Australian Fire Danger Rating System

Fire Danger Rating System Guidelines APRIL, 2022

Introduction

Contents

This style guide has been created to assist in maintaining a consistent identity for the Australian Fire Danger Rating System (AFDRS).

Correct application of the device and colours will prompt consistent recognition and community action across Australia.

About the AFDRS

The Australian Fire Danger Rating System is a nationally significant project to design and implement a new fire danger rating system for Australia.

Fire danger ratings are used to communicate the risk of fire to the community.

The fire danger rating system is a national system, well recognised across Australia, most notably through the use of roadside signs which are displayed on roads and highways across the country.

Fire danger ratings describe the potential danger and consequence of a fire if one was to start. Importantly, they do not communicate the likelihood of a fire.

The fire danger ratings are undergoing the most significant change in their history – in terms of the science which underpins the system and informs the fire danger rating each day, and the way they are communicated to the public.

The design of the new system has been informed by extensive community research,

coupled with the expertise of fire and emergency management practitioners from across Australia.

As a result of this research, a new national system has been designed to convey risk within the ratings and encourage action.

The new national system will aid in challenging misconceptions, maintain consistent appearance and messaging and provide a myriad of channels (both analogue and digital) to reach as many people as possible.
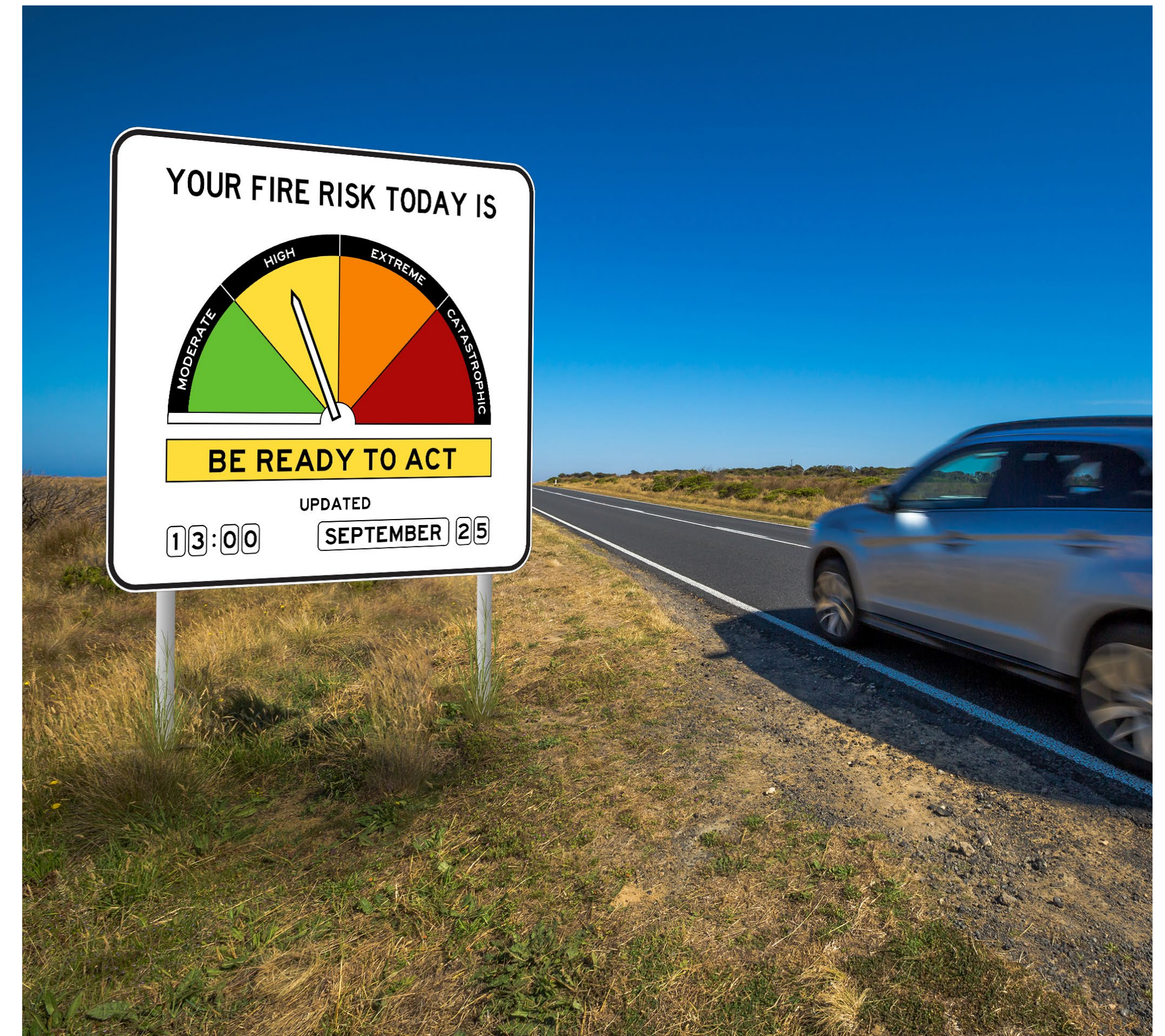
New Fire Danger Rating Levels

The chosen colours for the danger rating levels were selected based on extensive research, previous signage and desired levels of contrast.

A white 'no rating' section was also included to indicate that no action is required, and the light blue and black/red striped colouring was also removed in order to simplify the sign and better represent perceived colour conventions.
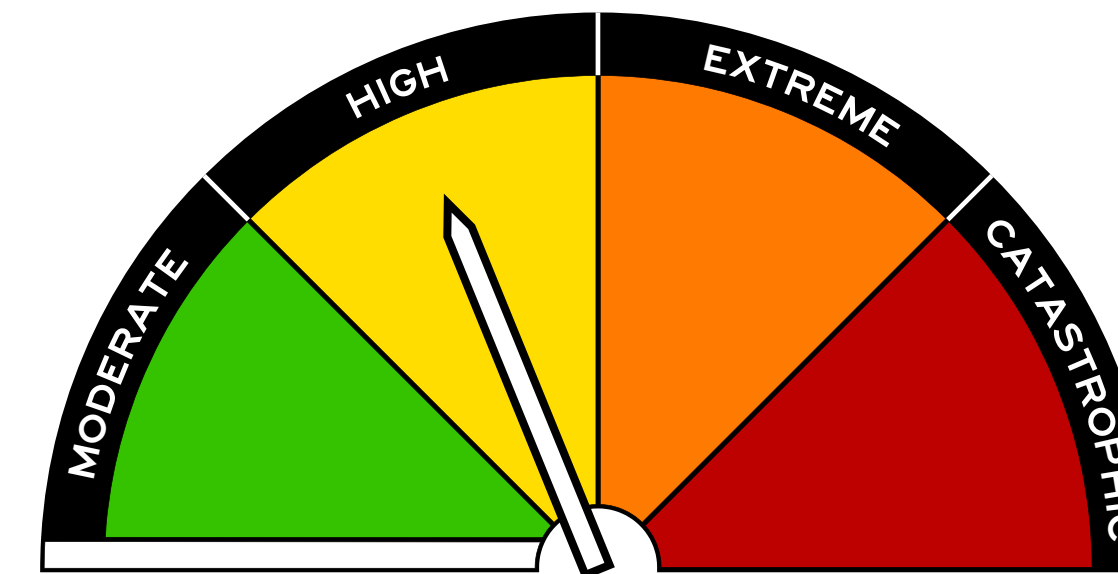
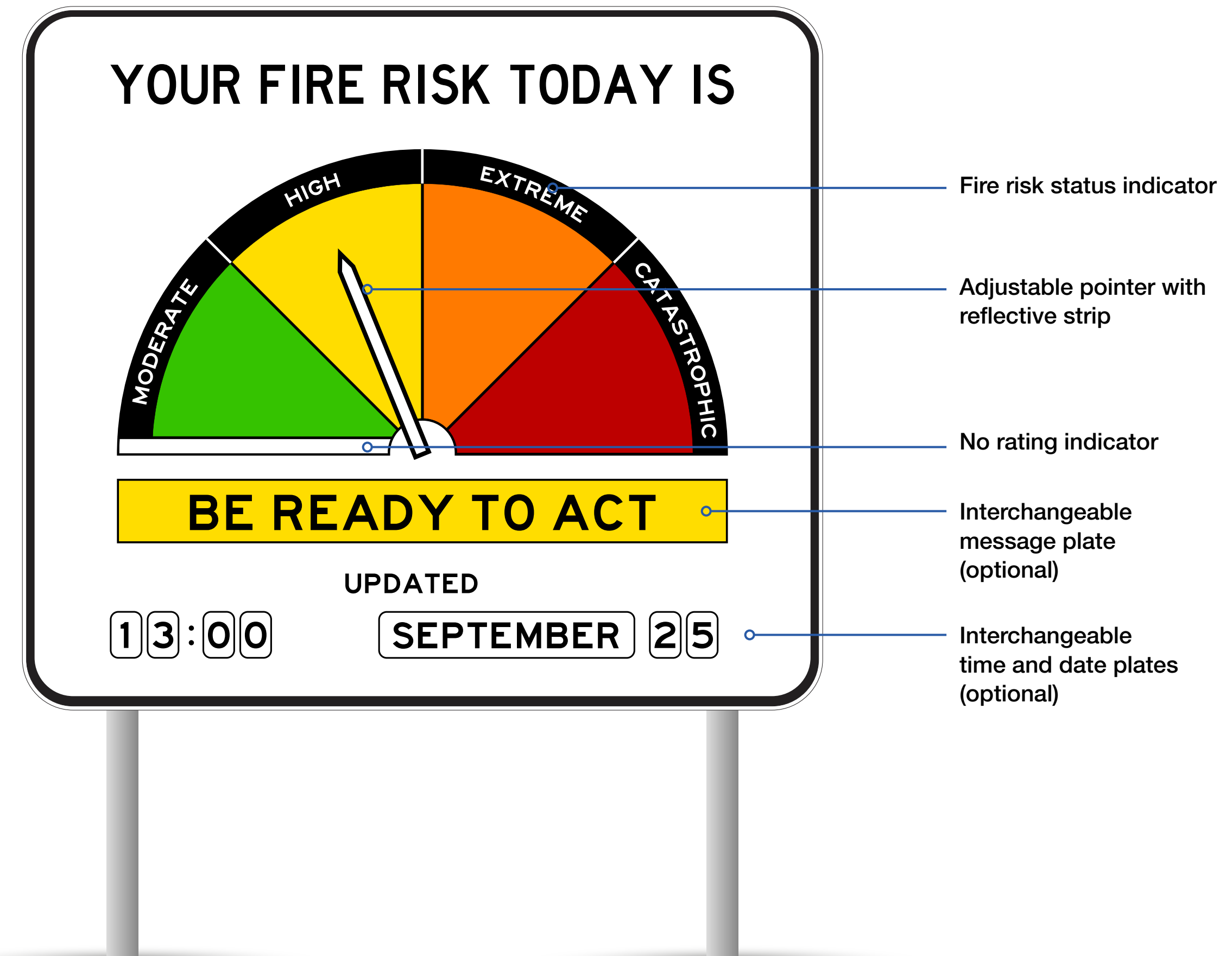| NO RATING	MODERATE	HIGH	EXTREME	CATASTROPHIC
NO ACTION REQUIRED	PLAN AND PREPARE	BE READY TO ACT	TAKE ACTION NOW TO PROTECT YOUR LIFE AND PROPERTY	FOR YOUR SURVIVAL, LEAVE BUSH FIRE RISK AREAS

Sign Production Guide

Analogue Sign

The analogue sign is arguably the best recognised aspect of fire danger because it is placed along the roads of countless cities and towns throughout the country.

The new analogue sign incorporates research to simplify the colours, text and messaging by using only four colours and short corresponding text to convey any actions required.

As research found that people often doubt how current the signs are, a timestamp has been added to reflect when the sign was last updated.

These time and date plates are optional for each sign, as certain locations may not require consistent updates and older dates displayed may give the impression that the sign is out of date.

The incoporation of a thin white strip on the left hand side of the sign has also been added to indicate no rating has been determined on that day, with a clear corresponding plate reading 'no action required'.

YOUR FIRE RISK TODAY IS

HIGH
EXTREME
MODERATE
CATASTROPHIC

BE READY TO ACT

UPDATED

13:00   SEPTEMBER 25

Fire risk status indicator

Adjustable pointer with reflective strip

No rating indicator

Interchangeable message plate (optional)

Interchangeable time and date plates (optional)

Analogue Sign
– Interchangeable Plates

A series of interchangeable plates have been added into the analogue sign to provide further information on any actions required, as well as the time and date that the sign was last updated.

A generic message - 'Fire Danger Season Rules Apply' - can also be used in instances where the sign will not be manually updated frequently.

Agencies can also include their own localised year-round or specific preparedness campaign messaging, such as 'Be Bushfire Ready' (used in the ACT).

The simplified messaging of the information plates, matching the colours used on the watermelon sign itself, present clear, easy to read information which can be read quickly whilst driving by.

Numerical plates

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Month plates

JANUARY	JULY
FEBRUARY	AUGUST
MARCH	SEPTEMBER
APRIL	OCTOBER
MAY	NOVEMBER
JUNE	DECEMBER

Adjustable pointer with reflective strip

Information plates

PLAN AND PREPARE

BE READY TO ACT

TAKE ACTION NOW

LEAVE BUSHFIRE RISK AREA

FIRE DANGER SEASON RULES APPLY

BE BUSHFIRE READY

IN AN EMERGENCY TUNE INTO XXXAM

Best Practise Size Guide

For optimal visibility, we recommend a minimum road sign width of 1800mm.

These dimensions may need to change depending on location, conditions and content.

When the size of the sign needs to be increased, always scale the entire sign proportionally. Never stretch or warp the sign, any of the graphic elements or text.

If additional content is required and the sign's proportions must change, always scale vertically from the top edge of the sign. Always maintain the current, proportional clearspace around each element if any adjustments are made.

1800

130 24

90

100

1585 690

50

150

65

85

110

115 8

YOUR FIRE RISK TODAY IS

MODERATE HIGH EXTREME CATASTROPHIC

BE READY TO ACT

UPDATED

13:00 SEPTEMBER 25

1400

Principles For Recommended Placements

NSW RFS conducted community focus groups and sought the expertise of Behavioural Architects to understand sign design and ideal location. This research is helping to inform national guidelines.

The research found:
- The community have more confidence in electronic signs – they believed they're kept up to date, as opposed to manual signs which require people to change

- Signs are very effective as a tool to warn people they're entering a high risk area

- Sign locations matter – especially when used in environments where people have time to look and understand them.

Recommended placements:
- At traffic lights / low speed areas (50kmh)

- In parking bays

- At transportation hubs (train stations, bus depots, tourist stops)

- Near bushland or areas of higher risk (ie entering isolated communities).

Suggest against:
- Signs on the way out of town

- On roads over 100kmh

- Roads with multiple lanes of traffic.

Digital Sign

A digital sign has also been designed for the national system, following a similar approach to the analogue sign.

The use of digital roadside signage was important to convey how current the rating is, as research shows people believe digital channels are more frequently updated.

The coloured information strips are replaced with a programmable LED section for this sign, which displays the informational text and optional date stamp.

Similarly to the analogue sign, these time and date plates are optional as certain locations may not require consistent updates.

The colours remain consistent for this sign, with the addition of a light up status indicator to replace the manual adjustable pointer.

YOUR FIRE RISK TODAY IS

HIGH
EXTREME
MODERATE
CATASTROPHIC

BE READY TO ACT
UPDATED 25/09/2022
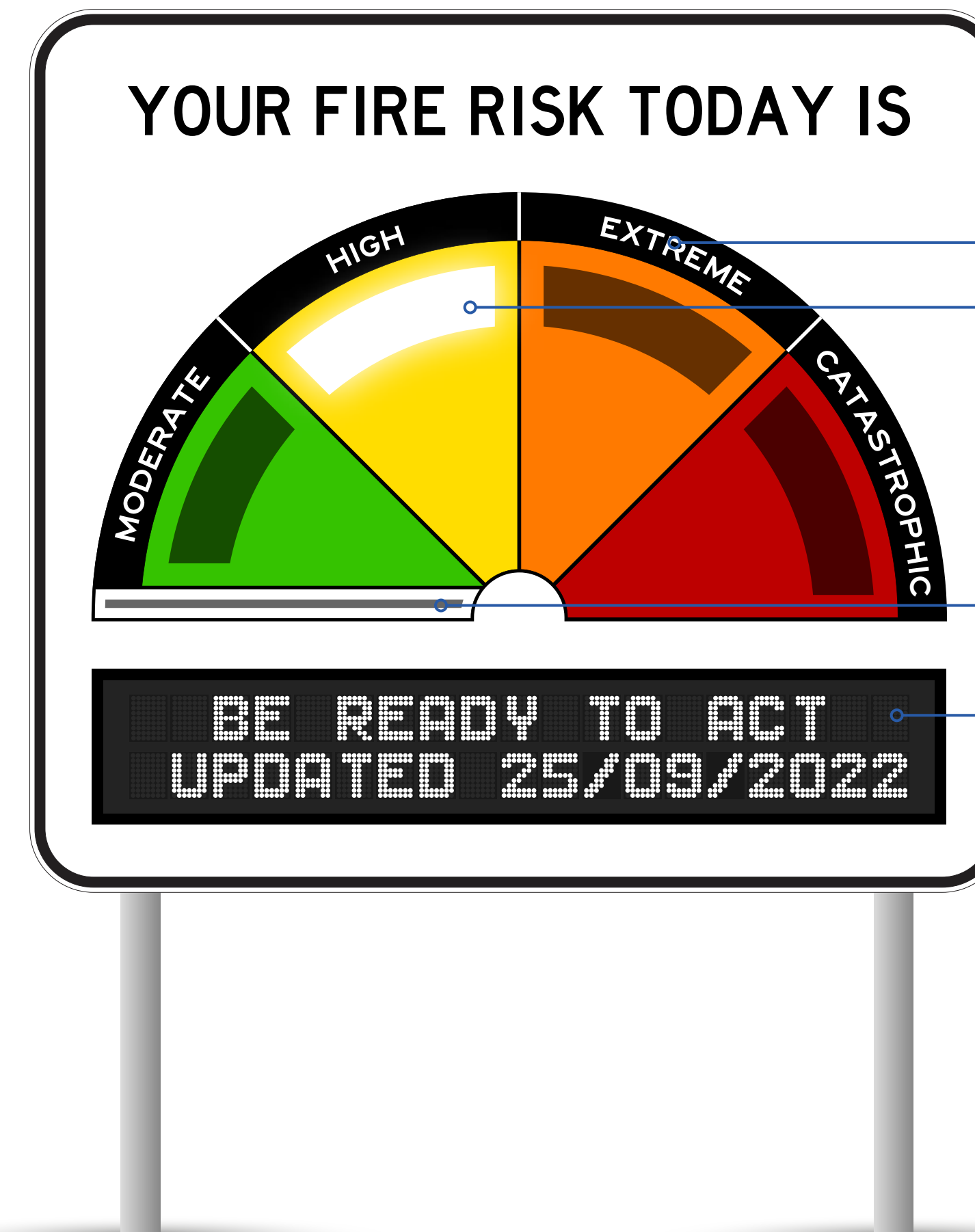
Digital Sign

Fire risk status indicator

Light up status indicator

No rating indicator

Programmable LED (optional)

Fonts

The typeface used for the updated Fire Danger Rating System is Highway Gothic.

A sans-serif typeface that was developed to maximize legibility at a distance and at high speed, Highway Gothic is used within the Fire Danger Rating System in regular, wide and expanded formats.

Highway Gothic – Condensed

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890!@#$%&*()

Highway Gothic – Regular

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890!@#$%&*()

Highway Gothic – Wide

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890!@#$%&*()

Highway Gothic – Expanded

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890!@#$%&*()
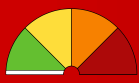
Colours

Our colour palette has been developed to effectively communicate each status while remaining eye-catching and providing maximum contrast for viewers.

Using this palette as a guide will help ensure consistency between all states and signs.

CMYK values are provided for all printing purposes. Colours may vary slightly depending on the chosen materials and production partner, however, care should be taken to ensure the colours are easily distinguishable from one another and prominently visible.

Process Black can be used for general printing, however, Rich Black is best used in large chunks when you have a large black area that uses a liberal amount of black or has a black background. It's also good to use rich black when you're working with leaflets, brochures, posters or materials displaying large fonts.
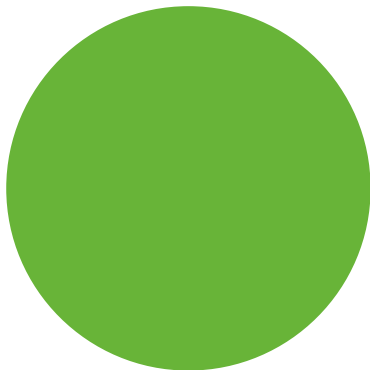
MODERATE
C:64 M:0 Y:96: K:0
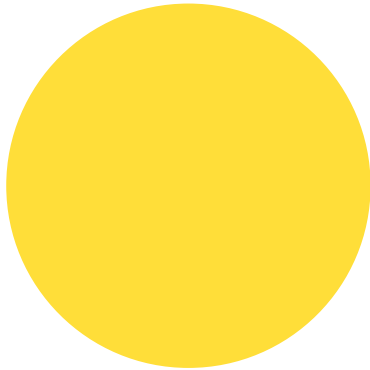
HIGH
C:2 M:10 Y:83: K:0
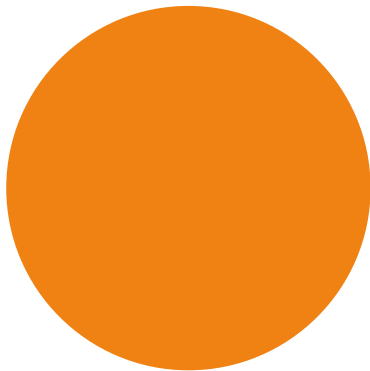
EXTREME
C:0 M:58 Y:96 K:0
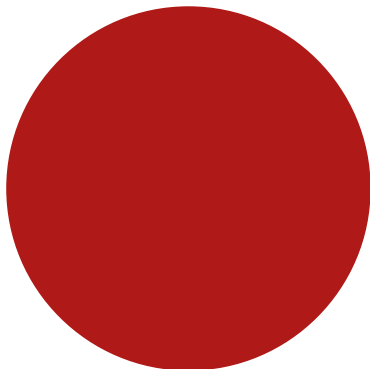
CATASTROPHIC
C:21 M:100 Y:100 K:14
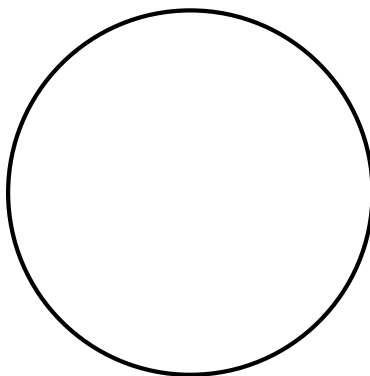
NO RATING
C:0 M:0 Y:0: K:0
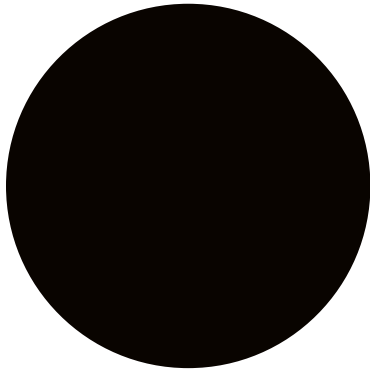
RICH BLACK
C:60 M:60 Y:60: K:100
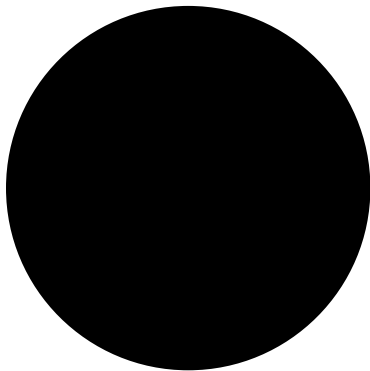
PROCESS BLACK
C:0 M:0 Y:0: K:100

Online Device

Online Device Usage

The role of the roadside Australian Fire Danger Rating (AFDR) device is to indicate the danger rating in a particular area; in the online environment, however, ratings for multiple areas spread across the map need to be communicated. Further to this, interface and device screen sizes make the application of a complex device a legibility challenge. For these reasons, a suite of AFDR tools have been developed specifically for online use; these include:

1. Map colours and keys
To use when showing danger rating on maps.

2. AFDR rating icons
A set of simplified watermelon icons for use in interface elements, like map 'tool tips' when a specific danger rating needs to be shown for a specific location.

3. AFDR iconography
An easily recognisable static icon for use in interface elements such as navigation and menus in a range of sizes.
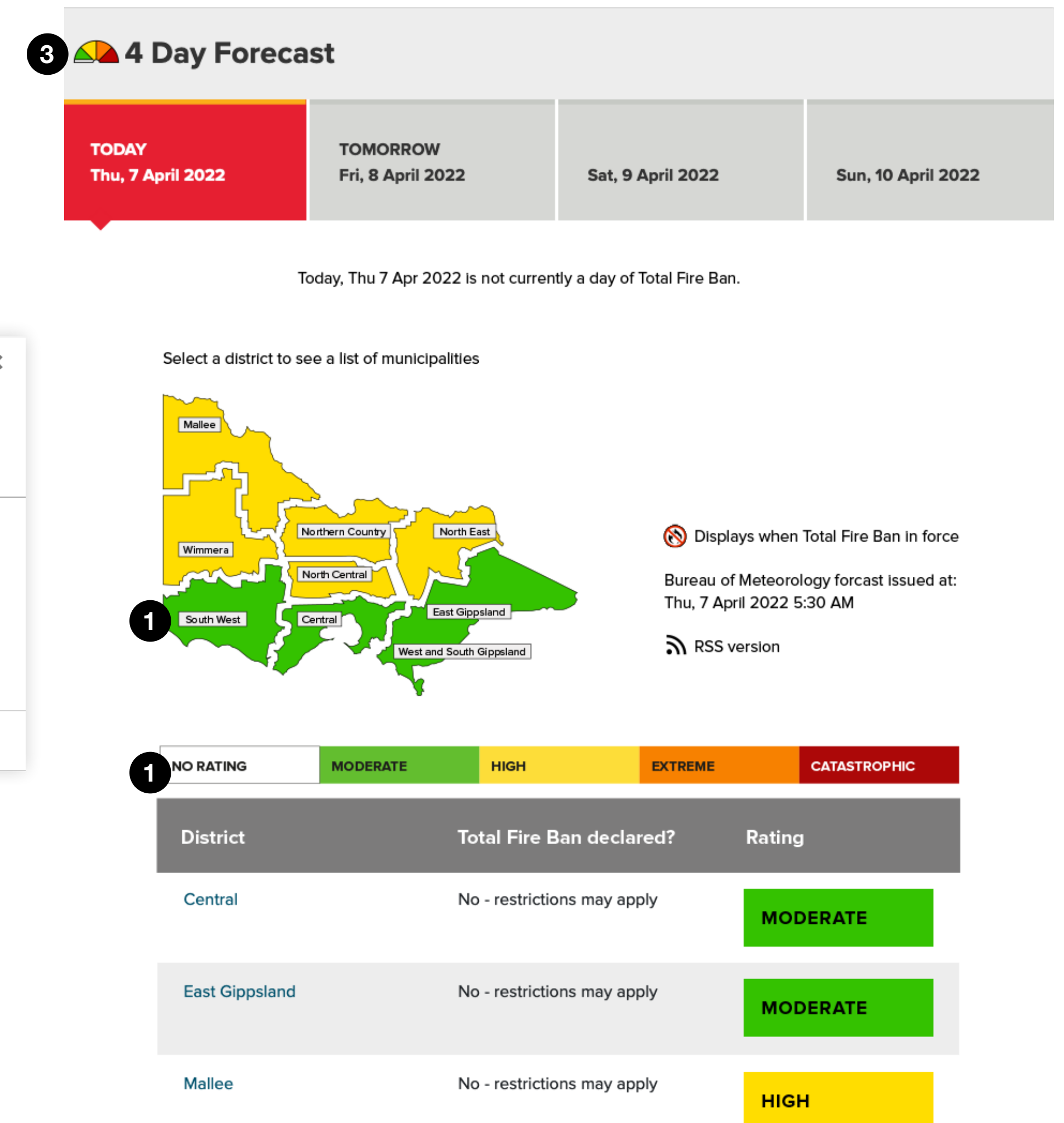
Fonts

The typeface used for online use is Helvetica in Regular and Bold weights.

This typeface is installed by default on both Windows and Mac computers, however if Helvetica is unavailable, Arial in Regular and Bold weights is recommended.

This will ensure that fonts remain consistent across all devices and channels.

When setting fonts in CSS, we recommend using the following code that sets arial as a fall-back font:
font-family: Helvetica, Arial, sans-serif;

Helvetica – Regular

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890!@#$%&*()

Helvetica – Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890!@#$%&*()

Colours

Our colour palette has been developed to effectively communicate each status while remaining eye-catching for the viewer.

Each colour satisfies WCAG Level AAA requirements for on screen use.
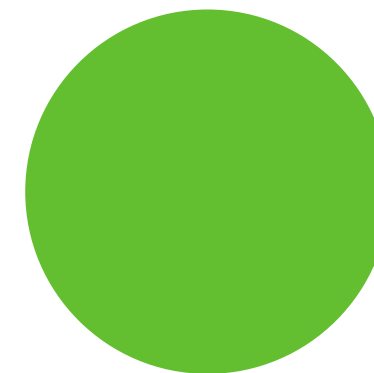
MODERATE
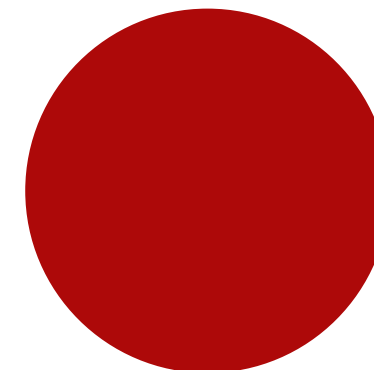R: 100 G: 191 B: 48
HEX: #64BF30
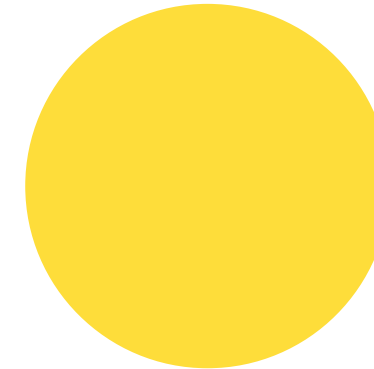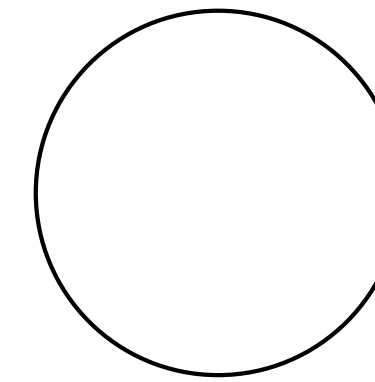
HIGH
R: 254 G: 221 B: 58
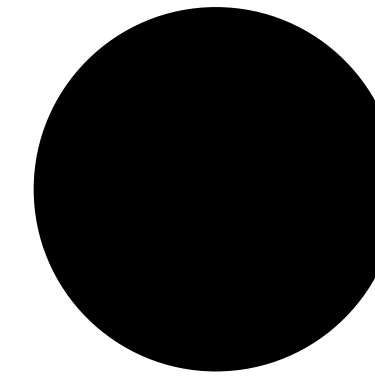HEX: #FEDD3A
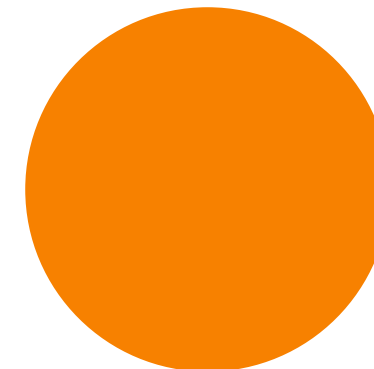
EXTREME
R: 247 G: 129 B: 0
HEX: #F78100

CATASTROPHIC
R: 173 G: 9 B: 9
HEX: #AD0909

NO RATING
R: 255 G: 255 B: 255
HEX: #FFFFFF

BLACK
R: 0 G: 0 B: 0
HEX: #000000

Map

Depending on the chosen online map for each fire authority, different approaches are proposed to ensure maximum legibility, understanding and ease of use.

For satellite maps or Google maps, the fire danger rating colours are used as an overlay with 45% opacity. This ensures the map suburbs and streets remain legible.

For maps without this level of detail (simple maps) the corresponding danger rating colours can be used at 100% opacity.
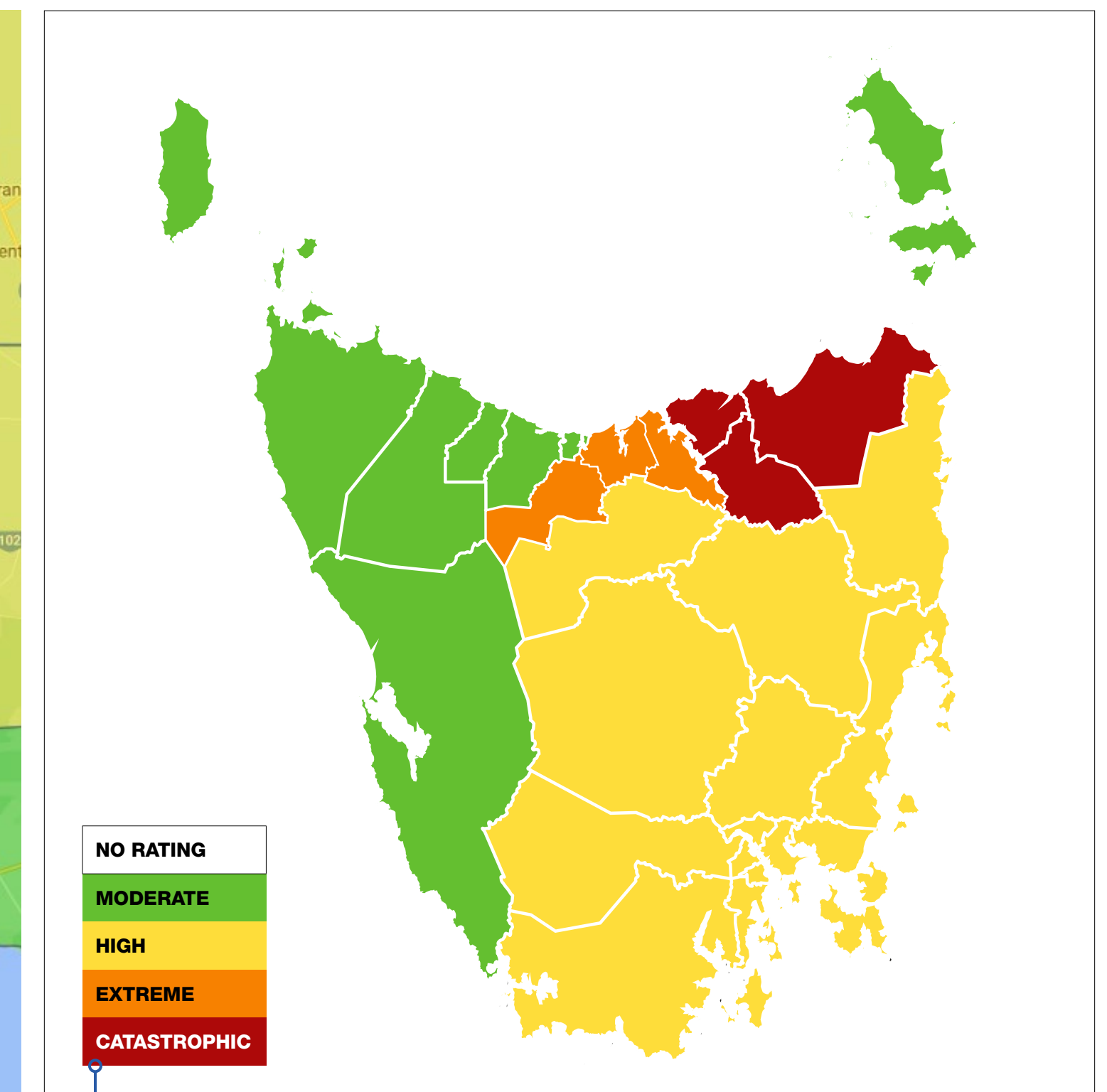
Ensure in both cases that the rating key is also included.

Map – Including overlay

Simple map – Solid colour

45% opacity

| NO RATING | MODERATE | HIGH | EXTREME | CATASTROPHIC |
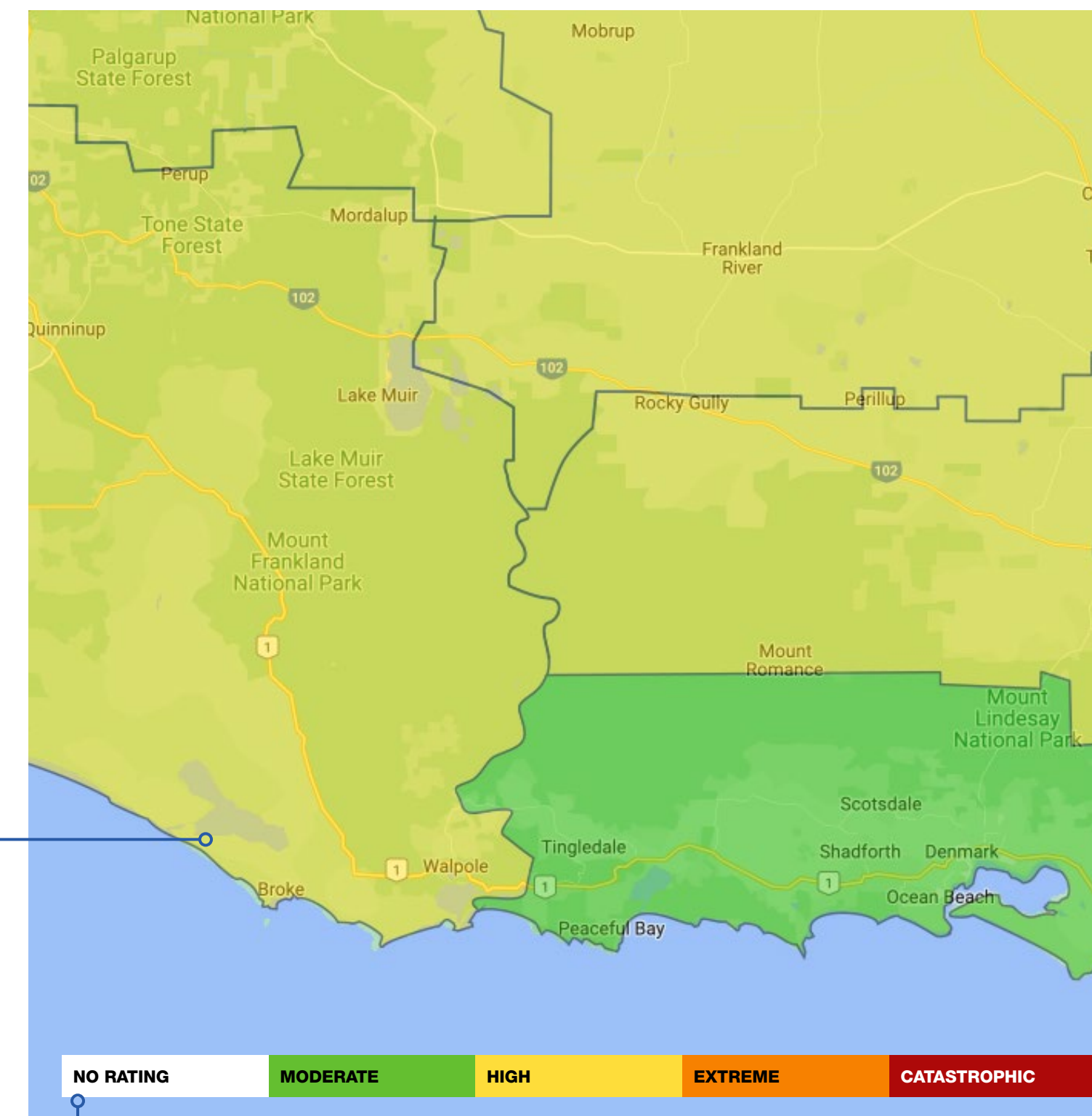
Horizontal Map Key

| NO RATING |
| MODERATE |
| HIGH |
| EXTREME |
| CATASTROPHIC |

Vertical Map Key

Key

In order to effectively communicate the fire danger rating status a key should be displayed alongside all maps.

The key can be displayed in horizontal or vertical formats.

When a total fire ban is in place, the corresponding fire symbol pictured can be included alongside the fire danger rating status.

Horizontal

| NO RATING | MODERATE | HIGH | EXTREME | CATASTROPHIC |

Horizontal – Including Total Fire Ban icon

| NO RATING | MODERATE | 🚭 HIGH | 🚭 EXTREME | 🚭 CATASTROPHIC |

Vertical

| NO RATING |
| MODERATE |
| HIGH |
| EXTREME |
| CATASTROPHIC |

Vertical – Including Total Fire Ban icon

| NO RATING |
| MODERATE |
| 🚭 HIGH |
| 🚭 EXTREME |
| 🚭 CATASTROPHIC |

AFDR Iconography

In order to ensure legibility, the watermelon should not be used in its full roadside form for online applications. When the fire danger status needs to be communicated, a rating icon can be used to effectively communicate the danger status.
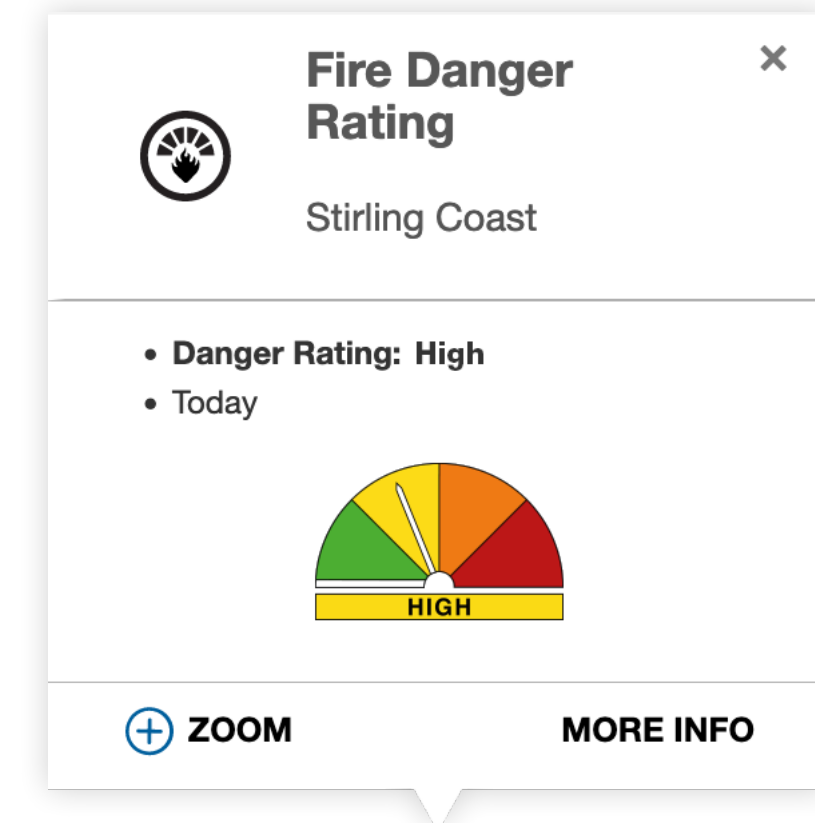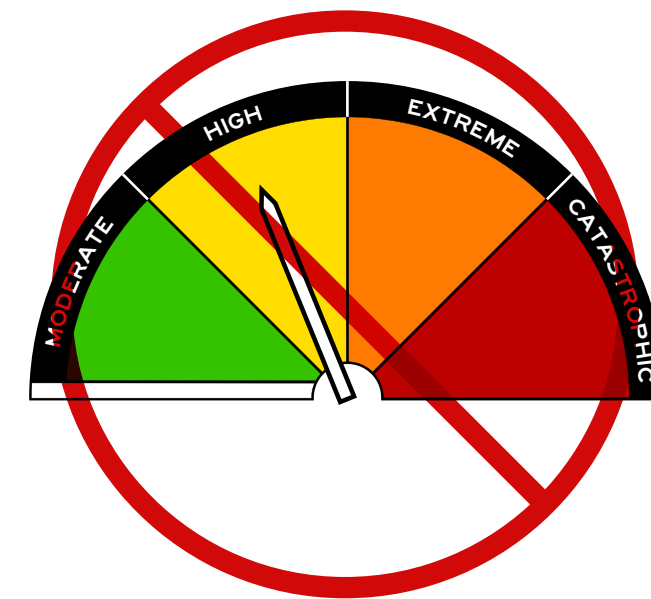
These are supplied in four sizes with the corresponding status wording beneath and a pointer to show the corresponding segment.

These ratings should predominantly be used in interface elements such as tooltips, where a specific location's rating needs to be shown.

Icon Width

| 96px | 144px | 192px | 256px |
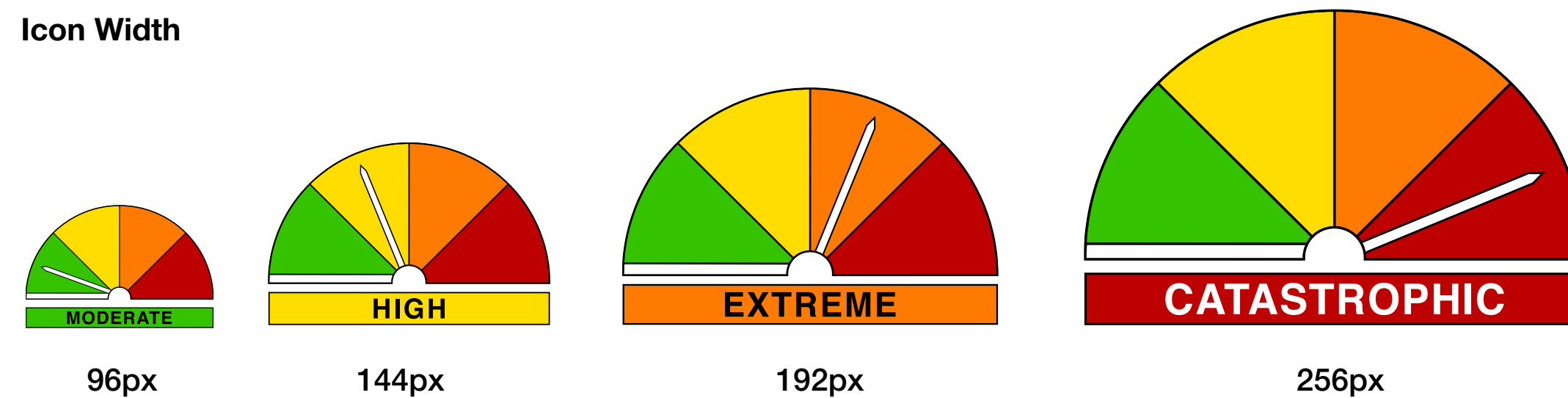
Do not use the watermelon in it's roadside form.

Fire Danger Rating

Stirling Coast

- **Danger Rating: High**
- Today

HIGH

ZOOM   MORE INFO

AFDR Rating Icons

A simplified watermelon device icon has been developed for use in navigational interface elements. The design maintains the recognisable wedge shapes and colours from the roadside application in order to create consistency, however, the typographic details and pointer have been removed to ensure legibility at small sizes.

The icon may be used as a standalone symbol; as a navigation icon; it may be paired with the title 'Fire Danger Rating' or can be used as an interface element, such as a toggle on/off symbol to apply AFDR colours to a map. Importantly, this symbol should not be used when a specific fire danger status needs to be communicated.

This icon should appear no smaller than 24px and no bigger than 72px.
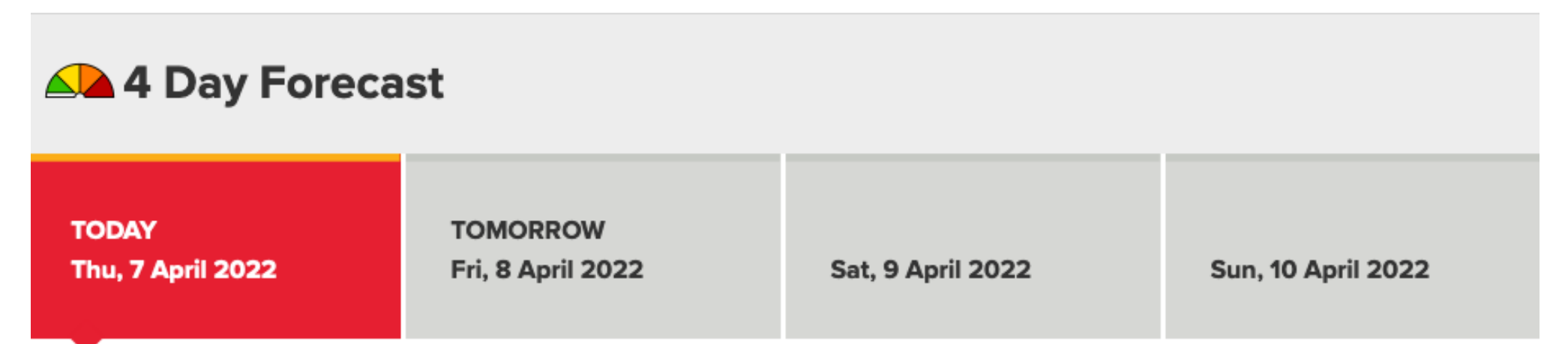
Icon Width

24px   48px   72px
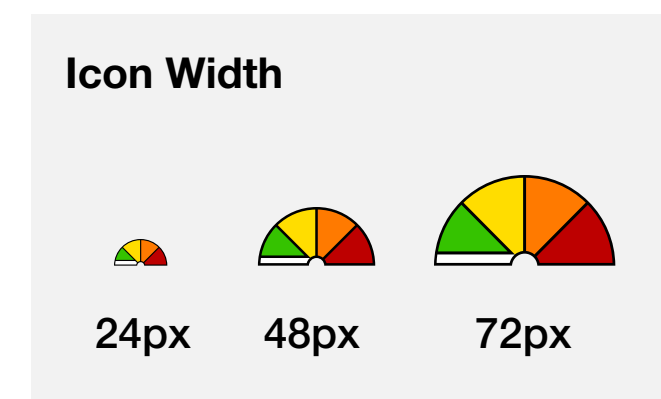
Icon in use in a navigation bar
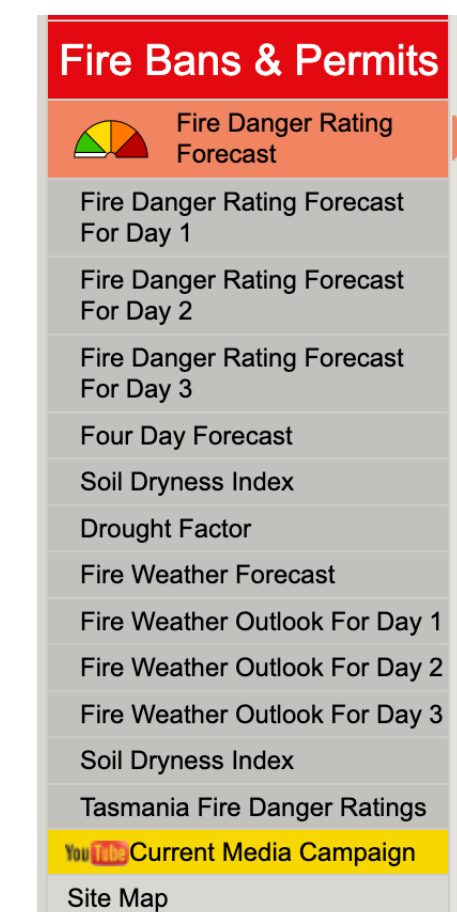
As a map toggle
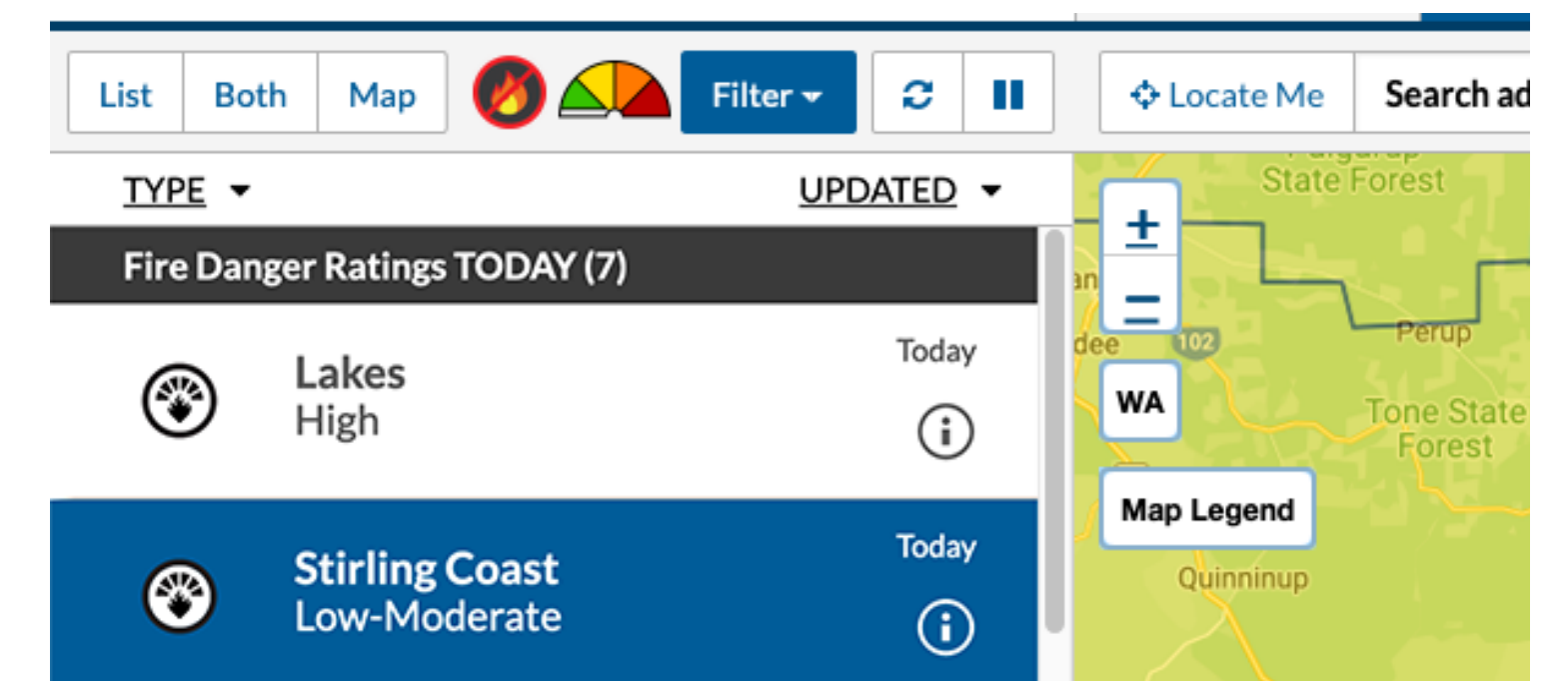
As a navigation icon
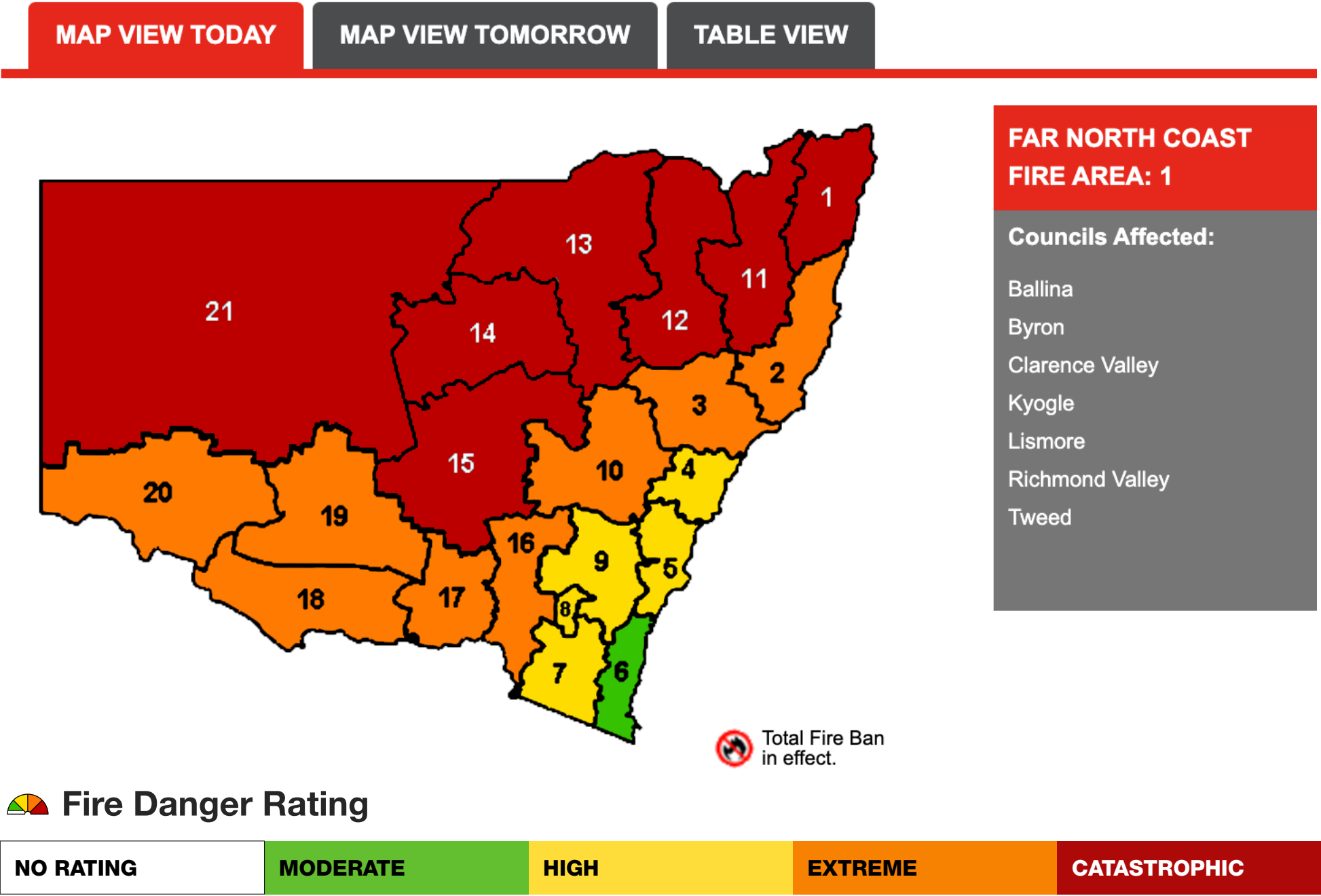
Example Online Usage

Rural Fire Service

www.rfs.nsw.gov.au

In this example, a simple map is used in conjunction with the horizontal ratings key. The watermelon icon is also featured above it.

The corresponding colours depicting the fire danger ratings are used in the table below to clearly indicate each area's status.

By using both a map and table to describe the fire danger ratings, we ensure that there is no confusion and all viewers can find this information easily.

MAP VIEW TODAY	MAP VIEW TOMORROW	TABLE VIEW

**FAR NORTH COAST
FIRE AREA: 1**

Councils Affected:

Ballina
Byron
Clarence Valley
Kyogle
Lismore
Richmond Valley
Tweed

Total Fire Ban in effect.

Fire Danger Rating

NO RATING	MODERATE	HIGH	EXTREME	CATASTROPHIC

NSW Fire Areas

1	Far North Coast	2	North Coast	3	Greater Hunter
4	Greater Sydney Region	5	Illawarra/Shoalhaven	6	Far South Coast
7	Monaro Alpine	8	ACT	9	Southern Ranges
10	Central Ranges	11	New England	12	Northern Slopes
13	North Western	14	Upper Central West Plains	15	Lower Central West Plains
16	Southern Slopes	17	Eastern Riverina	18	Southern Riverina
19	Northern Riverina	20	South Western	21	Far Western

Tasmania Fire Service

www.fire.tas.gov.au

In this example we can see the watermelon icon is used within the navigational menu as a toggle symbol to expand or retract the drop down menu below.

Once again, a simple map has been used in conjunction with the horizontal ratings key.

Tasmania Fire Service

Fire Danger Rating Forecast

⌂ Home » Fire Danger Rating Forecast

The following weather related information courtesy of Australian Bureau of Meteorology Copyright Commonwealth of Australia

Members Area

🔥 Alerts List

Alerts Map

Fire Bans & Permits

Fire Danger Rating Forecast

Fire Danger Rating Forecast For Day 1

Fire Danger Rating Forecast For Day 2

Fire Danger Rating Forecast For Day 3

Four Day Forecast

Soil Dryness Index

Drought Factor

Fire Weather Forecast

Fire Weather Outlook For Day 1

Fire Weather Outlook For Day 2

Fire Weather Outlook For Day 3

Soil Dryness Index

Tasmania Fire Danger Ratings

Current Media Campaign

Site Map

Media Releases

Home Fire Safety

Building Safety Unit

Fire Safety and You

School Fire Education

Bushfire: Prepare Act Survive

Using Fire Outdoors

Bushfire Ready Neighbourhoods

Community Bushfire Planning

Bushfire-Ready Schools

Building for Bushfire

Fuel Reduction Program

Machinery Operations

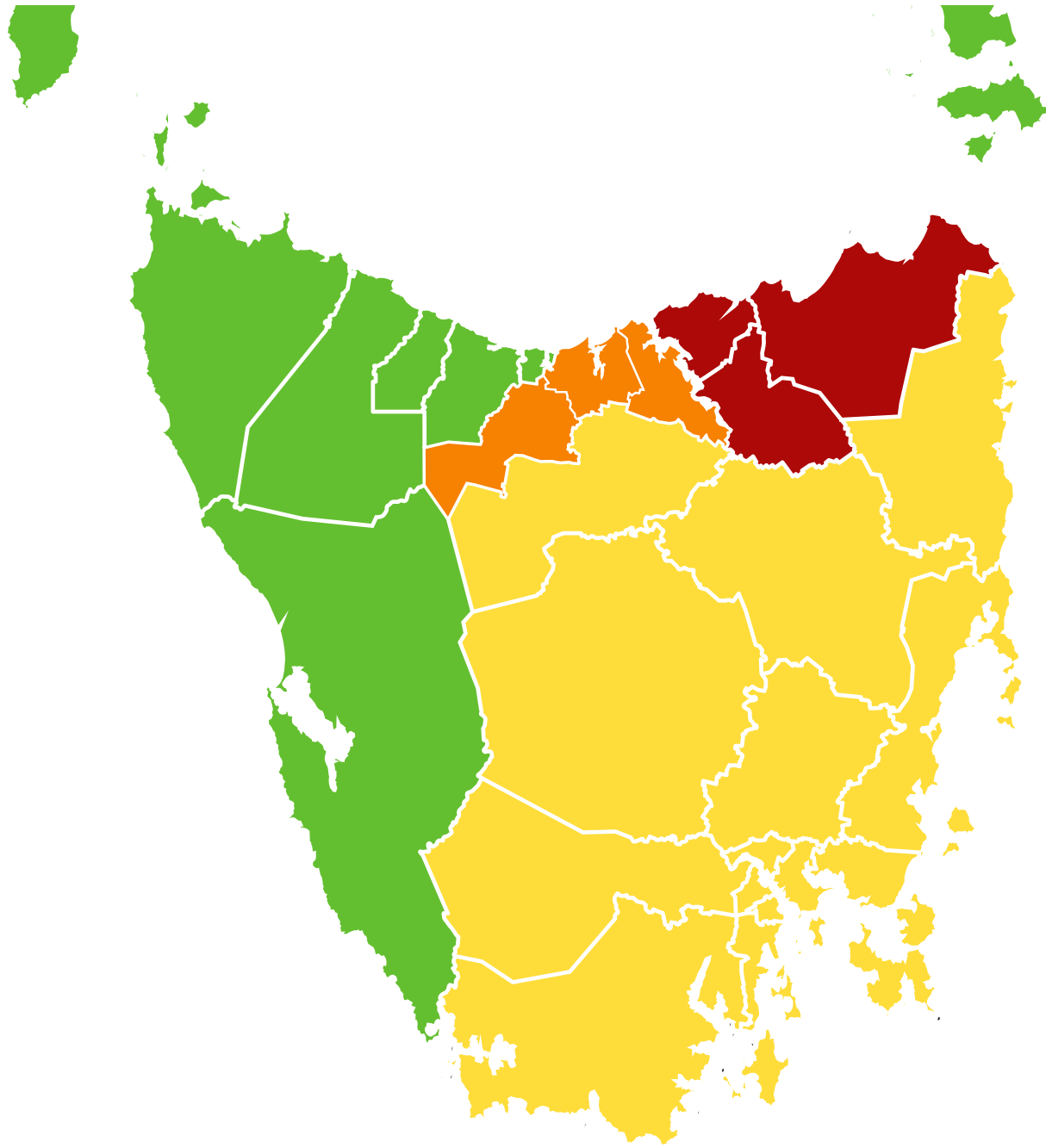Services We Provide

About TFS

Joining the TFS

Publications

News and Events

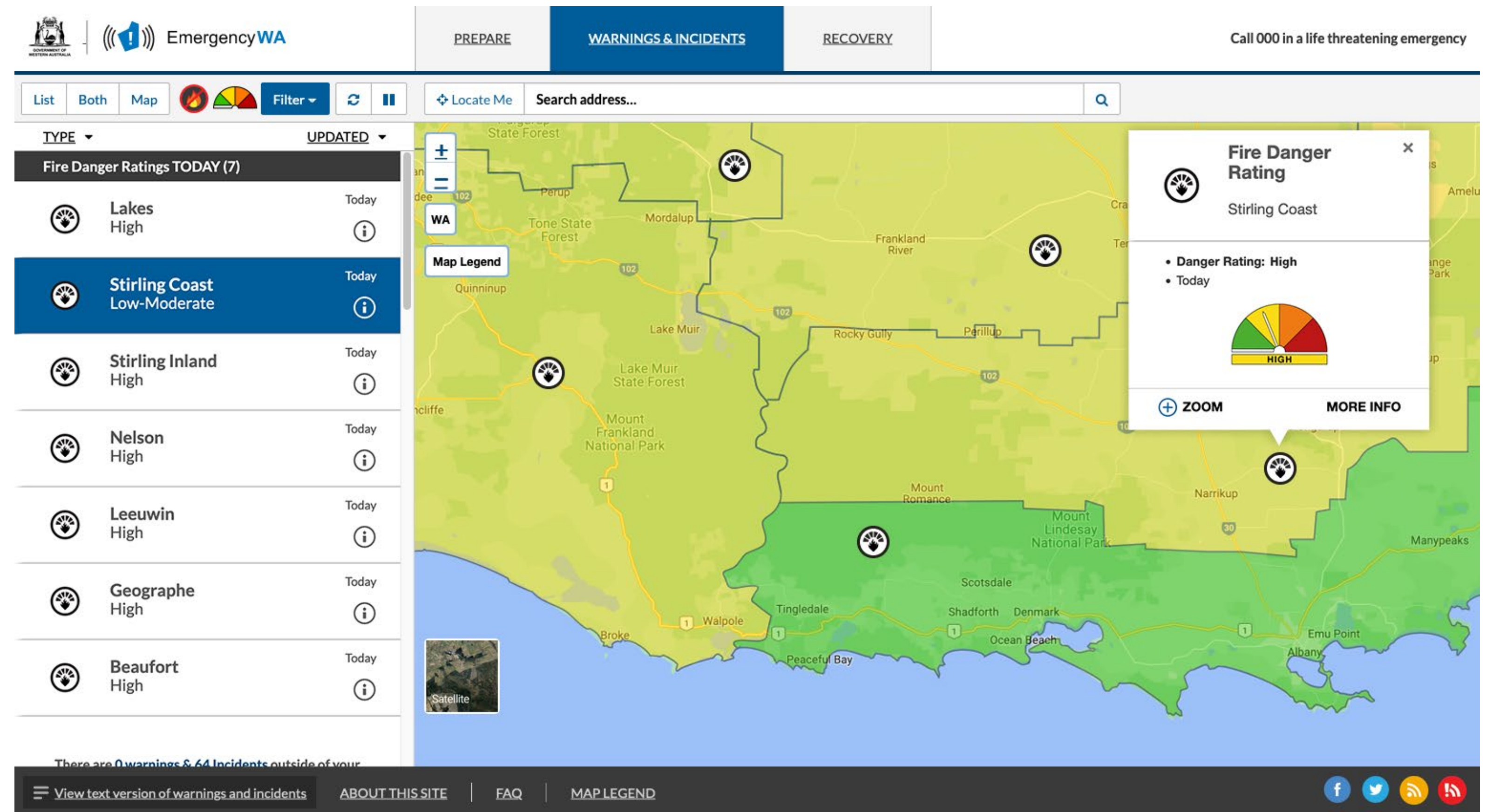| NO RATING	MODERATE	HIGH	EXTREME	CATASTROPHIC

DFES WA
www.dfes.wa.gov.au

As this example uses a Google Map, the fire danger rating overlay is used at 45% opacity to maintain legibility.

The small watermelon icon is used once again as a toggle button to either show or hide the colour overlays on the map.

As the user clicks on a particular area for more information, the larger 192px watermelon icon appears, using a black pointer and corresponding status box below to indicate the danger rating level.

Social Media

For social media channels, it's important to maintain consistency across all local and state fire agencies as well as news outlets and other media.

In most instances, its recommended that a map of the area is used to effectively and quickly communicate the fire danger rating. The copy used on these posts should also reference the particular areas which are being highlighted, if any.

On informational posts about the fire danger rating system, the watermelon sign may be used to reinforce awareness and recognition.
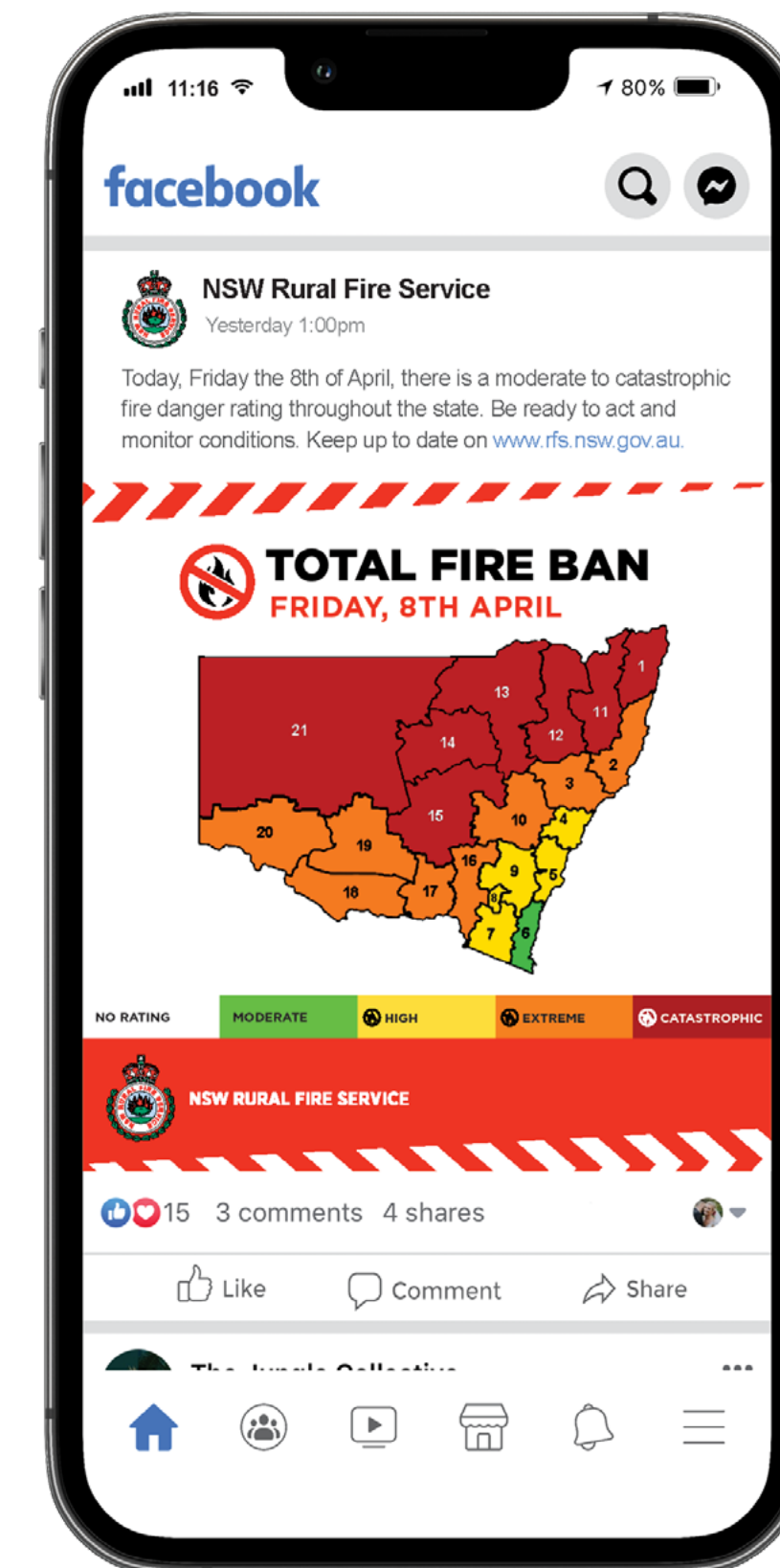
More Information

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Project Manager, Australian Warning System
AFAC

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