Australian Fire Danger Ratings System Social Research Project

Research Advisory Forum / **Hobart 2019**

Fiona Dunstan / SA Country Fire Service

Government of South Australia

CFS

Australian Fire Danger Rating System

@bnhcrc @bnhcrc

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Australian Government
Department of Industry, Innovation and Science

Business Cooperative Research Centres Programme

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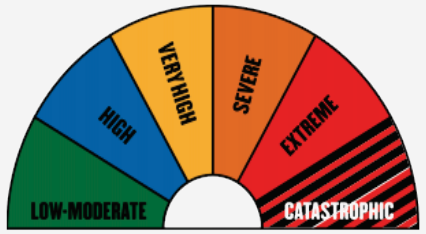

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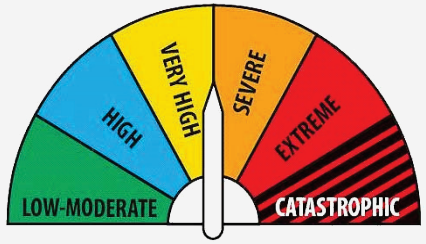

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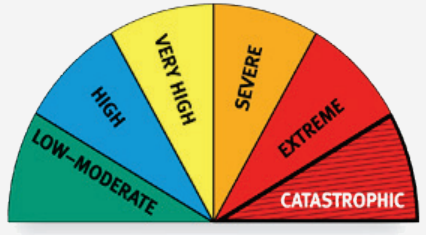

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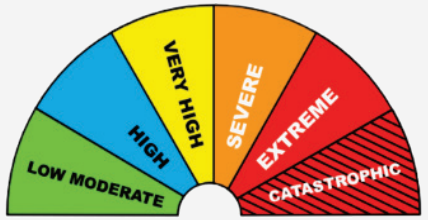

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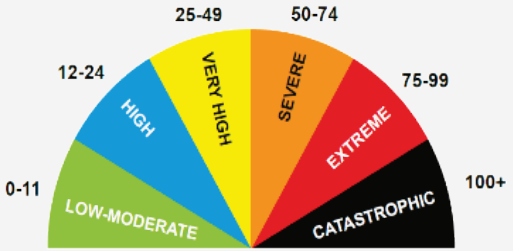

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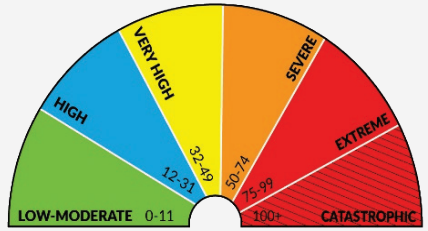

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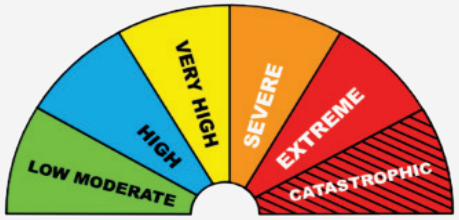

WA

VIC

Social Research Project

- Why we are doing it
- How it is being done
- What we have found out
- What it means
- What comes next

Who is Involved

South Australian County Fire Service
DCO Andrew Stark
Fiona Dunstan
Peta O'Donohue

Metrix Consulting
Melbourne | Perth | Sydney
metrixconsulting.com.au

STEERING GROUP

Amanda Leck	AFAC	Amy Miller	EMV
Anthony Clark	NSW RFS	Ailsa Schofield	NSW SES
Rachel Bessell	Vic CFA*	Nicholas Kuster	NSW SES
John Gilbert	Vic CFA*	Hayley Gillespie	QFES
Christina Hanger	Vic CFA	Troy Davies	QFES
Jill Downard	WA DFES	Lew Short Project	AFDRS
Reegan Key	EMV		

**Safer Communities*

REFERENCE GROUP

AFAC Warnings Group

Colin Lindsay	SA MFS
Jacob Riley	VIC SES
Sascha Rundle	ABC
Simon Moffatt	Home Affairs
Carla Mooney	BOM
David Webber	NSW SES
Phil Lindsay	NSW F+R
Mhairi Revie	TAS SES
Peter Middleton	TAS Fire
Kaylee Rutland	ACT
Leanne Lewis	NT PFES
Vivienne Tippett	QUT

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Current State

- Bushfire Scaled Advice and Warnings Framework
  - Fire Danger Ratings
  - Bushfire Warnings
- Australian Tsunami Warning System
- Other hazards – various arrangements for each jurisdiction

Social Research

- Public Facing Fire Danger Ratings
- Multi-Hazard Warnings Fire, Flood, Cyclone, Severe Weather & Extreme Heat

Future State

- National Multi-Hazard 3- Tiered Warning System
- National Warnings Frameworks Fire, Flood, Cyclone, Severe Weather & Extreme Heat etc…
- Implementation 2022

Stages and Timing

Project Immersion

Desk top review

All primary and secondary sources

Analysis & discussion

Co-development of survey contents and sampling composition

July - August 2018

STAGE 1

Benchmark Survey

Nationwide online survey

Benchmarking levels of awareness, understanding and response to current Fire Danger Rating System.

September 2018

STAGE 2

Qualitative Research

Survey 1 results used to guide the sampling and content of qualitative research.

Focus Groups, workshops and intercept interviews

October - November 2018

STAGE 3

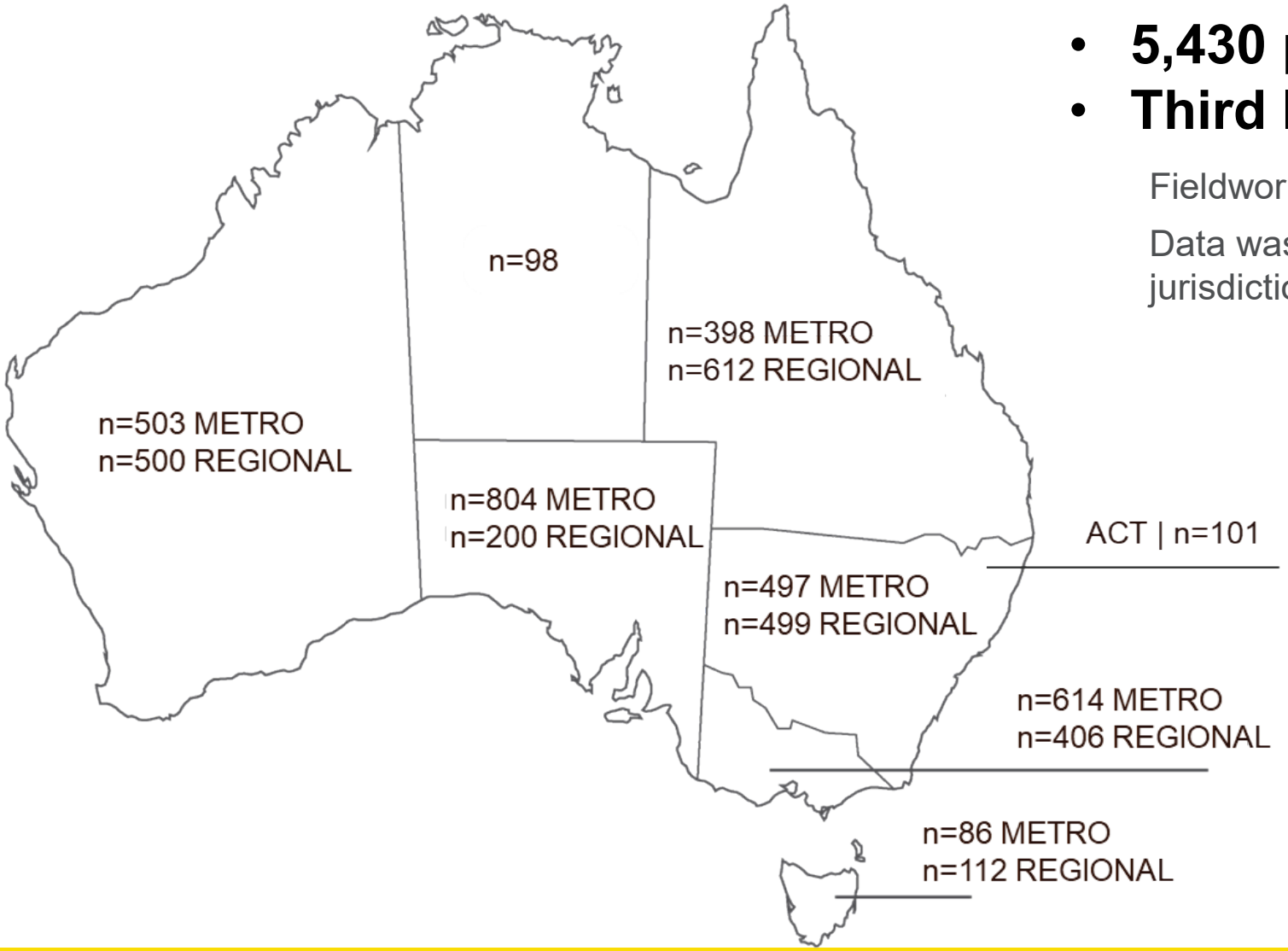
National Survey

Data from Stages 1&2 used to identify preferred options for testing

Identify the systems which result in the highest levels of understanding and positive action

May 2019

Stage 1 – Quantitative Research



- **5,430 people**
- **Third largest survey undertaken**

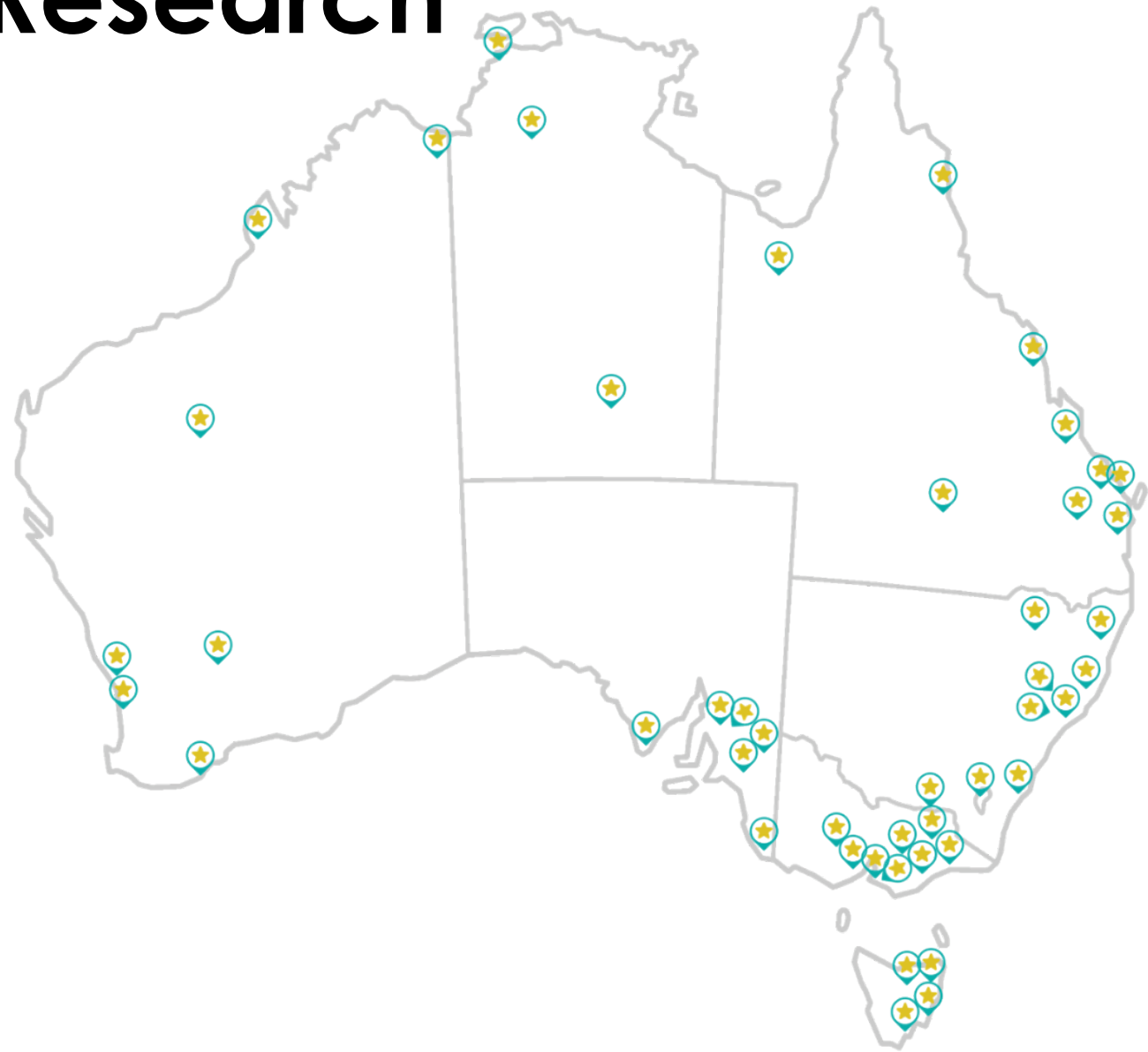
  Fieldwork run between 14 and 27 September 2018

  Data was weighted by age and gender within each jurisdiction

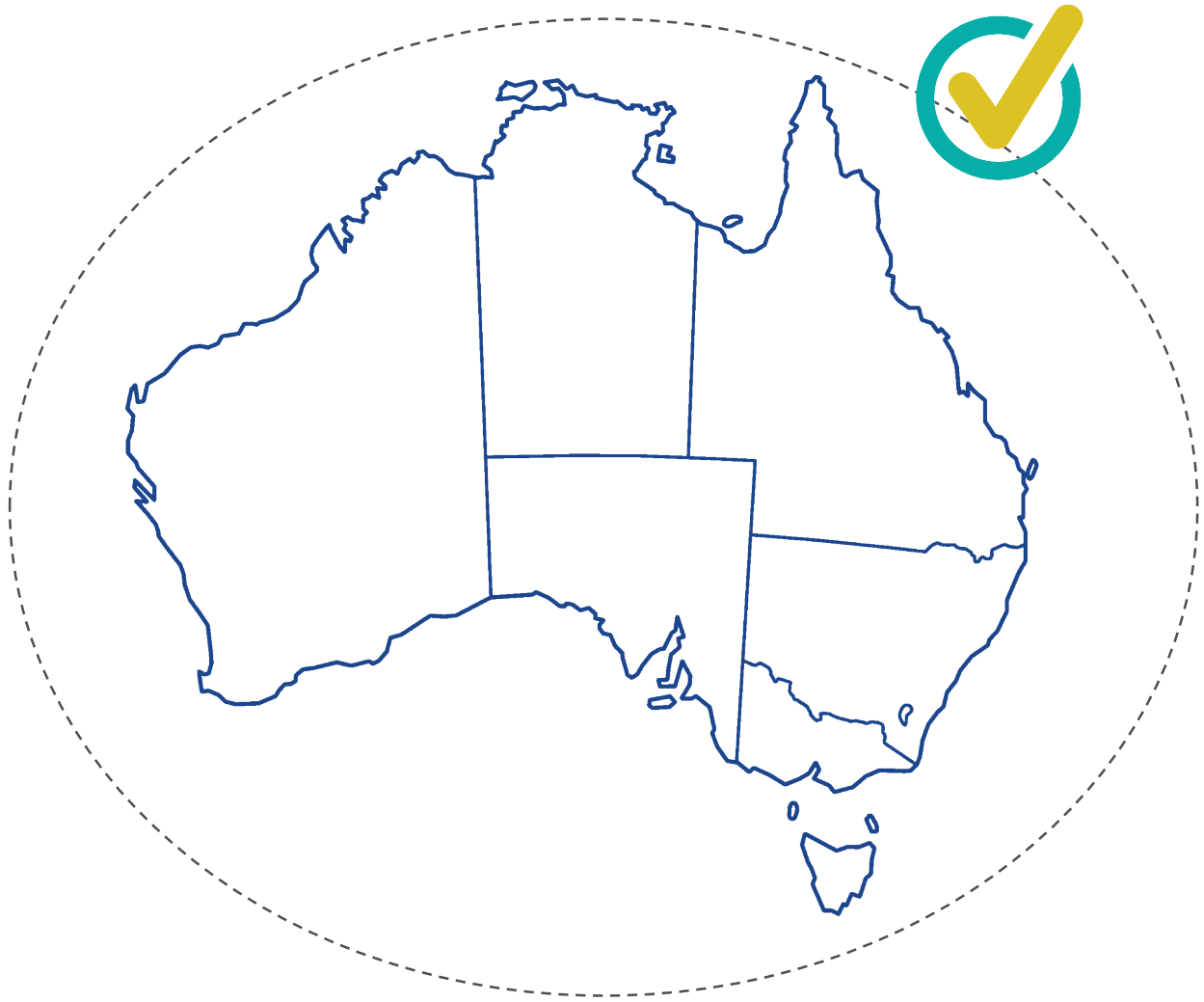
Stage 2 - Qualitative Research

48 locations across Australia

- Focus groups conducted throughout Australia
- October and November 2018
- Locations determined in collaboration with project steering group, included:
- **Medium-High Risk areas, where minor or major incidents have occurred in the past five years**
- **Medium-High Risk areas, where no incidents have occurred in the past five years**
- **Low-Risk areas**



Stage 3 – Quantitative Research



5,408 people

Fieldwork run between 24 May and 9 June 2019

Data was weighted by age and gender within each jurisdiction

Shape

Colour

Word Set

Supportive Message

Recognise It, Don't Understand It

Unprompted awareness

72%

Prompted awareness

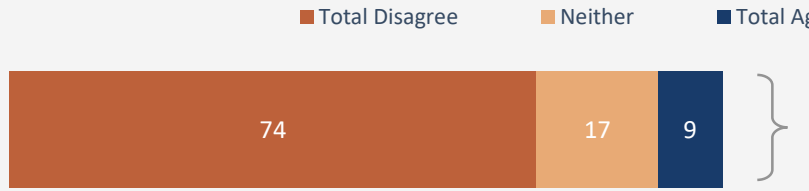
93%

% of General Population

Understanding of Fire Danger Rating System purpose

% of General Population

"The Fire Danger Rating System is confusing"



Agreement that the existing system is confusing is understated, as most are misattributing its purpose.

% of General Population

Total Fire Ban is Well Known

Prompted awareness of Total Fire Ban messaging

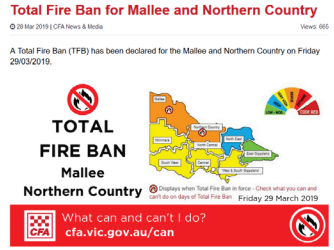
93%

% of General Population

A total fire ban is seen as a period of time where you are not allowed to light fires, use power tools and/or machinery or have an open naked flame.

"Don't light any fires. Don't use welding equipment or machinery such as farming equipment. Don't throw your cigarette butts out of car windows. Be alert and stay calm and think before acting."

"During a total fire ban, you cannot light, maintain or use a fire in the open, or carry out any activity in the open that causes, or is likely to cause a fire."



Recall of Elements is Limited

Scale

Few participants recalled that the system had six levels

"I think it has 5 levels? It changed after Black Saturday to include a higher danger stage."
- Bannockburn, VIC

Words

Most familiar ratings recalled: Low-Moderate, High, Extreme, and Catastrophic.

Less than 10 individuals accurately recalled the full range of Fire Danger Ratings used in the system

"It has labels on it. You know medium, extreme or heavy, light. I can't remember exactly what they are though."
- Brisbane, Queensland

Colours

The 'redder' the colour the more dangerous the perceived risk rating.

Few were able to recall all colours.

More than half were surprised by the inclusion of blue.

"I think it starts with green or blue and then there's red at the end."
- Alice Springs, Northern Territory

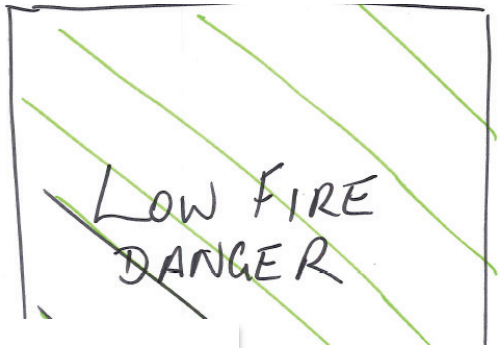
Specific to visual display through signage

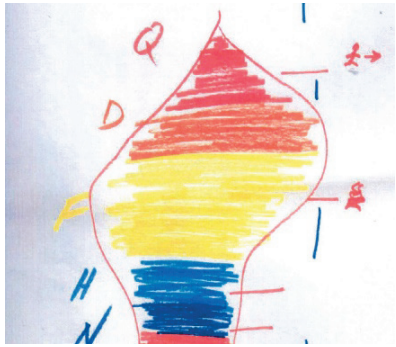
Shape

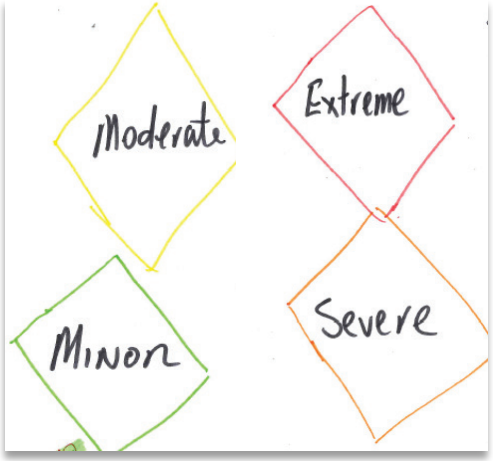
The semi-circle shape is the most well known component of the Fire Danger Rating System, with the majority of participants able to recall it accurately.

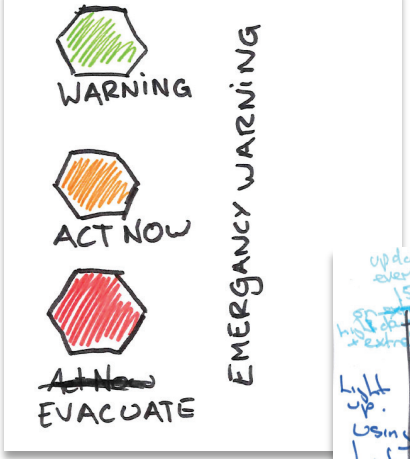
"There is the semi circle shaped sign that has an arrow that points to the rating. I'm not sure what the ratings are called though. It always seems to be on something bad though."
- Albany, Western Australia

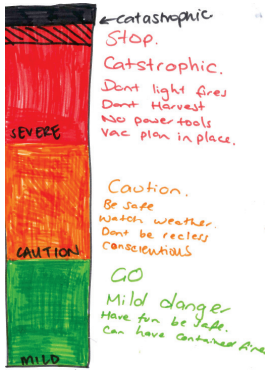
Change is Needed

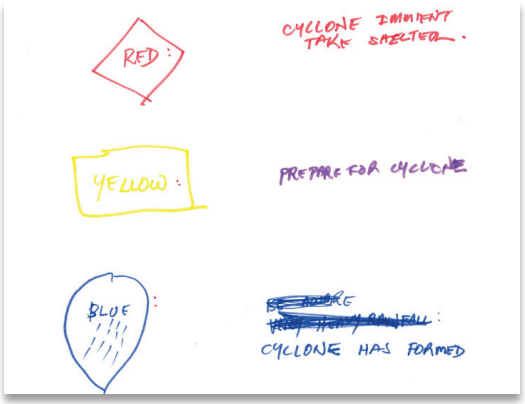


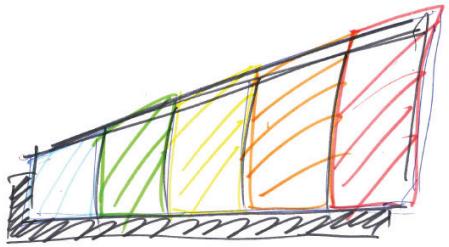


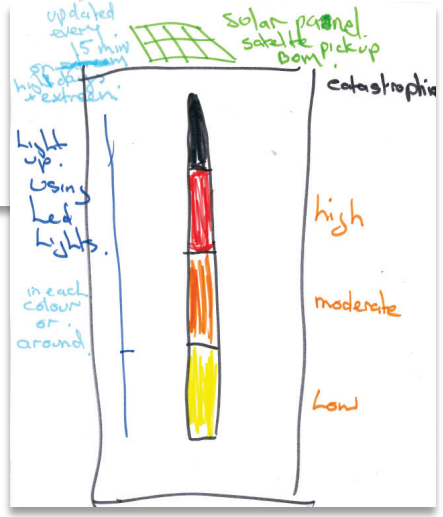


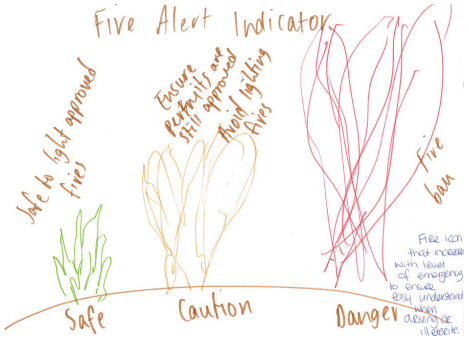












Putting This All Together

- **Optimised and simplified version of the existing system**
- 4 Levels
- Green, Yellow, Orange, Red
- Low, Moderate, High, Extreme
- Include supportive messaging
- Clear, concise and action orientated

What Happens Next ?

- Socialise research and project
- AFDRS jurisdictional consultation workshops
- Australian Fire Danger Ratings Board
- National Warnings Group
- ANZEMC and MCPEM
- Lets hear your thoughts ….
- Get ready for 2022

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