Digital Accessibility Centre

Accessibility Audit Report for DEFRA – Flood Map for Planning

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Document Control

Service:	Flood Map for Planning
Client:	DEFRA
Project lead:	Josh Lapham
User Testing Support:	Sam Beynon
Technical Auditing Report Author:	Josh Lapham
Quality checked by:	Gemma Nicholl
Address:	Digital Accessibility Centre Stephen Lloyd Suite (Unit 18) D'arcy Business Park Llandarcy Neath SA10 6FG
Contact details:	Gavin.evans@digitalaccessibilitycentre.org 079366 85804 Cam.nicholl@digitalaccessibilitycentre.org 07597 690358
Phone:	01792 815267
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Contents

Executive Summary

An accessibility audit for **DEFRA – Flood Map for Planning** was carried out by the Digital Accessibility Centre (DAC) user/technical team on **3rd March 2025**.

The **DEFRA – Flood Map for Planning** service was assessed against the Web Content Accessibility Guidelines WCAG 2.2.

This document incorporates the findings regarding any accessibility barriers identified during the testing process.
The issues reported are examples of any assistive technology barriers which were encountered during accessibility testing, and information has been provided detailing how to resolve them.
Please note: additional instances of these barriers may exist in other pages of the service; wherever these barriers are present, they will also need to be resolved.

Screen reader users may come across multiple assistive technology barriers during their journey. There were instances where the interactive elements were not grouped correctly using a sufficient grouping techniques. When viewing the service on a mobile device, there was insufficient instructions and associated behaviour present to allow users to interact with the map in the same way compared to that within the desktop version.

Voice activation and users navigating via keyboard were unable to edit the shape of the boundary. This resulted in them being limited to the default square size, which puts them at a disadvantage compared to that of users who are navigating the service with a mouse.

Low vision users may have a difficult time navigating the website. They experienced issues when viewing the website in a magnified state as elements would not scale as expected. Also, there were instances where colour alone was used to indicate which section of the map conveys what information; however, there was an insufficient colour contrast ratio present.

A number of issues which relate to non-conformance with the GOV.UK Design System, in addition to a small number of usability issues have been included along with comments provided by our manual user testing team. These can be found near the end of the report and describe various aspects of the website, that although do not fail to meet the WCAG 2.2 success criteria, could be improved to benefit the overall user experience.

Issues are organised in the report by the WCAG 2.2 conformance levels. Level A is the minimum level. To achieve the AA standard which most organisations strive to meet, all A and AA requirements must be satisfied.

Audit Summary

The report details the issues that have been identified with the service. To meet government accessibility requirements, and comply with the Public Sector Bodies (Websites and Mobile Applications) (No. 2) Accessibility Regulations 2018 it is important to ensure that the service meets level AA of the Web Content Accessibility Guidelines 2.2 (WCAG 2.2) as a minimum and all WCAG 2.2 level A and AA issues listed are resolved.

Areas of the website which fail to meet the WCAG 2.2 AAA requirements are not in scope for the purposes of this audit, however, where issues were encountered by our analysts, these have been reported.

We highly recommend that all issues from the Usability feedback section of the report are also addressed to ensure a fully accessible, usable, and inclusive service.

A

Bleed Through
Grouping Elements
Page Structure
Visible Headings
Use of Colour
Pointer Cancellation
Additional Instructions
Mobile Map
Editing Boundary
Incorrect Grouping
Redundant Entry
Image Alternative

AA

Non-Descriptive Form Element
Reflow
Non-Text Contrast

Scope

Tasks

Brief Journey and/or URLs are listed below along with the specific browser and AT set.
URL: https://fmp2-pre.aws.defra.cloud/

See Appendix I for a full list of Journeys and instructions.

Browser matrix and Assistive Technology (AT) combinations

Desktop

User type	Operating System (OS)	Browser	Assistive Technology
Blind	Windows	Chrome (Latest version)	JAWS 2019 or above
		Chrome (Latest version)	NVDA (Latest version)
Mobility	Windows	Chrome (Latest version)	Dragon Voice Activation v15 or above
		Chrome (Latest version)	Keyboard
Deaf	Windows	Chrome (Latest version)	-
Colour Blind/ Dyslexia	Windows	Chrome (Latest version)	-
Low Vision	Windows	Chrome (Latest version)	Screen Magnification Reflow, Text Spacing
		Chrome (Latest version)	Windows Magnifier
		Edge (Latest version)	ZoomText
Cognitive Impaired/ Aspergers/ Anxiety	Windows	Edge (Latest version)	System inverted colours

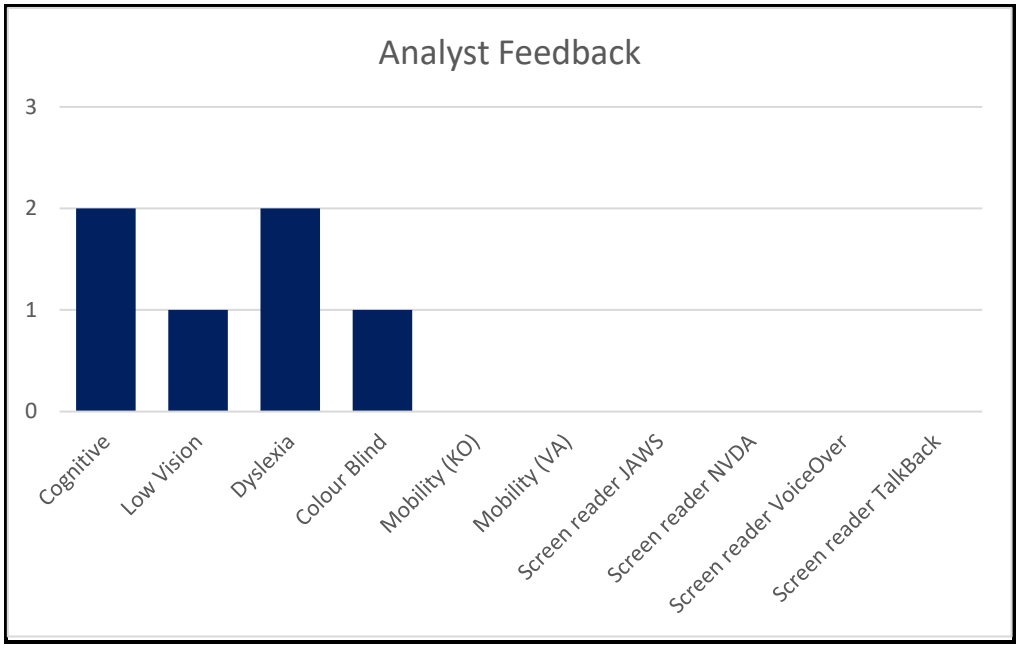
Mobile/Tablet

User type	Operating System (OS)	Browser	Assistive Technology
Blind	iOS	Safari (V12 or later)	VoiceOver
	Android	Chrome (Latest version)	TalkBack/ Voice Assistant
Mobility	iOS	Safari (V12 or later)	-
	Android	Chrome (Latest version)	-
Deaf	iOS	Safari (V12 or later)	-
Colour Blind/ Dyslexia	iOS/Android	Safari (V12 or later) / Chrome (Latest version)	-
Low Vision	Android	Chrome (Latest version)	Magnification
	iOS	Safari (V12 or later)	Pinch to Zoom
	iOS/Android	Safari (V12 or later)/ Chrome (Latest version)	System inverted colours

Analyst Feedback

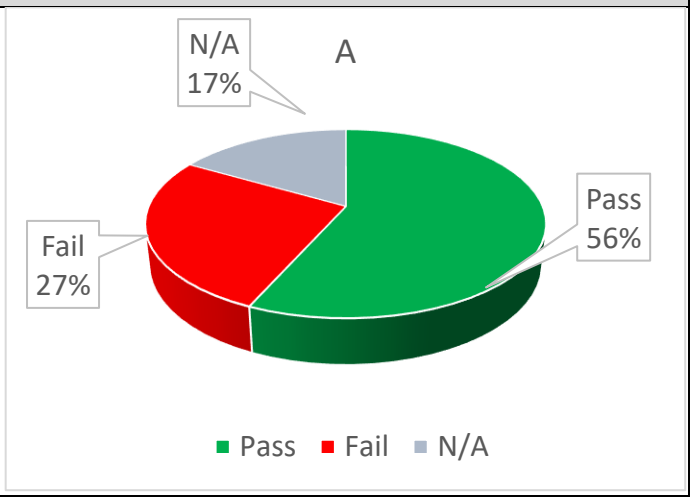
Our analysts provided their overall feedback on the service.
This was rated from 0 – could not complete to 3 – Completed independently, no issues.

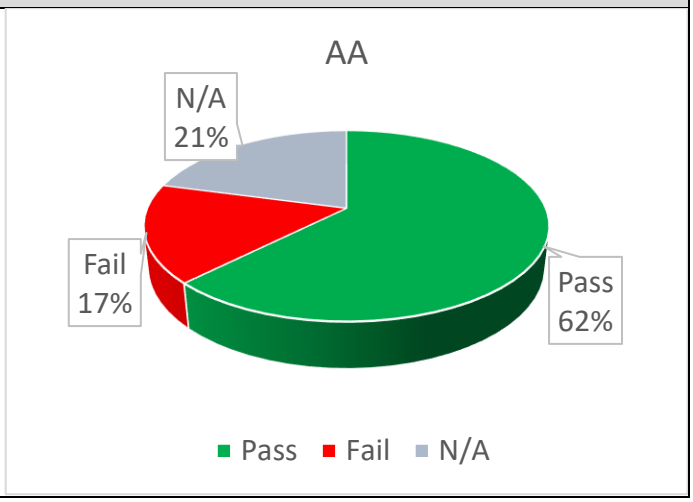
Key:	
0	Could not complete on my own
1	Completed independently but with major issues
2	Completed independently but with minor issues
3	Completed independently, no issues



WCAG 2.2 Breakdown

The graphs below detail the number of checkpoints that passed, failed or were not applicable to the service.
Please refer to the Classification of Accessibility Issues for more information.

A		
Priority Level: High	**Number**	**Percentage: High Priority Results**
Number of checkpoints ‘Passed’	17 (56%)	
Number of checkpoints ‘Failed’	8 (27%)	
Number of checkpoints ‘Not Applicable (N/A)’	5 (17%)	

AA		
Priority Level: Medium	**Number**	**Percentage: Medium Priority Results**
Number of checkpoints ‘Passed’	15 (62%)	
Number of checkpoints ‘Failed’	4 (17%)	
Number of checkpoints ‘Not Applicable (N/A)’	5 (21%)	

Audit Results

These are the results of the Digital Accessibility Centre accessibility audit organised by A, AA, AAA priorities.

Each area contains a reference to the WCAG 2.2 success criteria, a brief overview of the issue encountered, a description of issues found along with user testing commentaries and solutions.

High Priority WCAG Level A

The following section contains areas that failed to meet WCAG 2.2 A. For the service to fall in line with WCAG 2.2 requirements, all A issues must be resolved.

Bleed Through

Visibly hidden content is still conveyed to screen reader users.

WCAG Reference:
1.3.1 Info and Relationships (Level A)
Understanding Info and Relationships | How to Meet Info and Relationships

Issue ID: DAC_Bleed_Through_01

URL: https://fmp2-pre.aws.defra.cloud/
Page title: Flood map for planning - GOV.UK
Journey: 1.1

Screenshot:

Visually hidden and unwanted content that is read to screen reader users is called bleed-through. When screen reader users are navigating the page in context, they can discover the cookies region even though it is not present on the page. This is very confusing for screen reader users as this reads out inappropriate details that are not meant to be present on the page.

Current code ref(s):
body > div.govuk-cookie-banner.js-cookies-banner.govuk-visually-hidden

```
<div class="govuk-cookie-banner js-cookies-banner govuk-visually-hidden" data-nosnippet="" role="region" aria-label="Cookies on Flood Map For Planning" data-landmark-index="0">
  <div class="govuk-cookie-banner__message js-question-banner govuk-width-container" hidden="">
    […]
  </div>
</div>
```

Screen Reader user comments:
"Dismissing the cookies banner should also remove the associated landmark, avoiding; confusion, disorientation and time spent searching for information that is no longer needed. Although no landmark related to cookies is present when using the 'R' keystroke which moves between landmarks, the landmark still appears in the JAWS Regions dialog, (JAWS key + Control + R).

This was unexpected and not something I have encountered before.

Ensuring that the cookies landmark is removed once the cookies banner is dismissed will promote consistency regardless of the navigation method used to interrogate the page."

Examples of additional instances:
Additional instances of this issue may exist on other pages throughout the website; wherever this issue occurs, they too will need to be resolved.

Solution:
Ensure that when the cookies region is not visually present on the screen that it is not detectable by screen reader users. We suggest using the CSS property 'display: none;' on the containing this region when it is not required.

Grouping Elements

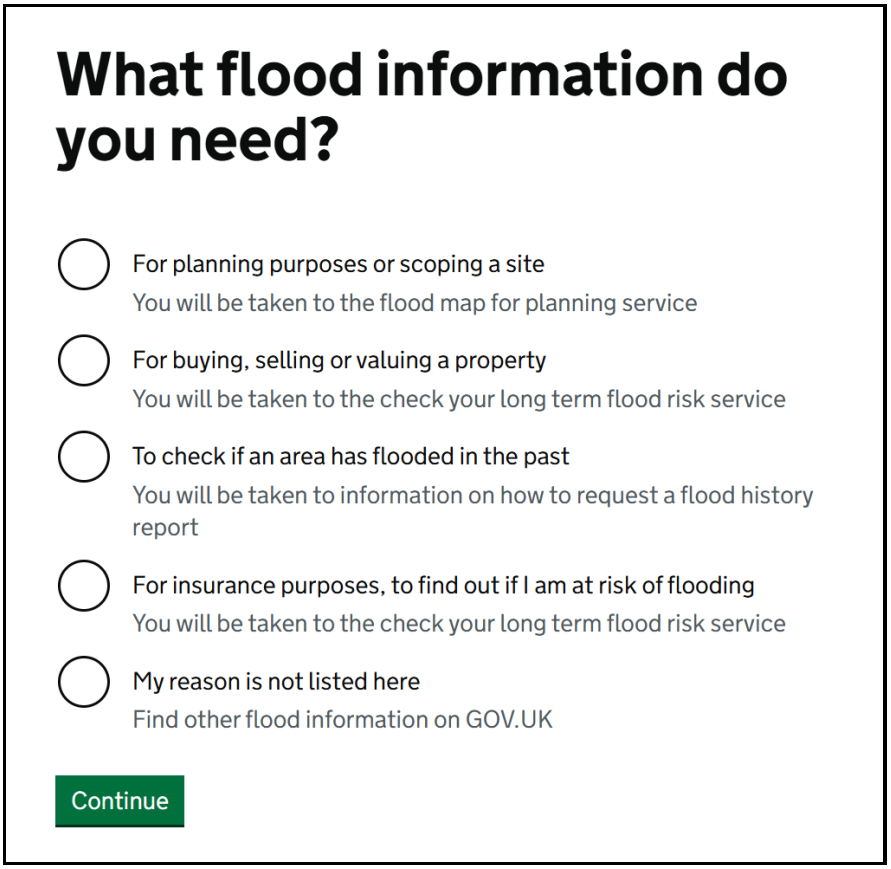
Interactive elements have not been grouped appropriately using sufficient grouping methods.

WCAG Reference:
1.3.1 Info and Relationships (Level A)
Understanding Info and Relationships | How to Meet Info and Relationships

Issue ID: DAC_Grouping_Elements_01

URL: https://fmp2-pre.aws.defra.cloud/triage
Page title: What flood information do you need - Flood map for planning - GOV.UK
Journey: 1.2

Screenshot:



The radio buttons have not been programmatically grouped for screen reader users, using an appropriate <fieldset> and <legend>. Users rely on grouping these elements together using <fieldset> and <legend> elements, to allow them to understand the relation of the options available to the question of the grouped content. This will also allow for an increased labelling as the <legend> is then included within the label for each element. Without the grouping, screen reader users are only provided with the individual labels, which do not provide enough description to identify their purpose when out of context.

Current code ref(s):

#main-content > div > div

```
<div class="govuk-grid-column-two-thirds">
  <h1 class="govuk-heading-xl">What flood information do you need?</h1>
  <form autocomplete="off" id="triage-form" method="post" action="/triage"
novalidate="">
    <div class="govuk-form-group">
      <div class="govuk-radios" data-module="govuk-radios">
        <div class="govuk-radios__item">
          <input class="govuk-radios__input" id="location" name="triageOptions"
type="radio" value="location" aria-describedby="location-item-hint" />
          <label class="govuk-label govuk-radios__label" for="location">
            For planning purposes or scoping a site
          </label>
          <div id="location-item-hint" class="govuk-hint govuk-radios__hint">
            You will be taken to the flood map for planning service
          </div>
        </div>
        […]
      </div>
    </div>
    <button type="submit" data-prevent-double-click="true" class="govuk-button"
data-module="govuk-button">
      Continue
    </button>
  </form>
</div>
```

Screen Reader user comments:

"The radio buttons on the 'What flood information do you need? Page lacks context when viewed in isolation. From within the JAWS Forms dialog the purpose of the radio buttons is unclear.

The lack of context made it time-consuming for me to understand the relationship between the radio buttons and the level 1 heading.

Enclosing the radio buttons within a fieldset and legend would enable me to understand the radio buttons in a variety of navigational scenarios."

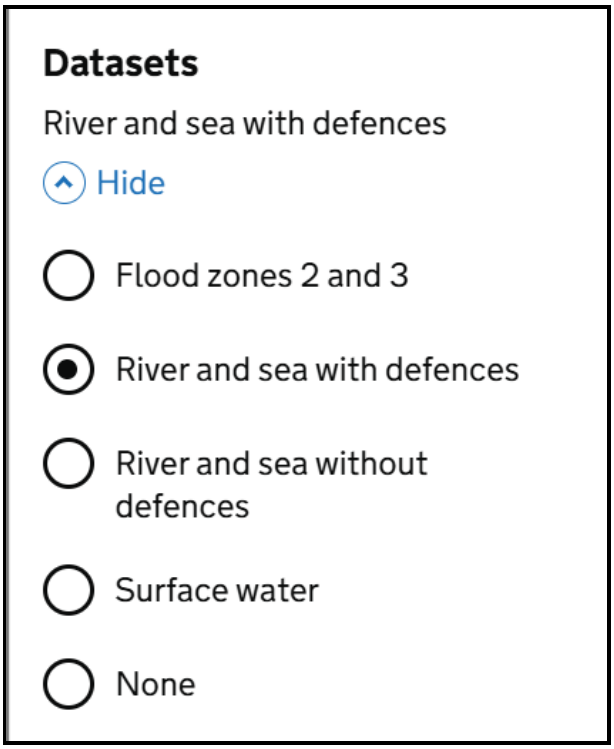
Solution:

Group the radio buttons within a <fieldset> and <legend>, allowing users to relate the inputs and the question together, providing a greater description and purpose for all grouped radio buttons. This will provide a clear structure and relation of the grouped radio buttons for screen reader users who are navigating the page both in and out of context. For more information, please refer to the GOV.UK Design System Radios Component – Radio items with hints.

Issue ID: DAC_Grouping_Elements_02

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



The radio buttons have not been sufficiently grouped for screen reader users. Users rely on grouping these elements together to allow them to understand the relation of the options available to the question of the grouped content. Without the grouping, screen reader users are only provided with the individual labels, which do not provide enough description to identify their purpose when out of context.

In this instance, a role of 'group' has been used to contain the radio buttons; however, the group does not have an accessible name due to the 'aria-labelledby' attribute referencing an ID that is not present on the page.

Please note that this issue is also present with all groups of radio buttons that are introduced to the page.

Current code ref(s):

#map-panel-legend > div.fm-c-panel__body > div:nth-child(2)

```
<div class="fm-c-segments">
  <button class="fm-c-details govuk-body-s" aria-expanded="true" aria-
controls="content-s0">
    <span class="fm-c-details__label">
      <span class="fm-c-details__label-focus">Datasets</span>
    </span>
    <span class="fm-c-details__summary">
      <span class="fm-c-details__summary-focus">River and sea with
defences</span></span>
    <span class="fm-c-details__toggle">
      <span class="fm-c-details__toggle-focus"><span class="fm-c-
details__chevron"></span>Hide</span>
    </span>
  </button>
  <div id="content-s0" class="fm-c-segments__inner" role="group" aria-
labelledby="segment-s0">
    <div class="fm-c-segments__item govuk-body-s"><input class="fm-c-
segments__radio" id="fz" name="group-s0" type="radio" value="fz" /><label
class="fm-c-segments__label" for="fz">Flood zones 2 and 3</label></div>
    <div class="fm-c-segments__item govuk-body-s"><input class="fm-c-
segments__radio" id="rsd" name="group-s0" type="radio" value="rsd" checked=""
/><label class="fm-c-segments__label" for="rsd">River and sea with
defences</label></div>
    <div class="fm-c-segments__item govuk-body-s"><input class="fm-c-
segments__radio" id="rsu" name="group-s0" type="radio" value="rsu" /><label
class="fm-c-segments__label" for="rsu">River and sea without
defences</label></div>
    <div class="fm-c-segments__item govuk-body-s"><input class="fm-c-
segments__radio" id="sw" name="group-s0" type="radio" value="sw" /><label
class="fm-c-segments__label" for="sw">Surface water</label></div>
    <div class="fm-c-segments__item govuk-body-s"><input class="fm-c-
segments__radio" id="mo" name="group-s0" type="radio" value="mo" /><label
class="fm-c-segments__label" for="mo">None</label></div>
  </div>
</div>
```

Solution:

Group the radio buttons within a <fieldset> and <legend>, allowing users to relate the inputs and the question together, providing a greater description and purpose for all grouped radio buttons. This will provide a clear structure and relation of the grouped radio buttons for screen reader users who are navigating the page both in and out of context. For more information, please refer to the GOV.UK Design System Radios Component.

Page Structure

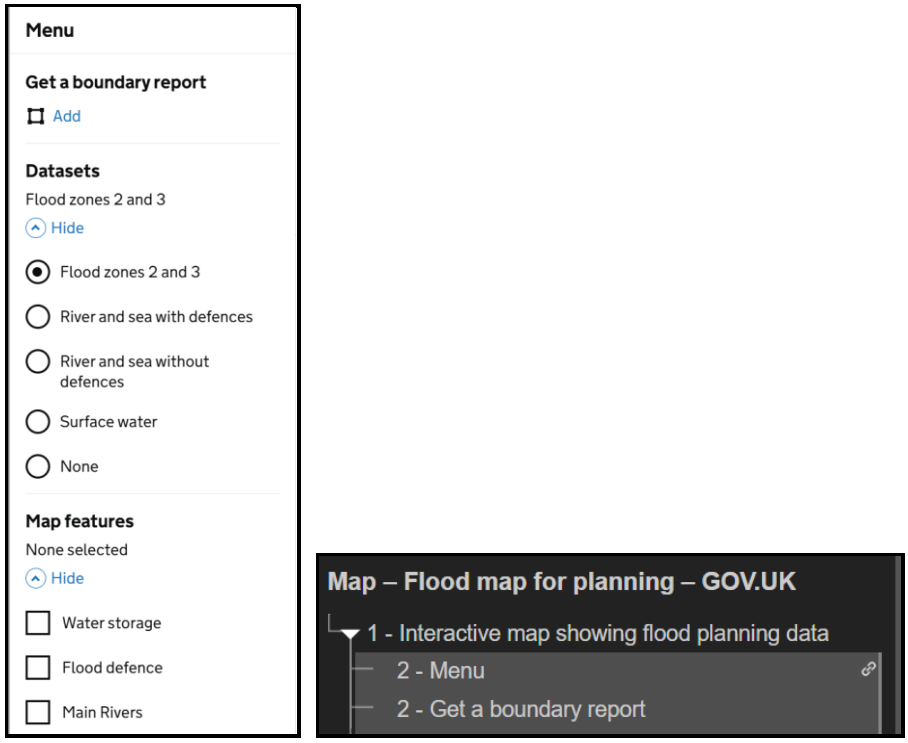
The visual structure of the page is not accurately reflected programmatically to screen reader users.

WCAG Reference:
1.3.1 Info and Relationships (Level A)
Understanding Info and Relationships | How to Meet Info and Relationships

Issue ID: DAC_Page_Structure_01

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



The heading structure of the page does not make use of a logical heading structure. This means that screen reader users may not be able to identify the structure and relation of content throughout the page.

Currently the 'Menu' heading is introduced to the page as a level-two heading; however, the sub-heading 'Get a boundary report' has also been implemented as level-two heading which does not reflect the visual presentation of the page.

Current code ref(s):

#map-panel-legend

```
<h1 class="govuk-visually-hidden">Interactive map showing flood planning data</h1>
[…]
  <h2 id="map-panel-legend-label" class="fm-c-panel__heading govuk-heading-
s">Menu</h2>
  […]
  <h2 class="fm-c-menu__heading">Get a boundary report</h2>
  […]
```

Solution:

Headings should be logical and reflect the structure of information on the page, briefly introducing the topic(s) that follow them. In this instance, we suggest making the sub-headings level-three headings. Please refer to F43: Failure of Success Criterion 1.3.1 due to using structural markup in a way that does not represent relationships in the content for more information.

Visible Headings

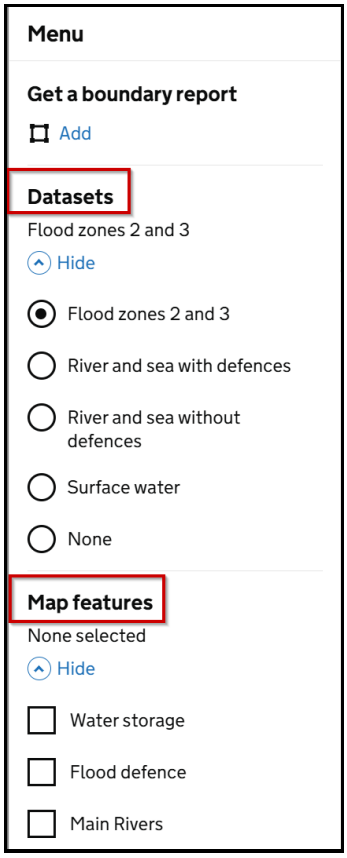
Information, structure and relationships conveyed through presentation were not programmatically determined or available in text.

WCAG Reference:
1.3.1 Info and Relationships (Level A)
Understanding Info and Relationships | How to Meet Info and Relationships

Issue ID: DAC_Visible_Headings_01

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



There is text which introduces and contextualises content on the page. This text is styled in bold text on a separate line but is not marked-up as a heading, so screen reader users will not be presented the purpose of this information as introductory.

This means that for users of screen reading assistive technologies it is not announced as a heading and does not provide the same information and relationships in content as it is only conveyed as standard text.

Current code ref(s):

#map-panel-legend > div.fm-c-panel__body > div.fm-c-segments

```
<button class="fm-c-details govuk-body-s" aria-expanded="true" aria-
controls="content-s0">
  <span class="fm-c-details__label">
    <span class="fm-c-details__label-focus">Datasets</span>
  </span>
  <span class="fm-c-details__summary"><span class="fm-c-details__summary-
focus">Flood zones 2 and 3</span></span>
  <span class="fm-c-details__toggle">
    <span class="fm-c-details__toggle-focus"><span class="fm-c-
details__chevron"></span>Hide</span>
  </span>
</button>
[…]
<button class="fm-c-details govuk-body-s" aria-expanded="true" aria-
controls="content-l0">
  <span class="fm-c-details__label">
    <span class="fm-c-details__label-focus">Map features</span>
  </span>
  <span class="fm-c-details__summary"><span class="fm-c-details__summary-
focus">None selected</span></span>
  <span class="fm-c-details__toggle">
    <span class="fm-c-details__toggle-focus"><span class="fm-c-
details__chevron"></span>Hide</span>
  </span>
</button>
```

Solution:

Please ensure semantic mark-up is used where appropriate so that the purpose of information is clear. Screen reading software relies on semantic mark-up to correctly determine information and relationships within the page to be able to present this full context to users. Headings provide context to the information they introduce and indicate page regions. Screen reader users are also able to use heading shortcuts to quickly get an idea of the contents of the page and to navigate directly to the regions on the page that they require.

As mentioned in DAC_Page_Structure_01, we suggest that these sub-headings are introduced as level-three headings.

For more information, please refer to F2: Failure of Success Criterion 1.3.1 due to using changes in text presentation to convey information without using the appropriate markup or text and the GOV.UK Design System Accordion Component.

Use of Colour

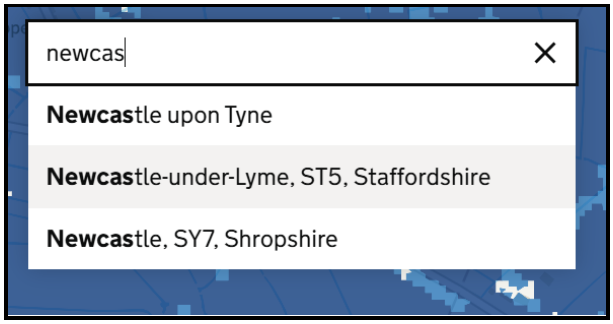
Colour was used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

WCAG Reference:
1.4.1 Use of Color (Level A)
Understanding Use of Color | How to Meet Use of Color

Issue ID: DAC_Use_of_Colour_01

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



When users were navigating the listbox results via keyboard navigation, when their focus is placed on the options colour was used as the only visual means of conveying keyboard focus. Using colour alone could result in low vision users being unable to determine their focus on the page.

Current code ref(s):
#map-search-form > div.fm-c-search__suggestions

```
<div class="fm-c-search__suggestions">
  <div class="fm-u-visually-hidden" aria-live="assertive" aria-
atomic="true">Newcastle-under-Lyme, ST5, Staffordshire. 2 of 3 is
highlighted.</div>
  <ul id="map-suggestions" role="listbox" aria-labelledby="map-search" class="fm-
c-search__list" style="">
    <li class="fm-c-search-item govuk-body-s" role="option" aria-selected="false"
aria-posinset="1" aria-setsize="3" tabindex="-1">
      <span class="fm-c-search-item__primary"><mark>Newcas</mark>tle upon
Tyne</span>
    </li>
    <li class="fm-c-search-item govuk-body-s" role="option" aria-selected="false"
aria-posinset="2" aria-setsize="3" tabindex="-1">
      <span class="fm-c-search-item__primary"><mark>Newcas</mark>tle-under-Lyme,
ST5, Staffordshire</span>
    </li>
    […]
  </ul>
</div>
```

Foreground: #F3F2F1
Background: #FFFFFF
Ratio: **1.1:1**

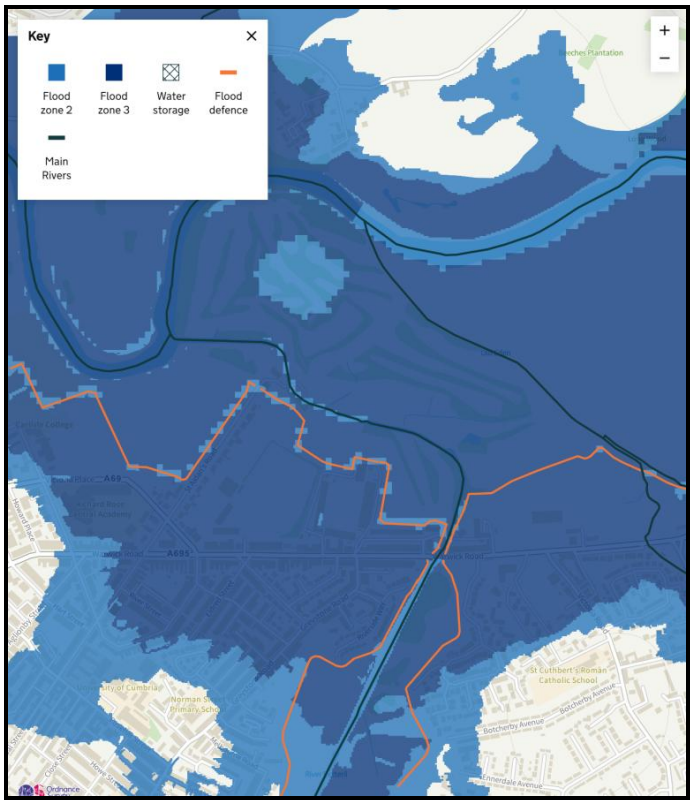
Solution:
Colour differences can be a useful means for conveying information or current states for many users and their use is not discouraged. However, where colours are used to convey information, please ensure that additional techniques are also in place so that the same information is also available to users with limited colour vision or who cannot perceive colour differences.

If colours are used to convey information, please ensure that the same information is also available to users who cannot perceive colour differences resulting in a colour contrast ratio of at least 3:1 from the selected element to the natural state.

Issue ID: DAC_Use_of_Colour_02

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



The colours of the flood zones used within the map, rely on the difference in colour alone to indicate which section of the map conveys what information. However, the contrast ratio difference between the flood zones does meet the required threshold ratio of 3:1. This means that for some users, differentiating the different colours and regions apart from one another, may not be possible.

Current code ref(s):
#map-viewport

```
<div id="map-viewport" class="fm-o-viewport" role="application" aria-
labelledby="map-viewport-label" aria-owns="map-viewport-features" tabindex="0"
data-fm-viewport="true">
  <div
    id="map-map-container"
    class="fm-o-map-container esri-view esri-view-width-medium esri-view-width-
greater-than-xsmall esri-view-width-greater-than-small esri-view-width-less-than-
large esri-view-width-less-than-xlarge esri-view-height-xlarge esri-view-height-
greater-than-xsmall esri-view-height-greater-than-small esri-view-height-greater-
than-medium esri-view-height-greater-than-large esri-view-orientation-portrait"
  >
[…]
```

Flood zone 2: #1D70B8
Flood zone 3: #003078
Ratio: 2.4:1

Solution:
Colour differences can be a useful means for conveying information for many users and their use is not discouraged. However, where colours are used to convey information, please ensure that additional techniques are also in place so that the same information is also available to users with limited colour vision or who cannot perceive colour differences. Using pattern highlighted areas on the map that correlates to the map legend provides a visual redundancy and no longer relies on colour alone to communicate information.

If colours have a significant difference in lightness, then this counts as an additional visual distinction, as long as the difference in relative luminance between the colours leads to a contrast ratio of 3:1 or greater. For more information, please refer to G111: Using color and pattern.

Pointer Cancellation

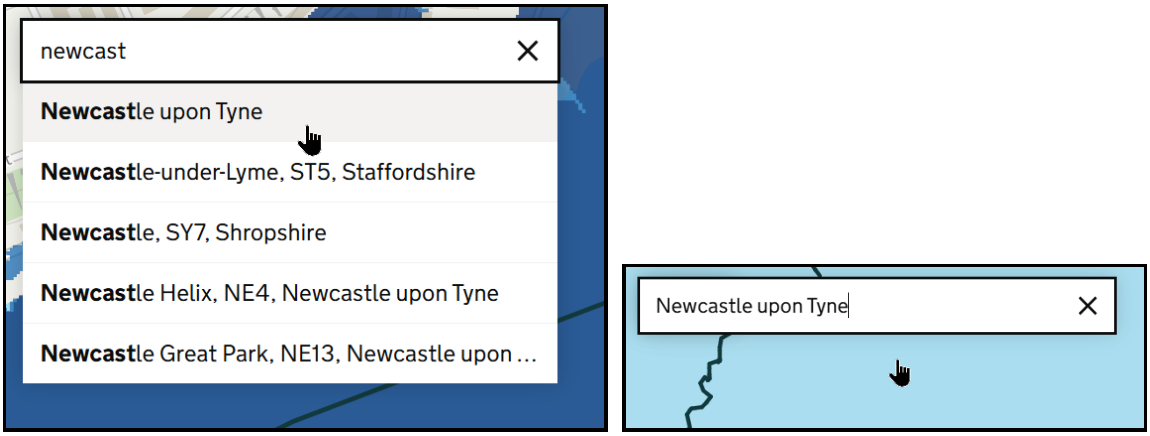
Users cannot prevent accidental pointer input when interacting with options within a listbox.

WCAG Reference:
2.5.2 Pointer Cancellation (Level A)
Understanding Pointer Cancellation | How to Meet Pointer Cancellation

Issue ID: DAC_Pointer_Cancellation_01

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



When selecting an option from the search listbox, a user navigating with a mouse was not able to cancel their selection once initiating a mouse click. This meant that the list kept closing for the user and would not let them make a selection or scroll down the list without using the keyboard.

Pointer cancellation is important because it helps prevent accidental actions when users interact with buttons, links, or other clickable elements. Without it, users might unintentionally trigger something just by hovering or tapping, even if they didn't mean to. This can be really frustrating, especially for people with motor impairments, tremors, or those using touchscreens, where accidental taps are common. By allowing users to cancel an action like requiring a full press-and-release instead of just a tap it gives them more control and helps reduce mistakes, making the experience smoother and more user-friendly.

Current code ref(s):

#map-search-form > div.fm-c-search__suggestions

```
<div class="fm-c-search__suggestions">
  <div class="fm-u-visually-hidden" aria-live="assertive" aria-
atomic="true">Newcastle-under-Lyme, ST5, Staffordshire. 2 of 3 is
highlighted.</div>
  <ul id="map-suggestions" role="listbox" aria-labelledby="map-search" class="fm-
c-search__list" style="">
    <li class="fm-c-search-item govuk-body-s" role="option" aria-selected="false"
aria-posinset="1" aria-setsize="3" tabindex="-1">
      <span class="fm-c-search-item__primary"><mark>Newcas</mark>tle upon
Tyne</span>
    </li>
    <li class="fm-c-search-item govuk-body-s" role="option" aria-selected="false"
aria-posinset="2" aria-setsize="3" tabindex="-1">
      <span class="fm-c-search-item__primary"><mark>Newcas</mark>tle-under-Lyme,
ST5, Staffordshire</span>
    </li>
    […]
  </ul>
</div>
```

Solution:

Make sure that interactive elements, like buttons or links, only trigger actions when the user has fully completed the action, such as pressing and releasing a button. On touchscreens, try to use touch events that can tell the difference between a tap and a more deliberate action, allowing users to cancel if needed.

Avoid triggering actions just from hovering or partial clicks and always give users an easy way to undo or cancel if they make a mistake. This helps prevent accidental interactions and makes the experience smoother for everyone.

It is crucial that for functionality that can be operated using a single pointer, at least one of the following is true:

- No Down-Event: The down-event of the pointer is not used to execute any part of the function;
- Abort or Undo: Completion of the function is on the up-event, and a mechanism is available to abort the function before completion or to undo the function after completion;
- Up Reversal: The up-event reverses any outcome of the preceding down-event;
- Essential: Completing the function on the down-event is essential.

Additional Instructions

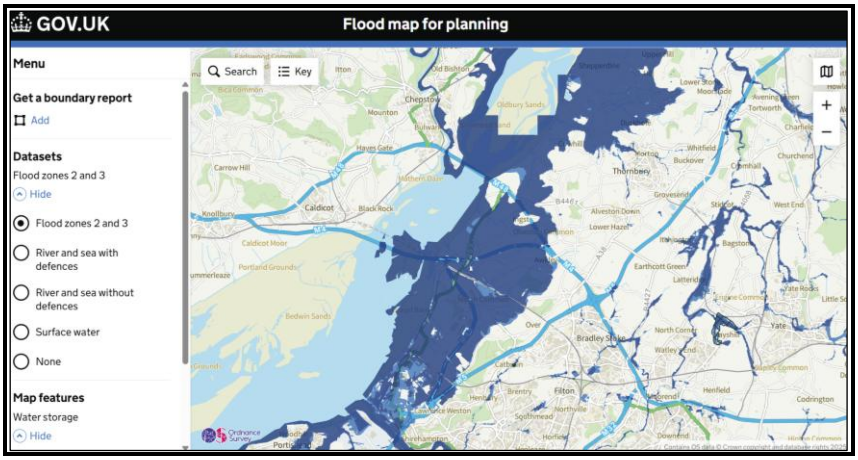
Screen reader users are not provided with instructions on how to navigate to the map content.

WCAG Reference:
3.3.2 Labels or Instructions (Level A)
Understanding Labels or Instructions | How to Meet Labels or Instructions

Issue ID: DAC_Additional_Instructions_01

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



Additional information relating to keyboard commands is available for users navigating via keyboard if they 'tab' onto the interactive map. When the users focus is placed on the interactive map a prompt will appear informing users 'Alt + K keyboard commands'. However, for screen reader users navigating the page in context using the arrow keys; they are not made aware of these instructions being present due to the prompt only appear on keyboard focus.

Current code ref(s):
#map-viewport

```
<div id="map-viewport" class="fm-o-viewport" role="application" aria-
labelledby="map-viewport-label" aria-owns="map-viewport-features" tabindex="0"
data-fm-viewport="true">
  <div
    id="map-map-container"
    class="fm-o-map-container esri-view esri-view-width-medium esri-view-width-
greater-than-xsmall esri-view-width-greater-than-small esri-view-width-less-than-
large esri-view-width-less-than-xlarge esri-view-height-xlarge esri-view-height-
greater-than-xsmall esri-view-height-greater-than-small esri-view-height-greater-
than-medium esri-view-height-greater-than-large esri-view-orientation-portrait"
  >
[…]
```

Screen Reader user comments:

"I'm very grateful for and extremely impressed by the accessibility of the interactive map, as traditionally, maps have been completely inaccessible.

Unfortunately, I found the map time-consuming to use due to the lack of instruction. There was for example, no indication that I needed to TAB to the map before the 'Alt + I' keystroke would work.

Adding instructions detailing how Screen Reader users should interact with the map would make its use much easier and allow other Screen Reader users to enjoy the fruits of the map's accessibility."

Solution:

Consider adding an introductory section or visually hidden text before the map that explains how to interact with it, including the need to Tab into the map and the availability of keyboard shortcuts.

For Example:

```
<p class="govuk-visually-hidden">
  To interact with the map, press Tab to focus on it. Once focused, you can use
keyboard commands such as Alt + K to display all available commands. For Screen
Reader users, please ensure the map has focus before using the keyboard commands.
</p>
```


Mobile Map

The interactive map on mobile devices was highly problematic for screen reader users.

WCAG Reference:
1.3.1 Info and Relationships (Level A)
Understanding Info and Relationships | How to Meet Info and Relationships

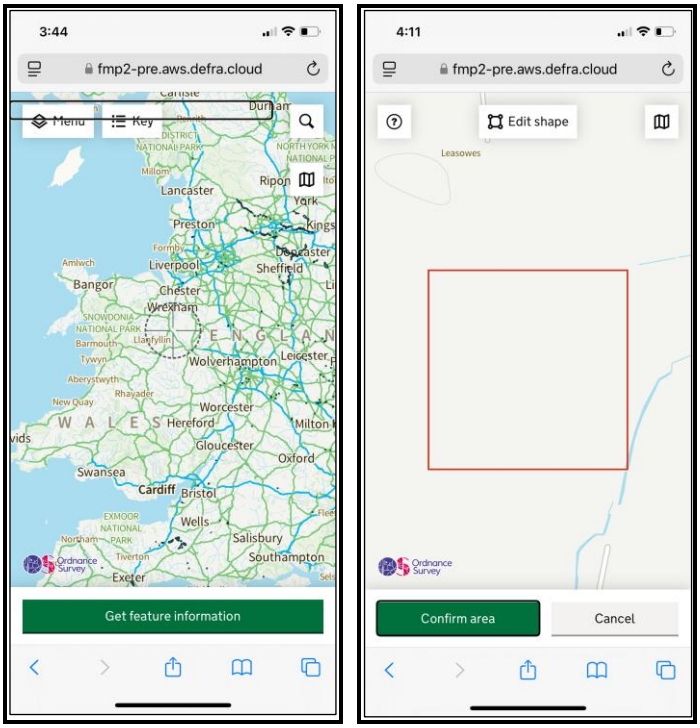
2.1.1 Keyboard (Level A)
Understanding Keyboard |How to Meet Keyboard

2.1.3 Keyboard (No Exception) (Level AAA)
Understanding Keyboard (No Exception) |How to Meet Keyboard (No Exception)

Issue ID: DAC_Mobile_Map_01

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



For screen reader users navigating the site on a mobile device, the access keys designed for desktop interaction are announced but are not practical without a physical keyboard. Since most mobile users interact via the touchscreen, the lack of clear touch-based instructions makes the map inaccessible compared to that on the desktop version. Screen reader users on mobile devices will require specific instructions for touch-based interaction with the map, as relying on keyboard-based access keys is ineffective on mobile for most users.

Our analyst reported that double-tapping and holding to move the map is inconsistent and confusing; resulting in users being unable to reliably determine if the map has moved or if they are interacting with map related information. Due to the lack of audible feedback compared to that on the desktop version, this makes mobile navigation significantly less accessible.

Current code ref(s):

#map-viewport

```
<div id="map-viewport" class="fm-o-viewport" role="application" aria-
labelledby="map-viewport-label" aria-owns="map-viewport-features" tabindex="0"
data-fm-viewport="true">
  <div id="map-map-container" class="[…]">
[…]
```

Screen Reader user comments:

"The access keys encountered on the desktop were also announced by VoiceOver on the mobile map. Although a keyboard can be used with mobile devices, Screen Reader users are generally using VoiceOver via the touch screen. As a result, these access keys are time-consuming to listen and impossible to use without a keyboard.

Providing access instructions for touch Screen Reader users would allow me to potentially use the map on a mobile device.

I discovered this issue with VoiceOver and TalkBack."

Screen Reader user comments:

"Double tapping and holding on the screen moves the map. This was reported by VoiceOver and TalkBack. However, this was inconsistent. As a result, I cannot tell if the map moves or if I am encountering map-related information.

Unfortunately, mobile access to the map when compared to the desktop version is not equal.

Providing access to the map that is as close as possible to that found on desktop would enable me to orientate myself and locate flood-related information.

I discovered this issue with VoiceOver and TalkBack."

Screen Reader user comments:

"The process of creating a region for the generation of flood reporting was impossible to achieve with VoiceOver or TalkBack. No feedback was provided so I had no idea where on the screen I was.

Providing access that is as close as possible to desktop accessibility for the map and related features would enable me to complete the flood planning process on a range of devices and with a range of Screen Reading software.

I discovered this issue with VoiceOver and TalkBack."

Solution:
Where users are already able to search using the text input and enter a placename, provide an additional input to enable screen reader users and those navigating by keyboard to specify a radius in miles from that point.

Alternatively, consider replacing the desktop access keys when the interactive map is viewed on a mobile device with gestures or touch-based controls specifically designed for mobile devices. Include clear instructions to screen reader users on how to interact with the map using touch gestures.

Editing Boundary

Actionable behaviour has been associated with non-semantic elements which do not behave as expected with assistive technology.

WCAG Reference:
1.3.1 Info and Relationships (Level A)
Understanding Info and Relationships | How to Meet Info and Relationships

2.1.1 Keyboard (Level A)
Understanding Keyboard |How to Meet Keyboard

2.1.3 Keyboard (No Exception) (Level AAA)
Understanding Keyboard (No Exception) |How to Meet Keyboard (No Exception)

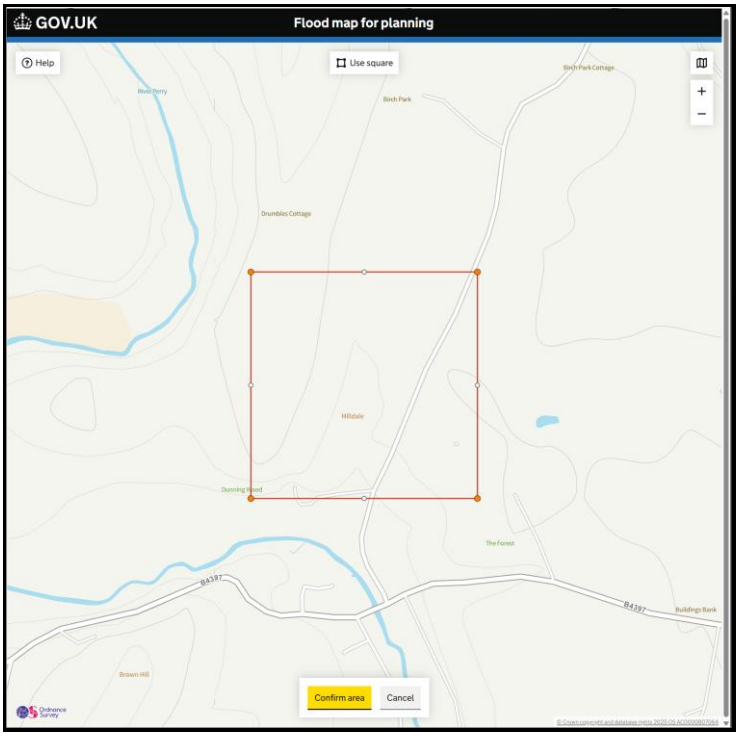
2.5.7 Dragging Movements (Level AA)
Understanding Dragging Movements | How to Meet Dragging Movements

4.1.2 Name, Role, Value (Level A)
Understanding Name, Role, Value |How to Meet Name, Role, Value

Issue ID: DAC_Editing_Boundary_01

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



Users have the ability to change the shape of a boundary; however, this is only available to users who are navigating the service using a mouse. Currently the only way users can change the shape of the boundary is by clicking and holding a pointer and then dragging it to another part of the map and releasing. As some users cannot use a mouse to drag items they will be unable to edit the shape.

Also, there is nothing to indicate to screen reader users that this content is interactive, or what its purpose is. Voice activation users will be unable to reference these components by name or role to their assistive technology. Also, users navigation via keyboard will be unable to place their focus on these components and interact with it using keyboard commands.

Current code ref(s):

#map-viewport

```
<div id="map-viewport" class="fm-o-viewport" role="application" aria-
labelledby="map-viewport-label" aria-owns="map-viewport-features" tabindex="0"
data-fm-viewport="true">
  <div id="map-map-container" class="[…]">
[…]
```

Keyboard only user comments:

"The area resize element for the map is entirely mouse dependent, making it inaccessible to me. I would have no way of interacting with this element, preventing me from progressing forward should my task have required I need this element. I would require mouse dependent assistance to use this page element."

Voice activation user comments:

"To change the shape, you have to click and drag using the mouse. I was not able to do this as I cannot click and drag using Dragon."

Solution:

It is highly recommended that standard HTML elements are used and styled as required. Where components have a clear value upon selection, native HTML components which have such innate properties are always advisable.

As not all users can accurately press and hold a contact while also repositioning the pointer an alternative method must be provided so that users with mobility impairments who use a pointer (mouse, pen, or touch contact) can use the functionality. For more information, please refer to G219: Ensuring that an alternative is available for dragging movements that operate on content and F108: Failure of Success Criterion 2.5.7 Dragging Movements due to not providing a single pointer method for the user to operate a function that does not require a dragging movement.

Incorrect Grouping

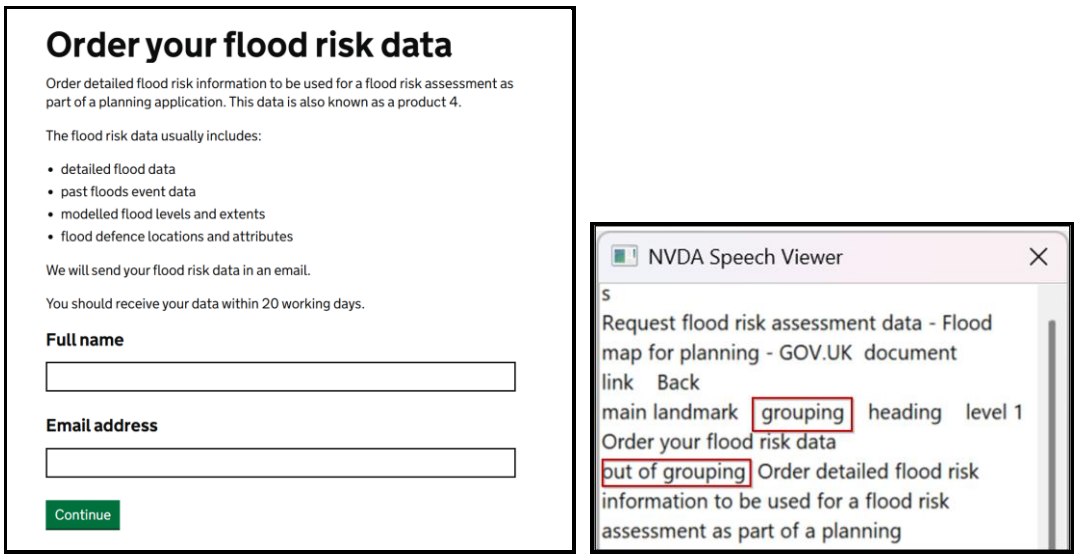
A <fieldset> and <legend> has been implemented to incorrectly group content on the page.

WCAG Reference:
1.3.1 Info and Relationships (Level A)
Understanding Info and Relationships | How to Meet Info and Relationships

Issue ID: DAC_Incorrect_Grouping_01

URL: https://fmp2-pre.aws.defra.cloud/contact?polygon...
Page title: Request flood risk assessment data - Flood map for planning - GOV.UK
Journey: 1.6

Screenshot:



The level-one heading of the page has been incorrectly grouped within a <fieldset> and <legend>. These elements should only be used to group related form controls, providing structure and context for screen reader users. As a result of its current implementation, in some instances screen reader users will encounter the level-one heading relating to a group which is semantically incorrect.

Current code ref(s):
#contact-page > div

```
<div class="govuk-grid-column-two-thirds">
  <fieldset class="govuk-fieldset">
    <legend class="govuk-fieldset__legend govuk-fieldset__legend--xl">
      <h1 class="govuk-fieldset__heading">
        Order your flood risk data
      </h1>
    </legend>
  </fieldset>
  […]
  </form>
</div>
```

Solution:
Take the level-one heading out of the <fieldset>, and instead implement a <fieldset> and <legend> around the text inputs at the base of the page. By including a visible text label ahead of the inputs and making that the <legend>, this will ensure that the information that is present between the level-one heading and the first input is not incorrectly included as a result of wrapping the entirety of the page content in a <fieldset>. For more information, please refer to the GOV.UK Design System Question pages – Asking complex questions without using hint text.

Redundant Entry

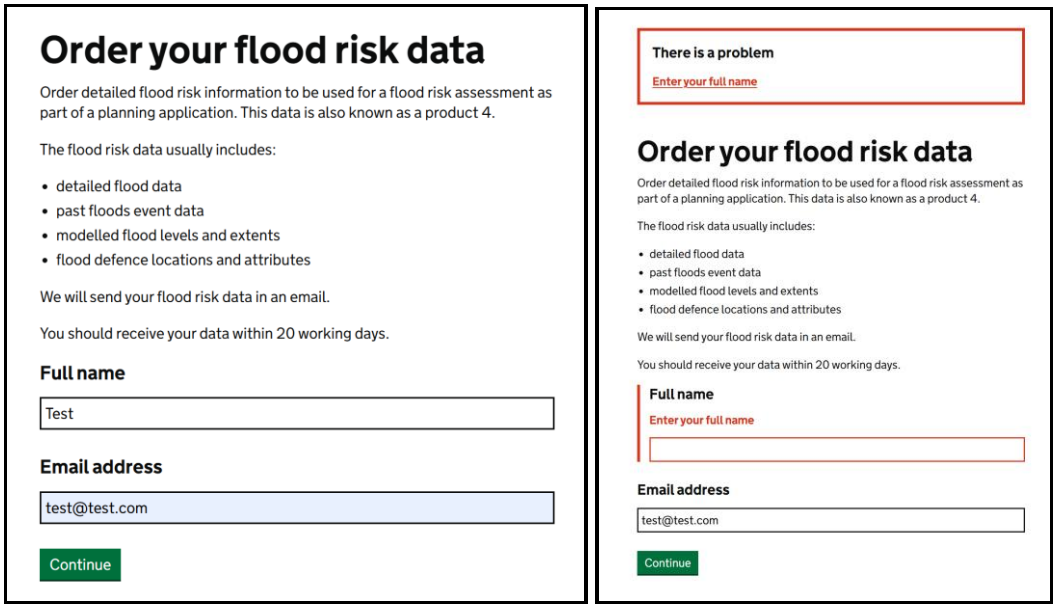
Information that was previously provided by the user is not retained.

WCAG Reference:
3.3.7 Redundant Entry (Level A)
Understanding Redundant Entry | How to Meet Redundant Entry

Issue ID: DAC_Redundant_Entry_01

URL: https://fmp2-pre.aws.defra.cloud/contact?polygon...
Page title: Request flood risk assessment data - Flood map for planning - GOV.UK
Journey: 1.6

Screenshot:



Upon returning to the 'Order your flood risk data' page via the 'Back' link, the 'Full name' data previously entered by the user is not retained. Users would expect their previous data input to be retained upon actioning the 'Back' link.

Current code ref(s):
#contact-page > div > form > div.govuk-form-group.govuk-form-group--error

```
<div class="govuk-form-group govuk-form-group--error">
  <label class="govuk-label govuk-label govuk-label--m" for="fullName">
    Full name
  </label>
  <p id="fullName-error" class="govuk-error-message"><span class="govuk-visually-
hidden">Error:</span> Enter your full name</p>
  <input class="govuk-input govuk-input govuk-input--error" id="fullName"
name="fullName" type="text" value="" aria-describedby="fullName-error" />
</div>
```

Examples of additional instances:
Additional instances of this issue may exist on other pages throughout the website; wherever this issue occurs, they too will need to be resolved.

Solution:
If a user decides to go back to a previous page, make sure information they have already entered is pre-populated. Except when:

- re-entering the information is essential,
- the information is required to ensure the security of the content, or
- previously entered information is no longer valid.

Image Alternative

The image alternative is not consistently relayed to screen reader users. Also, keyboard focus is given to non-actionable elements.

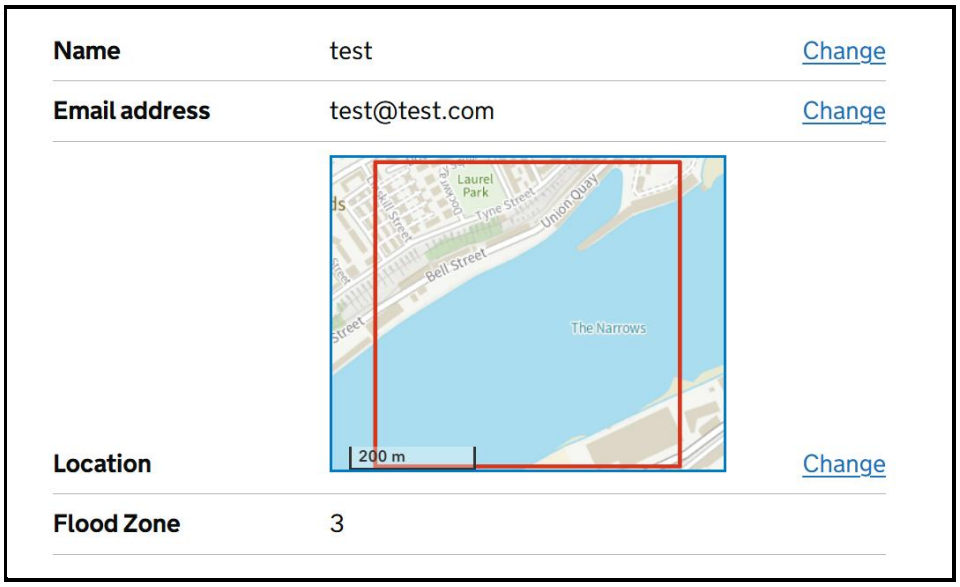
WCAG Reference:
2.4.3 Focus Order (Level A)
Understanding Focus Order | How to Meet Focus Order

4.1.2 Name, Role, Value (Level A)
Understanding Name, Role, Value | How to Meet Name, Role, Value

Issue ID: DAC_Image_Alternative_01

URL: https://fmp2-pre.aws.defra.cloud/check-your-details?polygon...
Page title: Check your details - Flood map for planning - GOV.UK
Journey: 1.7

Screenshot:



On the 'Check your details' page, an image is provided to users so that they can see the selected location from the previous step.

An alternative to the image has been provided to screen reader users via a <figcaption> element; however, this information does not get conveyed when using NVDA. When viewing the page in context with NVDA, after the 'Location' description term users would encounter the information 'application' then followed by the 'Change' link. This results in the information being conveyed within the <figcaption> 'An image of a map showing the site you have provided for the location for assessment'.

Also, the image receives keyboard focus due the implementation of the 'tabindex="0"' attribute on the with 'role="application"' applied. This may be disorientating for users

navigating via the use of the keyboard alone as it can be difficult to track focus if it lands on unexpected objects within the page. This also causes the need for additional key-presses when navigating the page, which can become strenuous for users with mobility impairments. Users may assume that because these are in the tab sequence, they must be interactive but become confused as to why they cannot action the content.

Current code ref(s):

#map > div.esri-view-root > div.esri-view-surface.esri-view-surface--touch-pan

```
<figure class="map-container check-your-details-map govuk-!-margin-bottom-6"
role="application">
  <figcaption class="govuk-visually-hidden" aria-hidden="false">
    An image of a map showing the site you have provided for the location for
assessment
  </figcaption>
  <div id="map--result" class="map--result">
    <div
      id="map"
      class="map esri-view esri-view-width-xsmall esri-view-width-less-than-small
esri-view-width-less-than-medium esri-view-width-less-than-large esri-view-width-
less-than-xlarge esri-view-height-xsmall esri-view-height-less-than-small esri-
view-height-less-than-medium esri-view-height-less-than-large esri-view-height-
less-than-xlarge esri-view-orientation-landscape"
    >
      <div class="esri-view-root">
        <div class="esri-view-surface esri-view-surface--touch-pan"
role="application" tabindex="0">
[…]
```

Screen Reader user comments:

“There is an image of the map that is reported by JAWS, VoiceOver and TalkBack. Unfortunately, the image is ignored by NVDA.

This discrepancy prevents NVDA users from accessing this content.

Ensuring that the image is exposed to all Screen Reading software, especially given its descriptive alternative text, would allow parity of access to all users and provide meaningful context to the associated link.

I located this issue with NVDA. It did not occur with; JAWS, VoiceOver and TalkBack.”

Solution:

Remove any instances of the ‘role="application"’ attribute as it is not required. Also, remove the ‘tabindex="0"’ on the nested ‘application’ as it is not expected to receive keyboard focus.

For Example:

```
<figure class="map-container check-your-details-map govuk-!-margin-bottom-6"
role="application">
  <figcaption class="govuk-visually-hidden" aria-hidden="false">
    An image of a map showing the site you have provided for the location for
assessment
  </figcaption>
  <div id="map--result" class="map--result">
    <div
      id="map"
      class="map esri-view esri-view-width-xsmall esri-view-width-less-than-small
esri-view-width-less-than-medium esri-view-width-less-than-large esri-view-width-
less-than-xlarge esri-view-height-xsmall esri-view-height-less-than-small esri-
view-height-less-than-medium esri-view-height-less-than-large esri-view-height-
less-than-xlarge esri-view-orientation-landscape"
    >
      <div class="esri-view-root">
        <div class="esri-view-surface esri-view-surface--touch-pan"
role="application" tabindex="0">
[…]
```


Medium Priority WCAG Level AA

The following section contains areas that failed to meet WCAG 2.2 AA. For the service to fall in line with WCAG 2.2 requirements, all A and AA issues must be resolved.

Non-Descriptive Form Element

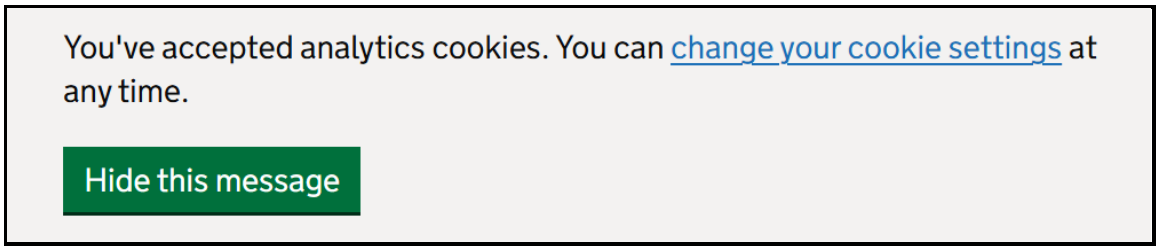
Form elements accessible names were found to be non-descriptive.

WCAG Reference:
2.4.6 Headings and Labels (Level AA)
Understanding Headings and Labels | How to Meet Headings and Labels

Issue ID: DAC_Non_Descriptive_Form_Element_01

URL: https://fmp2-pre.aws.defra.cloud/
Page title: Flood map for planning - GOV.UK
Journey: 1.1

Screenshot:



The 'Hide this message' button used within the cookie banner does not have a descriptive accessible name to describe the buttons purpose. Screen reader users rely on clear and distinctive accessible names, both in and out of context to allow them to understand the button's purpose before activating it.

Current code ref(s):
body > div.govuk-cookie-banner.js-cookies-banner > div.govuk-cookie-banner__message.js-cookies-accepted.govuk-width-container > div.govuk-button-group > button

```
<button type="button" class="govuk-button" data-module="govuk-button">
  Hide this message
</button>
```

Solution:
Ensure that all buttons have been marked up with clear and descriptive text informing users of the buttons purpose when navigating the page both in and out of context. We suggest that this button is renamed to 'Hide cookie message' to conform to the GOV.UK Design System. For more information, please refer to the GOV.UK Design System Cookie banner component.

Issue ID: DAC_Non_Descriptive_Form_Element_02

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:

There are multiple buttons on the page such as 'Add', 'Edit' and 'Delete' that do not have descriptive accessible name to describe the buttons purpose. Screen reader users rely on clear and distinctive accessible names, both in and out of context to allow them to understand the button's purpose before activating it.

Current code ref(s):
#map-panel-legend > div.fm-c-panel__body > div.fm-c-menu > div > div > button

```
<button class="fm-c-btn-menu">
  <svg aria-hidden="true" […] </svg>
  <span class="fm-c-btn__label">Add</span>
</button>
[…]
<button class="fm-c-btn-menu">
  <svg aria-hidden="true" […] </svg>
  <span class="fm-c-btn__label">Edit</span>
</button>
[…]
<button class="fm-c-btn-menu">
  <svg aria-hidden="true" […] </svg>
  <span class="fm-c-btn__label">Delete</span>
</button>
```

Screen Reader user comments:
"Using the JAWS Forms dialog and the TAB key, I encountered the 'Add' button. Both of these methods isolate this button, making its purpose unclear. Following closer examination, the 'Add' button seems to relate to getting a boundary report.

The lack of context around the 'Add' button when viewed within the JAWS Forms dialog or when the TAB key is used created confusion for me and made the process of understanding the button time-consuming.

Adding text to the 'Add' button label such as 'Add boundary report' would clarify the button using a variety of navigational methods.

Please note that this issue also occurs for the 'Edit' and 'Delete' buttons when they become present."

Solution:
Ensure that all buttons have been marked up with clear and descriptive text informing users of the buttons purpose when navigating the page both in and out of context. Consider using the CSS class ‘govuk-visually-hidden’ on a within the buttons to provide more context.

Reflow

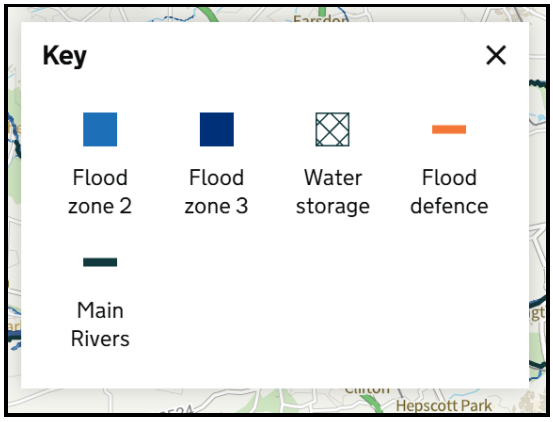
Content could not be magnified without loss of information or functionality and without scrolling in two dimensions.

WCAG Reference:
1.4.10 Reflow (Level AA)
Understanding Reflow | How to Meet Reflow

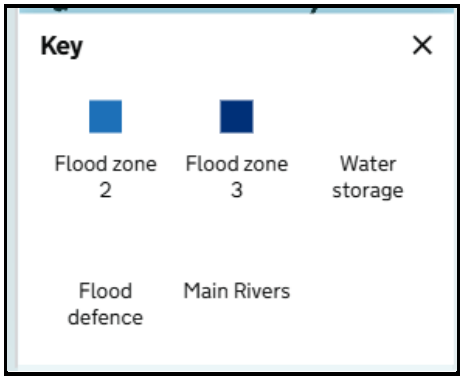
Issue ID: DAC_Reflow_01

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



Screenshot in magnified viewport:



When using a magnified viewport, users will encounter many issues on the map page where the same content that was present on a standard desktop viewport was not equally available to them. For example, users were not able to determine all aspects of the 'Key' panel due to some of the indicators not being rendered on the page. Also, users lose the ability to interact with the map in order to reveal additional information.

Current code ref(s):

#content-l0

```
<div id="content-l0" class="fm-c-layers__columns" style="grid-template-columns:
repeat(auto-fit, minmax(75px, auto));">
  <div class="fm-c-layers__item fm-c-layers__item--fill govuk-body-s">
    <div class="fm-c-layers__image fm-c-layers__image--fill">
      <svg […] </svg>
    </div>
    <span class="fm-c-layers__text">Flood zone 2</span>
  </div>
  <div class="fm-c-layers__item fm-c-layers__item--fill govuk-body-s">
    <div class="fm-c-layers__image fm-c-layers__image--fill">
      <svg […] </svg>
    </div>
    <span class="fm-c-layers__text">Flood zone 3</span>
  </div>
  <div class="fm-c-layers__item fm-c-layers__item--icon govuk-body-s">
    <div class="fm-c-layers__image fm-c-layers__image--icon">
      <svg […] </svg>
    </div>
    <span class="fm-c-layers__text">Water storage</span>
  </div>
  <div class="fm-c-layers__item fm-c-layers__item--icon govuk-body-s">
    <div class="fm-c-layers__image fm-c-layers__image--icon">
      <svg […] </svg>
    </div>
    <span class="fm-c-layers__text">Flood defence</span>
  </div>
  <div class="fm-c-layers__item fm-c-layers__item--icon govuk-body-s">
    <div class="fm-c-layers__image fm-c-layers__image--icon">
      <svg […] </svg>
    </div>
    <span class="fm-c-layers__text">Main Rivers</span>
  </div>
</div>
```

Solution:

Ensure that content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for:

- Vertical scrolling content at a width equivalent to 320 CSS pixels;
- Horizontal scrolling content at a height equivalent to 256 CSS pixels.

Note:

The main purpose of the page is to display an interactive map; however, maps are exempt under WCAG 2.2. We suggest that the controls and the associated map along with additional dialogs that become present should consistently available regardless of presentation.

Non-Text Contrast

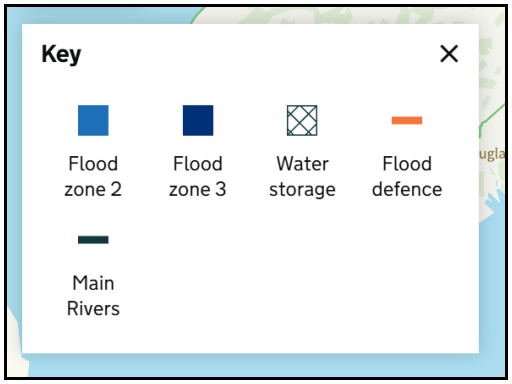
The colour of certain elements had a low colour contrast ratio and may be difficult for some low vision user to decipher.

WCAG Reference:
1.4.11 Non-text Contrast (Level AA)
Understanding Non-text Contrast | How to Meet Non-text Contrast

Issue ID: DAC_Non_Text_Contrast_01

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



The colour contrast of the orange 'Flood defence' key against the white background does not meet the threshold to satisfy WCAG 2.2 AA criteria. The expected ratio for non-text colour contrast with should be at least 3:1, however the colour contrast ratio for this elements is 2.8:1. This may be problematic for some visually impaired users.

Current code ref(s):
#content-l0 > div:nth-child(4)

```
<div class="fm-c-layers__item fm-c-layers__item--icon govuk-body-s">
  <div class="fm-c-layers__image fm-c-layers__image--icon">
    <svg […] </svg>
  </div>
  <span class="fm-c-layers__text">Flood defence</span>
</div>
```

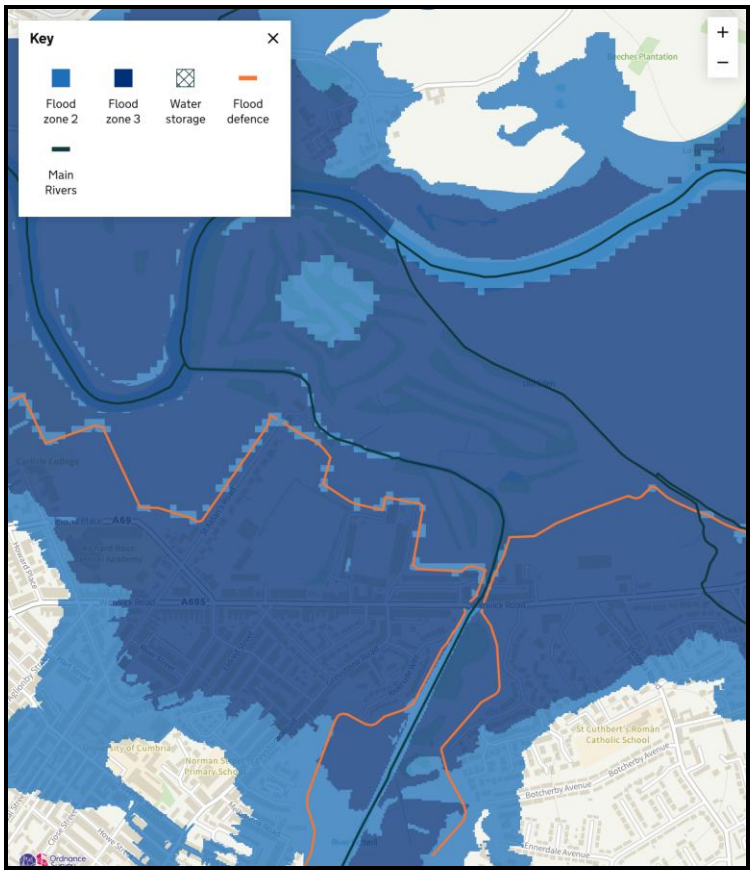
Foreground: #F47738
Background: #FFFFFF
Ratio: **2.8:1**

Solution:
Ensure the visual presentation of user interface components, graphical objects and their boundaries have a colour contrast ratio of at least 3:1 against adjacent colours.

Issue ID: DAC_Non_Text_Contrast_02

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



There were many instances where the colour contrast of the overlapping data regions within the map does not meet the threshold to satisfy WCAG 2.2 AA criteria. The expected ratio for non-text colour contrast with should be at least 3:1. This may be problematic for some visually impaired users.

Current code ref(s):

#map-viewport

```
<div id="map-viewport" class="fm-o-viewport" role="application" aria-
labelledby="map-viewport-label" aria-owns="map-viewport-features" tabindex="0"
data-fm-viewport="true">
  <div
    id="map-map-container"
    class="fm-o-map-container esri-view esri-view-width-medium esri-view-width-
greater-than-xsmall esri-view-width-greater-than-small esri-view-width-less-than-
large esri-view-width-less-than-xlarge esri-view-height-xlarge esri-view-height-
greater-than-xsmall esri-view-height-greater-than-small esri-view-height-greater-
than-medium esri-view-height-greater-than-large esri-view-orientation-portrait"
  >
[…]
```

Foreground (Main River): #12396D
Background (Flood zone 3): #3D6196
Ratio: 2:1

Foreground (Flood defence): #F47738
Background (Flood zone 3): #3D6196
Ratio: 2.3:1

Foreground (Flood defence): #F47738
Background (Flood extent): #5EA6CB
Ratio: 1:1

Flood zone 2: #1D70B8
Flood zone 3: #003078
Ratio: 2.4:1

Low Vision user comments:
"Enabling various filters in the 'Menu' can make the information on the map difficult to read. For example, I can no longer see some of the 'Main Rivers' lines with the 'Flood zone' filters. I can still see the 'Flood defence' lines, but they fail contrast tests still."

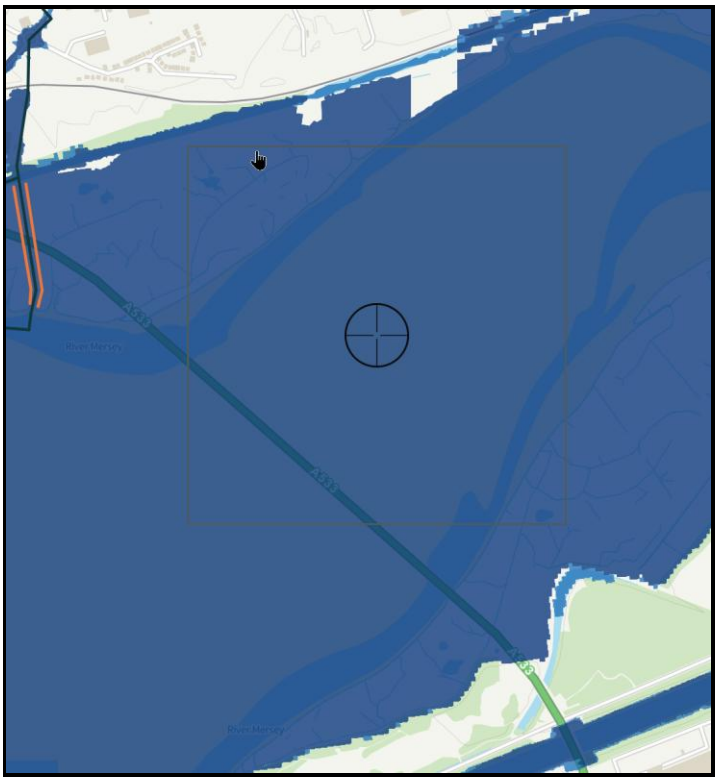
Low Vision user comments:
"The map uses colour-coded sections to convey information. In this example, rivers are represented in light orange, while flood areas are displayed in blue. However, this combination offers minimal contrast for users with low vision, making it difficult to distinguish between the two."

Solution:
Ensure the visual presentation of user interface components, graphical objects and their boundaries have a colour contrast ratio of at least 3:1 against adjacent colours.

Issue ID: DAC_Non_Text_Contrast_03

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



The colour contrast of the black target selector against the dark blue 'Flood zone 3' region does not meet the threshold to satisfy WCAG 2.2 AA criteria. The expected ratio for non-text colour contrast with should be at least 3:1, however the colour contrast ratio for this element is 2.5:1. This may be problematic for some visually impaired users.

Current code ref(s):

#map-viewport

```
<div id="map-viewport" class="fm-o-viewport" role="application" aria-
labelledby="map-viewport-label" aria-owns="map-viewport-features" tabindex="0"
data-fm-viewport="true">
  <div
    id="map-map-container"
    class="fm-o-map-container esri-view esri-view-width-medium esri-view-width-
greater-than-xsmall esri-view-width-greater-than-small esri-view-width-less-than-
large esri-view-width-less-than-xlarge esri-view-height-xlarge esri-view-height-
greater-than-xsmall esri-view-height-greater-than-small esri-view-height-greater-
than-medium esri-view-height-greater-than-large esri-view-orientation-portrait"
  >
[…]
```

Keyboard only user comments:
"The crosshair on the map does not contrast well with the map background meaning that some user groups cannot see the crosshair. I would expect the crosshair to be a different colour so as not to cause these issues."

Foreground: #17202C
Background: #3B5F8F
Ratio: **2.5:1**

Solution:
Ensure the visual presentation of user interface components, graphical objects and their boundaries have a colour contrast ratio of at least 3:1 against adjacent colours.

Low Priority WCAG Level AAA

Areas of the service which fail to meet the WCAG 2.2 AAA requirements are not in scope for the purposes of this audit, however, where issues were encountered by our analysts, these have been reported. We highly recommend that these issues are resolved.

Colour Contrast [Enhanced]

The contrast ratio between foreground and background colours does not meet the threshold to satisfy WCAG 2.2 AAA criteria.

WCAG Reference:
1.4.6 Contrast (Enhanced) (Level AAA)
Understanding Contrast (Enhanced) | How to Meet Contrast (Enhanced)

Issue ID: DAC_Colour_Contrast_Enhanced_01

URL: https://fmp2-pre.aws.defra.cloud/
Page title: Flood map for planning - GOV.UK
Journey: 1.1

Screenshot:

The colour contrast on the blue link text against the white background does not meet the threshold to satisfy WCAG 2.2 AAA criteria. The colour contrast ratio for text within this element is 5.17:1 and this may be problematic for some visually impaired users.

Current code ref(s):
body > div.govuk-phase-banner.govuk-width-container > p > span

```
<span class="govuk-phase-banner__text"> This is a new service – your <a
class="govuk-link" href="/feedback">feedback</a> will help us to improve it.
</span>
```

Foreground: #1D70B8
Background: #FFFFFF
Ratio: **5.17:1**

Examples of additional instances:
Additional instances of this issue may exist on other pages throughout the website; wherever this issue occurs, they too will need to be resolved.

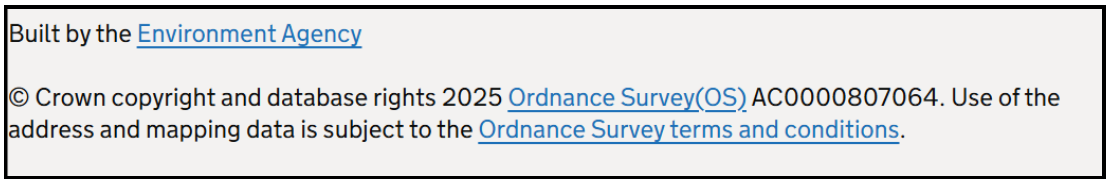
Solution:
For sites to meet AAA, they must comply with WCAG 2.2 checkpoint 1.4.6 for colour contrast. As far as contrast ratio is concerned, it must at least be:

- if text is not bold and its size is less than 18pt/24px/1.5em/150%:
  7:1 for AAA level
- if text is not bold and its size is at least 18pt/24px/1.5em/150%:
  4.5:1 for AAA level
- if text is bold and its size is less than 14pt/19px/1.2em/118%:
  7:1 for AAA level
- if text is bold and its size is at least 14pt/19px/1.2em/118%:
  4.5:1 for AAA level

Issue ID: DAC_Colour_Contrast_Enhanced_02

URL: https://fmp2-pre.aws.defra.cloud/
Page title: Flood map for planning - GOV.UK
Journey: 1.1

Screenshot:



The colour contrast on the blue link text against the light grey background does not meet the threshold to satisfy WCAG 2.2 AAA criteria. The colour contrast ratio for text within this element is 4.62:1 and this may be problematic for some visually impaired users.

Current code ref(s):
body > footer > div > div > div.govuk-footer__meta-item.govuk-footer__meta-item--grow > div > p:nth-child(1)

```
<p class="govuk-body-s">
  Built by the
  <a href="https://www.gov.uk/government/organisations/environment-
agency">Environment Agency</a>
</p>
[…]
```

Foreground: #1D70B8
Background: #F3F2F1
Ratio: 4.62:1

Examples of additional instances:
Additional instances of this issue may exist on other pages throughout the website; wherever this issue occurs, they too will need to be resolved.

Solution:
For sites to meet AAA, they must comply with WCAG 2.2 checkpoint 1.4.6 for colour contrast. As far as contrast ratio is concerned, it must at least be:

- if text is not bold and its size is less than 18pt/24px/1.5em/150%: 7:1 for AAA level
- if text is not bold and its size is at least 18pt/24px/1.5em/150%: 4.5:1 for AAA level
- if text is bold and its size is less than 14pt/19px/1.2em/118%: 7:1 for AAA level
- if text is bold and its size is at least 14pt/19px/1.2em/118%: 4.5:1 for AAA level

Abbreviations

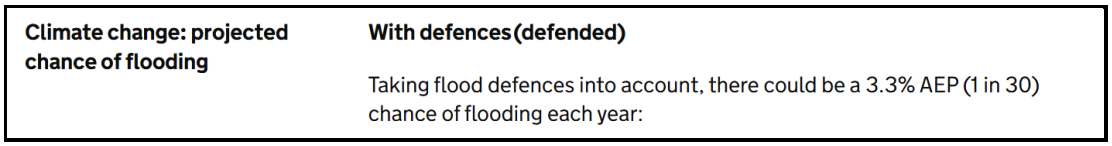
Abbreviations were present on the page which were not expanded in the first instance.

WCAG Reference:
3.1.4 Abbreviations (Level AAA)
Understanding Abbreviations |How to Meet Abbreviations

Issue ID: DAC_Abbreviations_01

URL: https://fmp2-pre.aws.defra.cloud/results?polygon...
Page title: Location flood zone results - Flood map for planning - GOV.UK
Journey: 1.5

Screenshot:



Abbreviations such as 'AEP' were present on this page which had not been expanded in the first instance. This can be confusing for some users who may not be familiar with the meaning of the abbreviation.

Current code ref(s):
#main-content > div > div > div:nth-child(8) > div.govuk-summary-card__content > dl > div:nth-child(2) > dd > p:nth-child(2)

```
<p class="govuk-body" data-testid="rofrs-cc-defended-probability">Taking flood defences into account, there could be a 3.3% AEP (1 in 30) chance of flooding each year:</p>
```

Cognitive user comments:
"The acronym 'AEP' is used five times on the page without explanation. I would not expect a user to understand any acronym immediately as different services and industries may use the same acronym to mean different things.

This can lead to confusion, or mistakes being made if a user assumes the acronym may stand for something else. Those with short term memory loss will also have trouble remembering acronyms."

Solution:
Ensure that all acronyms and abbreviations are expanded upon in the first instance to ensure that all users can understand what they represent. Using the expanded state of the of the abbreviation will ensure that users can clearly determine what they are accessing; this is particularly important for users who may experience cognitive difficulties.

Additionally, some screen reading software will attempt to read acronyms as whole words, rather than as individual letters, which can be extremely confusing.

Change Links

The accessible name of the ‘Change’ link does not represent the visual information.

WCAG Reference:
2.4.9 Link Purpose (Link Only) (Level AAA)
Understanding Link Purpose (Link Only) | How to Meet Link Purpose (Link Only)

Issue ID: DAC_Change_Links_01

URL: https://fmp2-pre.aws.defra.cloud/check-your-details?polygon...
Page title: Check your details - Flood map for planning - GOV.UK
Journey: 1.7

Screenshot:

When encountering the ‘Change’ link in association to ‘Location’, it provides screen reader users with conflicting information as it differs to what is presented to visual users. The accessible name of the link contained within the description detail is ‘Change name’ which does not relay the same information in relation to the description term which is ‘Location’.

Current code ref(s):
#check-your-details-page > form > div > dl > div:nth-child(3)

```
<div class="govuk-summary-list__row">
  <dt class="govuk-summary-list__key">
    Location
  </dt>
  <dd class="govuk-summary-list__value">
    […]
  </dd>
  <dd class="govuk-summary-list__actions">
    <a class="govuk-link" href="/map?polygon[…]">
      Change<span class="govuk-visually-hidden"> name</span>
    </a>
  </dd>
</div>
```

Screen Reader user comments:
"Two 'Change name' links appear on this page. This was confusing because I expected it to read 'Change location'.

Ensuring that all links contain the correct link text will ensure that users are taken to the expected location, avoiding surprises."

Solution:
Ensure that the 'Change' links accessible name contains the same information to what is contained within the description term.

Usability Feedback

The following section contains feedback from our analysts that although do not fail to meet WCAG 2.2 may prove challenging for users of the service.

Phase Banner (Usability)

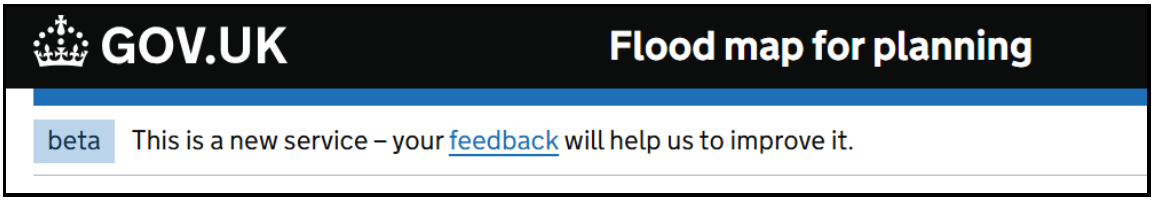
The phase banner does not conform to the GOV.UK Design System.

Reference:
Usability & GOV.UK Design System requirement

Issue ID: DAC_Phase_Banner_Usability_01

URL: https://fmp2-pre.aws.defra.cloud/
Page title: Flood map for planning - GOV.UK
Journey: 1.1

Screenshot:



The phase banner throughout the service does not conform to that found on the GOV.UK Design System. The GOV.UK Design System uses the phrase 'This is a new service. Help us improve it and give your feedback by email'; with the 'give your feedback by email' text being introduced as a link. In this instance, the link is just introduced as 'feedback'.

Current code ref(s):
body > div.govuk-phase-banner.govuk-width-container

```
<div class="govuk-phase-banner govuk-width-container">
  <p class="govuk-phase-banner__content">
    <strong class="govuk-tag govuk-phase-banner__content__tag">
      beta
    </strong>
    <span class="govuk-phase-banner__text"> This is a new service – your <a
class="govuk-link" href="/feedback">feedback</a> will help us to improve it.
</span>
  </p>
</div>
```

Solution:
Ensure that GOV.UK Design System guidelines are followed. For more information, please refer to the GOV.UK Design System Phase banner Component.

Page Title (Usability)

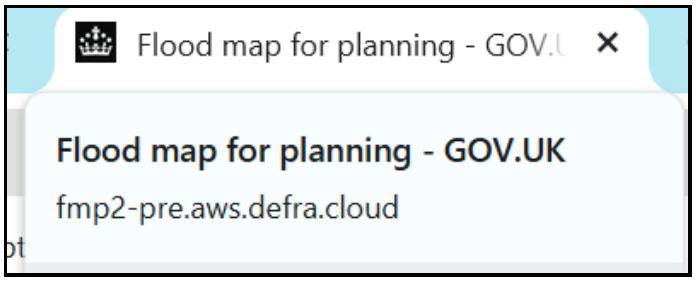
The page title does not conform the GOV.UK Design System recommended page title.

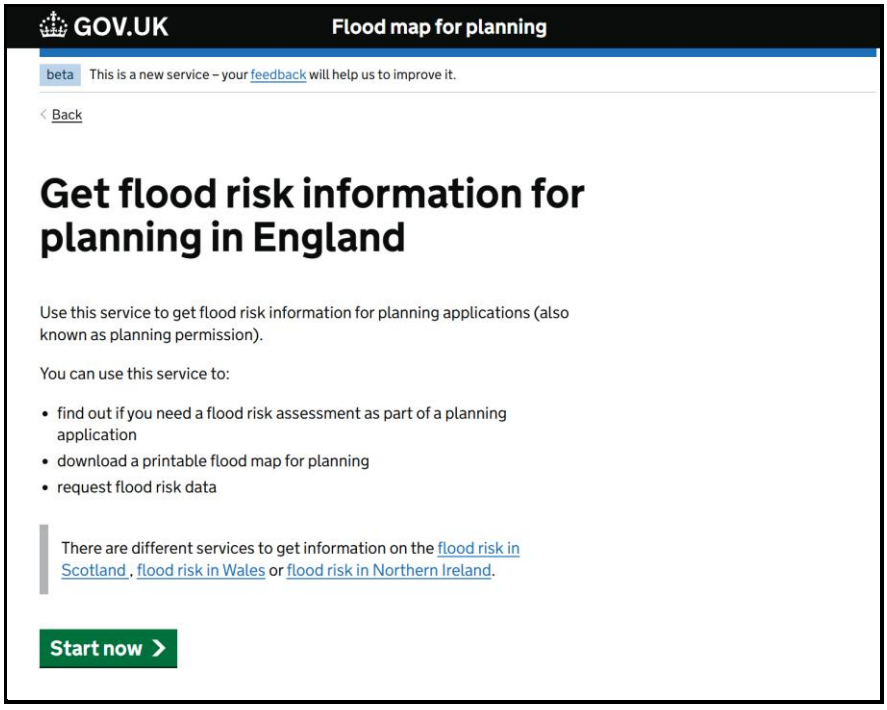
Reference:
Usability & GOV.UK Design System requirement

Issue ID: DAC_Page_Title_Usability_01

URL: https://fmp2-pre.aws.defra.cloud/
Page title: Flood map for planning - GOV.UK
Journey: 1.1

Screenshot:





The page title 'Flood map for planning - GOV.UK' does not conform to the GOV.UK Design System page title format. Having the page title match the level one heading, the name of the service and GOV.UK, allows users (especially those of screen reading assistive technologies), to easily identify their location and that they are on a government service.

Current code ref(s):
head > title

```
<title>Flood map for planning - GOV.UK</title>
```

#main-content > div > div > h1

```
<h1 class="govuk-heading-xl">Get flood risk information for planning in
England</h1>
```

Examples of additional instances:
URL: https://fmp2-pre.aws.defra.cloud/results?polygon...
Page title: Location flood zone results - Flood map for planning - GOV.UK
Journey: 1.5

URL: https://fmp2-pre.aws.defra.cloud/contact?polygon...
Page title: Request flood risk assessment data - Flood map for planning - GOV.UK
Journey: 1.6

URL: https://fmp2-pre.aws.defra.cloud/check-your-details?polygon...
Page title: Check your details - Flood map for planning - GOV.UK
Journey: 1.7

Additional instances of this issue may exist on other pages throughout the website; wherever this issue occurs, they too will need to be resolved.

Solution:
Ensure that GOV.UK Design System guidelines are followed, and the page title matches the level one heading on the page, allowing users to easily identify the service they are on and the current page without needing to navigate through the page content.

To conform to the GOV.UK Design System, the page title must be in the following format:

- Page <h1> - Section name (if applicable) – service name – GOV.UK

Placement of Information (Usability)

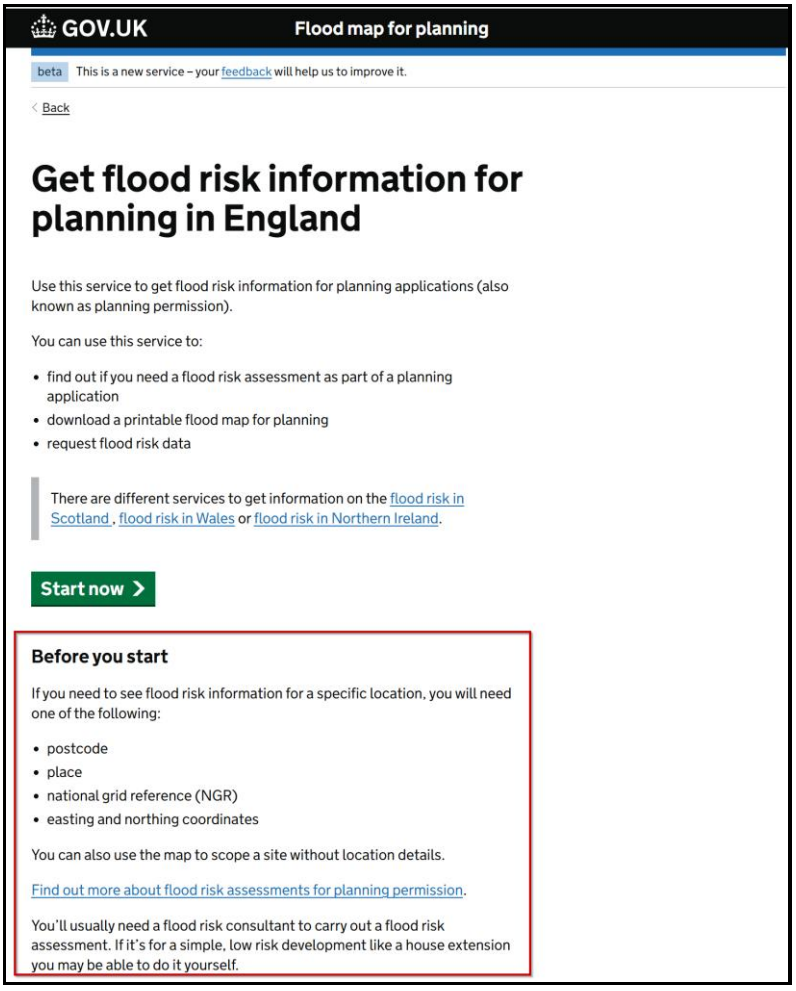
The placement of key information is in a part of the page where it might potentially be missed by certain user groups.

Reference:
Usability

Issue ID: DAC_Placement_of_Information_Usability_01

URL: https://fmp2-pre.aws.defra.cloud/
Page title: Flood map for planning - GOV.UK
Journey: 1.1

Screenshot:



The placement for information that users may need to complete the service is located after the button used to start the service. Many users, including those who rely on screen reading software or enhanced screen magnification, navigate web content sequentially. If essential information is placed after the button, they might miss it because they are not aware they need to keep navigating beyond the button.

Current code ref(s):

#main-content > div > div

```
<div class="govuk-grid-column-two-thirds">
  <h1 class="govuk-heading-xl">Get flood risk information for planning in
England</h1>
  […]
  <a href="triage" role="button" draggable="false" class="govuk-button govuk-!-
margin-top-2 govuk-!-margin-bottom-8 govuk-button--start" data-journey-
click="Home-Page:Internal-Link:Start-Now" data-module="govuk-button">
    Start now
    <svg […] </svg>
  </a>
  <h2 class="govuk-heading-m">Before you start</h2>
  <p class="govuk-body">
    If you need to see flood risk information for a specific location, you will
need one of the following:
  </p>
  <ul class="govuk-list govuk-list--bullet">
    <li>
      postcode
    </li>
    […]
  </ul>
  […]
</div>
```

Low Vision user comments:

"Below the 'Start now' button is more information users need to read titled 'Before you start.' This is important information, but it's easy to miss for users with low vision because it's out of view of the magnifier. The gap between the button and the title pushes the text further out of view.

This information would be much more accessible if it was presented before the 'Start now' button.

This was a medium impact issue for me."

Solution:

Consider placing the 'Before you start' heading and its following information to be placed before the control to start the service, so that all users can access it.

Font (Usability)

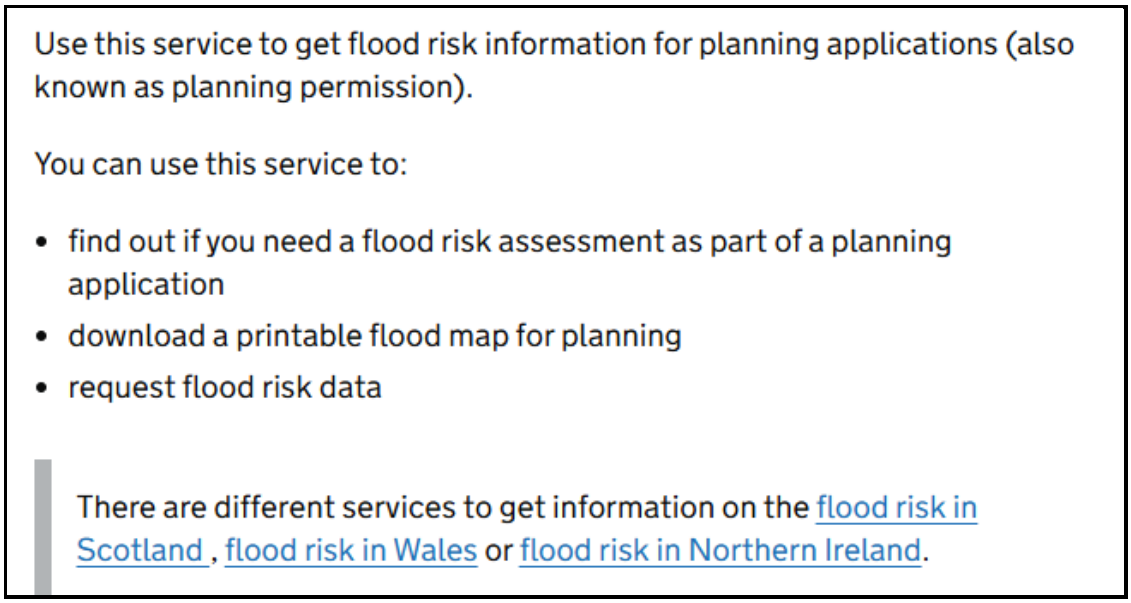
The font used was problematic for our low vision analyst.

Reference:
Usability

Issue ID: DAC_Font_Usability_01

URL: https://fmp2-pre.aws.defra.cloud/
Page title: Flood map for planning - GOV.UK
Journey: 1.1

Screenshot:



The font, font weight and colours against the background were problematic for our low vision analyst when reading the page. The New Transport font is particularly difficult for our low vision analyst, however, this is not to say that it will be problematic for other users with visual limitations.

Current code ref(s):
N/A

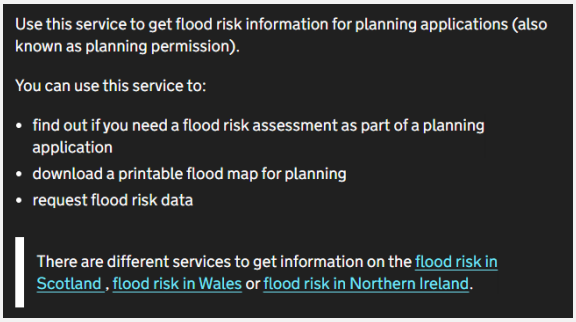
```
N/A
```

Low vision user comments:
"As a vision impaired user, who does not rely on assistive technology, the New Transport font or GDS Transport font provides a lightly rendered grey, translucent display which allows the contrast to be affected by the background glare creating a grey and difficult to focus reading platform for me despite the measured high contrast.

When analysed, the contrast ratio returned a 19.6:1 ratio; this contrast should look black, however the opaque styling of the font reduces this appearance considerably as background glare appears to leak through the font body. As a result, from a low vision perspective, this impacts on the ability to read successfully for periods of time as reading fatigue quickly sets in making larger bodies of text difficult to read and absorb its information.

As with the traffic signs, the heavier font and increased size renders well with the white text set on a deep blue background seen on UK motorways. The lighter, thinner digital version bears no resemblance to the physical seen on our roads. As a result, improvement in clarity with additional weight, up to 500 together with a #000000 hex code, may provide all users a better-rounded and less transparent readable font which should provide a sharper text appearance capable of absorbing background glare to improve prolonged reading and overall UX. These improvements will also relate to mobile devices where currently a negative reading experience prevails.

As a result of the issues I experience with this font, I personally must use GOV.UK products with a custom stylesheet to improve the font appearance and increase overall UX.



Other options include inverting contrast via the Windows operating system and using the shortcut keys shift>alt>print-screen to provide a high contrast version of the screen. This eliminates glare and provides sharper text appearance which improves the ability to read and absorb the page information. This however may hide some functionality and only effective on Edge. Other browsers rely on add-ons to do this which are not as effective.

The font quality differs depending on the screen resolution as higher quality monitors provide a better view however, the font does not improve when viewed on lower quality or lower resolution screens. This also impacts on mobile devices where the font is naturally smaller.

Providing text/contrast options via alternative stylesheets or widgets within the GOV.UK platforms would be beneficial to provide the capability for users to customise the appearance to suit individual user's needs."

Solution:
You could provide some instructions/a guide within your accessibility statement on how users can change the fonts via the browser settings to improve their reading experience.

Alternatively, you could consider different fonts, font weights and colours that may enhance the reading experience for some users with a visual impairment.

Call to Action (Usability)

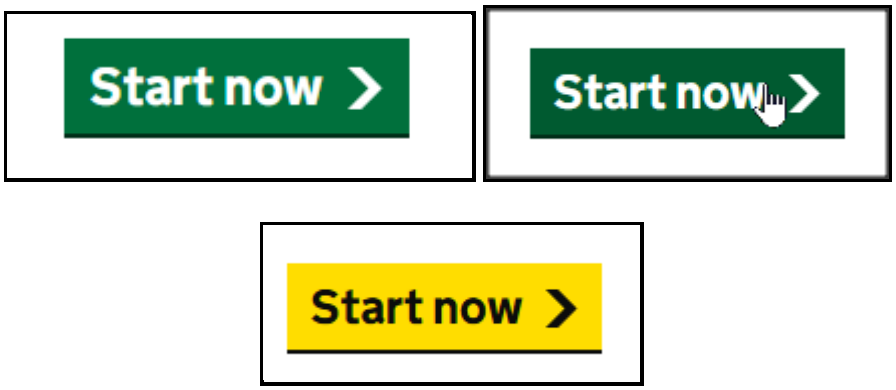
Our analyst felt that an additional visual cue on hover would be beneficial.

Reference:
Usability

Issue ID: DAC_Call_to_Action_Usability_01

URL: https://fmp2-pre.aws.defra.cloud/
Page title: Flood map for planning - GOV.UK
Journey: 1.1

Screenshot:



There was a slight colour change for mouse users on hover, which may not be noticeable for some users. This was identified by our low vision analyst throughout testing on all form elements and may be an issue for other users in a non-testing environment.

Current code ref(s):
#main-content > div > div

```
<div class="govuk-grid-column-two-thirds">
  <h1 class="govuk-heading-xl">Get flood risk information for planning in
England</h1>
  […]
  <a href="triage" role="button" draggable="false" class="govuk-button govuk-!-
margin-top-2 govuk-!-margin-bottom-8 govuk-button--start" data-journey-
click="Home-Page:Internal-Link:Start-Now" data-module="govuk-button">
    Start now
    <svg […] </svg>
  </a>
```

Low vision user comments:
"The buttons displayed on this platform provide no mouse hover focus upon contact with the mouse pointer. From a low vision users perspective, the lack of adequate vision means that tracking the mouse position together with the target is difficult at best. In my experience, I cannot see both pointer and target and therefore heavily rely on visual focus upon mouse contact.

Providing an additional visual cue such as a well-constructed border surrounding the button ensuring contrast minimums are met would also provide good visual focus."

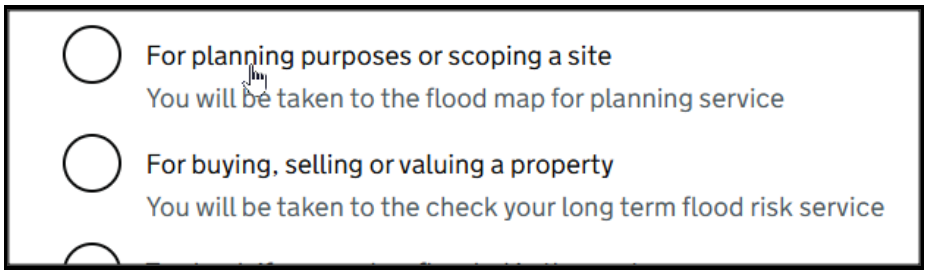
Examples of additional instances:
Additional instances of this issue may exist on other pages throughout the website; wherever this issue occurs, they too will need to be resolved.

Solution:
We recommend an additional visual cue in the way of the hover state when a user has placed their cursor over an interactive element. The same visual cue provided on focus (the focus indicator on tab) could be used on mouse hover.

Issue ID: DAC_Call_to_Action_Usability_02

URL: https://fmp2-pre.aws.defra.cloud/triage
Page title: What flood information do you need - Flood map for planning - GOV.UK
Journey: 1.2

Screenshot:



There was no additional visual cue for mouse users on hover. This was identified by our low vision analyst throughout testing on all form elements and may be an issue for other users in a non-testing environment. This issue relates to all form elements throughout testing such as radio buttons, text inputs and checkboxes.

Current code ref(s):
#main-content > div > div

```
<div class="govuk-grid-column-two-thirds">
  <h1 class="govuk-heading-xl">What flood information do you need?</h1>
  <form autocomplete="off" id="triage-form" method="post" action="/triage"
novalidate="">
    <div class="govuk-form-group">
      <div class="govuk-radios" data-module="govuk-radios">
        <div class="govuk-radios__item">
          <input class="govuk-radios__input" id="location" name="triageOptions"
type="radio" value="location" aria-describedby="location-item-hint" />
          <label class="govuk-label govuk-radios__label" for="location">
            For planning purposes or scoping a site
          </label>
          <div id="location-item-hint" class="govuk-hint govuk-radios__hint">
            You will be taken to the flood map for planning service
          </div>
        </div>
        […]
      </div>
    </div>
    <button type="submit" data-prevent-double-click="true" class="govuk-button"
data-module="govuk-button">
      Continue
    </button>
  </form>
</div>
```

Low vision user comments:
"The radio button display provides a circular focus point which is easily accessed should a user navigate by placing the mouse pointer directly into the circle. Should a user, perhaps with low vision or mobility have difficulty doing this and find it easier to rely on clicking the text related to the button, they will realise that there is no additional visual cue or call to action to alert the user the text can be clicked to occupy the Radio button and therefore may not be functional.

The addition of visual cue is important as some users may not have the vision or mobility skills to easily place the mouse pointer in the correct area to use this function.
Underlining text or placing a border around the radio button hotspot will provide ideal addition visuals to alert the user of function and improve the UX for low vision users.

This also applies to form elements including radio buttons, checkboxes and text input fields throughout the service."

Examples of additional instances:
Additional instances of this issue may exist on other pages throughout the website; wherever this issue occurs, they too will need to be resolved.

Solution:
We recommend an additional visual cue in the way of the hover state when a user has placed their cursor over an interactive element. The same visual cue provided on focus (the focus indicator on tab) could be used on mouse hover.

Error Handling (Usability)

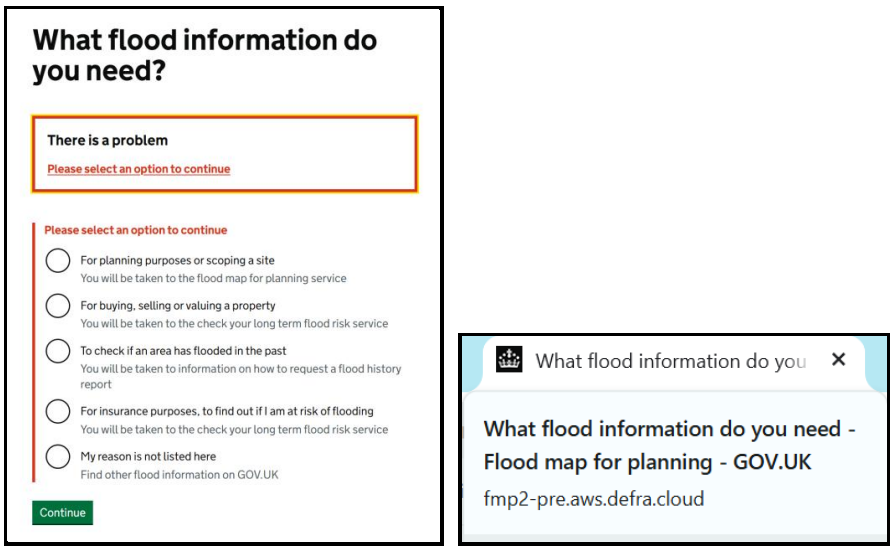
There were instances where the error handling did not conform to the GOV.UK Design System.

Reference:
Usability & GOV.UK Design System requirement

Issue ID: DAC_Error_Handling_Usability_01

URL: https://fmp2-pre.aws.defra.cloud/triage
Page title: What flood information do you need - Flood map for planning - GOV.UK
Journey: 1.2

Screenshot:



The error handling on this page does not conform to that found on the GOV.UK Design System. The GOV.UK Design System states that “As well as showing an error summary, follow the Validation pattern - for example, by adding ‘Error: ’ to the beginning of the page <title> so screen readers read it out as soon as possible.” In this instance, upon triggering an error the term ‘Error :’ has not been included in the page title.

Current code ref(s):
head > title

```
<title>
  What flood information do you need - Flood map for planning - GOV.UK
</title>
```

Solution:
When an error is detected upon submitting an invalid form, add the term ‘Error: ’ to the beginning of the page title. For more information, please refer to the GOV.UK Design System Error summary Component.

Issue ID: DAC_Error_Handling_Usability_02

URL: https://fmp2-pre.aws.defra.cloud/triage
Page title: What flood information do you need - Flood map for planning - GOV.UK
Journey: 1.2

Screenshot:

The error message that is provided for users after submitting an empty form is 'Please select an option to continue'. This error message does not conform to that found on the GOV.UK Design System. The GOV.UK Design System states "Error messages should directly include language from the question or fieldset label. This helps match up the error message with the relevant form field."

Current code ref(s):

#triage-form > div.govuk-error-summary

```
<div class="govuk-error-summary" data-module="govuk-error-summary" tabindex="-1">
  <div role="alert">
    <h2 class="govuk-error-summary__title">
      There is a problem
    </h2>
    <div class="govuk-error-summary__body">
      <ul class="govuk-list govuk-error-summary__list">
        <li>
          <a href="#location">Please select an option to continue</a>
        </li>
      </ul>
    </div>
  </div>
</div>
```

#triageOptions-error

```
<p id="triageOptions-error" class="govuk-error-message"><span class="govuk-
visually-hidden">Error:</span> Please select an option to continue</p>
```

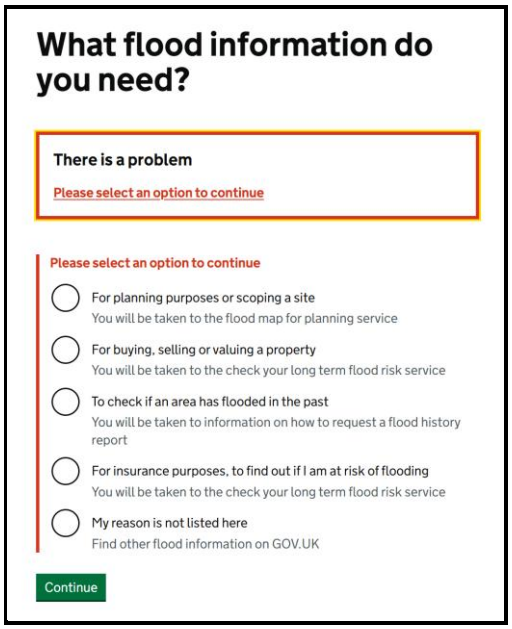
Solution:

Ensure that error messages are clear and concise with a descriptive suggestion on how to correctly fix the issue at hand. Please refer to GOV.UK Design System Error message components.

Issue ID: DAC_Error_Handling_Usability_03

URL: https://fmp2-pre.aws.defra.cloud/triage
Page title: What flood information do you need - Flood map for planning - GOV.UK
Journey: 1.2

Screenshot:



The error handling on this page does not conform to that found on the GOV.UK Design System. The GOV.UK Design System states “Put the error summary at the top of the main container. If your page includes breadcrumbs or a back link, place it below these, but above the <h1>.” In this instance, upon triggering an error the error summary was placed after <h1>.

Current code ref(s):
#main-content

```
<main class="govuk-main-wrapper" id="main-content" data-landmark-index="2">
  <div class="govuk-grid-row">
    <div class="govuk-grid-column-two-thirds">
      <h1 class="govuk-heading-xl">What flood information do you need?</h1>
      <form autocomplete="off" id="triage-form" method="post" action="/triage"
novalidate="">
        <div class="govuk-error-summary" data-module="govuk-error-summary">
          <div role="alert">
            <h2 class="govuk-error-summary__title">
              There is a problem
            </h2>
[…]
```

Solution:
When an error is detected upon submitting an invalid form, place the error summary at the top of the ‘main’ container and above the <h1>. For more information, please refer to the GOV.UK Design System Error summary Component.

Back Link (Usability)

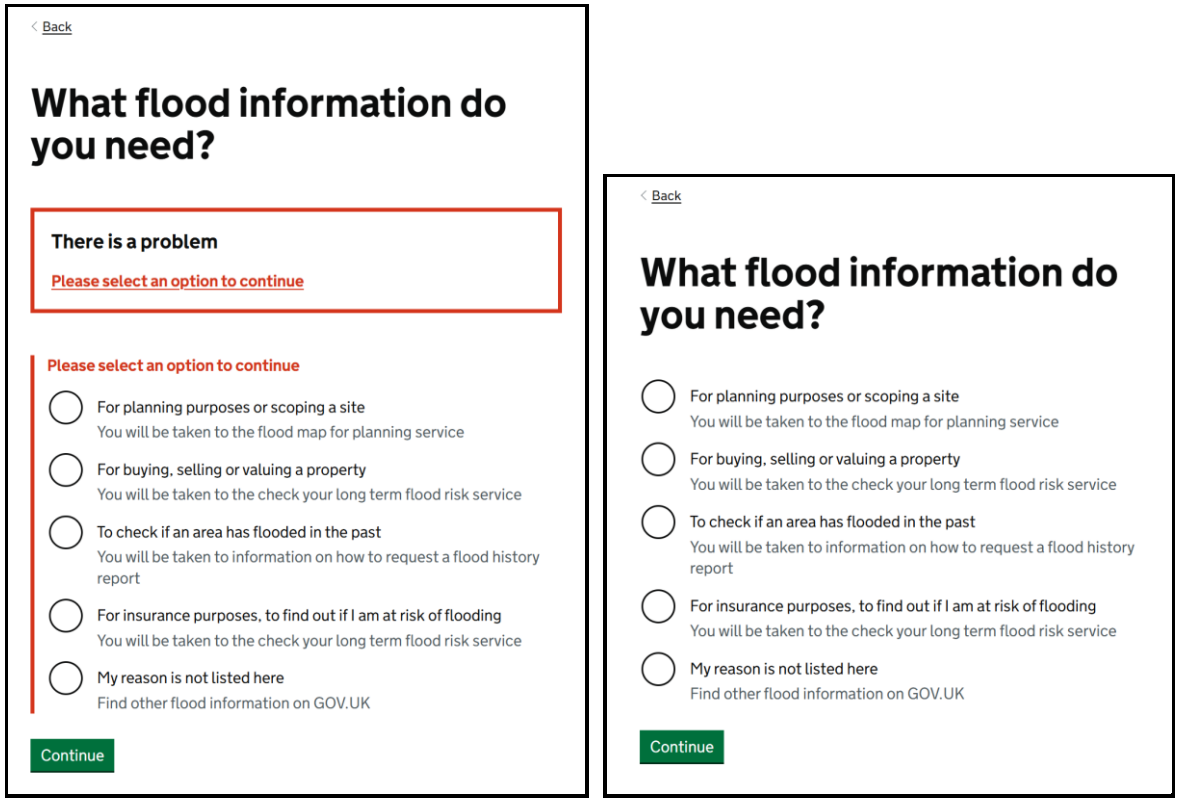
The ‘Back’ link was it did not work as expected on a GOV.UK Design System platform.

Reference:
Usability & GOV.UK Design System requirement

Issue ID: DAC_Back_Link_Usability_01

URL: https://fmp2-pre.aws.defra.cloud/triage
Page title: What flood information do you need - Flood map for planning - GOV.UK
Journey: 1.2

Screenshot:



Throughout the service, a ‘Back’ link is present which users expect upon interaction it would take them directly to the previous page. However, when triggering error handling on the page; upon activating the link the first time the error handling is removed, then activating the link a second time will take users to the previous page.

Current code ref(s):
body > div:nth-child(6) > a

```
<a href="javascript:history.back()" class="govuk-back-link">Back</a>
```

Screen Reader user comments:
"With the error summary on screen, use of the 'Back' link did not take me to previous page as expected; but only refreshed the page, removing the error summary. A second press of the 'Back' link was needed to return to go back a page.

This was problematic because I was not initially aware that anything had changed on screen, leading me to think that the 'Back' link had failed to work. This behaviour also does not follow the Design System guidelines, which breaks consistency in line with other government services.

Ensuring that the 'Back' link works as expected, taking me to the previous page with a single press of the link would reassure me that the service is behaving as expected, as well as promoting consistency with other government services and the GOV.UK Design System."

Examples of additional instances:
Additional instances of this issue may exist on other pages throughout the website; wherever this issue occurs, they too will need to be resolved.

Solution:
Ensure that the 'Back' link should always take users directly to the previous page, regardless of any error handling on the current page. Error states should not interfere with navigation elements. For more information, please refer to GOV.UK Design System Back link Component.

Custom Checkboxes (Usability)

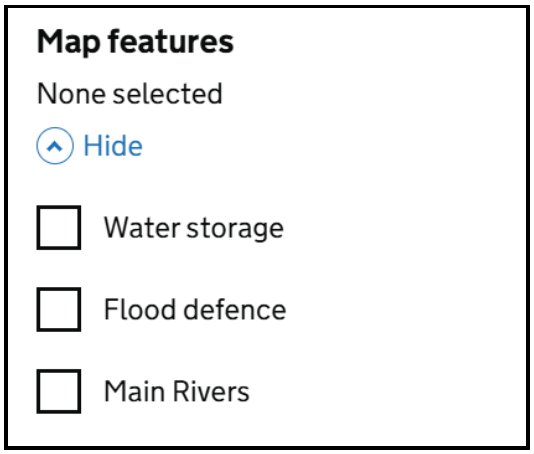
Checkboxes have been implemented as custom buttons instead as native HTML inputs.

Reference:
Usability & GOV.UK Design System requirement

Issue ID: DAC_Custom_Checkboxes_Usability_01

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



There are visible checkboxes present on the page that also behave like checkboxes; however, they have not been implemented as standard HTML checkboxes. Instead, they have been implemented as a <button> with a role of 'switch'.

This is confusing for voice activation users as typically they would use the command 'Click box'; however, upon doing so the checkboxes do not get highlighted as expected.

Current code ref(s):
#content-l0

```
<div id="content-l0" class="fm-c-layers__rows">
  <div class="fm-c-layers__item fm-c-layers__item--icon govuk-body-s">
    <button class="fm-c-layers__button" role="switch" aria-checked="false"
value="fsa"><span class="fm-c-layers__text">Water storage</span></button>
  </div>
  <div class="fm-c-layers__item fm-c-layers__item--icon govuk-body-s">
    <button class="fm-c-layers__button" role="switch" aria-checked="false"
value="fd"><span class="fm-c-layers__text">Flood defence</span></button>
  </div>
  <div class="fm-c-layers__item fm-c-layers__item--icon govuk-body-s">
    <button class="fm-c-layers__button" role="switch" aria-checked="false"
value="mainr"><span class="fm-c-layers__text">Main Rivers</span></button>
  </div>
</div>
```

Voice activation user comments:

"The checkboxes in the 'Map features' section gets picked up as radio buttons by Dragon. I found this confusing as they look like checkboxes and I could check them all, so I expected them to be picked up as checkboxes."

Solution:

It is advised using standard HTML elements to ensure that roles, states and controls and exposed correctly, enabling all users regardless of assistive technology to access and interact with them. For more information, please refer to GOV.UK Design System Checkboxes Components.

Selection Tool (Usability)

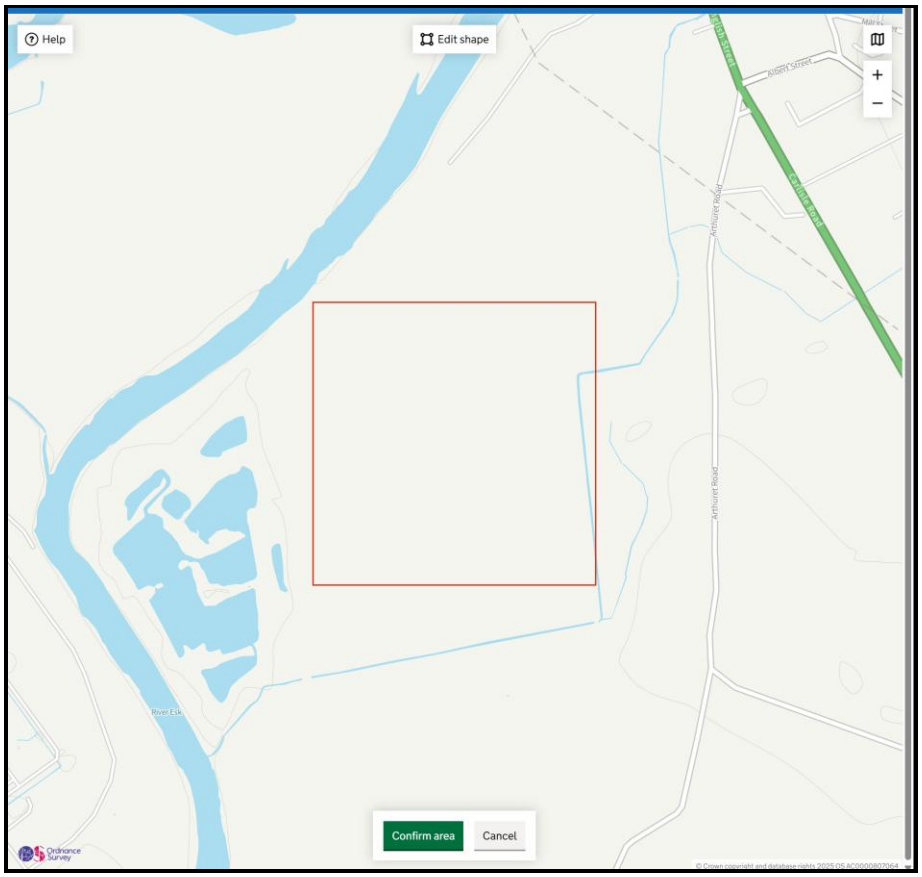
The border depicting the boundary selection was problematic for our low vision analyst.

Reference:
Usability

Issue ID: DAC_Selection_Tool_Usability_01

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:



The border of depicting the boundary selection was problematic for our low vision analyst when viewing the page. The thickness of the border is particularly difficult for our low vision analyst, however, this is not to say that it will be problematic for other users with visual limitations.

Current code ref(s):

#map-viewport

```
<div id="map-viewport" class="fm-o-viewport" role="application" aria-
labelledby="map-viewport-label" aria-owns="map-viewport-features" tabindex="0"
data-fm-viewport="true">
  <div
    id="map-map-container"
    class="fm-o-map-container esri-view esri-view-width-medium esri-view-width-
greater-than-xsmall esri-view-width-greater-than-small esri-view-width-less-than-
large esri-view-width-less-than-xlarge esri-view-height-xlarge esri-view-height-
greater-than-xsmall esri-view-height-greater-than-small esri-view-height-greater-
than-medium esri-view-height-greater-than-large esri-view-orientation-portrait"
  >
[…]
```

Low Vision user comments:

"When adding a boundary the selection tool is rendered with thin lines that are difficult to distinguish due to glare from the background. Increasing the thickness or contrast of these lines would improve visibility, making the tool easier to locate and use."

Solution:

Consider increasing the thickness of the boundary lines so that they are more distinguishable for low vision users.

High Contrast Mode (Usability)

Important indicators did not display correctly when viewing the site in Windows High Contrast Mode.

Reference:
Usability

Issue ID: DAC_High_Contrast_Mode_Usability_01

URL: https://fmp2-pre.aws.defra.cloud/map?lyr=fd,mainr,...
Page title: Map – Flood map for planning – GOV.UK
Journey: 1.4

Screenshot:

When viewing the service in Windows High Contrast Mode, our low vision analysts had difficulty identifying some key indicators used to identify the purpose of interactive buttons.

Current code ref(s):
#map-viewport

```
<div id="map-viewport" class="fm-o-viewport" role="application" aria-
labelledby="map-viewport-label" aria-owns="map-viewport-features" tabindex="0"
data-fm-viewport="true">
  <div
    id="map-map-container"
    class="fm-o-map-container esri-view esri-view-width-medium esri-view-width-
greater-than-xsmall esri-view-width-greater-than-small esri-view-width-less-than-
large esri-view-width-less-than-xlarge esri-view-height-xlarge esri-view-height-
greater-than-xsmall esri-view-height-greater-than-small esri-view-height-greater-
than-medium esri-view-height-greater-than-large esri-view-orientation-portrait"
  >
[…]
```

Low Vision user comments:

“When WHCM (Windows High Contrast Mode) is applied, critical map navigation features, such as the key and map controls, fail to display, significantly reducing access to vital on-screen elements.

A major issue arises with the key modal display, where the close (‘X’) icon remains black against the WHCM background, making it invisible and unusable. This prevents users from successfully closing the modal, thus hindering navigation. Similarly, map controls in the top right corner fail to invert properly, meaning essential interactions are lost.

Given that WHCM is widely used by a significant demographic, ensuring full content visibility and functional parity with sighted users' experiences is essential.”

Solution:

Ensure that important content is correctly displayed for users navigating the service when Windows High Contrast Mode is active.

Hint Text (Usability)

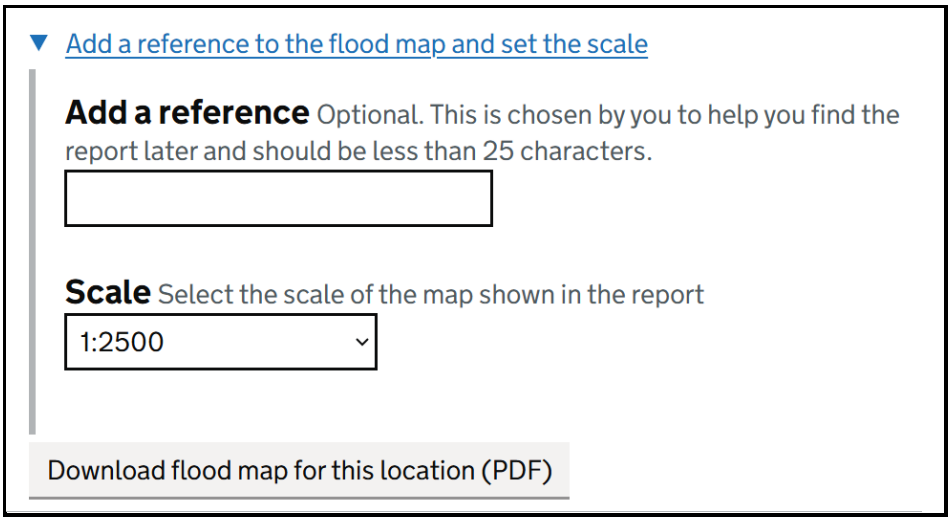
The heading mark-up also encapsulates the hint text.

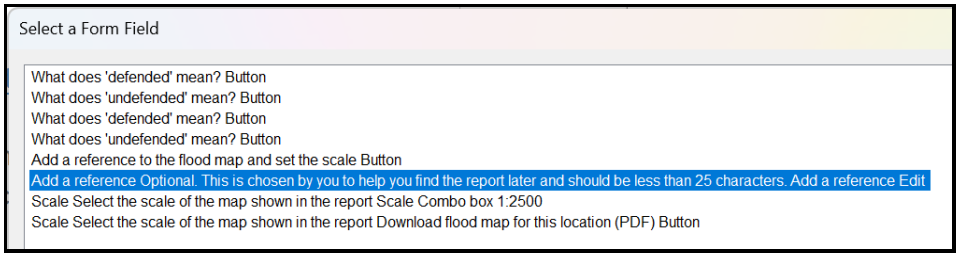
Reference:
Usability & GOV.UK Design System requirement

Issue ID: DAC_Hint_Text_Usability_01

URL: https://fmp2-pre.aws.defra.cloud/results?polygon...
Page title: Location flood zone results - Flood map for planning - GOV.UK
Journey: 1.5

Screenshot:





The headings are present which encapsulates both the text label for the associated inputs along with the hint text that is used to describe both. The hint text should be implemented independently of the heading mark-up to ensure the purpose of headings is clear.

Current code ref(s):

#main-content > div > div > div:nth-child(10) > div.govuk-summary-card__content > dl > div:nth-child(2) > dd > details > div

```
<div class="govuk-details__text">
  <form class="form" id="product-1-form" method="POST" action="product-1">
    <input name="polygon" type="hidden"
value="[[418961.04,309078.53],[419438.78,309078.53],[419438.78,308600.8],[418961.0
4,308600.8],[418961.04,309078.53]]" />
    <input name="isRiskAdminArea" type="hidden" value="false" />

    <div class="govuk-form-group">
      <h3 class="govuk-label-wrapper">
        <label class="govuk-label--m" for="reference">
          Add a reference
        </label>
        <span class="govuk-hint govuk-hint--block">
          Optional. This is chosen by you to help you find the report later and
should be less than 25 characters.
        </span>
      </h3>
      <input class="govuk-input form-control govuk-input--width-20" id="reference"
name="reference" type="text" maxlength="25" />
    </div>

    <div class="govuk-form-group">
      <h3 class="govuk-label-wrapper">
        <label class="govuk-label--m" for="scale"> Scale </label>
        <span class="govuk-hint govuk-hint--block">
          Select the scale of the map shown in the report
        </span>
      </h3>
      <select class="govuk-select" id="scale" name="scale">
        <option value="2500">1:2500</option>
        <option value="10000">1:10000</option>
        <option value="25000">1:25000</option>
        <option value="50000">1:50000</option>
      </select>
    </div>
  </form>
</div>
```

Screen Reader user comments:

“The ‘Scale’ combo box and ‘Download flood map for this location PDF’ button was held within some kind of container. This only became apparent when viewed within the JAWS Forms dialog. This made the combo box and button time-consuming to understand.

Removing the container should make the elements easier to understand when using the JAWS Forms dialog.

I discovered this issue with JAWS. It did not occur with VoiceOver, TalkBack or NVDA.”

Solution:

Remove the hint text from the heading mark-up; and instead implement it as paragraph text and provide it with an ID which can be referenced via the ‘aria-describedby’ attribute provided to each input.

Appendix I

Journeys

Journey 1 - Proceeding through the service

1. Get flood risk information for planning in England
   https://fmp2-pre.aws.defra.cloud/
   a. Test this page
   b. Click ‘Start now’

2. What flood information do you need?
   a. Test this page
   b. Click the ‘For planning purposes or scoping a site’ radio button
   c. Click ‘Continue’

3. Find the location
   a. Test this page
   b. Click the ‘Place or postcode’ radio button
   c. Type ‘SA10 6FG’ into the ‘Postcode’ edit field
   d. Click the ‘National Grid Reference (NGR)’ radio button
   e. Type ‘SJ8632197947’ into the ‘National Grid Reference (NGR)’ edit field
   f. Click the ‘Easting and northing’ radio button
   g. Type ‘123456’ into the ‘Easting’ edit field
   h. Type ‘654321’ into the ‘Northing’ edit field
   i. Click ‘Skip to map’

4. Flood map for planning
   a. Test this page
   b. Test all Menu sections and filter components
   c. Test the ‘Search’ function
   d. Test the ‘Key’ function
   e. Test the ‘Map style’ function
   f. Test the ‘Zoom in’ and ‘Zoom out’ functions
   g. Select an area on the map to view information
   h. Click ‘Add’ for ‘Get a boundary report’
   i. Click ‘Edit shape’
   j. Click ‘Confirm area’
   k. Click ‘Edit’
   l. Click ‘Update area’
   m. Click ‘Get summary report’

5. This location is in flood zone 1
    a. Test this page
    b. Click the ‘Add a reference to the flood map and set the scale’ accordion
    c. Type ‘DACtest’ into the ‘Add a reference’ edit field
    d. Click the ‘Download flood map for this location (PDF)’ button (PDF Out of scope)
    e. Click ‘Order flood risk data
6. Order your flood risk data
    a. Test this page
    b. Type ‘Sam B DAC’ into the ‘Full name’ edit field
    c. Type your DAC email into the ‘Email address’ edit field
    d. Click ‘Continue’

7. Check your details before requesting your data
    a. Test this page
    b. Click ‘Order flood risk data’

8. Request submitted
    a. Test this page

Appendix II

Classification of Accessibility Issues

The following scoring system was used to indicate the status of the sites with regards to each W3C WAI checkpoint up to and including Level AA:

Status	Description
Pass (M) Medium Priority **Pass (H) High Priority**	The service meets the requirements of the checkpoint.
Fail (M) Medium Priority	The service fails to meet the requirements against AA criteria measured against WCAG 2.2
Fail (H) High Priority	The service fails to meet the requirements against A criteria measured against WCAG 2.2 and more severe accessibility issues were identified.
Not Applicable (N/A)	No content was found on the service to which the checkpoint would relate.
Out of scope	Areas which fail to meet the requirements against AAA criteria measured against WCAG 2.2 are not in scope for the purposes of this audit.

Principle 1: Perceivable – Information and users interface components must be presentable to users in ways they can perceive.	
Non-text Content: 1.1.1 All non-text content that is presented to the user has a text alternative that serves the equivalent purpose. **(Level A)**	**Pass (H)**
Audio-only and Video-only (Pre-recorded): 1.2.1 For pre-recorded audio-only and pre-recorded video-only media, the following are true, except when the audio or video is a media alternative for text and is clearly labelled as such: • **Pre-recorded Audio-only** An alternative for time-based media is provided that presents equivalent information for pre-recorded audio-only content. • **Pre-recorded Video-only** Either an alternative for time-based media or an audio track is provided that presents equivalent information for pre-recorded video-only content. **(Level A)**	**Not Applicable (N/A)**
Captions (Pre-recorded): 1.2.2 Captions are provided for all pre-recorded audio content in synchronized media, except when the media is a media alternative for text and is clearly labelled as such. **(Level A)**	**Not Applicable (N/A)**
Audio Description or Media Alternative (Pre-recorded): 1.2.3 An alternative for time-based media or audio description of the pre-recorded video content is provided for synchronized media, except when the media is a media alternative for text and is clearly labelled as such. **(Level A)**	**Not Applicable (N/A)**
Captions (Live): 1.2.4 Captions are provided for all live audio content in synchronized media. **(Level AA)**	**Not Applicable (N/A)**
Audio Description (Pre-recorded): 1.2.5 Audio description is provided for all pre-recorded video content in synchronized media. **(Level AA)**	**Not Applicable (N/A)**
Sign Language (Pre-recorded): 1.2.6 Sign language interpretation is provided for all pre-recorded audio content in synchronized media. **(Level AAA)**	**Out of scope**

Extended Audio Description (Pre-recorded): 1.2.7 Where pauses in foreground audio are insufficient to allow audio descriptions to convey the sense of the video, extended audio description is provided for all pre-recorded video content in synchronized media. **(Level AAA)**	**Out of scope**
Media Alternative (Pre-recorded): 1.2.8 An alternative for time-based media is provided for all pre-recorded synchronized media and for all pre-recorded video-only media. **(Level AAA)**	**Out of scope**
Audio-only (Live): 1.2.9 An alternative for time-based media that presents equivalent information for live audio-only content is provided. **(Level AAA)**	**Out of scope**
Info and Relationships: 1.3.1 Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text. (**Level A)**	**Fail (H)**
Meaningful Sequence: 1.3.2 When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined. **(Level A)**	**Pass (H)**
Sensory Characteristics: 1.3.3 Instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, size, visual location, orientation, or sound. **(Level A)**	**Pass (H)**
Orientation: 1.3.4 Content does not restrict its view and operation to a single display orientation, such as portrait or landscape, unless a specific display orientation is essential. Note: Examples where a particular display orientation may be essential are a bank check, a piano application, slides for a projector or television, or virtual reality content where binary display orientation is not applicable. **(Level AA)**	**Pass (M)**

Identify Input Purpose: 1.3.5 The purpose of each input field collecting information about the user can be programmatically determined when: • The input field serves a purpose identified in the Input Purposes for user interface components section; and • The content is implemented using technologies with support for identifying the expected meaning for form input data. **(Level AA)**	**Pass (M)**
Identify Purpose: 1.3.6 In content implemented using mark-up languages, the purpose of User Interface Components, icons, and regions can be programmatically determined. **(Level AAA)**	**Out of scope**
Use of Colour: 1.4.1 Colour is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element. **(Level A)**	**Fail (H)**
Audio Control: 1.4.2 If any audio on a Web page plays automatically for more than 3 seconds, either a mechanism is available to pause or stop the audio, or a mechanism is available to control audio volume independently from the overall system volume level. **(Level A)**	**Not Applicable (N/A)**
Contrast (Minimum): 1.4.3 The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, except for the following: • **Large Text** Large-scale text and images of large-scale text have a contrast ratio of at least 3:1; • **Incidental** Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement. • **Logotypes** Text that is part of a logo or brand name has no contrast requirement. **(Level AA)**	**Pass (M)**
Resize text: 1.4.4 Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality. **(Level AA)**	**Pass (M)**

Images of Text: 1.4.5 If the technologies being used can achieve the visual presentation, text is used to convey information rather than images of text except for the following: • **Customizable** The image of text can be visually customized to the user's requirements; • **Essential** A particular presentation of text is essential to the information being conveyed. **Note**: Logotypes (text that is part of a logo or brand name) are considered essential. **(Level AA)**	**Not Applicable (N/A)**
Contrast (Enhanced): 1.4.6 The visual presentation of text and images of text has a contrast ratio of at least 7:1, except for the following: • **Large Text** Large-scale text and images of large-scale text have a contrast ratio of at least 4.5:1; • **Incidental** Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement. • **Logotypes** Text that is part of a logo or brand name has no contrast requirement. **(Level AAA)**	**Out of scope**
Low or No Background Audio: 1.4.7 For pre-recorded audio-only content that (1) contains primarily speech in the foreground, (2) is not an audio CAPTCHA or audio logo, and (3) is not vocalization intended to be primarily musical expression such as singing or rapping, at least one of the following is true: • **No Background** The audio does not contain background sounds. • **Turn Off** The background sounds can be turned off. • **20 dB** The background sounds are at least 20 decibels lower than the foreground speech content, with the exception of occasional sounds that last for only one or two seconds. **Note*:*** Per the definition of "decibel," background sound that meets this requirement will be approximately four times quieter than the foreground speech content. **(Level AAA)**	**Out of scope**

Visual Presentation: 1.4.8 For the visual presentation of blocks of text, a mechanism is available to achieve the following: • Foreground and background colours can be selected by the user. • Width is no more than 80 characters or glyphs (40 if CJK). • Text is not justified (aligned to both the left and the right margins). • Line spacing (leading) is at least space-and-a-half within paragraphs, and paragraph spacing is at least 1.5 times larger than the line spacing. • Text can be resized without assistive technology up to 200 percent in a way that does not require the user to scroll horizontally to read a line of text on a full-screen window. **(Level AAA)**	**Out of scope**
Images of Text (No Exception): 1.4.9 Images of text are only used for pure decoration or where a particular presentation of text is essential to the information being conveyed. **Note:** Logotypes (text that is part of a logo or brand name) are considered essential. **(Level AAA)**	**Out of scope**
Reflow: 1.4.10 Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for: • Vertical scrolling content at a width equivalent to 320 CSS pixels; • Horizontal scrolling content at a height equivalent to 256 CSS pixels. Except for parts of the content which require two-dimensional layout for usage or meaning. **Note:** 320 CSS pixels is equivalent to a starting viewport width of 1280 CSS pixels wide at 400% zoom. For web content which are designed to scroll horizontally (e.g. with vertical text), the 256 CSS pixels is equivalent to a starting viewport height of 1024px at 400% zoom. **Note:** Examples of content which requires two-dimensional layout are images required for understanding (such as maps and diagrams), video, games, presentations, data tables (not individual cells), and interfaces where it is necessary to keep toolbars in view while manipulating content. It is acceptable to provide two-dimensional scrolling for such parts of the content. **(Level AA)**	**Fail (M)**

Non-text Contrast: 1.4.11 The visual presentation of the following have a contrast ratio of at least 3:1 against adjacent colour(s): • **User Interface Components** Visual information required to identify user interface components and states, except for inactive components or where the appearance of the component is determined by the user agent and not modified by the author; • **Graphical Objects** Parts of graphics required to understand the content, except when a particular presentation of graphics is essential to the information being conveyed. **(Level AA)**	**Fail (M)**
Text Spacing: 1.4.12 In content implemented using markup languages that support the following text style properties, no loss of content or functionality occurs by setting all of the following and by changing no other style property: • Line height (line spacing) to at least 1.5 times the font size; • Spacing following paragraphs to at least 2 times the font size; • Letter spacing (tracking) to at least 0.12 times the font size; • Word spacing to at least 0.16 times the font size. Exception: Human languages and scripts that do not make use of one or more of these text style properties in written text can conform using only the properties that exist for that combination of language and script. **(Level AA)**	**Pass (M)**

Content on Hover or Focus: 1.4.13 Where receiving and then removing pointer hover or keyboard focus triggers additional content to become visible and then hidden, the following are true: • **Dismissible** A mechanism is available to dismiss the additional content without moving pointer hover or keyboard focus, unless the additional content communicates an input error or does not obscure or replace other content; • **Hoverable** If pointer hover can trigger the additional content, then the pointer can be moved over the additional content without the additional content disappearing; • **Persistent** The additional content remains visible until the hover or focus trigger is removed, the user dismisses it, or its information is no longer valid. **Exception:** The visual presentation of the additional content is controlled by the user agent and is not modified by the author. **Note:** Examples of additional content controlled by the user agent include browser tooltips created through use of the HTML title attribute. **Note:** Custom tooltips, sub-menus, and other nonmodal popups that display on hover and focus are examples of additional content covered by this criterion. **(Level AA)**	**Pass (M)**

Principle 2: Operable – User interface components and navigation must be operable.	
Keyboard: 2.1.1 All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes, except where the underlying function requires input that depends on the path of the user's movement and not just the endpoints. **Note:** This exception relates to the underlying function, not the input technique. For example, if using handwriting to enter text, the input technique (handwriting) requires path-dependent input but the underlying function (text input) does not. **Note:** This does not forbid and should not discourage providing mouse input or other input methods in addition to keyboard operation. **(Level A)**	**Fail (H)**
No Keyboard Trap: 2.1.2 If keyboard focus can be moved to a component of the page using a keyboard interface, then focus can be moved away from that component using only a keyboard interface, and, if it requires more than unmodified arrow or tab keys or other standard exit methods, the user is advised of the method for moving focus away. **Note:** Since any content that does not meet this success criterion can interfere with a user's ability to use the whole page, all content on the Web page (whether it is used to meet other success criteria or not) must meet this success criterion. See Conformance Requirement 5: Non-Interference. **(Level A)**	**Pass (H)**
Keyboard (No Exception): 2.1.3 All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes. **(Level AAA)**	**Out of scope**
Character Key Shortcuts: 2.1.4 If a keyboard shortcut is implemented in content using only letter (including upper- and lower-case letters), punctuation, number, or symbol characters, then at least one of the following is true: • **Turn off** A mechanism is available to turn the shortcut off; • **Remap** A mechanism is available to remap the shortcut to include one or more non-printable keyboard keys (e.g., Ctrl, Alt); • **Active only on focus** The keyboard shortcut for a user interface component is only active when that component has focus. **(Level A)**	**Pass (H)**

Timing Adjustable: 2.2.1 For each time limit that is set by the content, at least one of the following is true: • **Turn off** The user is allowed to turn off the time limit before encountering it; or • **Adjust** The user is allowed to adjust the time limit before encountering it over a wide range that is at least ten times the length of the default setting; or • **Extend** The user is warned before time expires and given at least 20 seconds to extend the time limit with a simple action (for example, "press the space bar"), and the user is allowed to extend the time limit at least ten times; or • **Real-time Exception** The time limit is a required part of a real-time event (for example, an auction), and no alternative to the time limit is possible; or • **Essential Exception** The time limit is essential and extending it would invalidate the activity; or • **20 Hour Exception** The time limit is longer than 20 hours. **Note:** This success criterion helps ensure that users can complete Journeys without unexpected changes in content or context that are a result of a time limit. This success criterion should be considered in conjunction with Success Criterion 3.2.1, which puts limits on changes of content or context as a result of user action. **(Level A)**	**Not Applicable (N/A)**

Pause, Stop, Hide: 2.2.2 For moving, blinking, scrolling, or auto-updating information, all of the following are true: • **Moving, blinking, scrolling** For any moving, blinking or scrolling information that (1) starts automatically, (2) lasts more than five seconds, and (3) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it unless the movement, blinking, or scrolling is part of an activity where it is essential; and • **Auto-updating** For any auto-updating information that (1) starts automatically and (2) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it or to control the frequency of the update unless the auto-updating is part of an activity where it is essential. **Note:** For requirements related to flickering or flashing content, refer to Guideline 2.3. **Note:** Since any content that does not meet this success criterion can interfere with a user's ability to use the whole page, all content on the Web page (whether it is used to meet other success criteria or not) must meet this success criterion. See Conformance Requirement 5: Non-Interference. **Note:** Content that is updated periodically by software or that is streamed to the user agent is not required to preserve or present information that is generated or received between the initiation of the pause and resuming presentation, as this may not be technically possible, and in many situations could be misleading to do so. **Note:** An animation that occurs as part of a preload phase or similar situation can be considered essential if interaction cannot occur during that phase for all users and if not indicating progress could confuse users or cause them to think that content was frozen or broken. **(Level A)**	**Not Applicable (N/A)**
No Timing: 2.2.3 Timing is not an essential part of the event or activity presented by the content, except for non-interactive synchronized media and real-time events. **(Level AAA)**	**Out of scope**
Interruptions: 2.2.4 Interruptions can be postponed or suppressed by the user, except interruptions involving an emergency. **(Level AAA)**	**Out of scope**
Re-authenticating: 2.2.5 When an authenticated session expires, the user can continue the activity without loss of data after re-authenticating. **(Level AAA)**	**Out of scope**

Timeouts: 2.2.6 Users are warned of the duration of any user inactivity that could cause data loss, unless the data is preserved for more than 20 hours when the user does not take any actions. **Note:** Privacy regulations may require explicit user consent before user identification has been authenticated and before user data is preserved. In cases where the user is a minor, explicit consent may not be solicited in most jurisdictions, countries or regions. Consultation with privacy professionals and legal counsel is advised when considering data preservation as an approach to satisfy this success criterion. **(Level AAA)**	**Out of scope**
Three Flashes or Below Threshold: 2.3.1 Web pages do not contain anything that flashes more than three times in any one second period, or the flash is below the general flash and red flash thresholds. **Note:** Since any content that does not meet this success criterion can interfere with a user's ability to use the whole page, all content on the Web page (whether it is used to meet other success criteria or not) must meet this success criterion. See Conformance Requirement 5: Non-Interference. **(Level A)**	**Pass (H)**
Three Flashes: 2.3.2 Web pages do not contain anything that flashes more than three times in any one second period. **(Level AAA)**	**Out of scope**
Animation from Interactions: 2.3.3 Motion animation triggered by interaction can be disabled, unless the animation is essential to the functionality or the information being conveyed. **(Level AAA)**	**Out of scope**
Bypass Blocks: 2.4.1 A mechanism is available to bypass blocks of content that are repeated on multiple Web pages. **(Level A)**	**Pass (H)**
Page Titled: 2.4.2 Web pages have titles that describe topic or purpose. **(Level A)**	**Pass (H)**
Focus Order: 2.4.3 If a Web page can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability.. **(Level A)**	**Fail (H)**

Link Purpose (In Context): 2.4.4 The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context, except where the purpose of the link would be ambiguous to users in general. **(Level A)**	**Pass (H)**
Multiple Ways: 2.4.5 More than one way is available to locate a Web page within a set of Web pages except where the Web Page is the result of, or a step in, a process. **(Level AA)**	**Pass (M)**
Headings and Labels: 2.4.6 Headings and labels describe topic or purpose. **(Level AA)**	**Fail (M)**
Focus Visible: 2.4.7 Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible. **(Level AA)**	**Pass (M)**
Location: 2.4.8 Information about the user's location within a set of Web pages is available. **(Level AAA)**	**Out of scope**
Link Purpose (Link Only): 2.4.9 A mechanism is available to allow the purpose of each link to be identified from link text alone, except where the purpose of the link would be ambiguous to users in general. **(Level AAA)**	**Out of scope**
Section Headings: 2.4.10 Section headings are used to organize the content. **Note:** "Heading" is used in its general sense and includes titles and other ways to add a heading to different types of content. **Note:** This success criterion covers sections within writing, not user interface components. User interface components are covered under Success Criterion 4.1.2. **(Level AAA)**	**Out of scope**
Focus Not Obscured (Minimum): (WCAG 2.2) 2.4.11 When a user interface component receives keyboard focus, the component is not entirely hidden due to author-created content. **(Level AA) [New 2.2]**	**Pass (M)**
Focus Not Obscured (Enhanced): (WCAG 2.2) 2.4.12 When a user interface component receives keyboard focus, no part of the component is hidden by author-created content. **(Level AAA) [New 2.2]**	**Out of scope**

Focus Appearance: (WCAG 2.2) 2.4.13 When the keyboard focus indicator is visible, an area of the focus indicator meets all the following: • is at least as large as the area of a 2 CSS pixel thick perimeter of the unfocused component or sub-component, and • has a contrast ratio of at least 3:1 between the same pixels in the focused and unfocused states. Exceptions: • The focus indicator is determined by the user agent and cannot be adjusted by the author, or • The focus indicator and the indicator's background color are not modified by the author. **Note** What is perceived as the user interface component or sub-component (to determine the perimeter) depends on its visual presentation. The visual presentation includes the component's visible content, border, and component-specific background. It does not include shadow and glow effects outside the component's content, background, or border. **Note** Examples of sub-components that may receive a focus indicator are menu items in an opened drop-down menu, or focusable cells in a grid. **Note** Contrast calculations can be based on colors defined within the technology (such as HTML, CSS and SVG). Pixels modified by user agent resolution enhancements and anti-aliasing can be ignored. **(Level AAA) [New 2.2]**	**Out of scope**

Pointer Gestures: 2.5.1 All functionality that uses multipoint or path-based gestures for operation can be operated with a single pointer without a path-based gesture, unless a multipoint or path-based gesture is essential. **Note:** This requirement applies to web content that interprets pointer actions (i.e. this does not apply to actions that are required to operate the user agent or assistive technology). **(Level A)**	**Pass (H)**
Pointer Cancellation: 2.5.2 For functionality that can be operated using a single pointer, at least one of the following is true: • **No Down-Event** The down-event of the pointer is not used to execute any part of the function; • **Abort or Undo** Completion of the function is on the up-event, and a mechanism is available to abort the function before completion or to undo the function after completion; • **Up Reversal** The up-event reverses any outcome of the preceding down-event; • **Essential** Completing the function on the down-event is essential. **Note:** Functions that emulate a keyboard or numeric keypad key press are considered essential. **Note:** This requirement applies to web content that interprets pointer actions (i.e. this does not apply to actions that are required to operate the user agent or assistive technology). **(Level A)**	**Fail (H)**
Label in Name: 2.5.3 For user interface components with labels that include text or images of text, the name contains the text that is presented visually. **Note:** A best practice is to have the text of the label at the start of the name. **(Level A)**	**Pass (H)**

Motion Actuation: 2.5.4 Functionality that can be operated by device motion or user motion can also be operated by user interface components and responding to the motion can be disabled to prevent accidental actuation, except when: • **Supported Interface** The motion is used to operate functionality through an accessibility supported interface; • **Essential** The motion is essential for the function and doing so would invalidate the activity. **(Level A)**	**Not Applicable (N/A)**
Target Size (Enhanced) 2.5.5 The size of the target for pointer inputs is at least 44 by 44 CSS pixels except when: • **Equivalent** The target is available through an equivalent link or control on the same page that is at least 44 by 44 CSS pixels; • **Inline** The target is in a sentence or block of text; • **User Agent Control** The size of the target is determined by the user agent and is not modified by the author; • **Essential** A particular presentation of the target is essential to the information being conveyed. **(Level AAA)**	**Out of scope**
Concurrent Input Mechanisms : 2.5.6 Web content does not restrict use of input modalities available on a platform except where the restriction is essential, required to ensure the security of the content, or required to respect user settings. **(Level AAA)**	**Out of scope**
Dragging Movements: (WCAG 2.2) 2.5.7 All functionality that uses a dragging movement for operation can be achieved by a single pointer without dragging, unless dragging is essential or the functionality is determined by the user agent and not modified by the author. **Note:** This requirement applies to web content that interprets pointer actions (i.e. this does not apply to actions that are required to operate the user agent or assistive technology). **(Level AA) [New 2.2]**	**Fail (M)**

Target Size (Minimum): (WCAG 2.2) 2.5.8 The size of the target for pointer inputs is at least 24 by 24 CSS pixels, except where: • **Spacing:** The target does not overlap any other target and has a target offset of at least 24 CSS pixels to every adjacent target; • **Equivalent:** The function can be achieved through a different control on the same page that meets this criterion. • **Inline:** The target is in a sentence, or is in a bulleted or numbered list, or its size is otherwise constrained by the line-height of non-target text; • **User agent control:** The size of the target is determined by the user agent and is not modified by the author; • **Essential:** A particular presentation of the target is essential or is legally required for the information being conveyed; **Note:** Targets that allow for values to be selected spatially based on position within the target are considered one target for the purpose of the success criterion. Examples include sliders with granular values, color pickers displaying a gradient of colors, or editable areas where you position the cursor. **Note:** For inline targets the line-height should be interpreted as perpendicular to the flow of text. For example, in a language displayed top to bottom, the line-height would be horizontal. **(Level AA) [New 2.2]**	**Pass (M)**

Principle 3: Understandable – Information and the operation of user interface must be understandable.	
Language of Page: 3.1.1 The default human language of each Web page can be programmatically determined. **(Level A)**	**Pass (H)**
Language of Parts: 3.1.2 The human language of each passage or phrase in the content can be programmatically determined except for proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text. **(Level AA)**	**Pass (M)**
Unusual Words: 3.1.3 A mechanism is available for identifying specific definitions of words or phrases used in an unusual or restricted way, including idioms and jargon. **(Level AAA)**	**Out of scope**
Abbreviations: 3.1.4 A mechanism for identifying the expanded form or meaning of abbreviations is available. **(Level AAA)**	**Out of scope**
Reading Level: 3.1.5 When text requires reading ability more advanced than the lower secondary education level after removal of proper names and titles, supplemental content, or a version that does not require reading ability more advanced than the lower secondary education level, is available. **(Level AAA)**	**Out of scope**
Pronunciation: 3.1.6 A mechanism is available for identifying specific pronunciation of words where meaning of the words, in context, is ambiguous without knowing the pronunciation. **(Level AAA)**	**Out of scope**
On Focus: 3.2.1 When any user interface component receives focus, it does not initiate a change of context. **(Level A)**	**Pass (H)**

On Input: 3.2.2 Changing the setting of any user interface component does not automatically cause a change of context unless the user has been advised of the behaviour before using the component. **(Level A)**	**Pass (H)**
Consistent Navigation: 3.2.3 Navigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative order each time they are repeated, unless a change is initiated by the user. **(Level AA)**	**Pass (M)**
Consistent Identification: 3.2.4 Components that have the same functionality within a set of Web pages are identified consistently. **(Level AA)**	**Pass (M)**
Change on Request: 3.2.5 Changes of context are initiated only by user request or a mechanism is available to turn off such changes. **(Level AAA)**	**Out of scope**
Consistent Help: (WCAG 2.2) 3.2.6 If a web page contains any of the following help mechanisms, and those mechanisms are repeated on multiple web pages within a set of web pages, they occur in the same relative order to other page content, unless a change is initiated by the user: • Human contact details; • Human contact mechanism; • Self-help option; • A fully automated contact mechanism. **Note:** Help mechanisms may be provided directly on the page, or may be provided via a direct link to a different page containing the information. **Note:** For this Success Criterion, the same relative order can be thought of as how the content is ordered when the page is serialized. The visual position of a help mechanism is likely to be consistent across pages for the same page variation (e.g., CSS break-point). The user can initiate a change, such as changing the page's zoom or orientation, which may trigger a different page variation. This criterion is concerned with relative order across pages displayed in the same page variation (e.g., same zoom level and orientation). **(Level A) [New 2.2]**	**Pass (H)**
Error Identification: 3.3.1 If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text. **(Level A)**	**Pass (H)**

Labels or Instructions: 3.3.2 Labels or instructions are provided when content requires user input. **(Level A)**	**Fail (H)**
Error Suggestion: 3.3.3 If an input error is automatically detected and suggestions for correction are known, then the suggestions are provided to the user, unless it would jeopardize the security or purpose of the content. **(Level AA)**	**Pass (M)**
Error Prevention (Legal, Financial, Data): 3.3.4 For Web pages that cause legal commitments or financial transactions for the user to occur, that modify or delete user-controllable data in data storage systems, or that submit user test responses, at least one of the following is true: • **Reversible:** Submissions are reversible. • **Checked:** Data entered by the user is checked for input errors and the user is provided an opportunity to correct them. • **Confirmed:** A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission. **(Level AA)**	**Not Applicable (N/A)**
Help: 3.3.5 Context-sensitive help is available. Provide instructions and cues in context to help inform completion and submission. **(Level AAA)**	**Out of scope**
Error Prevention (All): 3.3.6 For Web pages that require the user to submit information, at least one of the following is true: • **Reversible** Submissions are reversible. • **Checked** Data entered by the user is checked for input errors and the user is provided an opportunity to correct them. • **Confirmed** A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission. **(Level AAA)**	**Out of scope**

Redundant Entry: (WCAG 2.2) 3.3.7 Information previously entered by or provided to the user that is required to be entered again in the same process is either: • auto-populated, or • available for the user to select. **Except when**: • re-entering the information is essential, • the information is required to ensure the security of the content, or • previously entered information is no longer valid. **(Level A) [New 2.2]**	**Fail (H)**
Accessible Authentication: (WCAG 2.2) 3.3.8 A cognitive function test (such as remembering a password or solving a puzzle) is not required for any step in an authentication process unless that step provides at least one of the following: • **Alternative:** Another authentication method that does not rely on a cognitive function test. • **Mechanism:** A mechanism is available to assist the user in completing the cognitive function test. • **Object Recognition:** The cognitive function test is to recognize objects. • **Personal Content:** The cognitive function test is to identify non-text content the user provided to the website. **Note:** "Object recognition" and "Personal content" may be represented by images, video, or audio. **Note:** Examples of mechanisms that satisfy this criterion include: 1. support for password entry by password managers to reduce memory need, and 2. copy and paste to reduce the cognitive burden of re-typing. **(Level AA) [New 2.2]**	**Not Applicable (N/A)**
Accessible Authentication (Enhanced): (WCAG 2.2) 3.3.9 A cognitive function test (such as remembering a password or solving a puzzle) is not required for any step in an authentication process unless that step provides at least one of the following: **Alternative:** Another authentication method that does not rely on a cognitive function test. **Mechanism:** A mechanism is available to assist the user in completing the cognitive function test. **(Level AAA) [New 2.2]**	**Out of scope**

Principle 4: Robust – Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies	
Parsing: WCAG 2.2 4.1.1 In content implemented using mark-up languages, elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and any IDs are unique, except where the specifications allow these features. **Note:** Start and end tags that are missing a critical character in their formation, such as a closing angle bracket or a mismatched attribute value quotation mark are not complete. **(Level A) [Changed 2.2]** **Note: Change in 2.2: Obsolete and removed** This criterion was originally adopted to address problems that Assistive Technology had directly parsing HTML. Assistive Technology no longer has any need to directly parse HTML and, consequently, these problems no longer exists. Accessibility errors failed by this criterion also fail other criteria. This criterion no longer has utility and is removed; the reference has been left for historical purposes to show the original intent. **Note:** This criterion has been removed from WCAG 2.2. In WCAG 2.1 and 2.0, Success Criterion 4.1.1 Parsing should be considered as **always satisfied** for any content using HTML or XML.	**Pass (H)**
Name, Role, Value: 4.1.2 For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies. **Note:** This success criterion is primarily for Web authors who develop or script their own user interface components. For example, standard HTML controls already meet this success criterion when used according to specification. **(Level A)**	**Fail (H)**
Status Messages 4.1.3 In content implemented using markup languages, status messages can be programmatically determined through role or properties such that they can be presented to the user by assistive technologies without receiving focus. **(Level AA)**	**Pass (M)**

Appendix III

The Process

The service is measured against the Web Accessibility Initiative's (WAI) Web Content Accessibility Guidelines 2.2 to give accurate feedback on any non-compliant issues. To attain our accreditation all A and AA criteria must be achieved.

To give a more accurate review of the service the DAC team employ two differing testing processes.

The first is a manual technical audit using automated tools and the second a dedicated team of user testers with differing disabilities test using a range of adaptive technologies. The findings of both testing teams are then combined to give the client far more accurate feedback on the service.

By using the testing team in conjunction with an automated procedure a more accurate set of results are made available.

This report combines technical auditing with disabled user feedback. The test does not list each specific area that requires change but highlights patterns of problems where they exist. Each section of the report includes a qualifying statement of pass, fail or recommendation to help developers quickly identify which parts of the service need the most urgent attention.

CRITERIA

High Priority

The digital product has one or more issues that urgently need remediation. There will be a list of actions that the developers need to address to make sure that the product is functional for users of assistive technology.

Medium Priority

The digital product has one or more issues that need remediation before meeting the WCAG 2.2 AA Standard. There will be a list of actions that the developers need to address to make sure that the product meets the expectations of the DAC testing team.

Low Priority

The digital product has one or more issues that would cause minor barriers to users of assistive technology. While not necessary to meet the WCAG 2.2 AA Standard, these issues affect users negatively and should be remediated.

Usability

The digital product may have one or more issues that could cause minor difficulties to users of assistive technology. While not necessary to meet the WCAG 2.2 AA Standard, these issues were found to hinder users.

DAC Testing Procedure

The service is tested by a team of experienced auditors and analysts, many of who are disabled individuals and users of adaptive technology. The combination of subjective pan-disability user feedback and comprehensive technical auditing allows us to measure how the service performs technically and practically, thereby offering an essential added dimension to our test results that other methods of testing cannot provide.

User Testing

Manual accessibility checking was conducted by a team of disabled individuals, using a range of adaptive technologies (hardware and software designed to facilitate the use of computers by people with disabilities). This may include:

NVDA: a screen reader and application used by those who are blind.
ZoomText: a magnification application used by those with low vision.
JAWS: a screen reader used by blind people to access pages.
Dragon Naturally Speaking: voice activated software used by those that do not use a conventional input device such as a keyboard or mouse.
Switch Access: used by those with severe mobility impairments to input commands to a computer.
Keyboard Only: some users with mobility impairments have difficulty making precise movements required by pointing devices such as a mouse; therefore, a keyboard is used as the exclusive input device.
Readability: Manual checks were made to assess the suitability of a page for those with colour blindness and dyslexia.
Deaf/Hard of hearing: Manual checks were made to assess the suitability of a page for those with hearing impairments.
Learning difficulties: Manual checks were made to assess the suitability of a page for those with learning difficulties.
Reflow: tests with screen size of 1280 x 1024px, at 400% browser magnification
Text Spacing: tests with larger Line height, and larger Paragraph, Word and Letter spacing.

Technical Auditing

Technical auditing involves the experienced application of a number of technical auditing and standards compliance assessment tools. This combined with an extensive knowledge of WCAG, its application and wider global practice provides the DAC service with further credibility and quality.