



ARC Training Centre for Advanced Building Systems Against Airborne Infection Transmission (Thrive)

Impact of landscape fires in a changing climate

2 July 2026, 9:00am – 3:45pm (AEST – Brisbane)

VENUE:

The Gibson Room, Z Block, Level 10, Room 1064, 2 George Street, Brisbane, Queensland, 4000

JOIN ZOOM MEETING:

<https://qut.zoom.us/j/85309971996?pwd=QtnYEPzhNsl4Zhj6TtSMdQfHhwsqZB.1&from=addon>

Meeting ID: 853 0997 1996 | Passcode: 821864

Background: Landscape fires are increasing in frequency and intensity across multiple regions globally, with recent catastrophic events recorded in Australia, Canada, the United States, and Europe. Emerging evidence indicates that climate and environmental change are key drivers of heightened fire risk and severity. In Australia, modelling consistently projects longer fire seasons and a greater likelihood of extreme events in coming decades.

A major public health issue associated with landscape fires is the substantial volume of smoke they generate. Landscape fire smoke can travel extensive distances affecting far larger populations than the immediate fire front, and is often underemphasised in public health messaging during fire emergencies. During the 2019–2020 south east Australian fires, smoke was implicated in approximately 430 estimated deaths and was associated with marked increases in respiratory illness, as reflected by surges in respiratory medication dispensing.

However, fires still have a place in our society. Planned burns aim to reduce the risks of larger, uncontrolled events, while Indigenous burning practices are central to the care and health of Country.

In discussions of landscape fire smoke, it is essential to centre the needs and experiences of impacted communities and to consider interdisciplinary solutions that reflect the complexity of climate change, land management, public health, ecological safety, and the fundamental right to clean air. Effective responses require guidelines and public health strategies that protect both human and environmental health.

Big questions include:

1. How is the climate affecting fire risk and the landscape in Queensland?
2. What does the science tell us about controlled burning?
3. What does the reinvigoration and growth of Aboriginal cultural burning mean for wider land management?
4. What do we know about the health impacts of landscape fire smoke?
5. What options are available to protect the health of communities affected by smoke?

This interdisciplinary forum is relevant to experts from many fields and to anyone involved with air quality, fire, land management and health.

A decorative graphic in the bottom right corner consisting of a grid of blue dots of varying sizes, arranged in a pattern that suggests movement or a field of data points.

AGENDA

| Start time | End time | Agenda |
|------------|----------|--|
| 9:00am | 9:30am | Coffee & Registration |
| 9:30am | 10:00am | Distinguished Professor Lidia Morawska, Queensland University of Technology (QUT) Welcome and Acknowledgement of Country Dr Dwan Vilcins, QUT, University of Queensland (UQ) and Centre for Safe Air Introduction to the symposium |
| | | <i>Session Chair: Dr Dwan Vilcins, UQ and QUT</i> |
| 10:00am | 10:10am | Presentations: Climate Impacts, controlled burning science, and cultural land stewardship in Queensland A/Professor Andrew Dowdy, University of Melbourne Fire and climate change in the Queensland context |
| 10:10am | 10:20am | A/Professor Rachael Nolan, NSW Bushfire and Natural Hazards Research Centre, Western Sydney University Climate and fire regimes |
| 10:20am | 10:40am | David Kington, Independent Land Manager & Vegetation management Science Darren Burns, Quandamooka Yoolooburrabee Aboriginal Corporation Open forest – a cultural landscape – man made |
| 10:40am | 10:50am | Prof David Bowman, University of Tasmania (UTas) Practical and sustainable pathways to community coexistence with bushfires: update on ARC Laureate program |
| 10:50am | 11:30am | Group Photo and Coffee Break |
| | | <i>Session Chair: A/Professor Wendy Miller, QUT</i> |
| 11:30am | 12:30pm | Panel session: Focus on possible regulatory, legislative and other responses and collaborative opportunities <i>Panellists:</i> <ul style="list-style-type: none"> • Don Neale, Queensland Department of the Environment, Tourism, Science and Innovation (TBC) • Matthew Riley, Department of Climate Change, Energy, the Environment and Water, NSW Government • Darren Burns, Quandamooka Yoolooburrabee Aboriginal Corporation • Dave Kington, Independent Land Manager, Quandamooka Yoolooburrabee Aboriginal Corporation, Vegetation management Science • Professor Fay Johnston, UTas |
| 12:30pm | 1:30pm | Lunch and Coffee |
| | | <i>Session chair: Professor Peter Sly, UQ</i> |
| 1:30pm | 1:40pm | Presentations: Landscape fires and smoke: Impacts, Evidence, and Community Protection Strategies Dr Zijun Li, QUT Contributions of bushfire emissions to urban PM_{2.5} and O₃ during the bushfire season |
| 1:40pm | 1:50pm | Dr Susan Rockloff, Central Queensland University (CQU) Designing for resilience: how evacuation centres can better support communities under threat |
| 1:50pm | 2:00pm | Dr Sharon Campbell, UTas Reducing exposure to air pollution: the benefits and costs of interventions |
| 2:00pm | 2:10pm | Professor Fay Johnston, UTas Prescribed burning as a public health intervention? |
| | | <i>Session Chair: Prof Jason Monty, University of Melbourne</i> |
| 2:20pm | 3:20pm | Panel session: Exposure, health and communities during landscape fires <i>Panellists:</i> <ul style="list-style-type: none"> • Professor Peter Sly, UQ • Professor Fay Johnston, UTas • Dr Sharon Campbell, UTas • Dr Susan Rockloff, CQU • Distinguished Professor Lidia Morawska, QUT |
| 3:20pm | 3:45pm | Conclusions and the way forward |