Zesty.ai Testimony to the California Department of Insurance

Attila Toth, CEO

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Good afternoon Commissioner Lara and CDI staff. Thank you for the opportunity to make a statement concerning the proposed addition to the California Code of Regulations regarding Mitigation in Rating Plans and Wildfire Risk Models. My name is Attila Toth, and I am the Founder & CEO of Zesty.ai, a property risk analytics company headquartered in the San Francisco Bay Area.

At Zesty.ai, we have set out on a mission to better understand the impact of climate risk on every property, by leveraging cutting-edge technologies such as artificial intelligence and high-resolution aerial imagery. During our four-year research and development cycle, we have confirmed that the current state of information technology allows for remote, cost-efficient, and accurate assessment of wildfire risk at the individual property-level, consistent with the goal of the proposed regulations.

At Zesty.ai, we support the CDI's initiative to include individual and community mitigation efforts in wildfire modeling. These efforts are critical responses to the risk of wildfire, and improving the quality of models and increasing transparency in wildfire risk scoring benefits everyone, including property owners, insurers, and regulators.

Our primary recommendation is to consider factors for inclusion in ratings plans according to three priorities:

- That the features have been scientifically shown to be significant for wildfire vulnerability,

- That the science-backed features have been measured to be consistent with credible historical loss data at scale,

- And that the data for each feature be practical to obtain, available for previous years, and not significantly increase costs to effectively capture wildfire risk.

[In our own research partnership with the Insurance Institute for Business & Home Safety](#) (IBHS), we have found that homes exposed to wildfire which have high vegetation coverage extending over the roof, or within 5 feet of the structure, are about twice as likely to be destroyed as those with low vegetation. We have proven this having studied 71,000 properties that fell within wildfire perimeters from the years 2016-2019. The same study found that homes with extremely high vegetation, above 70% of the landscape within 30 feet of the dwelling, are nearly three times as likely to be destroyed as homes with less than 10% coverage. These are not theories; this is all verified with historical data.

The effect of vegetation is clear and is easily measured with modern satellite and aerial imagery, which is frequently updated. There are also other important lab-tested details such as clearing under decks, Class-A Fire Rating for roofs, fence and gate location, and building-hardening measures such as multi-pane windows, enclosed eaves, and fire-resistant vents. Unfortunately, these features have not been supported yet by large scale loss data because of availability challenges. Not only is that data not observable in available imagery, it would also be costly to measure prospectively, requiring frequent in-person inspection. California has already suffered recent insurance rate hikes and dropped coverage across the state, and the cost-impact of any new regulatory requirements or changes to existing inspection or verification procedures will

ultimately be passed on to property owners. We look forward to being involved as the industry changes to adapt to new risks by providing technology-enabled tools to help manage that risk, and by identifying features which have the greatest impact on wildfire risk as measured with large amounts of loss data.

Community-specific mitigation strategies, such as a Fire Risk Reduction Community, Shelter-in-Place Community, and Firewise USA Site in Good Standing, present an opportunity for streamlining wildfire risk efforts and providing a common point of comparison for large-scale risk mitigation. As they are developed and implemented, we have prepared our products to integrate these sources of data as they become available. However, there remains no measured support for their effect on wildfire risk from historical data because that data has not yet been collected.   Furthermore, we would advise that future groups and certifications also be considered as the field innovates.
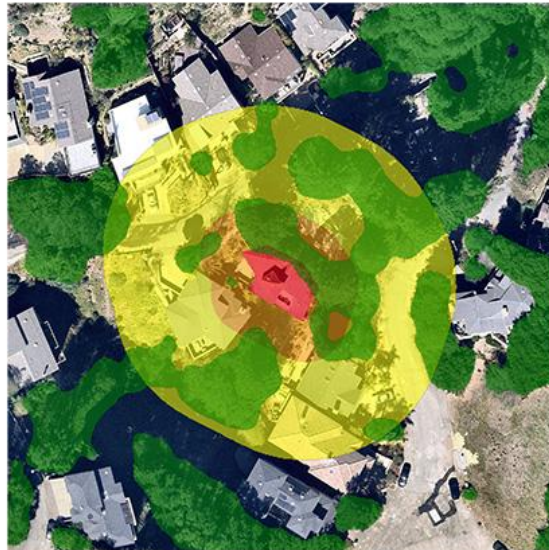
To meet the growing risk of wildfire and meet the needs of insurers to address it, we built Z-FIRE™, a predictive wildfire risk-analytics solution that incorporates property and community-specific risk attributes to accurately assess wildfire risk at the individual property level. Several rate and underwriting filings adopting our model have been approved by the California Department of Insurance (CDI), with more filings in progress. Rate filings based on the same model have also been successfully approved in the states of Arizona, Oregon, New Mexico, and Utah, with pending filings in additional states. Furthermore, the model has been validated by three independent actuarial firms as meeting ASOP38 and other ASOP standards, the reports of which have been made publicly available, reflecting our commitment to transparency.

In-person Inspection   Z-FIRE™

Subjective Risk Measurement   Objective Risk Measurement

Specifically, the resulting wildfire risk model:

- Reflects the impact of multiple individual and community mitigation efforts,

- Applies standards equally across the state, avoiding personal bias from in-person inspections,

- Increases transparency and accuracy in wildfire risk scoring, and,

- Improves access for insurance to areas previously thought high-risk for wildfire, as evidenced by carriers recently increasing capacity in California using our model.

Consistent with the proposed regulation, our model already leverages many property-level mitigation efforts suggested by the CDI, such as vegetation control in multiple defensible zones, and building materials, for instance the material of the roof. The model also contains all input

variables indicated as optional factors in the proposed regulation, namely Fuel Type, Slope, Access and Wildfire Suppression Difficulty, Distance to High Risk Areas, and Structural Characteristics.

We have chosen these variables carefully, and welcomed collaborations from the scientific community to verify that the inclusion of each feature is supported by academic and scientific research. Any new feature subject to regulation should similarly be vetted through a scientific process, and demonstrated to have significant explanatory power with respect to patterns of historical wildfire risk. If mitigation features are imposed without this level of validation, the connection between real risk and the process of rating or underwriting is weakened, allowing room for additional bias or cost, which would be passed onto consumers.

It is also important that the verification process be efficient. In-person inspections for every home would be an excellent strategy if they weren't also associated with what we estimate to be as much as a 15% increase in average annual premiums.

We appreciate the Department's thoroughness for including many important features relevant to wildfire risk. One of the most difficult challenges in this process is measuring which actions and structural features have the largest impact as evidenced by scientific and historical data, and should therefore be required in rating risk. There is an opportunity to leverage existing technology to describe where mitigation actions can have an impact before inspection actions are triggered, saving time and money - producing a "win-win-win" scenario for consumers, insurers, and regulators. For the cost of one home inspection, new technologies can screen 50-100 homes and assess which mitigation efforts are relevant in a given situation. Furthermore, a computer model can process risk scores for these homes quickly enough to be a part of the initial quote, whereas requiring in-person inspections would fundamentally change

how insurance rates are communicated across the industry.

Thank you for the opportunity to offer some insights into what we've learned over the last several years. This initiative has Zesty.ai's continued support.