Communicating for behaviour change

Raising awareness is one thing. Getting people to change their behaviour is another. Social scientists from Scion Rural Fire Research Group were commissioned by Fire and Emergency New Zealand to look at how fire danger communication can influence behaviour to reduce wildfires.

In Aotearoa New Zealand land clearing burns and machinery remains the source of most wildfires, while the number of wildfires from escaped bonfires, rubbish fires and camp fires is increasing.

Current communication is about distributing information - principally on signs and in the print media. But there is evidence that information alone does not change behaviour.

This study brings together survey responses from fire managers and researchers in New Zealand and overseas with a range of behaviour change literature to provide fire managers and communities with some guidance for communicating fire danger.

Each situation is different and this is not a one-size-fits-all approach, but by investing in a range of approaches and being prepared for common opportunities, communications can be more effective.

Port Hills Fire, 15 February 2017.

Image: Ross Younger, www.flickr.com/photos/crazyscot/32759624452/

Going beyond awareness

To influence behaviour and reduce wildfires, there is a need to go beyond raising awareness and use proven behaviour change techniques in their communications.

The most common form of communication is the fire danger signs on the side of roads. The half-grapefruit shows the level of danger, but it doesn't advise visitors what they should do in response. Scion research from 2011 confirmed that residents and visitors were aware of fire danger warning signs but didn't know what behaviour was expected.

In Auckland and Hauraki, a new approach used signs that were more focused on the desired actions. The orange band was labelled "restricted" with the words "fire by permit only" for clarification beneath (Fig 1).

Research approach

This study used literature review, interviews and email exchanges to determine how behaviour can be influenced by different communication methods. Qualitative research methods, including direct questioning and email surveys of fire managers and researchers in New Zealand and overseas, were used to increase understanding about current communication methods and their effectiveness. We reviewed literature about behaviour change to identify what shifts in communication might have the greatest effect for fire managers.

Key findings

Our research showed there are three common ways to communicate:
- One-way broadcasting of information through signs, media, brochures and online.
- Direct one-way communication through location-based mobile technology, legislation and policy.
- Two-way communication through face-to-face interactions or social media

The most effective of these for changing behaviours was the two-way communication, particularly face-to-face interactions, so working with communities to increase engagement is crucial.

We understand from international literature that awareness of risks is not enough to change behaviour. The principles of behavioural economics show that people don't always respond in a rational way, weighing up risks and benefits and acting accordingly.

For example, smokers who understand the health risks don't necessarily stop smoking. Existing behavioural models tell us that emotions, habits and social norms are key drivers of behaviour change.

The first step in designing effective communication is to identify the desired behaviour. From there, a systems thinking approach can lead to opportunities to use habits or emotion to wrap more effective communication around. For example, when people move to a new area, their habits are not yet entrenched and so there is an opportunity to affect behaviour with the delivery of clear and consistent messages. Symbols have been identified as an effective way to simplify messages (Fig 2).

Major events, or the anniversary of those events, present opportunities to tap into the emotional drivers of change (Fig 3).
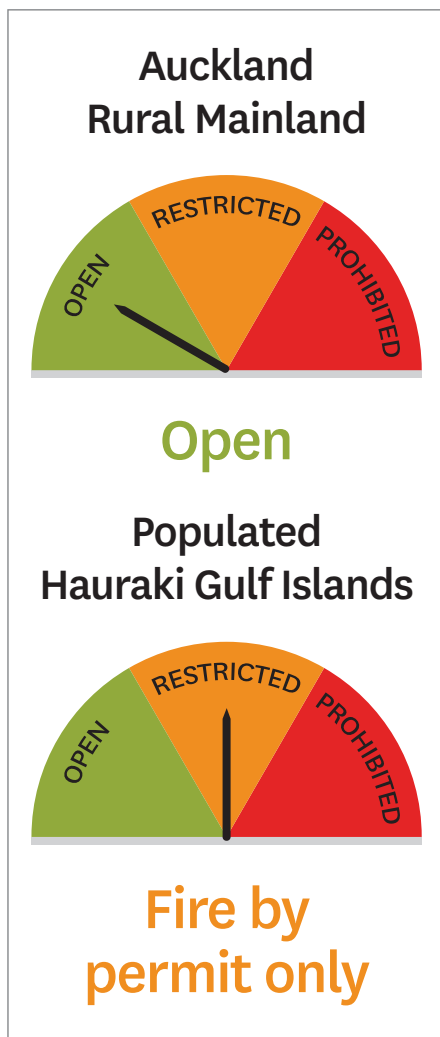

Image: Auckland Council

Figure 1. *One example of shifting from awareness to behaviour change by making the desired behaviour clear.*

Image: NZTA

Figure 2. *Example of using symbols to convey simple messages.*

Figure 3. *Major events, for example, the Port Hills fire, February 2017.*

Another driver of behaviour change is social norms. If we're unsure of how to behave, we look to others for our cues. Communications should look for ways to normalise the desired behaviour.

People will only change if they feel their actions will make a real difference, so it's important to communicate ways that the behaviour change is achievable and how it will have an impact.

Legislation and penalties can be effective behaviour change mechanisms but these are generally seen as a very costly way of achieving desired behaviours.

Choice architecture is another analytical tool for understanding the conditions influencing behaviour. For example, putting a handle on a door makes people more likely to pull rather than push the door.

Examples

In Colorado, homeowners can use an online tool to see how prepared they are using a summary of rapid fire risk assessment results displayed on a Google map (Fig 4). Homeowners can examine their vulnerabilities or areas of risk exposure and conduct an online self-assessment. An one-off visit by fire managers and risk assessors can help design appropriate property-level actions.

Be Ready Warrandyte was a community-led initiative in Warrandyte that featured a scenario planning workshop where a facilitator stepped through a hypothetical fire scenario so that community members could test their house plans, knowledge and actions, and get feedback from emergency management organisations (Fig 5). This face-to-face communication was also useful for making action feel more achievable.

Fire danger rating signs are a familiar communication tool. Being able to adjust them remotely ensures they are up to date. Electronic text that could carry fire prevention messages can also be included (Fig 6).
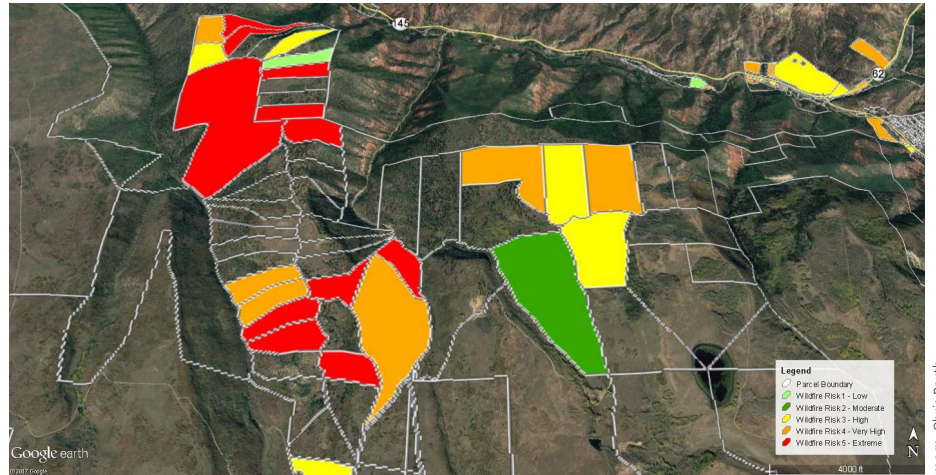
Figure 4. *Colorado rapid fire risk assessment.*

Figure 5. *Be Ready Warrandyte community-led initiative, Victoria, Australia.*

Figure 6. *A remotely adjustable fire danger rating sign from New South Wales, Australia.*

Conclusion

Behaviour change takes time and requires multiple, ongoing efforts. Identifying the desired behaviours is crucial, as are simple and consistent messages. Understanding the mechanics of behaviour change can help communications to be more effective. There is no one solution. Each situation and community is unique, but more strategic communications like these can lead to a more responsible and responsive public.

Recommendations

- **Determine what behaviours are expected** and create clear and consistent messages.
- **Capture opportunities for face-to-face interactions** with fire users, for example, when they apply for a permit.
- **Use social media** to spread information through communities and explain what actions can be taken.
- **Introduce property risk assessments** as a low-cost way to inspect properties and identify hazards to increase people's ability to take action.
- **Plan for windows of opportunity** such as after a fire event, to engage with communities and use emotion to drive behaviour change.
- **Target visitors** via websites used by freedom camper and rental car companies to outline rules and regulations.
- **Work with community groups** to develop social norms around fire safe behaviour led by community champions.
- **Use positive education** around lessons learnt from past experienced to guide behaviours towards practice change and gain compliance through loss aversion.

Further Information

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Acknowledgments

Communities and home owners need to be ready for fire.

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