

# GOR Behaviours Workshop

---

28 June 2018 @ EMV

Dhirendra Singh & Joel Robertson

# Behaviours Workshop May 2018 | Notes (1 of 3)

- **Some residents will not evacuate esp when livelihood is at stake; movements constrained to ~1km of house.**
- **Upto 80% will return home first; majority of those who came back will leave.**
- Demographics matter; More likely to leave are (a) elderly (but not lone males) (b) people with children (c) those with prior bad experience (d) those who have a easy place to go to.
- **On awareness: (a) smoke raises concern (b) seeing flames is likely to trigger a reaction (c) neighbours leaving has a strong influence on people leaving (d) messaging over time adds to this; people tend to want to seek more information, which adds to the delay.**
- On messaging: plus if messages are regularly updated and personalised; minus is warning fatigue.
- If people are stuck, they get out of the cars and run.

# Behaviours Workshop May 2018 | Notes (2 of 3)

- **Accidents very likely in smoke; tend to completely block roads;**
- In-evac (last resort) places of last resort will be places that are cleared like fields, ovals, parking lots; although some will get lost in smoke; some people have a notion of "safe place" for their family where they might go; **have in-evac options defined for when other options are infeasible;**
- Anxiety/stress degrades performance; driving performance becomes sub-optimal; forgetfulness; poor decisions - take first thing that comes to mind; tunnel vision; better to use the word "anxiety".
- **Inverse law of radiation is our friend** (Jim)
- All available cars get used by households.
- Power loss and mobile phone towers loss

# Behaviours Workshop May 2018 | Notes (3 of 3)

- 80/20 rule applies; 20% of the population causes 80% of the problems.
- On regular visitors and tourists: visitors were over-represented in fatalities; **were unaware; made bad decisions; holiday homes b&b people tend to follow instructions of person in charge**; halls gap study gives some info on intentions.
- On people coming back once the fire is through: people want to come back; typically due to concern for animals; roads blocks are often not an obstacle; ~ <5% come back after 2-3 hours (to confirm)
- On spread of information: not a lot other than face-to-face information spread on road blocks; **social media usage unclear**
- On classes of people: Elderly; Parents (school days; weekends; school holidays when both parents working); People with horses;

# Behaviour | Groups

**Resident:** lives in the region; has local knowledge of roads and places of congregation; is connected to the community; is likely to have a concern for others, pets, and property; most likely to defend property.

**Regular Visitor:** has visited the region on several occasions; may have a holiday home in the region; is also familiar with the area, but does not have a large community network; less likely to be prepared for a bushfire threat; and less likely to defend property.

**Overnight Visitor:** is unfamiliar with the area; living in short term accommodation; will not defend property; likely to gather belongings then follow instructions or leave the region.

**Day Visitor:** is mostly unfamiliar with local roads and places of congregation, most likely to leave the region when informed of a bushfire threat.

# Behaviour | Descriptive states

**Routine:** people going about their daily lives (generated MATSim plans)

**Prepare:** people who have acknowledged the threat, but have not committed to evacuating yet (optional state)

**Evacuate:** people who have committed to evacuating

**Safe:** people who now consider themselves as being safe

**Out of options:** people who have no other (programmed) options left to try

# Behaviour | Situation awareness

- Can see **smoke** (proximity to front)
- Can see **fire** (proximity to front)
- Receives **emergency messages** (advice, watch&act, evacuate)
- Perceives **road blockages** and closures
- Observes **congestion** on roads
- Perceives **people nearby leaving**

# Behaviour | Activities

- **Return to accommodation:** e.g., if a resident was at work, or regular visitor at shops.
- **Go to shops** to stock up: if deciding to stay, or just preparing.
- **Visit / collect dependents:** e.g., an elderly relative, or farm animals (horses).
- **Evacuate to safe node;** e.g., based on knowledge, or as instructed by message; could be to area outside of threat or within (place of congregation).
- Continue with daily **routine activities**.



# Behaviour | Response Matrix

[https://drive.google.com/open?id=1fD3zxp270oVS8atZJBFyXdysh9WHjv2rW\\_hB5oIRypQ](https://drive.google.com/open?id=1fD3zxp270oVS8atZJBFyXdysh9WHjv2rW_hB5oIRypQ)