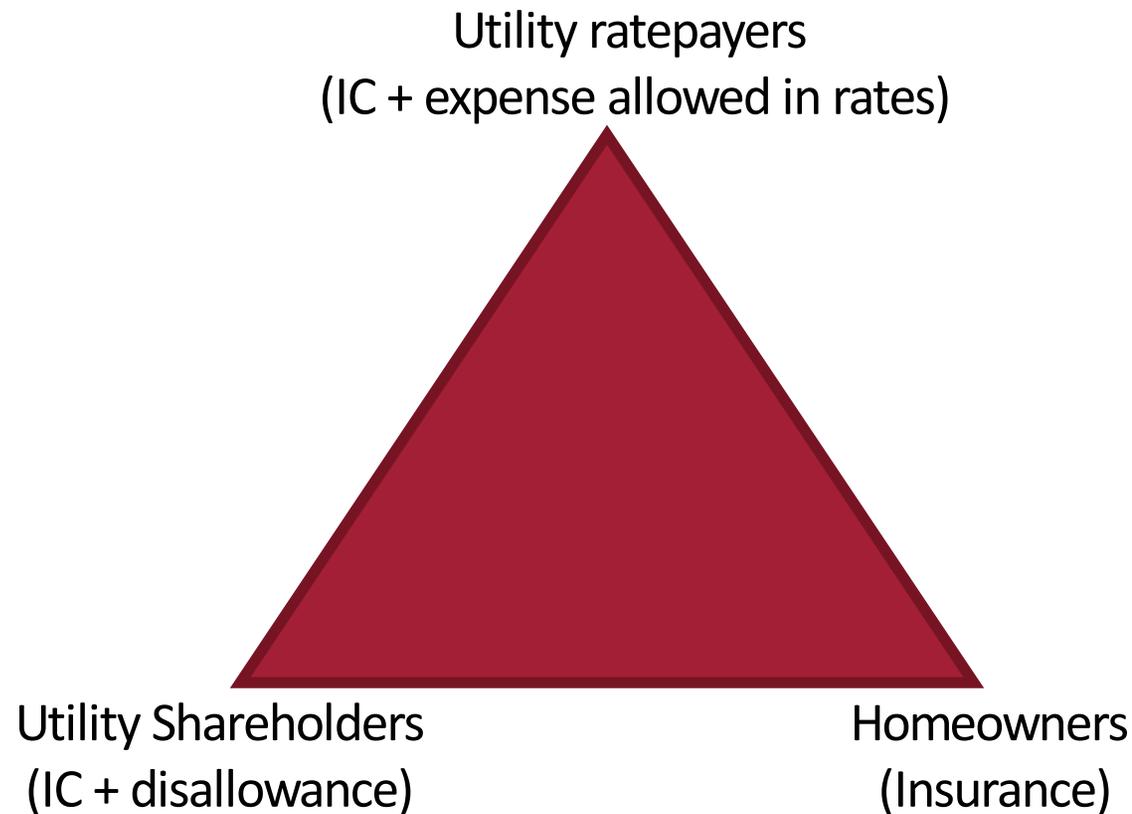
- Unsafe (because all sides of the problem are not being worked).
- Unacceptable ratepayer impacts (unfair to renters, industrial customers, homeowners not in wildfire areas).
- Threatens climate goals (utility risks will increase ROE, foreclosing investment in EVs, RPS, etc.).



A solution addresses all dimensions of risk: Wildfire risk is not just a utility issue



Effective risk management apportions risk to those that can manage it most efficiently



The first step is to recognize two problems

Existing Liabilities

Created by past risk & actions combined with then existing laws and contracts.

Politics/law involve arguments regarding actual victims, ex-post facto, vested rights.

Not critical to future of IOUs.

Future Liabilities

Created by risk, current, & future actions combined with current law and private contracts.

Politics involve reallocation of risk where private contracts can adjust to new regime.

Critical to future of IOUs.

The 2017 (and earlier?) Liability



Coffey Park, Santa Rosa, 2017

Solution: Securitization (AB 33)

Pay settlement value of insured and uninsured losses from 2017 wildfires.

Key unanswered questions:

- (1) Maximum amount securitized
- (2) Process for crediting ratepayers if utility is at fault
- (3) Guidance on limits to disallowance

Go-Forward Cat Risk from Wildfires (1)

(1) Solution: IC Reform

Best option is move from strict liability to reasonableness std for ALL electric utility wildfire risks.

- Limited to wildfires
- Utilities still liable if negligent
- Is Constitutional action
- **Allocates additional risk to homeowners (insurers).**



2007 Fires in San Diego County

Go-Forward Cat Risk from Wildfires (2)

(2) Solution: Utility Wildfire Planning & Cost Recovery

Require utilities to take innovative steps to reduce risks in distribution system.

- To some degree already happening via CPUC process.
- SB 1088 will, if enacted, create centralized process.
- Two models:
 - Sarbanes Oxley (accountability)
 - Nuclear/oil industry (complex systems)



The GOA of the La Porte Fire, Butte County (2018, CalFire)

Go-Forward Cat Risk from Wildfires (3)

(3) Solution: Homeowners Property Casualty Insurance

Take significant steps to reduce exit of major insurers from homeowners market via underwriting guidelines.

- Already a brewing crisis in CA.
- (1) and (2) make this much worse.
- Prop 103 complicates issues.
- **Accelerate rate filing timetable.**
- **Reinsurance/Cat. Bonds in rates.**
- **Financial incentives to create defensible space**
- **Other ideas from ins. industry stakeholders?**



Downtown Mill Valley, Marin County, view to Mt. Tamalpais.

Go-Forward Cat Risk from Wildfires (4)

(4) Solution: vegetation management where people live.

Current non-utility vegetation management is disproportionately on public land in sparsely populated areas.

- Current ratio of emergency fund spending to fuel management is 3:1.
- Dramatically increase Fire Protection Grants (from \$194m to \$400m).
- Focus incremental funding on areas with high population/value at risk and severe wildfire threats.



The 1929 wildfire in Mill Valley viewed from Sausalito.

Go-Forward Cat Risk from Wildfires (5)

(5) Solution: create defensible structures with lots of carrots and a few sticks.

Defensible space in many Very High Fire Hazard Severity Zones is nonexistent.

- Remove barriers to vegetation management on small parcels (tree removal permits).
- Inspect and educate often.
- Provide funds to remove vegetation.
- Require WUI building codes on all new permits in SRA and LRA.
- Create incentives via insurance

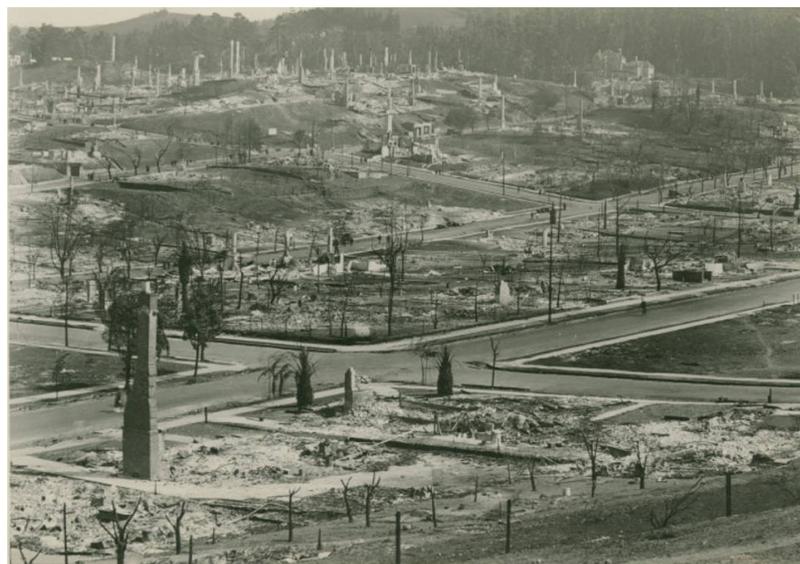


Sausalito: where State Farm Insurance fears to tread.

Go-Forward Cat Risk from Wildfires (6)

(6) Solution: limit land expansion into WUI because of risks and costs. Require new WUI entitlement to meet fire safe land use requirements

- Sound climate adaptation and risk management would dictate retreat from areas that face greater risks due to climate change.
- Current land use policies tend to favor development in the WUI over infill.



Aftermath of the 1923 Berkeley Fire

Solutions to catastrophic risks from wildfires

Solutions to California's Wildfire Catastrophe Risk can be addressed in stages.

- (A) Separate 2017 from Go-forward
- (B) Clarify AB 33 to facilitate more rapid payment to victims.
- (C) Multi-prong, linked, Go-forward
 - (1) Utility IC reform
 - (2) Utility risk management
 - (3) Homeowners Ins. Reform
 - (4) Vegetation management
 - (5) Building codes/land use



Concluding remarks

Two sets of issues – one set is tractable in a month, another may take more time.

Two political conclusions from the electricity crisis – don't let utilities go bankrupt and beware the unintended consequences of complex changes. Both apply here.



