# Developing wildfire risk metrics
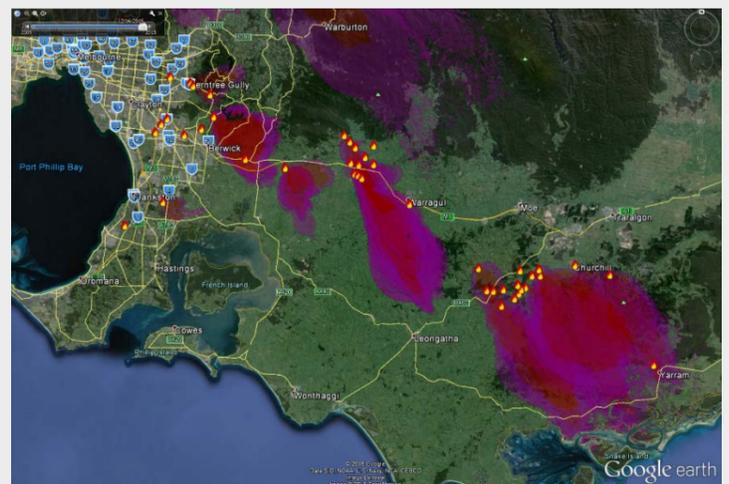
# in PHOENIX RapidFire

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## Context

Bushfire management involves making decisions about complex issues that involve people, communities, stakeholders and organisations with many different perceptions and objectives. Reducing bushfire impacts on communities involves determining what society as a whole as well as local communities value, and what they are prepared to pay directly in financial terms, tolerate in disruption terms (e.g., evacuating on code red days) or trade off in alternative objectives (such as biodiversity, water, tourism opportunity).



## Objective

The study aims to develop a series of risk metrics to underpin risk management trade-offs for DELWP fire management.  These metrics need to be derived from the outputs of PHOENIX RapidFire.

## Metrics

| Human assets | Environment assets |
|---|---|
| House loss | Hectares burnt outside ecological thresholds |
| Life loss | Relative entropy |
| Infrastructure | Water yield |
| | Debris flow risk |
| | Critical Habitat |

## Application

These metrics have been integrated into a PHOENIX post-processing tool and will be applied in a number of studies including:
- DELWP project – Using INFFER in Bushfire Decision Making.
- BNHCRC project – From hectares to tailor-made solutions for risk mitigation systems to deliver effective prescribed burning across Australian ecosystems.

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