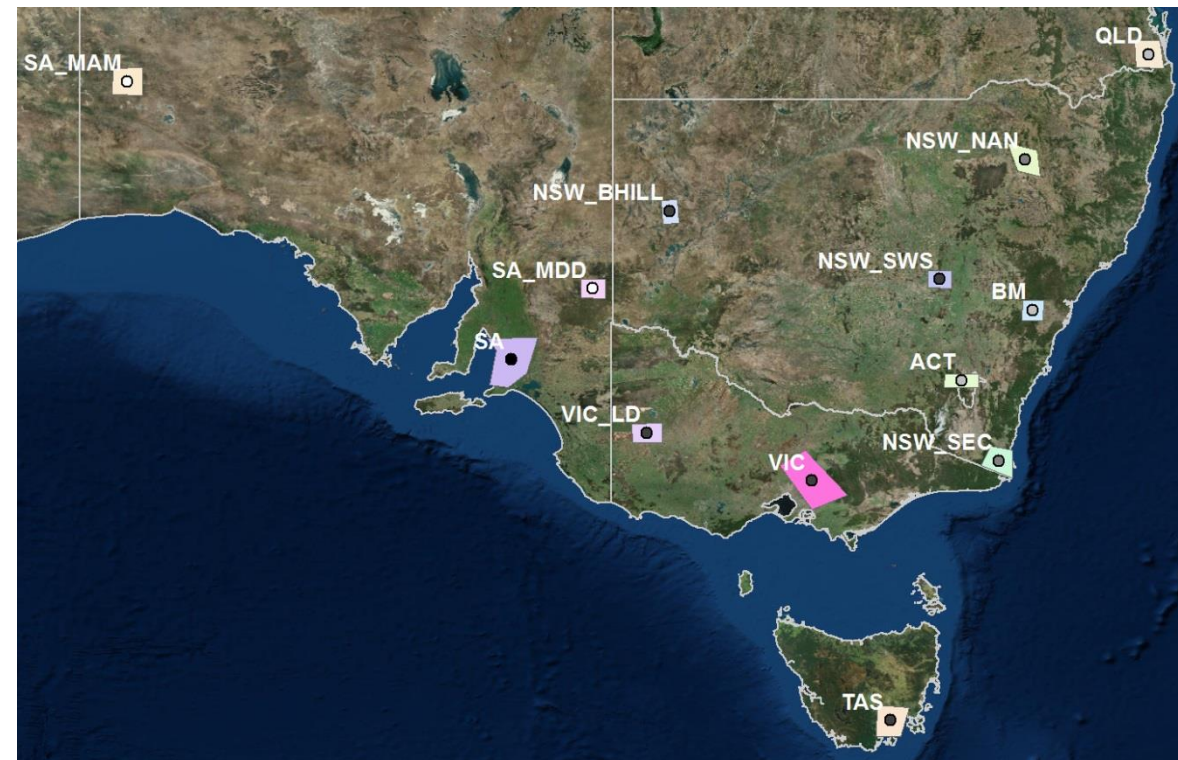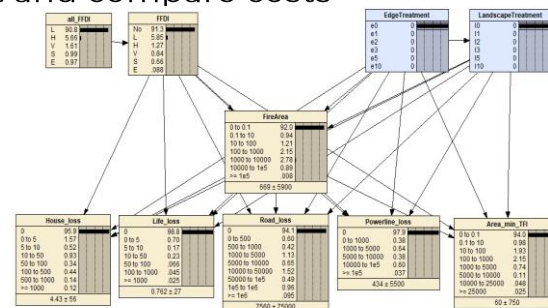# The Prescribed Fire Atlas

Quantification of inter-regional differences in risk mitigation from prescribed burning across multiple management values

Ross Bradstock, Owen Price, Hamish Clarke, Trent Penman, Brett Cirulis , Matthias Boer - University of Wollongong, University of Wollongong, Western Sydney University

End user Felipe Aires – NSW Office of Environment and Heritage

Method

- 13 Case study regions
- Phoenix simulations (50-100,000 fires in each region)
  - Sample weather variability
  - Landscape PB treatment rates 0 – 10% per year
  - Edge PB treatment rates 0 – 10% per year
- Measured impacts on
  - Fire Size
  - House loss,
  - life loss,
  - road length loss
  - powerline length loss,
  - area burnt below tolerable fire interval
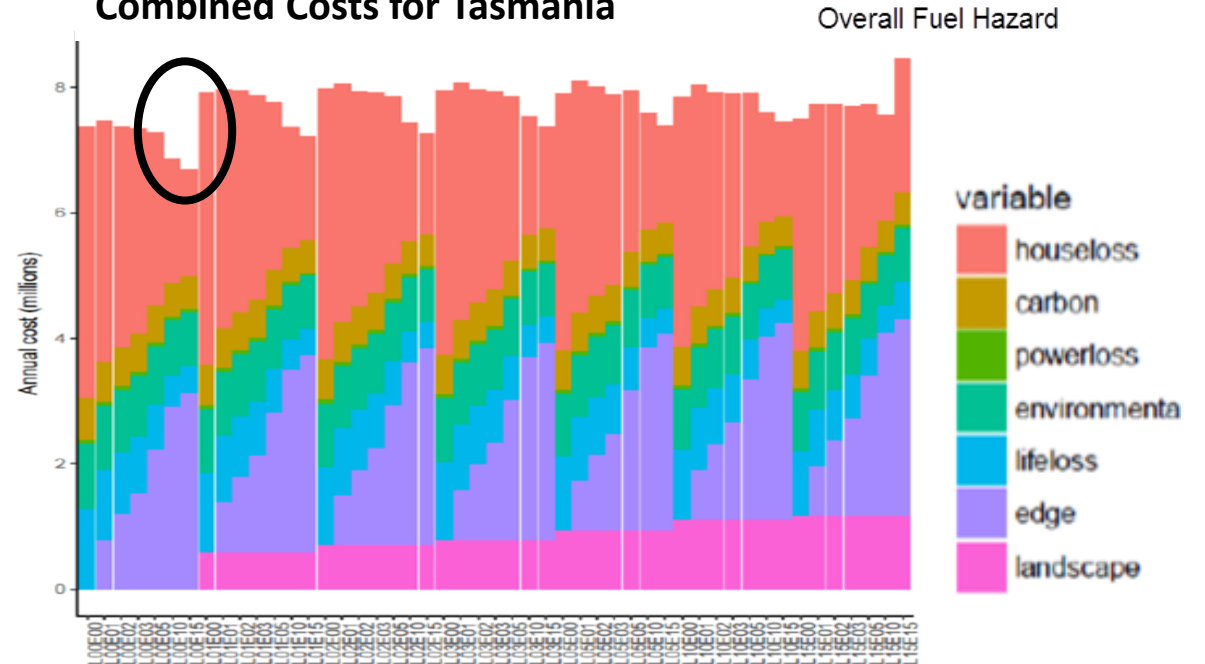- Bayesnet to standardise output and compare costs

Results

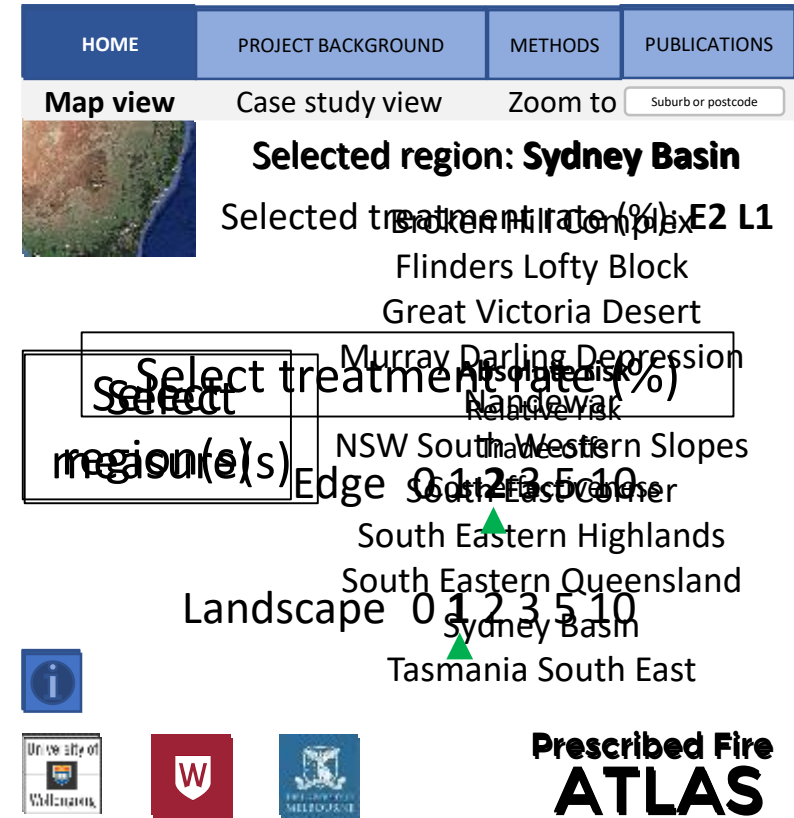## Response of fire size and house loss to landscape treatment

PB Effectiveness v OFH
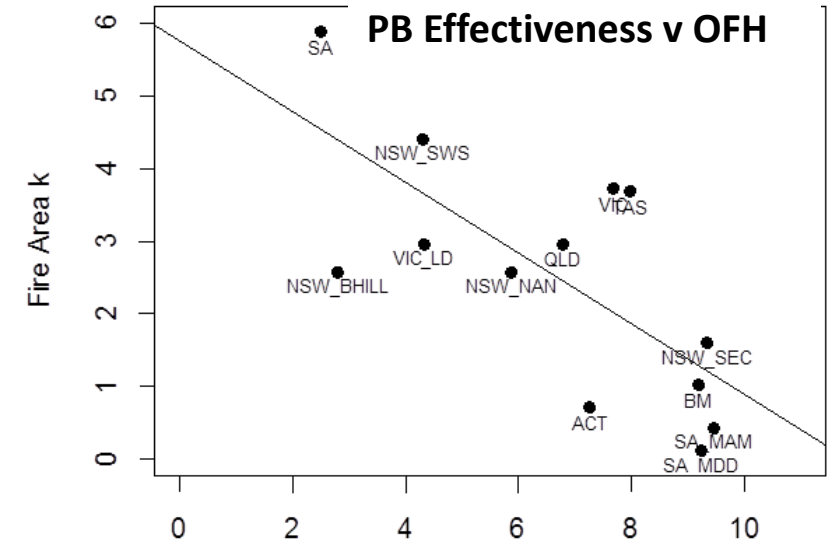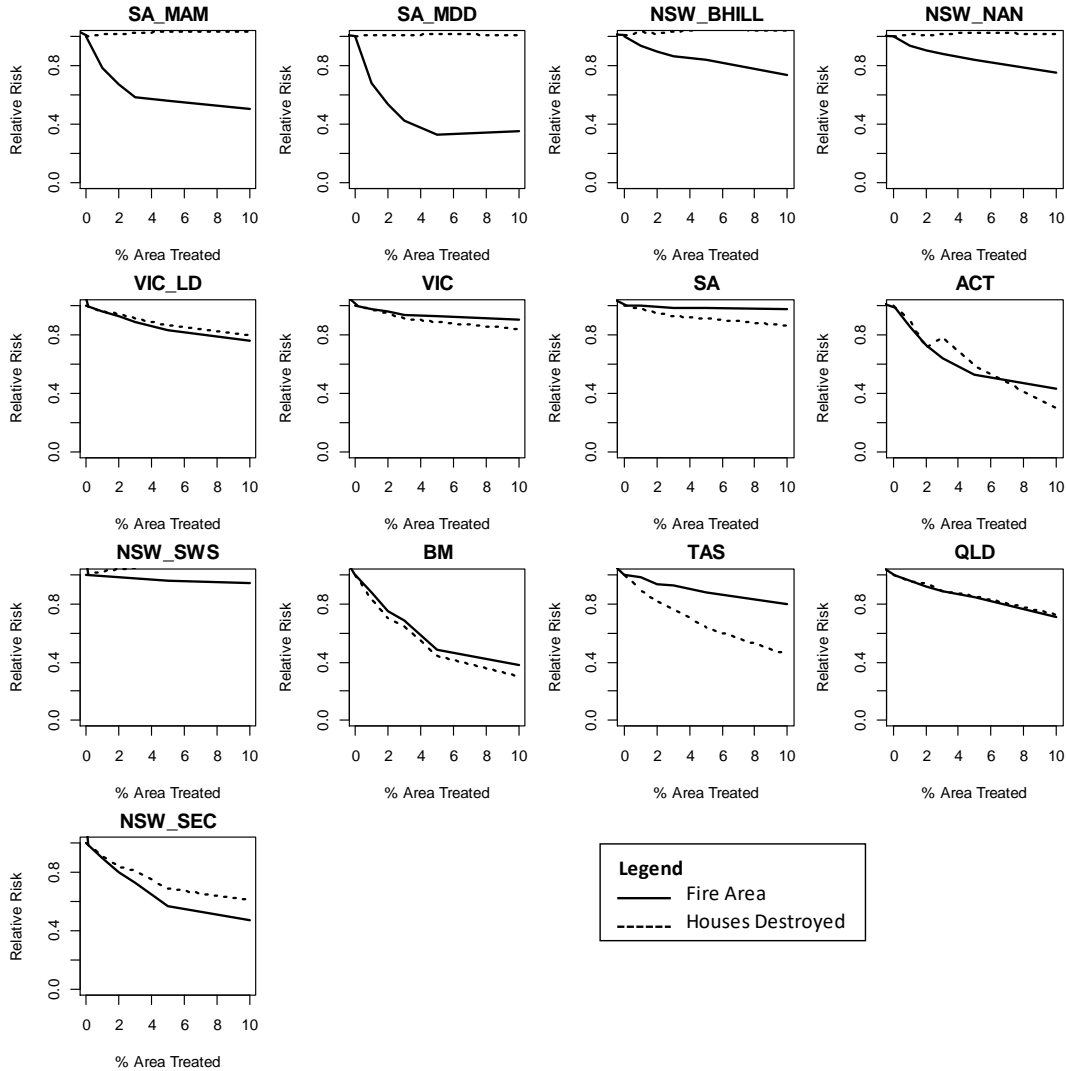
Combined Costs for Tasmania

The Prescribed Fire Atlas

What do we want in it?

Some ideas:

Applying lessons from a comparative analysis of prescribed burning effectiveness at risk mitigation for NSW NPWS

- Creating an internal process to disseminate the research results through the operational arm of NPWS

- Webinar – targeted personnel
  - Assemble a team of users to test the product
  - Consolidate agency feedback
  - Support the Atlas
  - Connections with other research projects within OEH

- Internal process to move from supported product to being part of planning process and Fire Management Manual

- Opportunity to optimize treatment regimes for a variety of biophysical environments and optimize the risk reduction benefit against the cost of hazard reduction works.

- Use the ATLAS to identify opportunities for continual improvement of how and where are we prioritising HR activities at a state wide level.
  - Reduction of HRs in one Branch and increase in another (compare landscape against edge treatment)

Has the potential to change the conversation from talking about an undefined risk reduction from HRs to being specific about how the likelihood and consequences are being affected. The info can help us to be explicit about the residual risk and then produce alternative strategies for mitigation.