

Barriers to Worst Case Scenario Thinking: What factors stop bushfire firefighters considering the worst?

Claire Johnson, Geoff Cumming, & Mary Omodei

School of Psychological Science, La Trobe University, Victoria

Worst case scenarios (WCSs) are an important part of the prediction and planning essential to effective decision making. In two interview studies a wide range of factors were identified that had the potential to prevent decision makers from identifying and preparing for WCSs. Examples of four groups of barriers are shown below.

BARRIER: Decision Making Tendencies

- Underestimation of risk (e.g., likelihood of wind change).
- Underestimation of time and space (e.g., time to construct a control line).
- Fixation on a single task or perspective (e.g., tunnel vision).
- Best case assumptions (e.g., optimism bias).

BARRIER: Experience Levels

- Lack of appropriate experience.
- Lack of local knowledge.

BARRIER: Situation Characteristics

- Time pressure.
- Lack or uncertainty of information (e.g., poor information flow between fireground and IMT).
- Lack of coordination and control (e.g., role confusion).
- Lack of resources (e.g., no aircraft available).



BARRIER: Interpersonal Factors

Interpersonal Factors	Examples of interpersonal factors reported by interviewees
Between-group tensions	<ul style="list-style-type: none"> • Between agencies. • Between paid staff and volunteers. • Between locals and non-locals. • Between geographical areas.
Concerns and fears	<ul style="list-style-type: none"> • Loss of pride. • Fear of losing control of the incident to 'outsiders'. • Perceived implications of 'crying wolf.' • Fear of showing weakness.
Perceived judgments	<ul style="list-style-type: none"> • By peers, in asking for assistance from others. • By superiors, with implications for job prospects. • By the community, with suggestions of past 'scaremongering.'

End User Statement:
Claire Johnson's research has identified potential barriers to worst case scenario planning and provides fire services with opportunities to refine our decision making processes by incorporating worse case scenario planning. Outcomes of this research will create opportunity for enhanced decision making and ultimately improve the safety of fire fighters and the community.

Mark Thomason
Manager Operational Improvement,
South Australian Country Fire Service

How can these barriers be minimised?

While all firefighting decision makers can be expected to experience such barriers to WCS thinking, expert incident managers have developed strategies to manage or reduce them, including:

- developing back-up plans with trigger points indicating when to change plans;
- encouraging team members to critique plans; and,
- promoting long-term planning rather than focusing on next shift.

