

Tahoe Donner Association

Parametric solution and structures

Alternative Risk Transfer

December 2024

Background

Tahoe Donner Association

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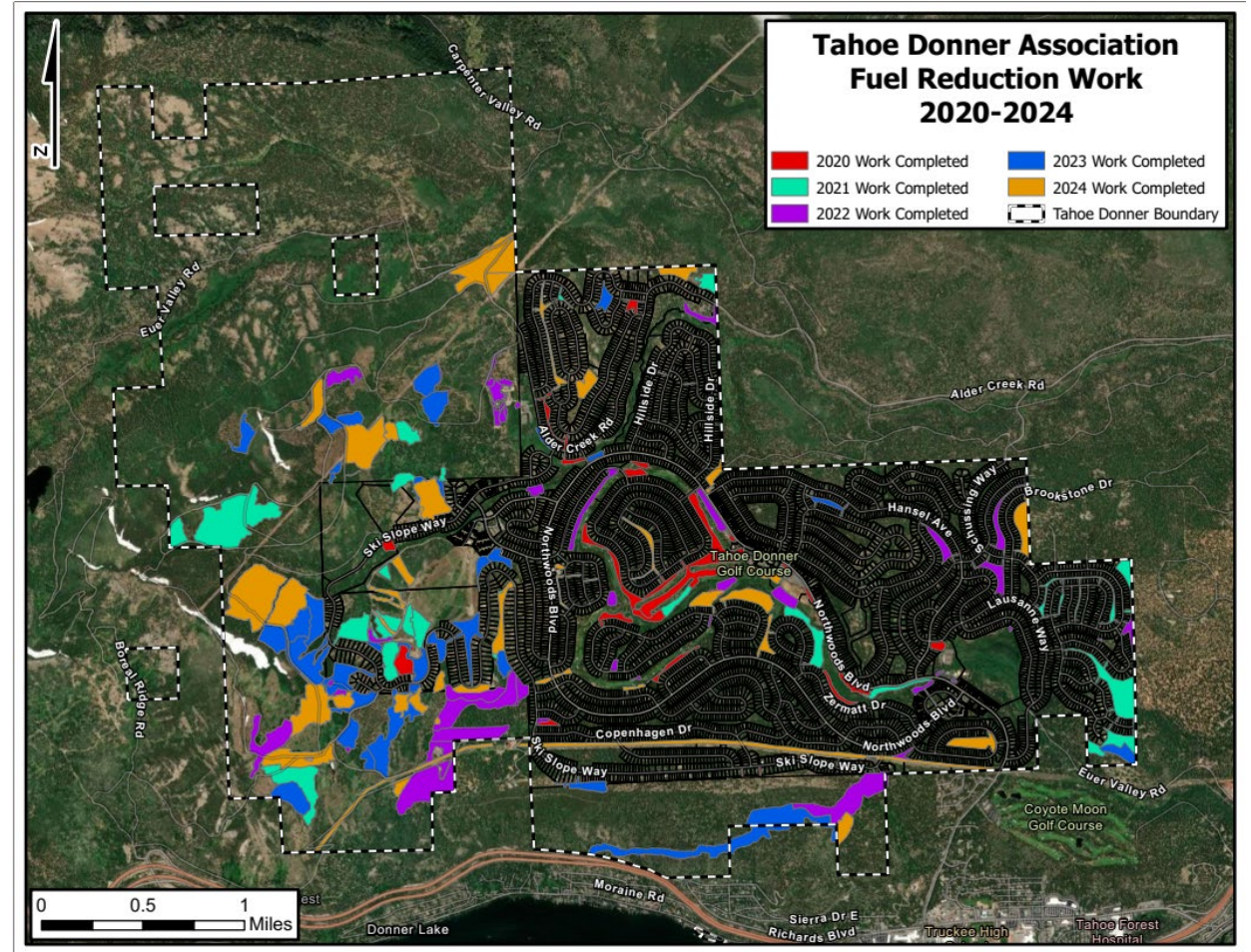
Tahoe Donner is one of America's largest homeowner's associations, with nearly 6,500 properties and 25,000 members enjoying over **7,300 acres in the Sierra Nevada mountains**. Tahoe Donner is an eclectic community with a **passion for outdoor recreation** and a celebration of the Tahoe lifestyle.

Located 25 minutes from Lake Tahoe in Truckee, California, Tahoe Donner operates **a wide variety of recreational facilities** – some of which are for members only and others which are also open to the general public.

Tahoe Donner is a vibrant and desirable mountain community **providing attractive and well-maintained facilities**, events, programs and leading customer service to its members, guests and public, all while maintaining **accessible and healthy natural surroundings**.

Tahoe Donner Association (TDA) may be looking to protect themselves against the costs occurring after a wildfire (**land management, loss of revenue**) which can be thousands of dollars per acre burned.

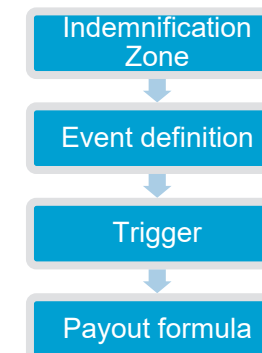
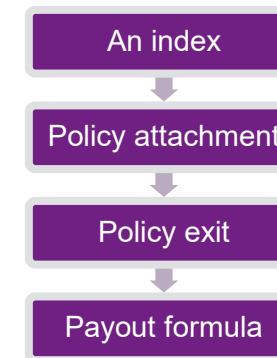
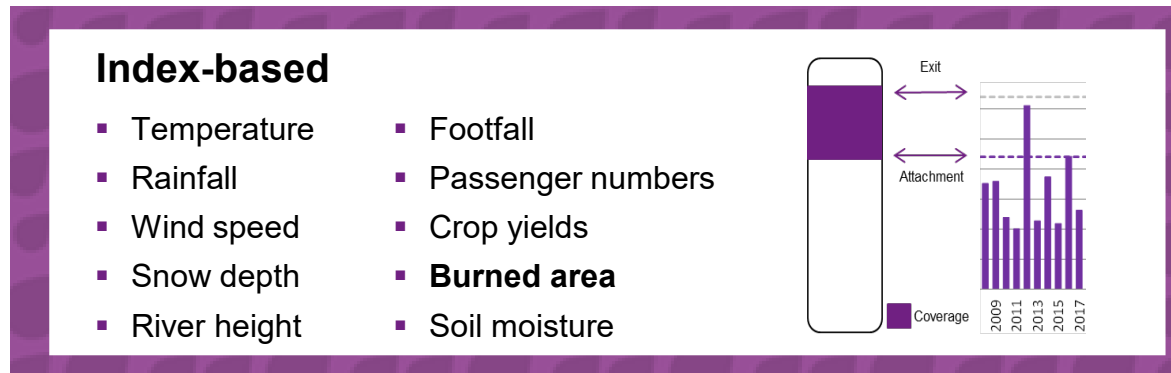
In these slides, we present TDA with a parametric insurance solution that may help alleviate some of the financial costs of a wildfire.



Parametric Solutions

Overview

- Parametric solutions **pay-out a pre-agreed sum** once an **objectively defined event has occurred**
- Claims are calculated according to a **pre-agreed scale of payment**, not by reference to actual loss, damage or concept of indemnity
- Can sit in **parallel** to traditional insurance programmes.



Parametric Solutions

Characteristics

- Coverage is based on a **specific peril** e.g. typhoon, earthquake, hail, rain
- **Does not require physical damage**
- Payouts are calibrated to the **characteristics of the event** e.g., windspeed of a typhoon, intensity of an earthquake, amount of rain, hail size...
- Can be executed in insurance or a derivative form

Examples

Burned area (acres)	Payout (%limit)
1000	33%
2000	66%
3000	100%

Earthquake Intensity	Payout (%limit)
6	25%
7	50%
8	100%

Benefits

- **Transparent:** based on independent data and pre-agreed payouts
- **Fast Claim Payment:** claims paid within 15-30 days, based on “Certification”
- **Broad Coverage:** no exclusions or deductibles; can be used to cover NDBI
- **Unconstrained use of funds:** Payment can be used for anything and cover what is typically excluded by traditional insurance

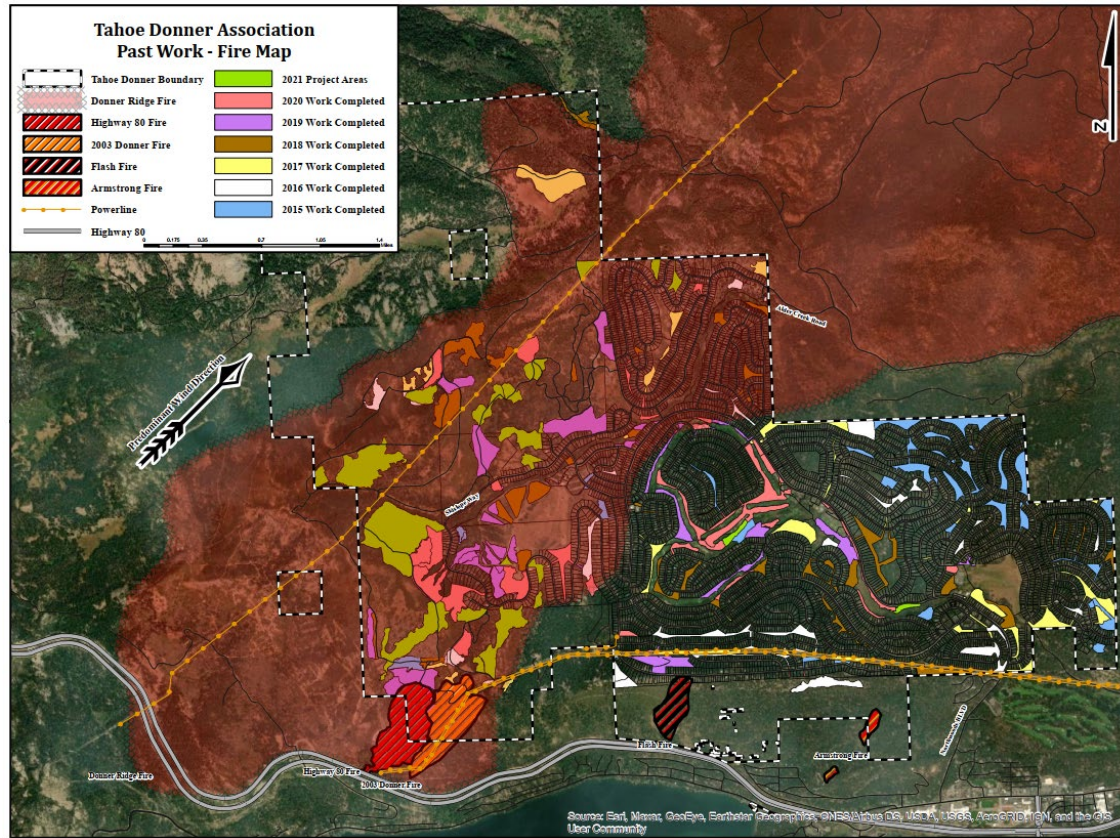
Basis Risk: where the policy payment does not align with the loss suffered

Basis risk is typically managed through the structure of the ultimate policy, however it may not be fully resolved – insureds accept basis risk as a trade off against the advantages of simplicity, speed of payment, unconstrained use of payout.

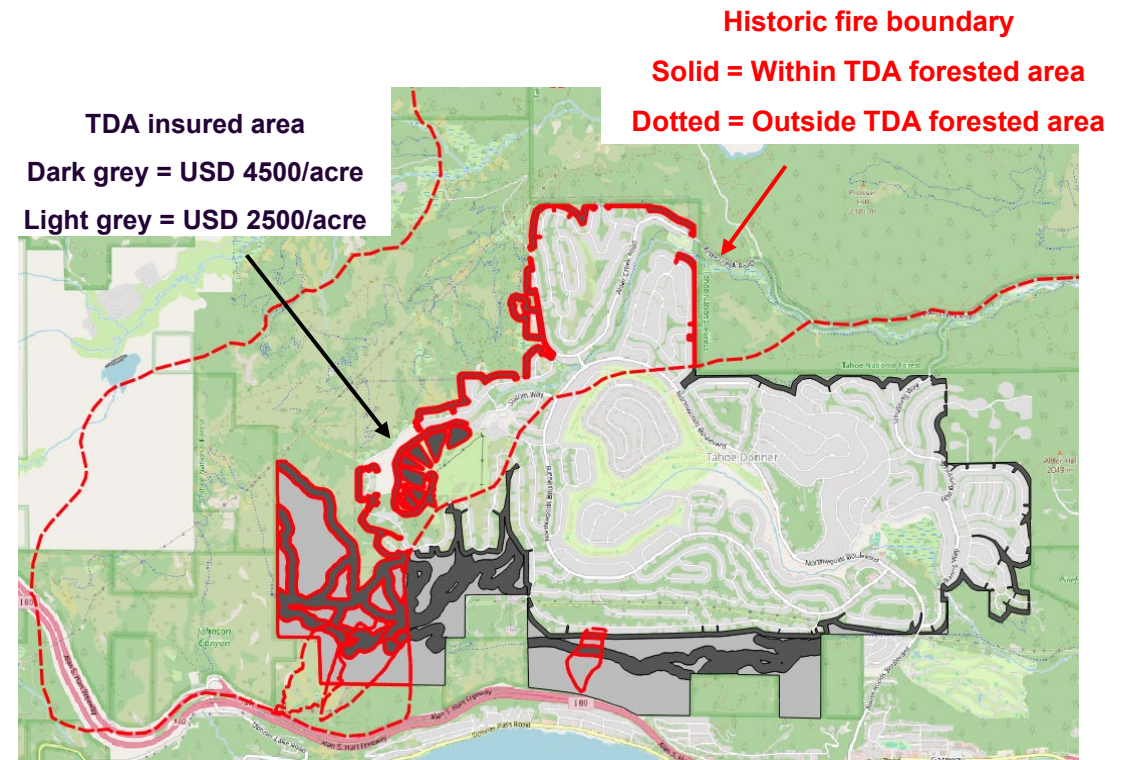
Structuring and WTW premium estimates

Historic Fires

Provided by TDA



TDA insured area intersected with fires from the Calfire perimeter database



Tahoe Donner Association

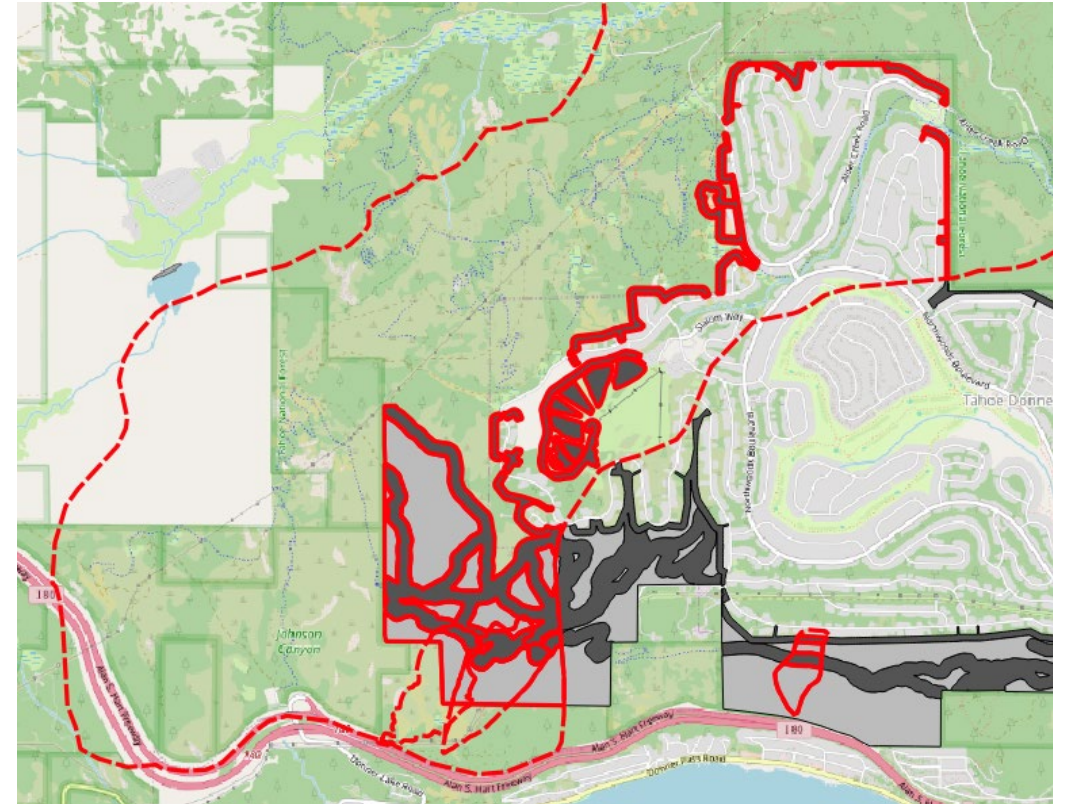
Structure Option – wildfire example

The limit below is an example provided by WTW for the purpose of considering whether a parametric insurance solution would be suitable for Tahoe Donner Association

Insured values

Location	Area (acres)	Value (USD/acre)	Insured value (USD)
Low value	624.9	2500	1,562,250
High value	720.6	4500	3,242,700
Total	1,345.5	n/a	4,804,950

If anywhere in the polygon is within a fire perimeter, then pay-out the burned area within the polygon (in acres) multiplied by USD 4500/acre for high value areas and USD 2,500/acre for low value areas, up to the limit of the policy (e.g. USD 2m).



Summary

- Tahoe Donner Association is investigating parametric wildfire insurance.
- A parametric wildfire insurance would define how much it pays per burned acre in a policy and settle based on measured wildfire data (from a fire perimeter or satellite imagery).
- TDA have provided WTW with shapefiles of the insured area and associated insured values.
- WTW have shown how a parametric contract using fire perimeters would have paid out for historic fires over Tahoe Donner Association's current assets using CalFire fire perimeters.
- To note:
 - The price is largely determined by the probability of another large wildfire such as Donner Ridge (1960).
 - Climate change will have increased the overall risk of large wildfires since 1960.
 - However, we would also argue that the risk is lower than the history would suggest because of the forestry management conducted by Tahoe Donner Association.
 - Minimum market premiums are about \$55,000 incl. brokerage.
 - We would aim to go to market with a pre-specified premium and obtain the largest limit possible.
 - Other factors (e.g. minimum rate-on-line) could affect market pricing.
 - The maximum limit we might expect for \$55,000 is about \$2m (Total insured value: \$4.8m).

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Update: Non-binding indications

February 2025

Non-binding indication disclaimer

In accordance with your enquiry and our understanding of your requirements reinsurer(s) have indicated the following **non-binding** indication. We are obliged to inform you that we are unable to guarantee that reinsurer(s) will proceed with this indication until we approach them for a quotation which may also include new, additional or varied premium or terms of coverage.

If you require us to obtain a quotation, we will need the following additional information from you: confirmation of structure.

Details of our remuneration, any applicable taxes or additional charges will be confirmed should you wish to proceed with a formal quotation. At that time we are required to successfully complete our standard due diligence checks. For your information our Willis Limited Terms of Business Agreement [TOBA] can be found [here](#).

Please contact us if you wish to discuss the enclosed, otherwise we look forward to receiving your further instructions.

Marketing summary

Market	Response	Notes
Descartes Underwriting (Generali)	Yes	V. technical/scientific underwriter, open to reviewing our work
Globe Underwriting (Liberty)	Yes	Active in fuel reduction work, have been investigating reduction in AAL for managed forests over 120 locations after initiating conversation with them.
Munich Re	Yes	Starting to get back into wildfire parametric insurance, historic interest in nature-based solutions etc.
Arch Re	No	UNC but not E&S
Liberty	Yes	Globe UW would use Liberty capacity anyway, and so will not approach. Globe have completed their own modelling of benefits due to fuel reduction.
Allianz	No	Below minimum premium (\$100,000)
Berkshire	No	Below minimum premium (\$100,000)
AXA Climate	No	No appetite in California wildfire
Swiss Re	No	No appetite for wildfire
Zurich	No	No appetite in wildfire
Kettle Re	None	No response
Rockrose Risk	None	No response

Marketing summary

Option	Market	Premium (incl. brokerage, excl. taxes, any other fees)	Limit offered with fuel reduction	Limit that would have been offered without fuel reduction	Increase in limit offered	Deductible
	WTW proposal	\$55,000	\$1,750,000	\$1,250,000	+40%	-
1	Descartes Underwriting (Generali)	\$55,000	\$1,600,000	\$1,250,000*	+28%	-
2**	Globe Underwriting (Liberty)	\$45,000**	\$1,500,000	Unknown	n/a	\$10,000
3**	Globe Underwriting (Liberty)	\$50,000**	\$2,000,000	Unknown	n/a	\$10,000
4**	Globe Underwriting (Liberty)	\$55,000**	\$2,500,000	Unknown	n/a	\$10,000

* Descartes Underwriting: “While we can confirm that not having the fuel reduction measures in place would have led to a higher price, it’s difficult to share something concrete right now. We’d have to run a few as if scenarios on our modelling, but I expect about 1.25M USD as you present in the documentation.”

** WTW have requested that the \$100,000 fire-fighting sublimit is removed with a corresponding premium reduction.

Globe has binding authority with Liberty as of 1 Feb 2025. Willis would place into Globe Underwriting, who would stamp the slip, on behalf of Liberty.