A guided tour of the Prescribed Burning Atlas

Launch Webinar / 2020

Prescribed Burn Atlas

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The Prescribed Burning Atlas

A NEW DECISION SUPPORT TOOL FOR PRESCRIBED BURNING RISK ASSESSMENT

- Comparative analysis of different management options
- Risk mitigation across a portfolio of values
- Relative differences
- Risk mitigation, not elimination -> residual risk
- Cost-effectiveness of risk mitigation
- Effect of climate change on risk mitigation
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Getting around

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Response to treatment – single value

Matrix plot shows relative risk for different edge and landscape % burnt

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Landscape % Burnt

Fire Area
Response to treatment – single value

“Do nothing” option
Response to treatment – single value

3% Edge, 1% Landscape

1% Edge, 3% Landscape
Response to treatment – single value

Multiple values available

- Fire Area
  - House Loss
  - Life Loss
  - Power Loss
  - Road Loss
  - TFI Burnt
Response to treatment – all values
Response to fixed treatment levels

House Loss by Landscape @ PB 2% of Edge

Risk Reduction for Levels of Prescribed Burning: CC Worst, CC Best, No Treatment
Response to fixed treatment levels

![Diagram of house loss by edge at PB 2% of landscape with levels 0 to 15 and risk reduction for prescribed burning with CC Worst and CC Best.](image-url)
Climate change

House Loss by Edge @ PB 2% of Landscape

@ Level:

0 1 2 3 4 5 6
PB 0 PB 1 PB 2 PB 3 PB 5 PB 10 PB 15

Climate Change
Toggle Climate Change Effects
The effects of climate change are shown as the minimum to maximum variation according to an ensemble of climate change models and scenarios.

Graph showing house loss by edge at PB 2% of landscape with various bars and lines indicating different scenarios.
Climate change

The effects of climate change are shown as the minimum to maximum variation according to an ensemble of climate change models and scenarios.
Cost-effectiveness

Least cost option

Interpretation Hints
Total costs are the sum of treatment costs (edge, landscape) and the cost of bushfire impacts (life loss, house loss, damage to roads and powerlines and environmental costs). For information on how costs were calculated see the FAQ.
Cost-effectiveness

Treatment costs
Impact costs

Interpretation Hints
Total costs are the sum of treatment costs (edge, landscape) and the cost of bushfire impacts (life loss, house loss, damage to roads and powerlines and environmental costs). For information on how costs were calculated see the FAQ.
In the pipeline*

- Extension beyond case study areas
- Addition of new features, datasets
- Changes in response to user feedback
Fire managers: We want to hear from you

- Register, explore case studies and treatment options
- Provide feedback, report bugs
- What features do you want to see?
- How can we help you make best use of the Atlas?
Take home messages

- There is no one-size-fits-all solution to prescribed burning
- Climate, vegetation, the distribution of assets and population and other local factors all influence results
- The most cost-effective solutions vary regionally
- Prescribed burning solutions need to be tailored
- Climate change tends to reduce prescribed burning effectiveness, requiring greater investment to achieve the same results
Blue Mountains

Southeast Qld
Take home messages

• There is no one-size-fits-all solution to prescribed burning

• Climate, vegetation, the distribution of assets and population and other local factors all influence results

• The most cost-effective solutions vary regionally

• Prescribed burning solutions need to be tailored

• Climate change tends to reduce prescribed burning effectiveness, requiring greater investment to achieve the same results
Thank you for listening

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https://prescribedburnatlas.science