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4-6pm**

User Interface Critique Concepts



COMP9511 Human Computer Interaction

Assignment 1

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INTERFACE

The goals of this website are quite evident from the 1st look of it :

1. Finding emergency information about the fires all across NSW and nearby regions
2. To plan and prepare for fire related event
3. Volunteering for the RFS, which is the largest volunteer fire service in the world.
4. The website also has provisions for people who want make donations

USERS

1. People trying to move between cities, trying to avoid fire related road closures
(People with intercity jobs; middle aged people with kids, between the ages of 20-45)
2. People who live in regional areas, trying to figure out how far away the fire is at present. (Older generation, between the ages of 60-85)
3. People finding information how to deal with fires in general (anyone between the ages of 18-85)
4. People who want to volunteer for RFS, and how to support your local fire brigade
(able bodied generation, fit individuals, between the ages of 24-50)
5. People wanting to know about fire bans and report people who are violating
6. People who want to report a fire emergency (not related to bushfires)
7. People who want to donate to help from bushfires

TASKS

In the wake of the worst bushfire season Australia has even experienced, I'll be focussing on 2 major issues most Australians living in the affected areas are facing:

1. People trying to volunteer and donate to help from bushfires
2. People who live in regional areas, trying to figure out how far away the fire is at present and how to deal with fires

ISSUES TABLE

Note: For negative issues, refer to Appendix B. For positive issues, refer to Appendix C (0 is least, 4 is maximum)

Reference No.	Issue Description	Principle	Type (UX, Design, Usability, Heuristics)	Severity	Positive/Negative	Figure Number/Screenshot
1	On the map, the hand cursor turns to grab when we want to move the map (not the webpage)	Affordance	Design	3	Positive	Fig 1 Fig 2
2	The 3-line icon can barely be recognised as a menu option for the map	Visibility	Design	1	Negative	Fig 3
3	When cursor is brought to menu, it expands. Also, when a certain item is selected, it is highlighted on click	Feedback	Design	3	Positive	Fig 4 Fig 5
4	Back or Forward is disabled depending if you just visited the page	Constraints	Design	1	Positive	Fig 6
5	All pages have the same header and footer, menus are same across all pages	Consistency	Design	2	Positive	Fig 7
6	Consistent and does the job	Satisfying	UX	3	Positive	
7	Incorporates a lot of pictures	Entertaining	UX	3	Positive	Fig 8
8	All the emergency information can be easily found	Helpful	UX	4	Positive	Fig 9
9	Volunteering has a separate menu	Motivating	UX	4	Positive	Fig 10
10	No bright colours used, easy on the eyes	Aesthetically pleasing	UX	2	Positive	
11	Donations page particularly hard to find	Frustrating	UX	3	Negative	Fig 11
12	If you're on the map and scroll, the page doesn't scroll, instead the map zooms out	Annoying	UX	2	Negative	

13	Access to information is easy, major fire incidents are on homepage	Effectiveness	Usability	4	Positive	Fig 9
14	2 clicks to find all the steps for volunteering and fire info	Efficiency	Usability	3	Positive	
15	Donation using Westpac interface	Safety	Usability	2	Positive	Fig 12
16	Incorporates videos and images to make the task easy	Utility	Usability	1	Positive	Fig 13
17	Mostly in-tune with any other website	Learnability	Usability	3	Positive	
18	The menus work just like Mac or Windows menus	Memorability	Usability	4	Positive	
19	The search icon is magnifier, which has become an industry standard	Match between system and the real world	Heuristics	3	Positive	Fig 14
20	Lacks a back button, especially hard to navigate the Fires Near Me page, payment gateway has a bug for back button	User Control and Freedom	Heuristics	3	Negative	Fig 17, 18
21	Hyperlinks are a hand; grabbing is a glove that grabs	Consistency and Standards	Heuristics	2	Positive	Fig 1, 2
22	If you make a mistake when entering card details, the information is stored and you don't need to type name address etc. all over again	Help users recognise, diagnose and recover from errors	Heuristics	2	Positive	Fig 13
23	Donation can't be made unless all fields are filled	Error Prevention	Heuristics	2	Positive	Fig 19
24	If you don't type anything and click the search icon, it says you didn't enter anything	Recognition rather than recall	Heuristics	1	Positive	Fig 15
25	On the map, zoom in zoom out is represented by + - respectively	Match between system and the real world	Heuristics	2	Positive	Fig 14

26	Just for donations, the page is rather hidden and takes quite an effort to locate	Flexibility and Efficiency of Use	Heuristics	3	Negative	Fig 11
27	The contact us button is a phone, to print page a printer icon is used	Match between system and the real world	Heuristics	2	Positive	Fig 14
28	Not a minimalistic design, the home page is quite lengthy with tons of info.	Aesthetic and minimalist design	Heuristics	1	Negative	
29	No documentation material found for website; Help absent from the footer	Help and Documentation	Heuristics	3	Negative	
30	The home button is shaped like a home, which makes it clear that it will direct to the homepage	Match between system and the real world	Heuristics	2	Positive	Fig 14

CRITIQUE

- **Critique 1:** Annoying, UX Design (Interaction Design, Chapter 1.7.2, Page 23)

‘Fires Near Me’ page is extremely difficult to navigate (Issues Table, Reference No. 12 and 20, page 3-5) since there is a map on one side and a scroll down menu on the left side. To get to the bottom of the page you have to carefully place the mouse at a tiny area so that the page scrolls down and not the menu or the map.

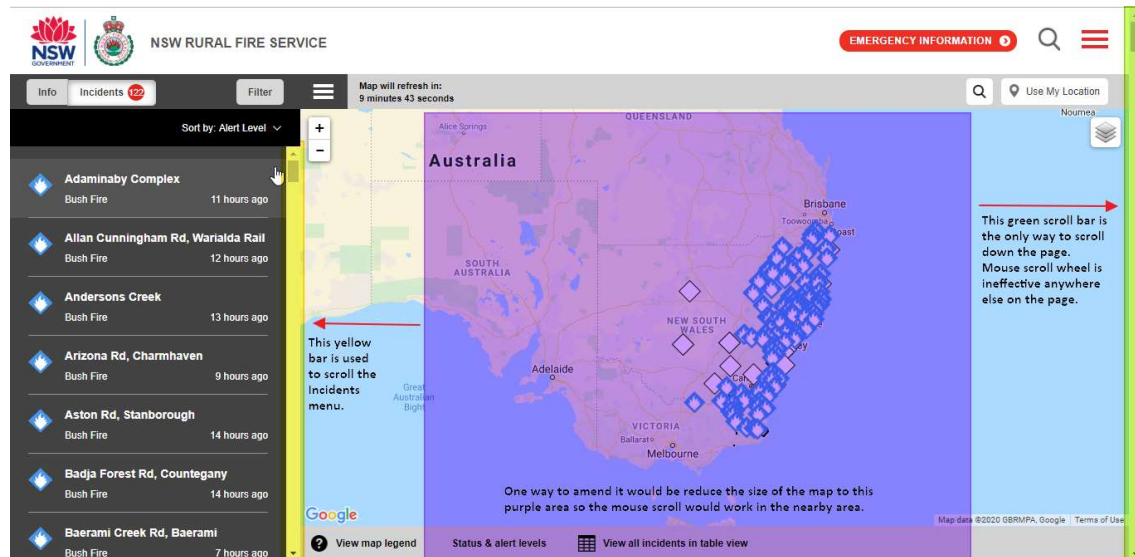
The green scroll bar is the only way to scroll down the page. Mouse scroll wheel is ineffective anywhere else on the page.

Solution:

One way to amend it would be to reduce the size of the map to this purple area so the mouse scroll would work in the nearby area.

Refer to image below.

Another way to do it would be to make the map click selectable, that is treat it as white-space until user clicks on the map and then page can be easily scrolled down even if the cursor is on the map.



- **Critique 2:** Help and Documentation, Heuristics (Interaction Design, Chapter 16.2.1, Page 551)

The developers have included no documentation or help for using this site. (Issues Table, Reference No. 29, page 4)

Solution:

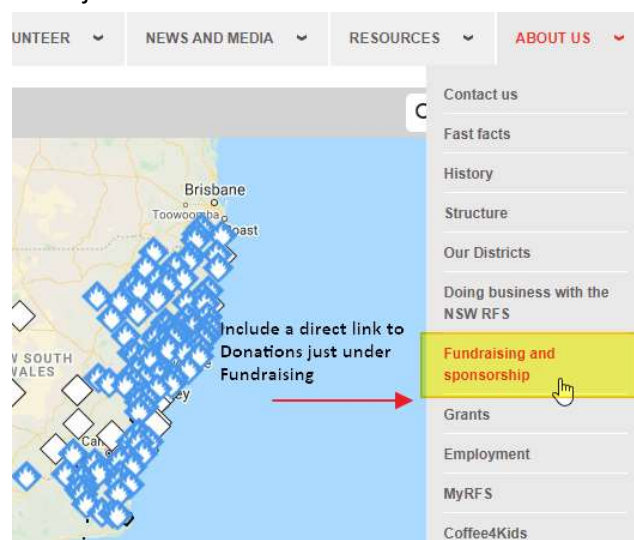
Make a Help link in the footer redirecting to page where there are basic steps to work in this website.

- **Critique 3:** Frustrating, UX Design (Interaction Design, Chapter 1.7.2, Page 23)

The page which has the links to payment gateway to make donations is not as easy to find as fire information and takes quite an effort to locate. (Issues Table, Reference No. 11, 26, page 3-5)

Solution:

Make a dedicated button just below the fundraiser menu button.



- **Critique 4:** Error Prevention, Heuristics (Interaction Design, Chapter 16.2.1, Page 551)

The website makes good use of error prevention techniques (Issues Table, Reference No. 23, page 3-5)

- **Critique 5:** Match between system and the real world, Heuristics (Interaction Design, Chapter 16.2.1, Page 551)

The similarities are well understood and highly appreciated by the user.

They are very easy to understand and convenient. (Issues Table, Reference No. 19, 25, 27, 30, page 3-5)

Refer to Appendix A, Fig 14.

- **Critique 6:** User Control and Freedom, Heuristics (Interaction Design, Chapter 16.2.1, Page 551)

The screenshot shows a payment gateway form with the following elements:

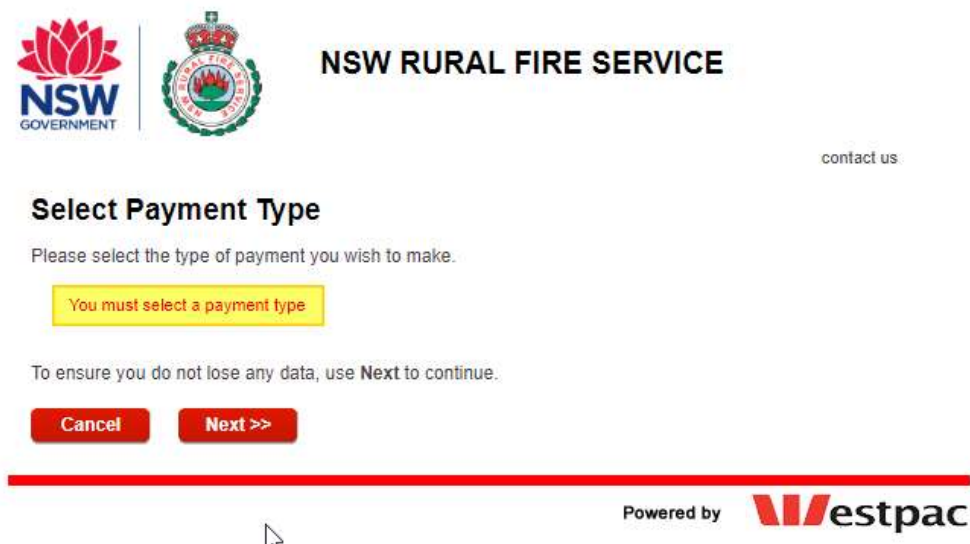
- A red asterisk icon followed by the text "Please issue a receipt in:" and two radio buttons: "My name" (selected) and "My organisation's name". Below this is a red error message: "A value is required for this field."
- A section header "Payment Details" in a grey box.
- Logos for VISA and Mastercard.
- Four input fields with red asterisks and error messages:
 - "Credit card number:" with a text input field and error "A value is required for this field."
 - "Expiry date (mm/yyyy):" with two dropdown menus showing "Jan" and "2020".
 - "Card holder name:" with a text input field and error "A value is required for this field."
 - "Card verification number (CVN):" with a text input field, a link "What's this?", and error "A value is required for this field."
- A note: "To ensure you do not lose any data, use Back and Next to move between pages."
- Three buttons: "<< Back" (highlighted in yellow), "Cancel", and "Next >>".
- A red horizontal bar at the bottom with the text "Powered by" and the Westpac logo.

If by any chance you press the Back button (Issues Table, Reference No. 20, page 4) on the payment gateway, it takes you back to this screen below



The screenshot shows the NSW Rural Fire Service website. At the top left are the NSW Government and Rural Fire Service logos. The title 'NSW RURAL FIRE SERVICE' is at the top right. A 'contact us' link is in the top right corner. The main heading is 'Select Payment Type'. Below it, the text says 'Please select the type of payment you wish to make.' and 'To ensure you do not lose any data, use Next to continue.' There are two buttons: 'Cancel' and 'Next >>'. The 'Next >>' button is highlighted with a yellow border. At the bottom right, it says 'Powered by Westpac'.

On clicking Next from here, it ends up in a loop, which is frustrating.



The screenshot shows the same NSW Rural Fire Service website. The 'Select Payment Type' form is displayed. Below the heading, the text says 'Please select the type of payment you wish to make.' and 'To ensure you do not lose any data, use Next to continue.' A yellow error message box says 'You must select a payment type'. There are two buttons: 'Cancel' and 'Next >>'. At the bottom right, it says 'Powered by Westpac'.

There are no options on this page to 'select a type of payment'.

Solution:

Include a Payment Type dropdown menu so that the user can move forward.
Look at the below figure for what a possible solution might look like.

NSW RURAL FIRE SERVICE

contact us

Select Payment Type

Please select the type of payment you wish to make.

You must select a payment type

Payment options*

Include such a dropdown menu for this error

To ensure you do not lose any data, use Next to continue.

Cancel Next >>

Powered by Westpac

- **Critique 7:** Efficiency and Effectiveness, Usability (Interaction Design, Chapter 1.7.1, Page 20)

Only a few clicks are required to find all the fire related information.
(Issues Table, Reference No. 14, page 4)

- **Critique 8:**

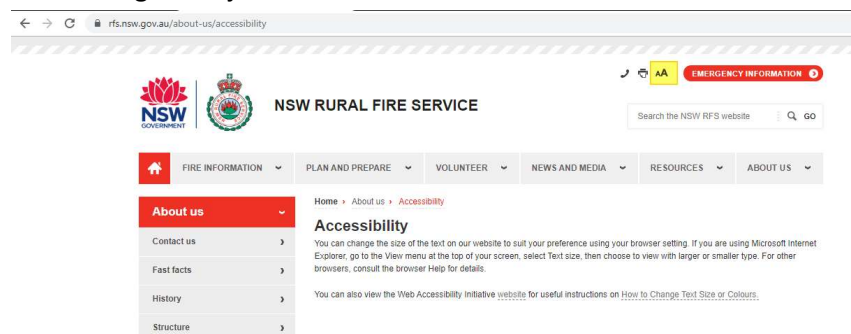
Remove unusable links:



This website has a couple of unserviceable links which are just dangling in there. Removal of such links would make it less confusing and prevent unwanted clicks and misdirections. Refer to Appendix A, Fig 16.

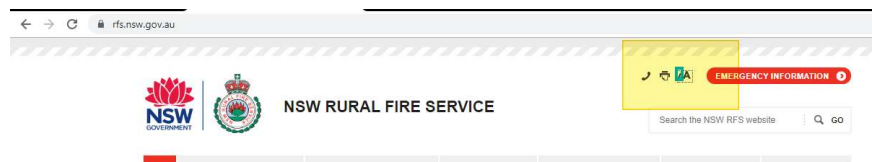
ACCESSIBILITY

The website has an accessibility feature at the top right-hand side of the page, but it is only for text size and colour. On further investigation, that link is only for web browsers, namely Firefox, Safari, Explorer and Opera. No support for Chrome. In Chrome, users can use Ctrl and ++ to increase text size. For changing colour there are chrome extensions. This might be helpful for visually impaired but in no way useful for the blind. On switching the Windows Narrator, it was evident that the website was not built keeping the narrator in mind and had a lot of issues labelling the links that were actually present on the screen. Using a Windows magnifier would also get the job done.



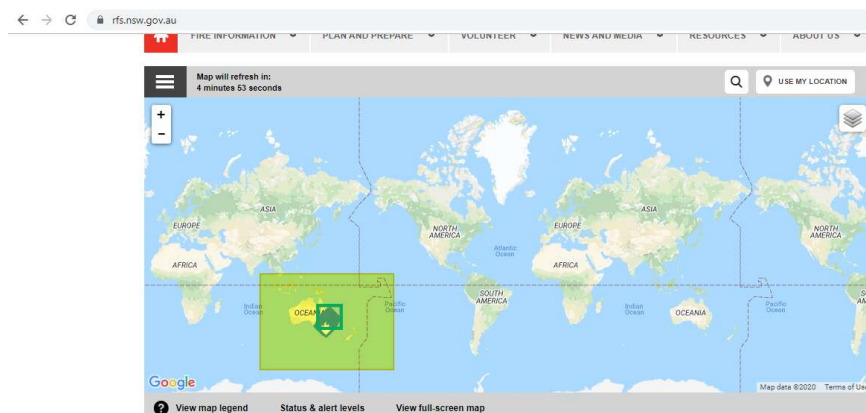
It's perceivability score is low since there isn't any voice alternative for non-text related content and also it considers the background html snippets to be a part of the visual webpage and cause confusion.

Error:
Selecting
single
letters.



For physically impaired, this website scores high on the operability because using 'tab' gets you to every link. Also, using the windows accessibility features the user can type and navigate easily. All the functionality can be achieved from using just the keyboard.

Access:
With tab
every fire
affected
area can be
selected.

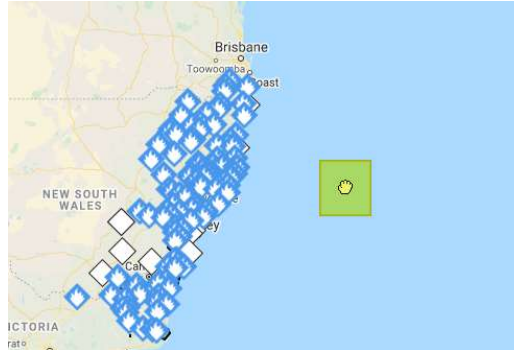


References

1. Interaction Design: beyond human-computer interaction, Fifth Edition, Sharp Rogers Preece 2019, *John Wiley & Sons, Inc., Indianapolis*.
2. NSW RURAL FIRE SERVICE website, <https://www.rfs.nsw.gov.au/about-us/>
3. Web Accessibility Initiative website : <https://www.w3.org/WAI/changedesign>

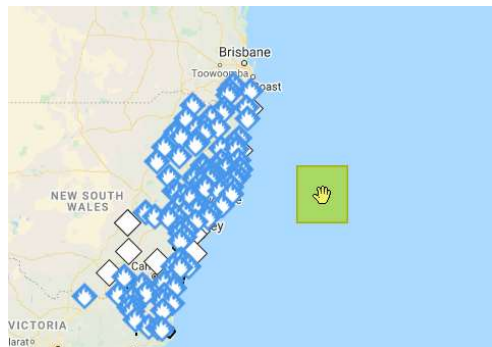
Appendix A

Fig 1.



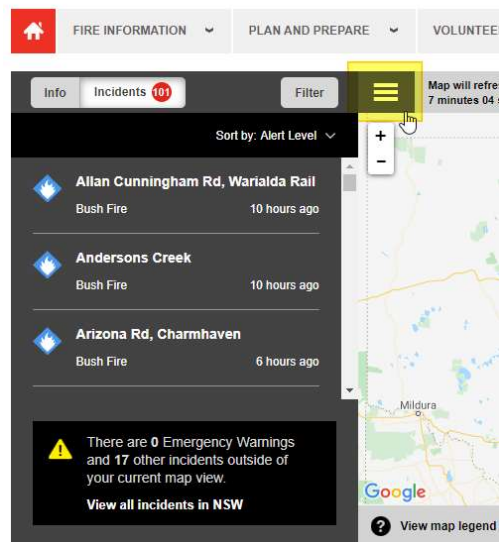
Hand grab icon

Fig 2.



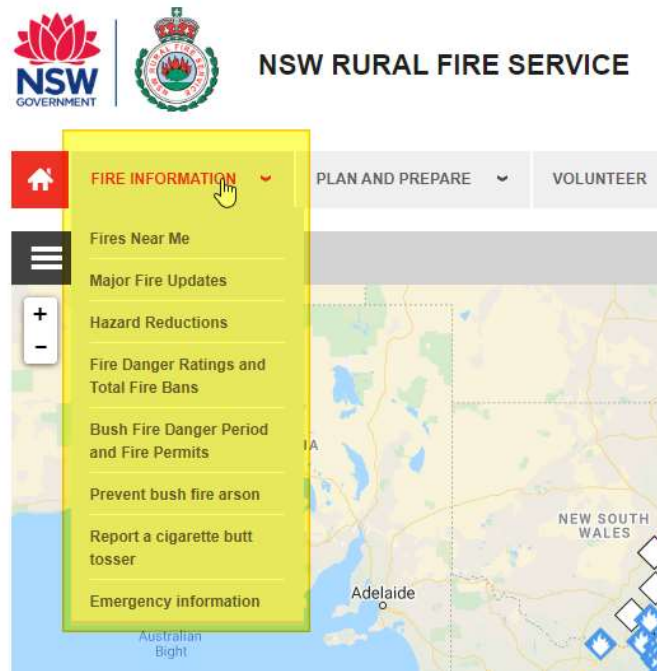
Indicative it is to move map

Fig 3.



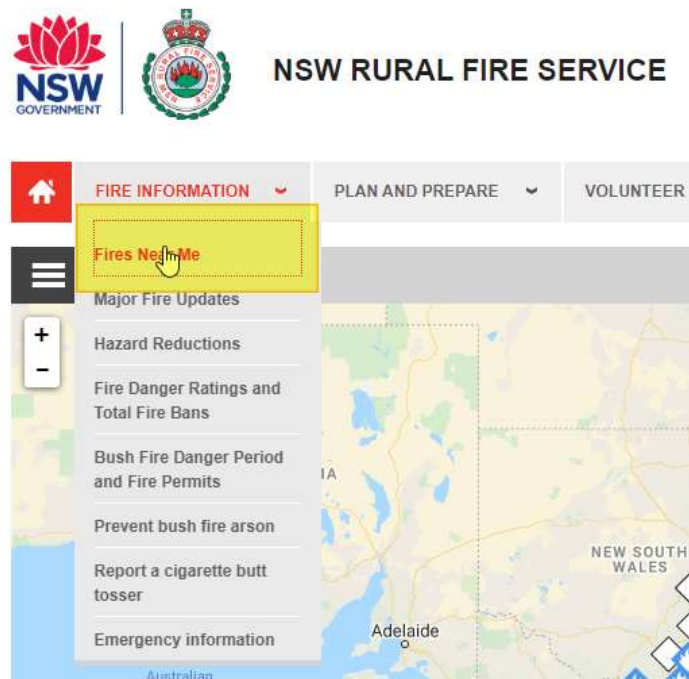
Menu Icon

Fig 4.



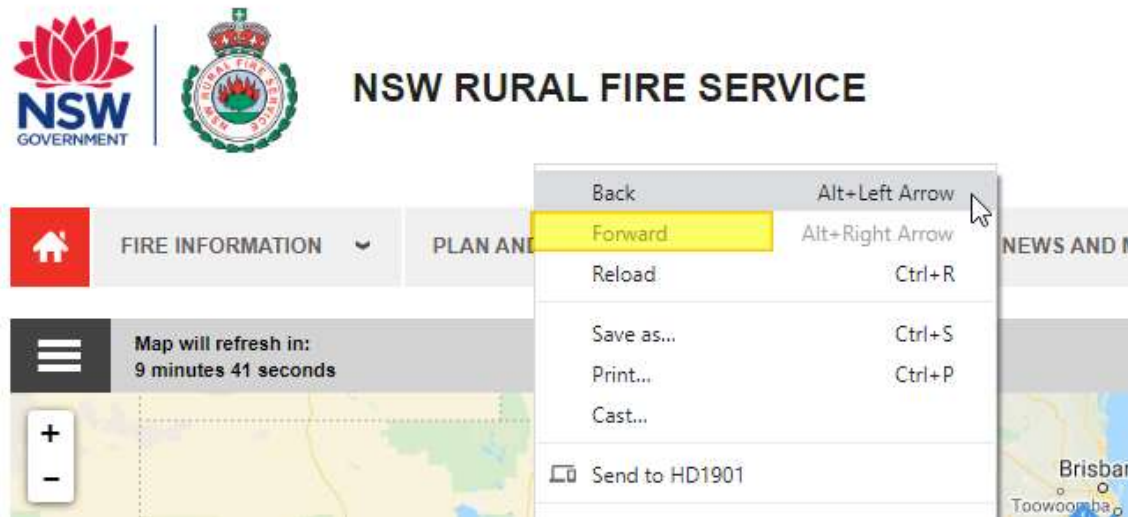
Menu expands on icon hover

Fig 5.



On clicking a menu item, a dotted rectangle highlights the item, indicative of selection made

Fig 6.



Forward is disabled

Fig 7.

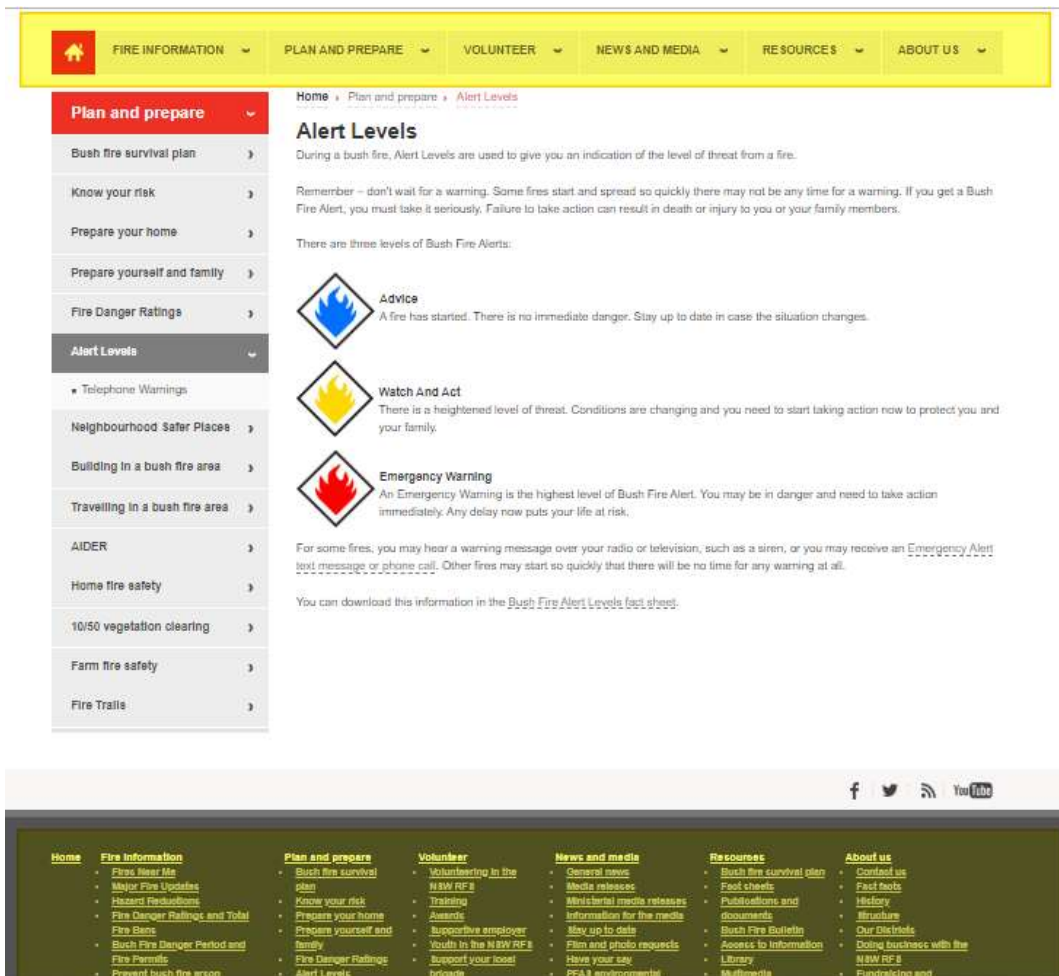
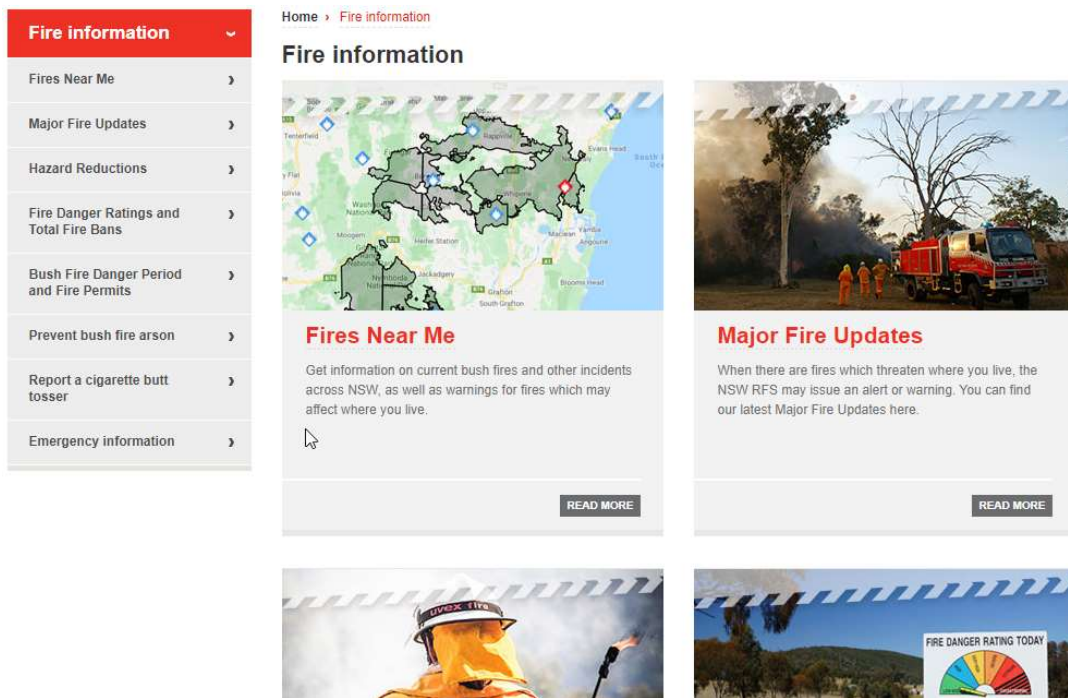
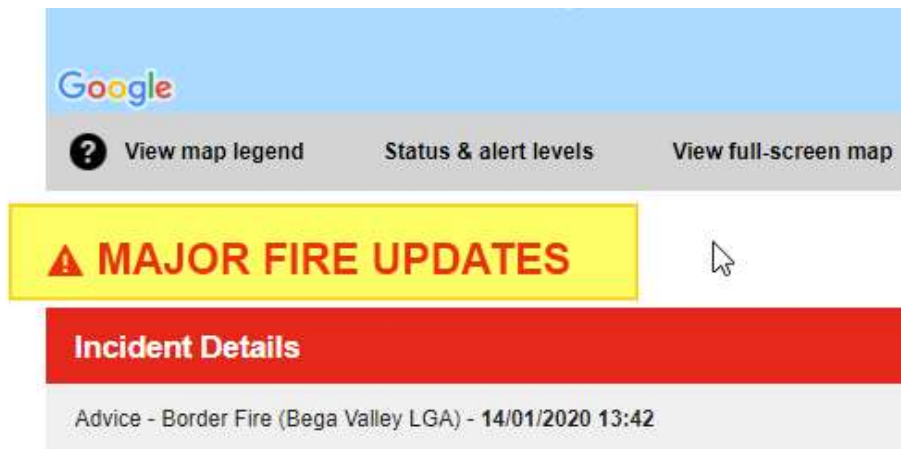


Fig 8.



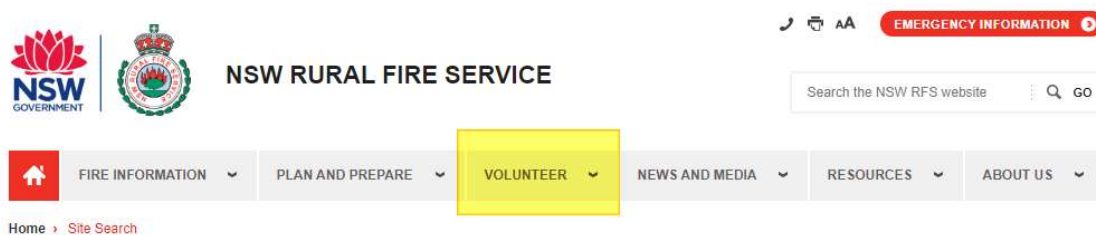
Makes good use of images

Fig 9.



All major fire updates can be found on the home screen itself

Fig 10.



Volunteering has a separate tab

Fig 11.



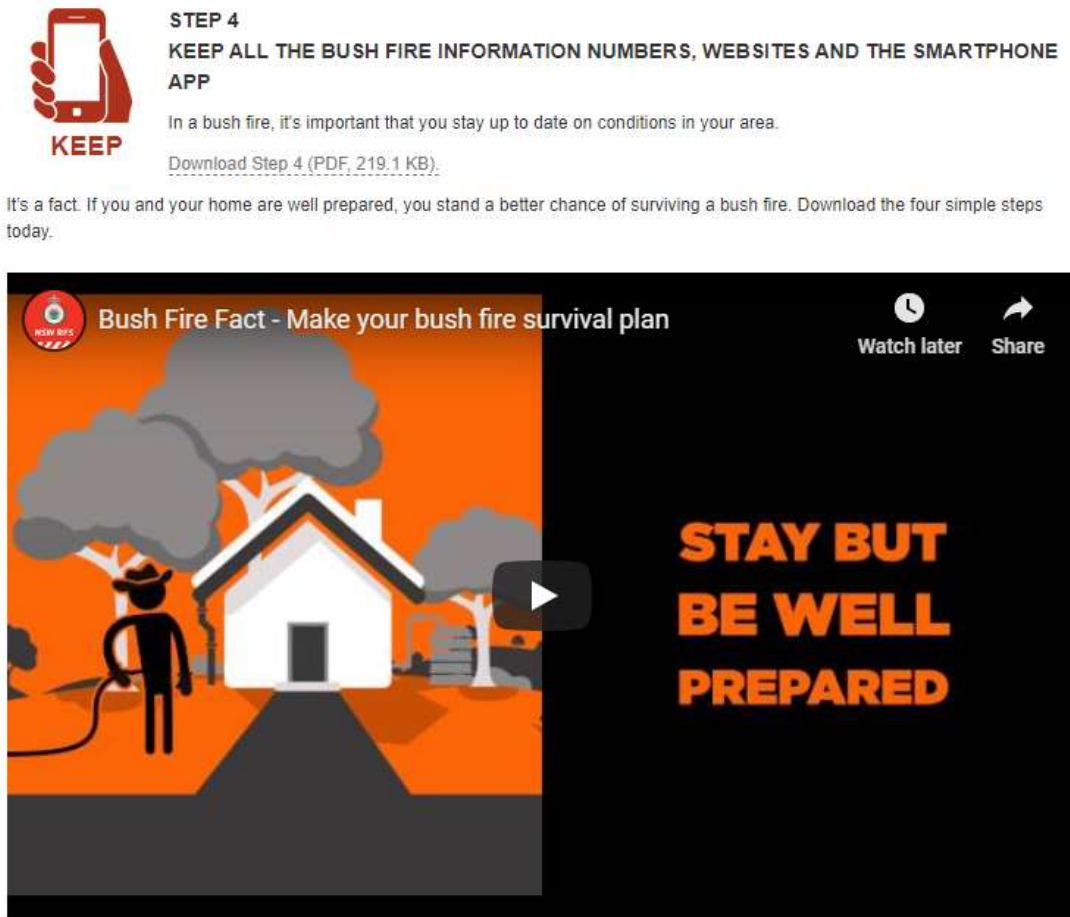
The notoriously hard to find Donation Payment page

Fig 12

The screenshot shows the NSW Rural Fire Service donation payment page. It includes a form for contact details, payment details, and a warning about bogus fundraising requests. The form has fields for contact phone number, credit card number, expiry date, and card holder name. A yellow box highlights the 'VISA' logo. At the bottom, there are buttons for '<< Back', 'Cancel', and 'Next >>'. A red bar at the bottom right says 'Powered by Westpac'.

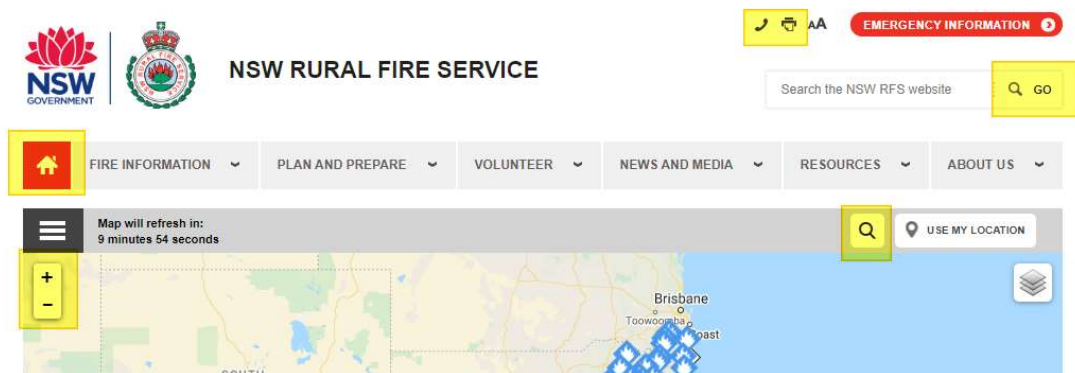
Highly secure

Fig 13.



Includes apps, videos

Fig 14.



Match between system and real-world icons

Fig 15.

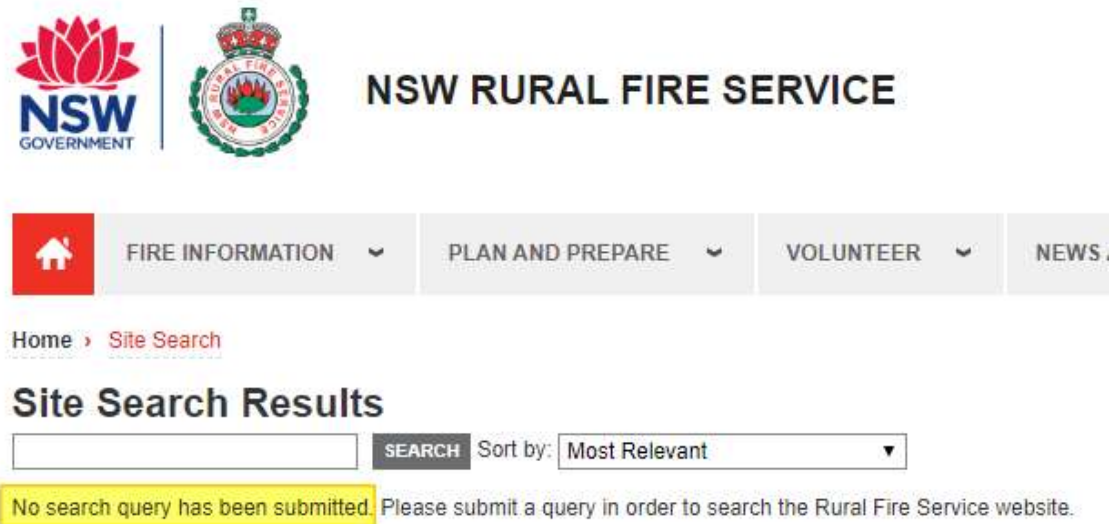
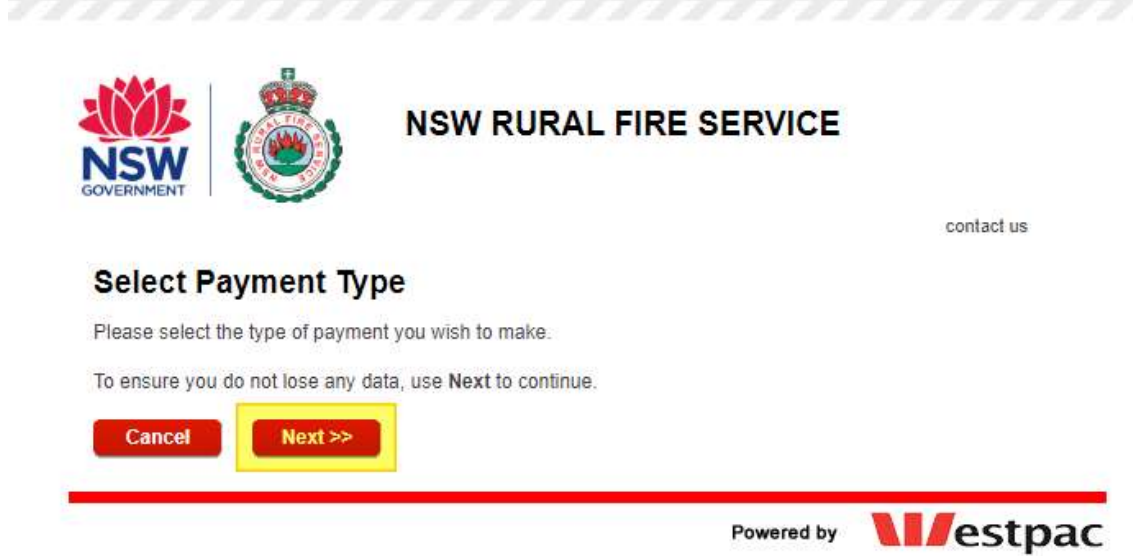


Fig 16.



MPES directs to some error hyperlink. This page doesn't exist

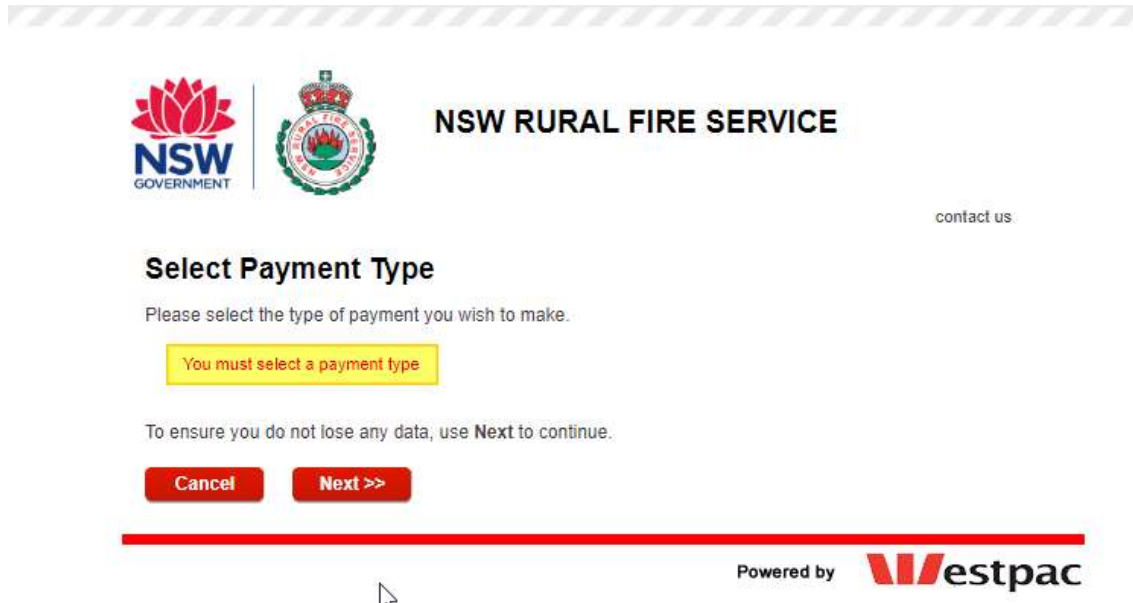
Fig 17.



The screenshot shows the NSW Rural Fire Service website header with the NSW Government logo and the RFS crest. Below the header, there is a "contact us" link. The main content area is titled "Select Payment Type" and includes the instruction "Please select the type of payment you wish to make." and "To ensure you do not lose any data, use Next to continue." There are two buttons: "Cancel" and "Next >>". The "Next >>" button is highlighted with a yellow border. At the bottom, there is a red horizontal bar and the text "Powered by Westpac".

On-clicking Next, it ends in a loop depicted in Fig 18

Fig 18.



The screenshot shows the same NSW Rural Fire Service website header as Fig 17. Below the header, there is a "contact us" link. The main content area is titled "Select Payment Type" and includes the instruction "Please select the type of payment you wish to make." and "To ensure you do not lose any data, use Next to continue." There is a yellow error message box that says "You must select a payment type". Below the error message, there are two buttons: "Cancel" and "Next >>". At the bottom, there is a red horizontal bar and the text "Powered by Westpac". A mouse cursor is visible over the "Next >>" button.

No payment type selection window is provided

Fig 19.

A value is required for this field.

* Town/Suburb: A value is required for this field.

* State/Territory: NSW

* Post code: A value is required for this field.

* Email address: A value is required for this field.

Contact phone number:

* Please issue a receipt in:
☐ My name ☐ My organisation's name
A value is required for this field.

Payment Details

VISA

* Credit card number: A value is required for this field.

* Expiry date (mm/yyyy): Jan / 2020

* Card holder name: A value is required for this field.

* Card verification number (CVN):
What's this? A value is required for this field.

To ensure you do not lose any data, use Back and Next to move between pages.

<< Back Cancel Next >>

Powered by **Westpac**

Highlighted fields are required to be filled to proceed further

Appendix B

*Severity for **Negative** issues:*

- 0 = Not a usability issue (a technical bug)
- 1 = Cosmetic issue (fix if there is time)
- 2 = Minor issue (should fix)
- 3 = Major issue (must fix)
- 4 = Showstopper (cannot release until fixed)

Appendix C

*Severity for **Positive** issues:*

- 0 = Not a usable trait
- 1 = Cosmetic enhancement
- 2 = Minor impact on usability
- 3 = Major improvement in usability
- 4 = Perfect adaptation