



Digital Accessibility Centre

Accessibility Audit Report for the Environment Agency: Check for Flooding

Company	Environment Agency
Date	18 th September 2020
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Standard	WCAG 2.1

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Contents

Digital Accessibility Centre.....	1
Accessibility Audit Report for the Environment Agency: Check for Flooding	1
Document Control.....	2
Contents.....	3
Executive Summary.....	5
Scope.....	7
Tasks.....	7
Browser matrix and Assistive Technology (AT) combinations.....	8
Summary Graphs.....	9
Analyst Feedback	9
WCAG 2.1 Breakdown.....	10
Audit Results	11
Nested top-level landmark (A).....	12
Issue ID: DAC_Landmark_Aside_NotTopLevel_01	12
Label not descriptive (A)	14
Issue ID: DAC_Form_Label_NonDescriptive_01.....	14
Semantically Unlabelled Fields (A).....	15
Issue ID: DAC_Form_Label_Missing_01.....	15
Visual Headings not marked up (A)	16
Issue ID: DAC_Heading_Visual_01	16
Popup start location (A).....	18
Issue ID: DAC_Focus_Location_01	18
Popup Layer does not get focus (A).....	20
Issue ID: DAC_Popup_Focus_01	20
Popup not modal (A).....	22
Issue ID: DAC_Popup_NotModal_01	22
Focus order (Modal) (A).....	24
Issue ID: DAC_Focus_Order_01	24
Decorative images with alternate text (A).....	26
Issue ID: DAC_Image_Alt_Decorative_01.....	26
PDF not marked up (A).....	28
Issue ID: DAC_NonHTML_Untagged_01	28
Visual relationships (A)	29
Issue ID: DAC_Content_Visual_01	29
Bleed-through (A)	31
Issue ID: DAC_BleedThrough_01	31
No Activation button (A).....	32
Issue ID: DAC_Update_OnInput_01.....	32
Visual information [Map] (A)	33
Issue ID: DAC_Image_Alternative_01	33
Skip Link does not work (A).....	34



Issue ID: DAC_Link_Skip_01	34
TITLE attribute used as tooltip (AA)	35
Issue ID: DAC_Content_Tooltip_01	35
Error not advised to screen reader (AA)	36
Issue ID: DAC_Form_Error_NoIndication_01	36
Link text insufficient (AAA)	37
Issue ID: DAC_Link_Text_Insufficient_01	37
All page content must be contained by landmarks (N/A)	38
Issue ID: DAC_Landmarks_01	38
Empty Description Data (N/A)	40
Issue ID: DAC_List_Description_Empty_01.....	40
Element Sequence (A – GDS Exception)	42
Issue ID: DAC_Content_Sequence_Meaningful_01.....	42
Issue ID: DAC_Content_Sequence_Meaningful_02.....	43
Punctuation, Spelling and Grammar (N/A)	44
Issue ID: DAC_Grammar_01.....	44
End of Report	44
Appendix I	45
Tasks.....	45
Appendix II	46
Classification of Accessibility Issues	46
Appendix III	67
The Process	67
CRITERIA.....	68
DAC Testing Procedure	69
Appendix IV	70
Visually Hidden Text for Screen Reader Users.....	70
Focus Highlight for Keyboard Only Users	71
Skip to content.....	72
Tooltips.....	73
Error message best practices	75
FIN.	75



Executive Summary

An accessibility audit for the **Environment Agency's Check for flooding** website was carried out by the Digital Accessibility Centre (DAC) user/technical team on the **2nd of September 2020**.

The **Check for flooding** website was assessed against the Web Content [Accessibility Guidelines WCAG 2.1](#).

This document incorporates the findings regarding any accessibility barriers identified during the testing process.

The majority of issues found will affect **Screen Reader** users, as there are many items without descriptive text or that have not been associated with the text. This can be seen on many of the form fields encountered where the programmatic association between field and label were either not present or incorrectly implemented. This lack of descriptions was also found on non-text content like the map of the extent of flooding. The map area had a number of issues (the lack screen reader relatable content notwithstanding). Examples are updates not advised to users, neither are errors. The visual structure of the page was not always correct; having some primary areas inside other primary areas, visual headings (text that introduces other content) not marked up semantically, and information being read out to screen reader users when it shouldn't.

It was also found that some tables had empty parts that screen reader users were not warned of.

The main issue for **Keyboard** users was the way that they interacted with popup screens (dialogs/modals) as the order of elements was very confusing; focus started in unexpected locations, did not follow a logical order and users could often interact with the page behind the popup, even though they could not see it. This was if the popup was even navigable by keyboard.

The "title" attribute used for simple tooltips did not increase in size with the other text; unfortunately, this 'default' behaviour did not allow users with **Low Vision** to see them easily.

It was also found that downloadable **PDFs** were not saved in a format that was accessible, and so could not be read correctly by assistive technology.

It was also found that some screen reader users may miss some content as they are located after the pages "call-to-action" element. This is a known issue with GDS styling, and so we are assuming this will not be fixed.



Positive Feedback:

Having the Severity in the page title and the main heading of the page makes it easy for screen reader users to determine if action is needed quickly.

e.g. “ Severe flood warning for Areas near the Wootton Brook in the Collingtree, Merefield and Shelfleys parts of Northampton - GOV.UK”

Note: Although tested, there were no mobile specific issues.



Scope

Tasks

Brief Task and/or URLs are listed below along with the specific browser and AT set.

URL: <https://lfw-tst.aws.defra.cloud/start-page>

See [Appendix I](#) for a full list of tasks and instructions



Browser matrix and Assistive Technology (AT) combinations

Desktop

User type	Operating System (OS)	Browser	Assistive Technology
Blind	Windows	IE11	JAWS 18 and 2019
		Firefox	NVDA
Mobility	Windows	IE11	Dragon Voice Activation v15
Mobility	Windows	Chrome	Keyboard
		IE11	Keyboard
Deaf	Windows	Chrome	-
Colour blind/Dyslexia	Windows	Chrome	-
Low Vision	Windows	Chrome	Screen Magnification, Reflow *, Text Spacing †
		IE11	System inverted colours
Cognitive Impaired/Asperger's/ Anxiety	Windows	Chrome	-

* **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.

Mobile/Tablet

User type	Operating System (OS)	Browser	Assistive Technology
Blind	iOS	Safari	VoiceOver
	Android	Android browser	TalkBack/ Voice Assistant
Mobility	iOS	Safari	-
	Android	Android Browser	-
Deaf	iOS	Safari	-
Colour blind/ Dyslexia	Android/ iOS	Android browser/ Safari	-
Low Vision	Android	Android browser	Magnification
	iOS	Safari	System inverted colours



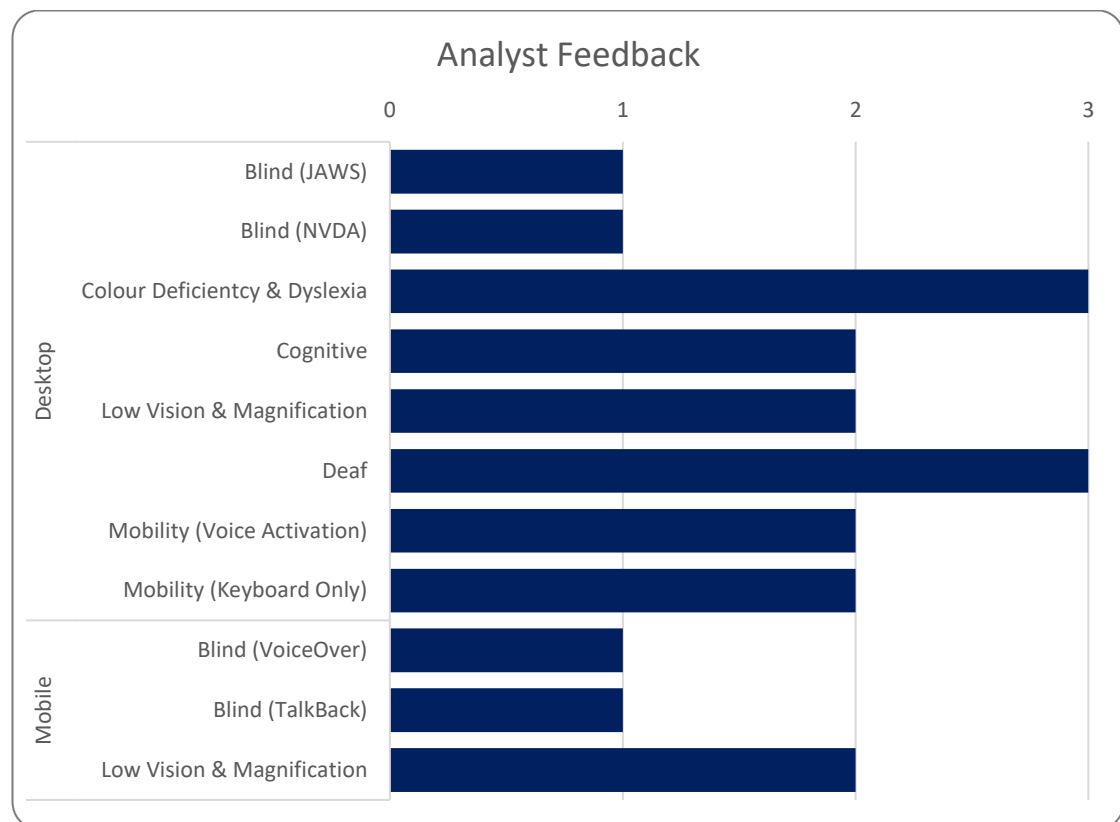
Summary Graphs

Analyst Feedback

Our analysts provided their overall feedback on the website.

This was rated from 0 – could not complete to 3 – Completed independently, no issues.

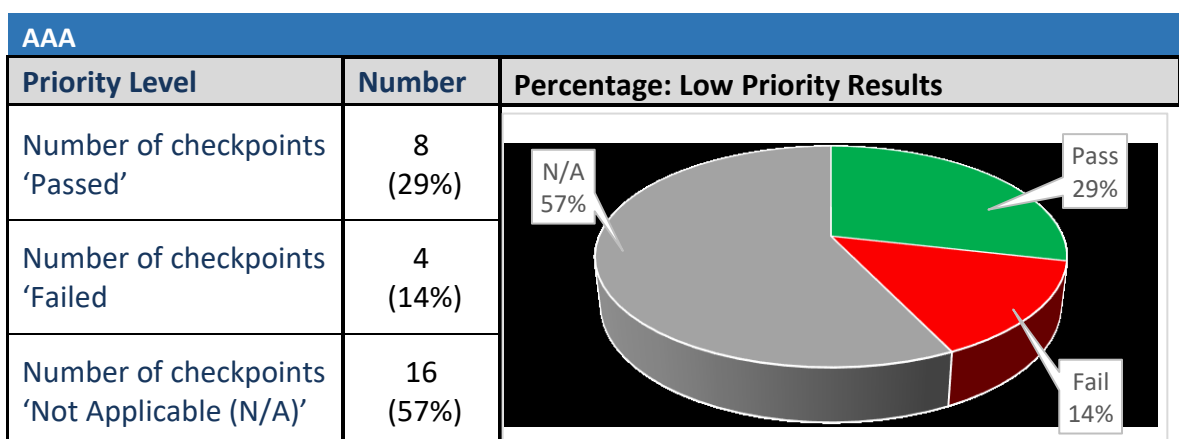
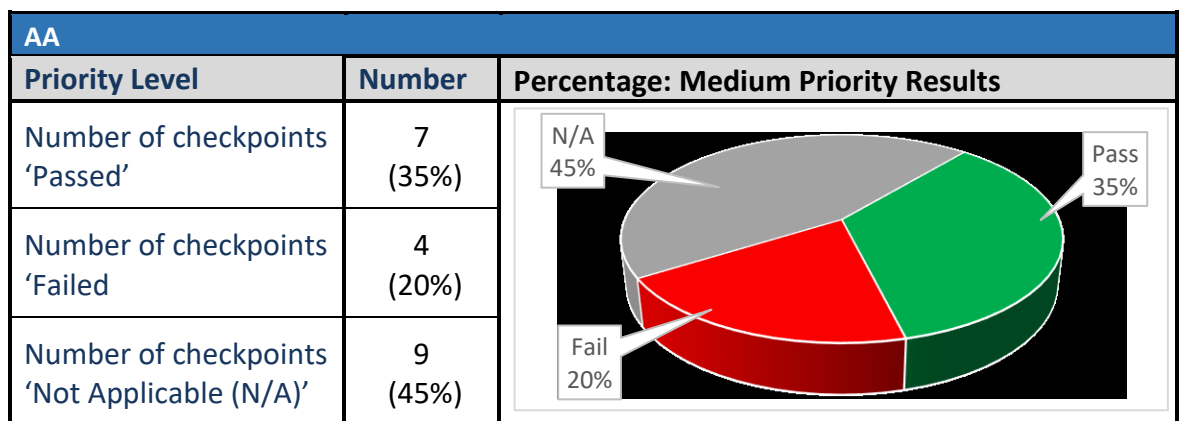
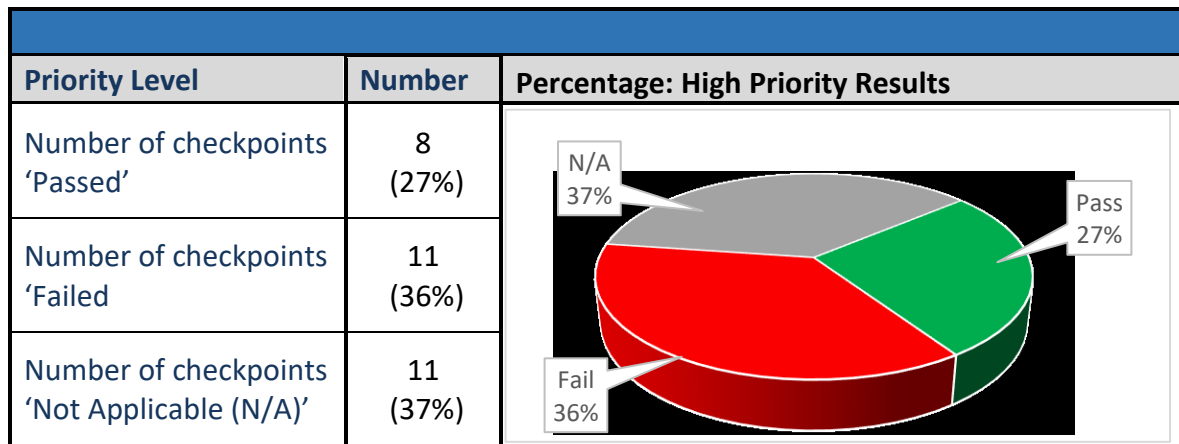
Key:	
0	Could not complete on my own
1	Completed independently but with major issues
2	Completed independently but with minor issues
3	Completed independently, no issues



WCAG 2.1 Breakdown

The graph below details the number of checkpoints that passed, failed or were not applicable to the website.

Please refer to the [Classification of Accessibility Issues](#) for more information.



Audit Results

These are the results of the Digital Accessibility Centre accessibility audit by section. Each area contains a reference to the WCAG success criteria, a brief overview of the issue encountered, a description of issues found along with user testing commentaries and solutions.

In order for the website to be eligible for a Digital Accessibility Centre certification, and fall in line with WCAG 2.1 requirements, improvements need to be made in the following areas.



A

- [Nested top-level landmark](#)
- [Label not descriptive](#)
- [Semantically Unlabelled Fields](#)
- [Visual Headings not marked up](#)
- [Popup start location](#)
- [Popup Layer does not get focus](#)
- [Popup not modal](#)
- [Focus order \(Modal\)](#)
- [Decorative images with alternate text](#)
- [PDF not marked up](#)
- [Visual relationships](#)
- [Bleed-through](#)
- [No Activation button](#)
- [Visual information \[Map\]](#)
- [Skip Link does not work](#)



AA

- [TITLE attribute used as tooltip](#)
- [Error not advised to screen reader](#)



AAA

- [Link text insufficient](#)



Nested top-level landmark (A)

Top level landmarks should not be nested inside others.

WCAG Reference:

4.1.1 Parsing – Level A

[Understanding Parsing](#) | [How to Meet Parsing](#)

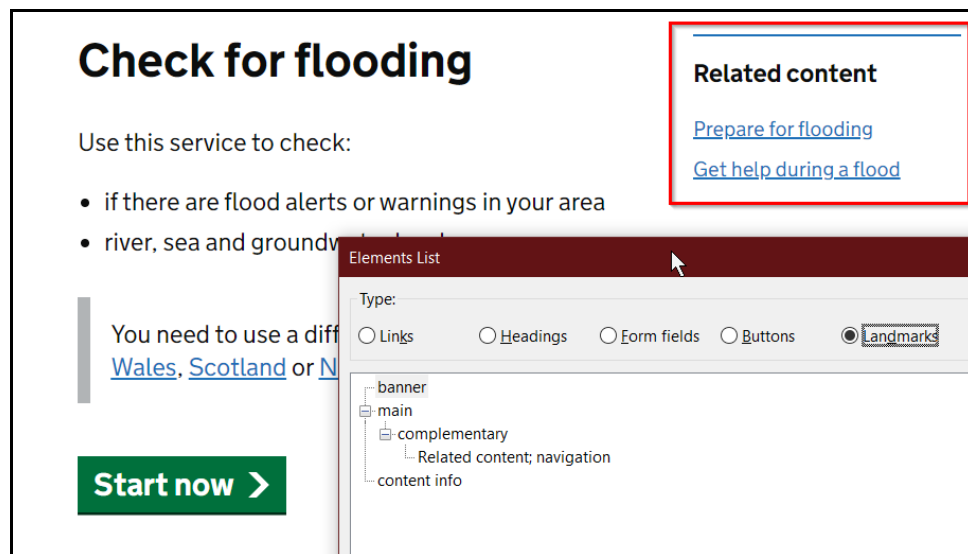
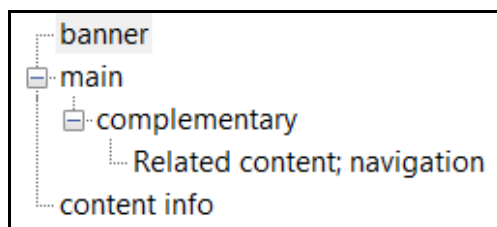
Issue ID: DAC_Landmark_Aside_NotTopLevel_01

Page Title: Check if a location in England is at risk of flooding now - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/start-page>

Task: 1

Screen Shot:



The complementary landmark is contained in another landmark.
In this context, this is incorrectly nested.

Current Code Ref(s): aside

```
<aside class="defra-related-items" role="complementary">
```

Related Element(s): #main-content

Solution:

Ensure the complementary landmark or aside is at top level.

There are very specific instances where an `<aside>` tag is allowed in another landmark; this situation is not one of them.

Ensure the `<aside>` is given primary level landmark status by removing it from the “main” landmark.



Label not descriptive (A)

It was found that some labels were not descriptive of the field they are associated with. Screen reader users rely on accurate descriptions to determine what needs to be entered.

WCAG Reference:

2.4.6 Headings and Labels - Level AA

[Understanding Headings and Labels](#) | [How to Meet Headings and Labels](#)

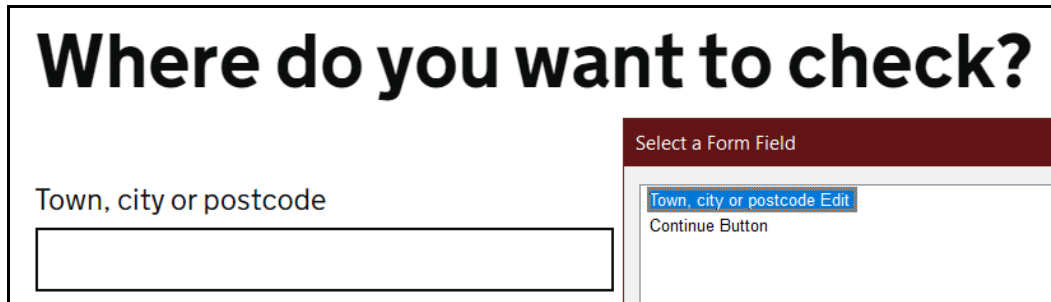
Issue ID: DAC_Form_Label_NonDescriptive_01

Page Title: Find location - Check for flooding - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/find-location>

Task: 2

Screen Shot:



The screenshot shows a web form with the heading "Where do you want to check?". Below the heading is a label "Town, city or postcode" followed by an empty input field. To the right of the input field, a "Select a Form Field" dropdown menu is open, displaying two options: "Town, city or postcode Edit" and "Continue Button".

The label "Town, city or postcode" is not very descriptive of the input field purpose.

Current Code Ref(s): #main-content > div > div > form > div > label

```
<label class="govuk-label" for="location">  
  Town, city or postcode  
</label>
```

Related Element(s):

- #location
- #main-content > div > div > h1

Solution:

The Page Heading is the relevant question for the input field, and the current label is just "hint text". Follow the GDS guidelines on [Hint Text](#).



Semantically Unlabelled Fields (A)

It was found that some fields did not have an associated label. Screen reading software use the labels to read the name of the field.

WCAG Reference:

3.3.2 Labels or Instructions – Level A

[Understanding Labels or Instructions](#) | [How to Meet Labels or Instructions](#)

1.3.1 Info and Relationships – Level A

[Understanding Info and Relationships](#) | [How to Meet Info and Relationships](#)

4.1.2 Name, Role, Value - Level A

[Understanding Name, Role, Value](#) | [How to Meet Name, Role, Value](#)

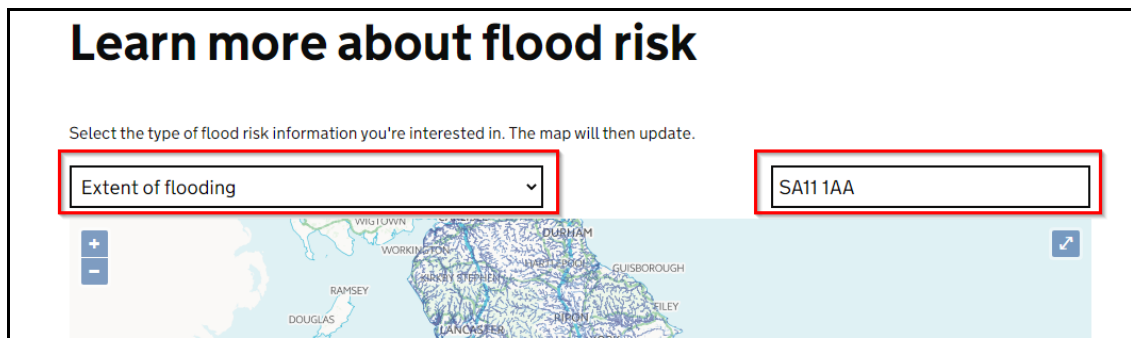
Issue ID: DAC_Form_Label_Missing_01

Page Title: Learn more about flood risk - GOV.UK

URL: <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>

Task: 30

Screen Shot:



The drop down that allows you to select the type of flood risk is not labelled. Whilst visually being able to determine the drop down's function, this is not so obvious to screen reader users. The postcode field does not have a label, visual or otherwise nor any hint text.

Current Code Ref(s): #map-page > div.map-header > div > div.govuk-grid-column-two-thirds > select

```
<select class="govuk-select"> ... </select>
```

Related Element(s): #location

Solution:

Add a label to the form fields. As there is enough information visually for the select, this label can be visually hidden if not aesthetically wanted. Text can be visually hidden by CSS; the "sr-only" class in [Appendix IV](#).

```
<label for="type_of_flood" class="sr-only"></label>
<select class="govuk-select" id="type_of_flood"> ... </select>
```



Visual Headings not marked up (A)

Visual headings were found, but they were not marked up as heading in the html. Screen reader users use the hierarchical structure of the headings to understand the relations to different sections.

WCAG Reference:

1.3.1 Info and Relationships – Level A

[Understanding Info and Relationships](#) | [How to Meet Info and Relationships](#)

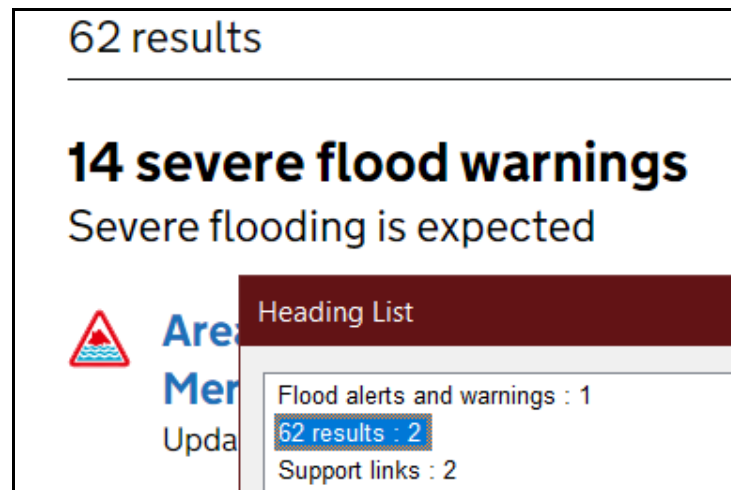
Issue ID: DAC_Heading_Visual_01

Page Title: Flood alerts and warnings - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/alerts-and-warnings>

Task: 5

Screen Shot:



There are a number of headings not marked up that are based on the severity of the flood warnings. e.g. “14 severe flood warnings”

This can also be seen on:

- Task 19: [River and sea levels](#)

Current Code Ref(s): #severe > span

```
<span class="defra-flood-list__group-title">  
  14 severe flood warnings  
  <span>Severe flooding is expected</span>  
</span>
```



Solution:

Add heading mark up at the appropriate level.

In this case it would be `<h3>`

For example:

```
<span class="defra-flood-list_group-title">  
  <h3>14 severe flood warnings</h3>  
  <span>Severe flooding is expected</span>  
</span>
```



Popup start location (A)

When the popup is opened, the focus does not start at the top. Whilst for visual users, this can be seen, but have the trouble of navigating back up the page, screen reader users may not know there is anything 'above' where they start.

WCAG Reference:

1.3.2 Meaningful Sequence - Level A

[Understanding Meaningful Sequence](#) | [How to Meet Meaningful Sequence](#)

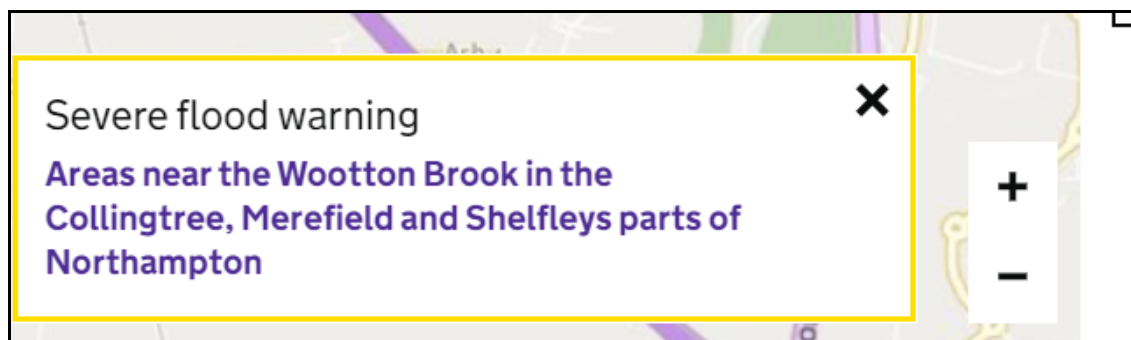
Issue ID: DAC_Focus_Location_01

Page Title: Map view: Severe flood warning for Areas near the Wootton Brook in the Collingtree, Merefield and Shelfleys parts of Northampton - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/target-area/055FWFPUNE04?v=map&lyr=mv,ts,tw,ta&fid=flood.055FWFPUNE04&ext=-0.922973,52.187647,-0.884884,52.216616>

Task: 8

Screen Shot:



The heading for the popup box is the first thing read on the page.

The popup box also cannot be read further using screen reading software.

This is confusing, as the close button has not been announced (being before the heading)



Current Code Ref(s): #info

```
<div class="defra-map-info defra-map-info--open" id="info" role="dialog"
open="true" aria-modal="false" aria-label="Feature information" tabindex="0">
  <button class="defra-map-info__close">Close</button>
  <div class="defra-map-info__container">
    <h2 class="govuk-body govuk-!-margin-bottom-1">Severe flood warning</h2>
    <p class="govuk-body-s govuk-!-margin-bottom-1"><strong>
      <a class="defra-map-info__link" href="/target-area/055FWFPUNE04">
        Areas near the Wootton Brook in the Collingtree,
        Merefield and Shelfleys parts of Northampton
      </a>
    </strong></p>
  </div>
</div>
```

Solution:

It is advised to point the focus to the dialog so the close button is announced, and ensure it is modal (traps the user within until they close it.)



Popup Layer does not get focus (A)

If a users action causes a new layer to popup, users focus should be taken to it.

WCAG Reference:

2.4.3 Focus Order – Level A

[Understanding Focus Order](#) | [How to Meet Focus Order](#)

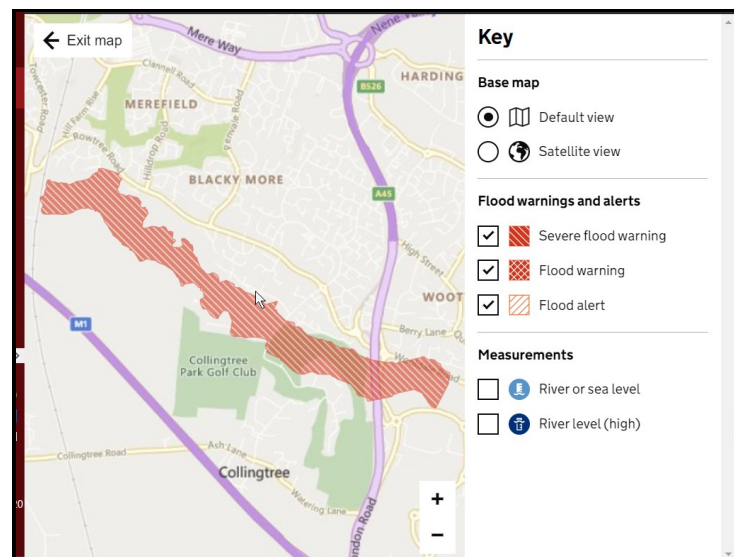
Issue ID: DAC_Popup_Focus_01

Page Title: Map view: Severe flood warning for Areas near the Wootton Brook in the Collingtree, Merefield and Shelfleys parts of Northampton - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/target-area/055FWFPUNE04?v=map&lyr=mv,ts,tw,ta&ext=-0.922973,52.187647,-0.884884,52.216616>

Task: 8

Screen Shot:



After closing the popup, focus returns to the page that is behind the map. Only then is it clear that the map is just another popup (and is not modal).

The map dialog can be accessed, but only if the keyboard/screen reader user travels past the footer.

Current Code Ref(s): #map

```
<div id="map" class="defra-map" role="dialog" open="true" aria-modal="true" aria-label="Map view" tabindex="0"> ... </div>
```



Solution:

Ensure that when a new popup is opened, that focus is moved to the top of the popup. Ensure that the keyboard focus navigates popups in a “first in – last out” sequence, as they are opened and closed.

Focus can be moved in the same JavaScript functions as the open/close ones using the in-built function `.focus()`;



Popup not modal (A)

The popup layer/dialog box allows keyboard users to 'escape' the popup and move onto the background and interact, even though the user may not be able to see what they are doing due to the popup in the foreground.

WCAG Reference:

2.4.3 Focus Order – Level A

[Understanding Focus Order](#) | [How to Meet Focus Order](#)

1.3.2 Meaningful Sequence – Level A

[Understanding Meaningful Sequence](#) | [How to Meet Meaningful Sequence](#)

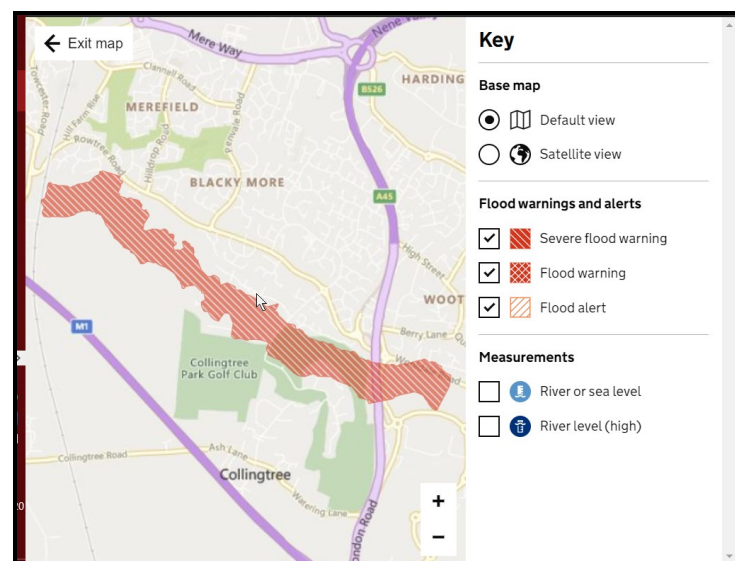
Issue ID: DAC_Popup_NotModal_01

Page Title: Map view: Severe flood warning for Areas near the Wootton Brook in the Collingtree, Merefield and Shelfleys parts of Northampton - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/target-area/055FWFPUNE04?v=map&lyr=mv,ts,tw,ta&ext=-0.922973,52.187647,-0.884884,52.216616>

Task: 8

Screen Shot:



After closing the popup, focus returns to the page that is behind the map. It was only then is it clear that the map is just another popup but it is not modal.

Current Code Ref(s): #map

```
<div id="map" class="defra-map" role="dialog" open="true" aria-modal="true" aria-label="Map view" tabindex="0"> ... </div>
```



Solution:

Ensure that the focus does not leave modals until a new modal is added, or the modal's close button is activated.



Focus order (Modal) (A)

The containing layer of a popup has been added to the tab order. This means the layer will read all items inside of it to screen reader users when in focus. It is also a unnecessary and unexpected focus stop for keyboard users.

WCAG Reference:

2.4.3 Focus Order – Level A

[Understanding Focus Order](#) | [How to Meet Focus Order](#)

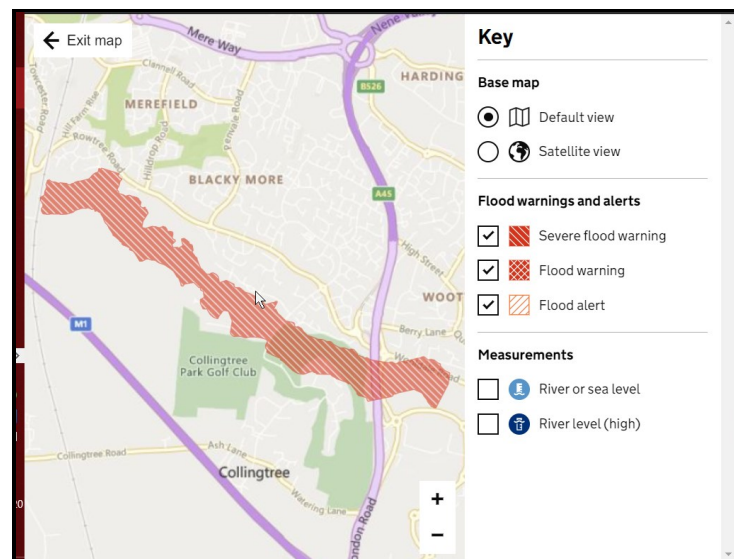
Issue ID: DAC_Focus_Order_01

Page Title: Map view: Severe flood warning for Areas near the Wootton Brook in the Collingtree, Merefield and Shelfleys parts of Northampton - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/target-area/055FWFPUNE04?v=map&lyr=mv,ts,tw,ta&ext=-0.922973,52.187647,-0.884884,52.216616>

Task: 8

Screen Shot:



The map popup has been added to the tab order. This is not required as the dialog element does not have any intrinsic functionality, only its components.

Current Code Ref(s): #map

```
<div id="map" class="defra-map" role="dialog" open="true" aria-modal="true" aria-label="Map view" tabindex="0"> ... </div>
```


Solution:

If it is to be referenced by JavaScript as a focusable location (to position the focus when the popup starts) then it should be given a tabindex of -1 to keep it out of the tab order, but still allow it to be focused.



Decorative images with alternate text (A)

Decorative image alternative text should be set to `alt=""` to be ignored by the screen reading software. This superfluous alternative text not only is useless to screen reader users, but inhibits navigation speed by giving extra, unneeded elements to traverse.

WCAG Reference:

[F38: Failure of Success Criterion 1.1.1 due to not marking up decorative images in HTML in a way that allows assistive technology to ignore them](#)

1.1.1 Non-text Content – Level A

[Understanding Non-text Content](#) | [How to Meet Non-text Content](#)

Issue ID: DAC_Image_Alt_Decorative_01

Page Title: What to do in a flood - GOV.UK


URL: <https://lfw-tst.aws.defra.cloud/what-to-do-in-a-flood#what-to-do-if-you-get-a-flood-alert>

Task: 13


Screen Shot:

What the flood warnings mean


We issue 3 levels of flood warning:

**Flood alert - Prepare**

- prepare a bag that includes medicines and insurance documents
- check flood warnings

**Flood warning - Act**

- turn off gas, water and electricity
- move things upstairs or to safety
- move family, pets and car to safety

**Severe flood warning - Survive**

- call 999 if in immediate danger
- follow advice from emergency services
- keep yourself and your family safe

The supplementary symbols for the alerts have been given superfluous alternative text.



It is clear that the text is not needed, as the three images have the same alternative text.

This is also causing headings to be read out at two different elements.

Current Code Ref(s): #main-content > div:nth-child(2) > div.govuk-grid-column-two-thirds > h3:nth-child(3)

```
<h3 class="govuk-heading-s">  
    
  Flood alert - Prepare  
</h3>
```

Solution:

Remove the text inside of the alt attribute, leaving it null (`alt=""`), so it is ignored by screen reading software.



PDF not marked up (A)

Like html pages, non-html digital documents must be marked up for screen reading software to interpret.

WCAG Reference:

4.1.1 Parsing – Level A

[Understanding Parsing](#) | [How to Meet Parsing](#)

Potentially, All WCAG Success Criteria

[Understanding WCAG 2.1](#) | [How to Meet WCAG 2.1](#)

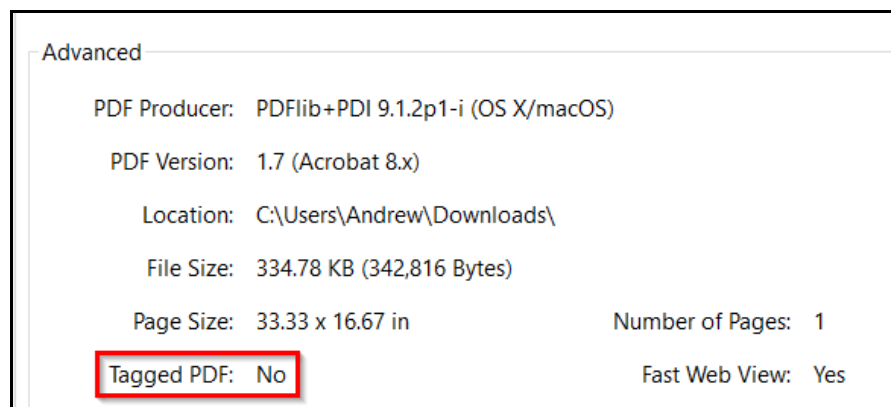
Issue ID: DAC_NonHTML_Untagged_01

Page title: flooding.pdf

URL: https://flood-warning-information.service.gov.uk/public/pdf/flood_warnings.pdf

Task: 14

Screen Shot:



The PDF is not tagged, and therefore will not be accessible to assistive technology.

Solution:

When saving a PDF, ensure it is saved as a 'Tagged' document.



Visual relationships (A)

Relationships between the options cannot be seen by screen reader users.

WCAG Reference:

1.3.3 Sensory Characteristics – Level A

[Understanding Sensory Characteristics](#) | [How to Meet Sensory Characteristics](#)

1.1.1 Non-text Content – Level A

[Understanding Non-text Content](#) | [How to Meet Non-text Content](#)

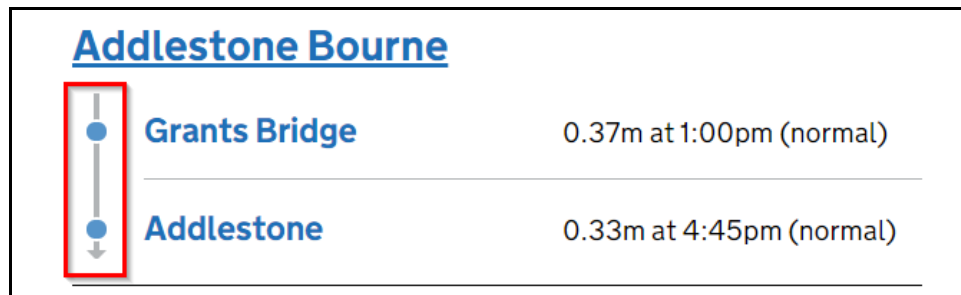
Issue ID: DAC_Content_Visual_01

Page Title: River and sea levels in England - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/river-and-sea-levels>

Task: 9

Screen Shot:



The graphical relationship between the stations is not given to screen reader users.

Current Code Ref(s):

HTML Location: #main-content > div:nth-child(2) > div.govuk-grid-column-two-thirds > ul > li:nth-child(3) > dl::before

CSS: application.css: 6651

```
.defra-flood-list__items--has-relation:before {  
  position: absolute;  
  content: '';  
  top: 4px;  
  bottom: 13px;  
  left: 12px;  
  width: 3px;  
  background-color: #b1b4b6;  
}
```



Solution:

Ensure the relationship is explained to screen reader users.

In this case, adding visually hidden text before the downstream location.

e.g. “Downstream from Grants Bridge”.



Bleed-through (A)

Visually hidden and unwanted content that is read to screen reader users is called bleed-through and is very confusing for screen reader users as this reads out inappropriate details.

WCAG Reference:

1.3.2 Meaningful Sequence – Level A

[Understanding Meaningful Sequence](#) | [How to Meet Meaningful Sequence](#)

3.2.3 Consistent Navigation – Level AA

[Understanding Consistent Navigation](#) | [How to Meet Consistent Navigation](#)

Issue ID: DAC_BleedThrough_01

Page Title: River and sea levels in England - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/river-and-sea-levels?river-id=bourne-brook>

Task: 23

Systemic to this page template.

Screen Shot:



There is extra visual hidden text that is read out as “at colon” to screen reader users.

Current Code Ref(s):

```
<span class="defra-flood-list__group-title">
  <a href="/river-and-sea-levels?river-id=bourne-brook">Bourne Brook</a>
  <span class="govuk-visually-hidden">at:</span>
</span>
```

Solution:

Remove this apparently superfluous text.



No Activation button (A)

When an element is activated, the page is updated without warning the user beforehand. This can be confusing for some users, especially for screen reader users.

WCAG Reference:

3.2.2 On Input – Level A

[Understanding On Input](#) | [How to Meet On Input](#)

1.3.1 Info and Relationships – Level A

[Understanding Info and Relationships](#) | [How to Meet Info and Relationships](#)

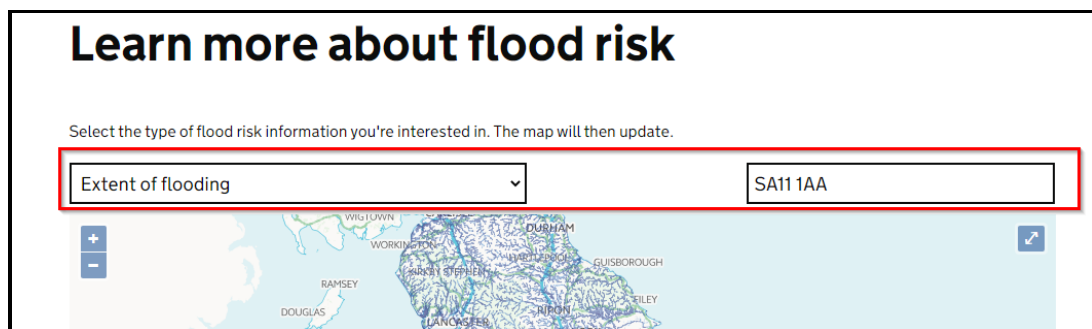
Issue ID: DAC_Update_OnInput_01

Page Title: Learn more about flood risk - GOV.UK

URL: <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>

Task: 30

Screen Shot:



The select activates as soon as it changes; this update is unexpected for screen reader users. The postcode can only be activated by pressing the enter key, which might confuse some cognitively different users.

Location(s):

- #map-page > div.map-header > div > div.govuk-grid-column-two-thirds > select
- #location

Solution:

Add a button that will activate any change the details of the map/list
(See [Issue ID: DAC Image Alternative 01](#)).



Visual information [Map] (A)

A map representing information specific to locations cannot be seen by screen reader users.

WCAG Reference:

1.3.3 Sensory Characteristics – Level A

[Understanding Sensory Characteristics](#) | [How to Meet Sensory Characteristics](#)

1.1.1 Non-text Content – Level A

[Understanding Non-text Content](#) | [How to Meet Non-text Content](#)

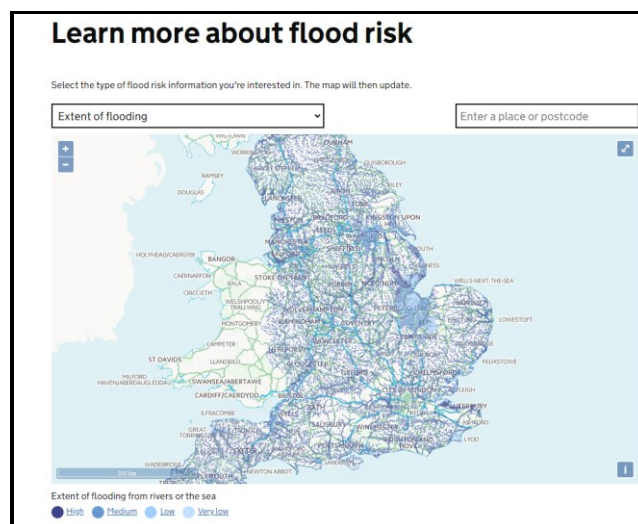
Issue ID: DAC_Image_Alternative_01

Page Title: Learn more about flood risk - GOV.UK

URL: <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>

Task: 30

Screen Shot:



Flood risk from surface waterⓧ

High risk means that each year this area has a chance of flooding of greater than 3.3%. Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding.

[Back to map](#)

The “Learn more about flood risk” has very little value to screen reader users, but what little functionality that can be used, should have an alternative in text.

Solution:

Give any functionality (like location vs risk in text, or add a link to the alternative page. Add a visually hidden message advising that this is this a visual service, and link to an appropriate alternative of the same information.



Skip Link does not work (A)

A skip to content link was found, but did not move the navigational focus (in IE only). This leaves keyboard and screen reader users unable to use the functionality.

WCAG Reference:

2.4.1 Bypass Blocks – Level A

[Understanding Bypass Blocks](#) | [How to Meet Bypass Blocks](#)

Issue ID: DAC_Link_Skip_01

Page Title: Check if a location in England is at risk of flooding now - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/start-page>

Task: 1 (Systemic)

The skip link did not work.

Current Code Ref(s): #main-content

```
<main class="govuk-main-wrapper " id="main-content" role="main">
```

Solution:

The target of the skip link (the main element) is not part of the tab index and so cannot take focus in IE. Add a tabindex of -1 to the element to add it to the tab index, but keep it out of the tab order,

For example:

```
<main class="govuk-main-wrapper " id="main-content" role="main" tabindex=-1>
```



TITLE attribute used as tooltip (AA)

If the tooltip is giving any important information, the low vision users who zoom in using the browser cannot increase the size of the text to view it.

WCAG Reference:

1.4.4 Resize text – Level AA

[Understanding Resize text](#) | [How to Meet Resize text](#)

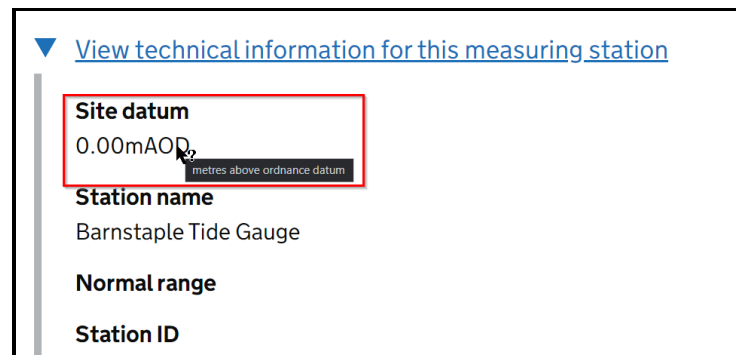
Issue ID: DAC_Content_Tooltip_01

Page Title: Sea level at Barnstaple Tide Gauge - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/station/9013>

Task: 21

Screen Shot:



When zooming in to make the text bigger the tooltips do not increase in size.

Current Code Ref(s): #main-content > div:nth-child(6) > div > details > div > dl > div:nth-child(1) > dd > abbr

```
<abbr title="metres above ordnance datum">mAOD</abbr>
```

Solution:

Implement a tooltip through natural html elements so it zooms with the other content.

For an example see the tooltip section of [Appendix IV](#).

For example:

```
<abbr title="metres above ordnance datum" class="hasTooltip"
aria-hidden="true">mAOD</abbr>
<span> Metres above Ordnance Datum </span>
```



Error not advised to screen reader (AA)

It was found that some errors are not indicated to screen reader users after submission.

WCAG Reference:

4.1.3 Status Messages – Level AA

[Understanding Status Messages](#) | [How to Meet Status Messages](#)

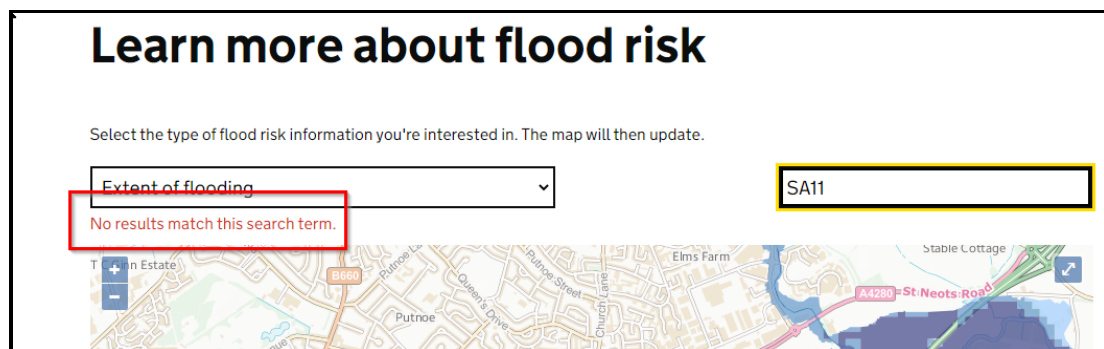
Issue ID: DAC_Form_Error_NoIndication_01

Page Title: Learn more about flood risk - GOV.UK

URL: <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>

Task: 30

Screen Shot:



Entering the incorrect information results in an error. This is not advised to screen reader users.

Current Code Ref(s): #error-message

```
<div id="error-message" class="govuk-body-s govuk-!-margin-bottom-0 govuk-!-margin-top-1">No results match this search term.</div>
```

Solution:

Ensure the information is read out to screen reader users. This can be done by adding a role of alert.

It is advised to follow the [GDS Guidelines: Error message](#)



Link text insufficient (AAA)

Links were found that did not have an adequate description for screen reader users to determine the link's action.

WCAG Reference:

2.4.9 Link Purpose (Link Only) - Level AAA

[Understanding Link Purpose \(Link Only\)](#) | [How to Meet Link Purpose \(Link Only\)](#)

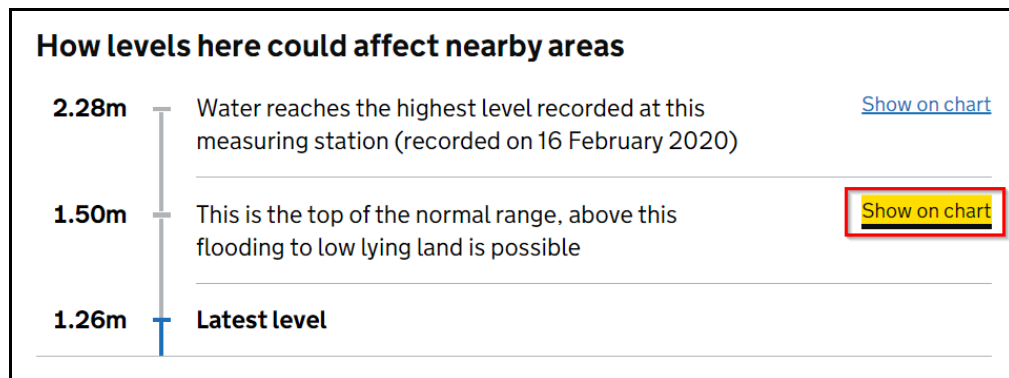
Issue ID: DAC_Link_Text_Insufficient_01

Page Title: Bourne Brook level at Hints - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/station/9111>

Task: 25

Screen Shot:



To screen reader users, pressing the “Show on chart” button does not do anything.

Location(s): #main-content > div:nth-child(5) > div > dl > div:nth-child(1) > dd > div > span > button

Solution:

The button/Links are purely for visual users, and so it is best practice to advise this to screen reader users.

For example:

```
<button>
  Show on chart
  <span class="govuk-visually-hidden">(Visual only)</span>
</button>
```



All page content must be contained by landmarks (N/A)

To screen reader users, content not included in a landmark does not divulge what sort of content it is; whether it is important or not.

WCAG Reference:

None. Advisory.

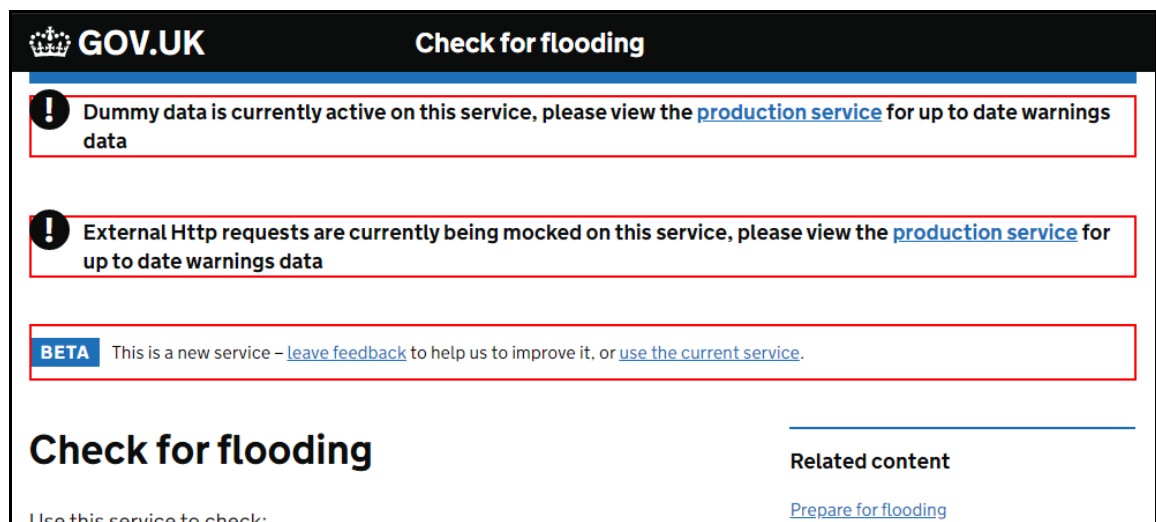
Issue ID: DAC_Landmarks_01

Page Title: Check if a location in England is at risk of flooding now - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/start-page>

Task: 1

Screen Shot:



Some page content is not contained by landmarks.

All page content must be contained by landmarks.

Violations found on this page: 2

Issue description

Current Code Ref(s): .govuk-warning-text__text

```
<strong class="govuk-warning-text__text">
```



Solution:

Ensure all page content is contained by landmarks

The Phase Banner should be included “complementary” landmark.

`role="complementary"`

Note: It is assumed that this will not be in the final product and therefore we have not rated it.



Empty Description Data (N/A)

It was found that some description lists displayed Empty Descriptions, which do not make sense when read back to screen reader users.

WCAG Reference:

None. Advisory.

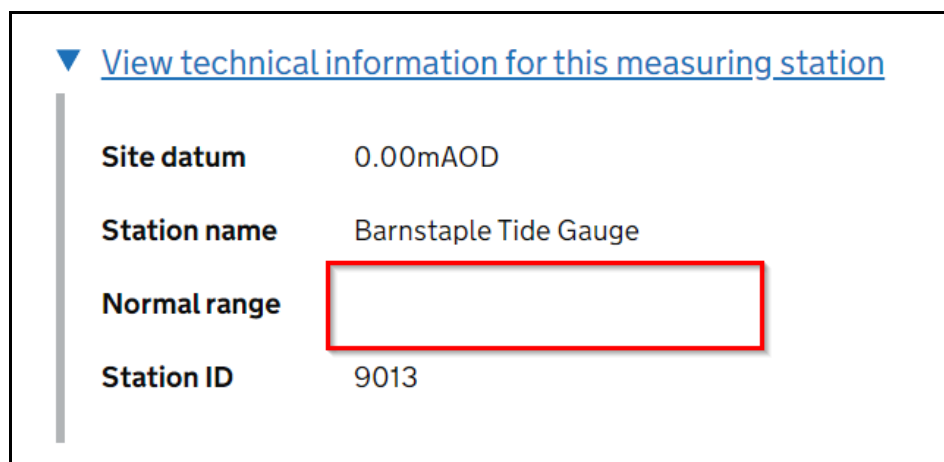
Issue ID: DAC_List_Description_Empty_01

Page Title: Sea level at Barnstaple Tide Gauge - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/station/9013>

Task: 21

Screen Shot:



The description to the “Normal range” term is blank. This means that screen reader users may think they are missing something.

Current Code Ref(s): #main-content > div:nth-child(6) > div > details > div > dl > div:nth-child(3) > dd

```
<div class="govuk-summary-list__row">
  <dt class="govuk-summary-list__key">Normal range</dt>
  <dd class="govuk-summary-list__value"> </dd>
</div>
```



Solution:

It is advised to fill this “field” with a placeholder advising that the field is blank. This can be visually hidden using CSS: GDS has already got a class for this.

For example:

```
<div class="govuk-summary-list__row">
  <dt class="govuk-summary-list__key">Normal range</dt>
  <dd class="govuk-summary-list__value">
    <span class="govuk-visually-hidden"> No data</span>
  </dd>
</div>
```



Element Sequence (A – GDS Exception)

Because screen reader users do not get visual cues, starting the focus after some elements, or having elements after a call to action can mean that screen reader users may miss information. The instances found are part of the GDS guided style, and so alteration may not be allowed.

WCAG Reference:

1.3.1 Info and Relationships – Level A

[Understanding Info and Relationships](#) | [How to Meet Info and Relationships](#)

1.3.2 Meaningful Sequence – Level A

[Understanding Meaningful Sequence](#) | [How to Meet Meaningful Sequence](#)

Issue ID: DAC_Content_Sequence_Meaningful_01

Page Title: Check if a location in England is at risk of flooding now - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/start-page>

Task: 1

Screen Shot:



Where do you want to check?

Town, city or postcode

[Continue](#)

[Or check for flooding in all of England](#)

Screen reader users may have difficulty in finding the “Or check for flooding in all of England” link as it comes after the main form submission.

Without knowing it is available, this link will be missed.

Location(s): #main-content > div > div > p > a

Solution:

Give this link a more prominent status, either by referring to it before the submit button or relocating it.

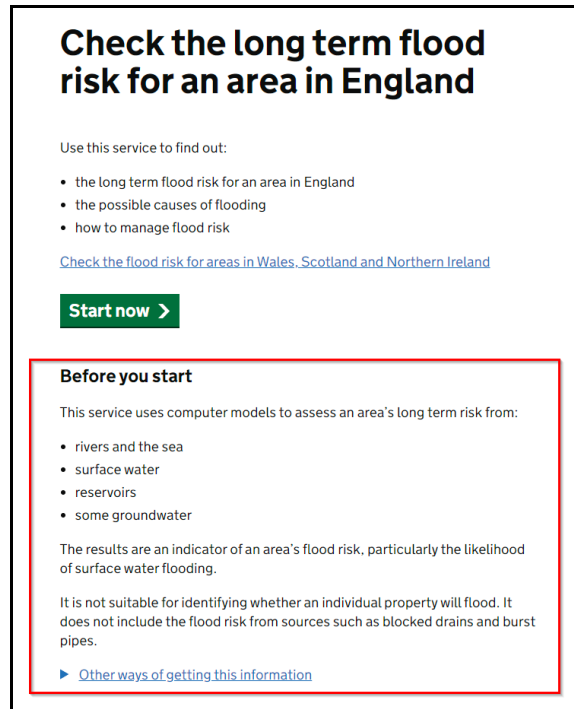


Page title: Check the long term flood risk for an area in England - GOV.UK

URL: <https://flood-warning-information.service.gov.uk/long-term-flood-risk>

Task: 29

Screen Shot:



Check the long term flood risk for an area in England

Use this service to find out:

- the long term flood risk for an area in England
- the possible causes of flooding
- how to manage flood risk

[Check the flood risk for areas in Wales, Scotland and Northern Ireland](#)

Start now >

Before you start

This service uses computer models to assess an area's long term risk from:

- rivers and the sea
- surface water
- reservoirs
- some groundwater

The results are an indicator of an area's flood risk, particularly the likelihood of surface water flooding.

It is not suitable for identifying whether an individual property will flood. It does not include the flood risk from sources such as blocked drains and burst pipes.

► [Other ways of getting this information](#)

Screen reader users may have difficulty in finding the “Before you start” section as it comes after the main form submission.

Without knowing it is available, this whole section will be missed.

Also found on:

- Task 30: [Where do you want to check?](#)

Solution:

Move the button “Start Now” to after the “Before you start” section.



Punctuation, Spelling and Grammar (N/A)

There were found to be errors in grammar on the website. This can confuse some users.

WCAG Reference:

None. Advisory.

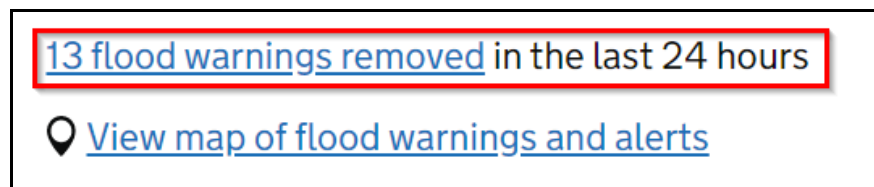
Issue ID: DAC_Grammar_01

Page Title: Flood warnings in England - GOV.UK

URL: <https://lfw-tst.aws.defra.cloud/>

Task: 4

Screen Shot:



The link (and whole sentence) have bad grammar.

This should be "13 flood warnings **have been** removed in the last 24 hours"

Location(s): #main-content > div:nth-child(2) > div.govuk-grid-column-two-thirds > div.defra-flood-status > p

Solution:

Ensure grammar is used correctly.

For example:

```
<p class="defra-flood-status__text">
  <a href="/alerts-and-warnings#removed">13 flood warnings have been
removed</a>
  in the last 24 hours
</p>
```

End of Report



Tasks

URL: <https://lfw-tst.aws.defra.cloud/start-page>

1. Landing page – Click Start now
2. Where do you want to check?
Enter 'Bedford' into the text box then click Continue
3. Check for flooding in Bedford, Bedfordshire
Once the page has been tested, click the 'Check another location' link
4. Where do you want to check?
Click the 'Or check for flooding in all of England' link
5. Flood warnings in England – Click the '33 Severe flood warnings' link
6. Under '33 Severe flood warnings' select one of the links
7. Severe flood warning for...
Test the page then click the 'View map of the flood warning area' link
8. Once tested, click the 'Exit Map' button
9. Click the 'Back' button
10. Click the 'Back' button
11. Flood warnings in England
Click on the '292 Flood Alerts' link
12. Under '292 Flood alerts' select one of the links
13. Flood alert for...
Locate and click the 'Find out what to do if you get a flood alert' link
14. Test the following PDF:
https://flood-warning-information.service.gov.uk/public/pdf/flood_warnings.pdf
15. Once done, close the PDF tab
16. Click the 'Check for flood' link from navigation
17. Click the 'Or check for flooding in all of England' link
18. Click the 'Find a river, sear or groundwater level' link
19. River and sea levels – Click on the 'Sea Levels' link
20. Under 'Sea Levels' click one of the area links
21. Sea levels at... - Test the page then click the 'Back' button
22. Enter 'Birmingham' into the search field then click Search
23. Select 'Bourne Brook' from the results
24. Under 'Borne Brook' select 'Hints' (The page may take a little bit to load)
25. Click the first 'Show on chart' button
26. Click the 'Check for flood' link from navigation
27. Click the 'Or check for flooding in all of England' link
28. Under 'Related content' click on 'Check your long-term flood risk link'
29. Check the long-term flood risk for an area in England – Click Start now
30. Click the 'View a map showing areas at risk of flooding' link



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 AAA:

Status	Description
Pass (P)	The site meets the requirements of the checkpoint.
Fail (L) Low Priority	The site almost meets the requirements of the checkpoint. Only a small number of minor problems were identified. The site fails to meet the requirements against AAA criteria measured against WCAG 2.1
Fail (M) Medium Priority	The site fails to meet the requirements against AA criteria measured against WCAG 2.1
Fail (H) High Priority	The site fails to meet the requirements against A criteria measured against WCAG 2.1 and more severe accessibility issues were identified.
Not Applicable (N/A)	No content was found on the site to which the checkpoint would relate.



Principle 1: Perceivable – Information and users interface components must be presentable to users in ways they can perceive.

<p>Non-text Content:</p> <p>1.1.1 All non-text content that is presented to the user has a text alternative that serves the equivalent purpose.</p> <p>(Level A)</p>	Fail (H)
<p>Audio-only and Video-only (Pre-recorded):</p> <p>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:</p> <p>Understanding Success Criterion 1.2.1</p> <ul style="list-style-type: none"> • 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. <p>(Level A)</p>	Not Applicable (N/A)
<p>Captions (Pre-recorded):</p> <p>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.</p> <p>(Level A)</p>	Not Applicable (N/A)
<p>Audio Description or Media Alternative (Pre-recorded):</p> <p>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.</p> <p>(Level A)</p>	Not Applicable (N/A)
<p>Captions (Live):</p> <p>1.2.4 Captions are provided for all live audio content in synchronized media.</p> <p>(Level AA)</p>	Not Applicable (N/A)
<p>Audio Description (Pre-recorded):</p> <p>1.2.5 Audio description is provided for all pre-recorded video content in synchronized media.</p> <p>(Level AA)</p>	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)	Not Applicable (N/A)
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)	Not Applicable (N/A)
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)	Not Applicable (N/A)
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)	Not Applicable (N/A)
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 it's meaning, a correct reading sequence can be programmatically determined . (Level A)	Fail (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)	Fail (H)



<p>Orientation: (WCAG 2.1)</p> <p>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.</p> <p>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.</p> <p>(Level AA)</p>	<p>Not Applicable (N/A)</p>
<p>Identify Input Purpose: (WCAG 2.1)</p> <p>1.3.5 The purpose of each input field collecting information about the user can be programmatically determined when :</p> <ul style="list-style-type: none"> • 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. <p>(Level AA)</p>	<p>Not Applicable (N/A)</p>
<p>Identify Purpose: (WCAG 2.1)</p> <p>1.3.6 In content implemented using mark-up languages, the purpose of User Interface Components, icons, and regions can be programmatically determined.</p> <p>(Level AAA)</p>	<p>Fail (L)</p>
<p>Use of Colour:</p> <p>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.</p> <p>(Level A)</p>	<p>Not Applicable (N/A)</p>
<p>Audio Control:</p> <p>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.</p> <p>(Level A)</p>	<p>Not Applicable (N/A)</p>



<p>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:</p> <ul style="list-style-type: none"> • 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 minimum contrast requirement. <p>(Level AA)</p>	<p>Pass (P)</p>
<p>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.</p> <p>(Level AA)</p>	<p>Fail (M)</p>
<p>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: Understanding Success Criterion 1.4.5</p> <ul style="list-style-type: none"> • 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. <p>Note: Logotypes (text that is part of a logo or brand name) are considered essential.</p> <p>(Level AA)</p>	<p>Not Applicable (N/A)</p>



<p>Contrast (Enhanced):</p> <p>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:</p> <ul style="list-style-type: none"> • 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 minimum contrast requirement. <p>(Level AAA)</p>	<p>Fail (L)</p>
<p>Low or No Background Audio:</p> <p>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:</p> <p>Understanding Success Criterion 1.4.7</p> <ul style="list-style-type: none"> • 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. <p>Note: Per the definition of "decibel," background sound that meets this requirement will be approximately four times quieter than the foreground speech content.</p> <p>(Level AAA)</p>	<p>Not Applicable (N/A)</p>



<p>Visual Presentation: 1.4.8 For the visual presentation of blocks of text, a mechanism is available to achieve the following: Understanding Success Criterion 1.4.8</p> <ol style="list-style-type: none"> 1. Foreground and background colours can be selected by the user. 2. Width is no more than 80 characters or glyphs (40 if CJK). 3. Text is not justified (aligned to both the left and the right margins). 4. 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. 5. 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. <p>(Level AAA)</p>	<p>Pass (P)</p>
<p>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.</p> <p>Note: Logotypes (text that is part of a logo or brand name) are considered essential.</p> <p>(Level AAA)</p>	<p>Not Applicable (N/A)</p>
<p>Reflow: (WCAG 2.1) 1.4.10 Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions for :</p> <ul style="list-style-type: none"> • Vertical scrolling content at a width equivalent to 320 CSS pixels; • Horizontal scrolling content at a height equivalent to 256 CSS pixels. <p>Except for parts of the content which require two-dimensional layout for usage or meaning.</p> <p>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.</p> <p>Note: Examples of content which require two-dimensional layout are images, maps, diagrams, video, games, presentations, data tables, and interfaces where it is necessary to keep toolbars in view while manipulating content.</p> <p>(Level AA)</p>	<p>Pass (P)</p>



<p>Non-text Contrast: (WCAG 2.1)</p> <p>1.4.11 The visual presentation of the following have a contrast ratio of at least 3:1 against adjacent color(s):</p> <ul style="list-style-type: none"> • 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. <p>(Level AA)</p>	<p>Pass (P)</p>
<p>Text Spacing: (WCAG 2.1)</p> <p>1.4.12 presentation of graphics is essential to the information being conveyed.</p> <p>In content implemented using mark-up 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:</p> <ul style="list-style-type: none"> • 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. <p>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.</p> <p>(Level AA)</p>	<p>Pass (P)</p>



<p>Content on Hover or Focus: (WCAG 2.1)</p> <p>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:</p> <ul style="list-style-type: none"> • 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. <p>Exception: The visual presentation of the additional content is controlled by the user agent and is not modified by the author.</p> <p>Note: Examples of additional content controlled by the user agent include browser tooltips created through use of the HTML title attribute.</p> <p>Note: Custom tooltips, sub-menus, and other nonmodal popups that display on hover and focus are examples of additional content covered by this criterion.</p> <p>(Level AA)</p>	<p>Not Applicable (N/A)</p>
---	--



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)

Pass (P)

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.

(Level A)

Pass (P)

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)

Pass (P)



<p>Character Key Shortcuts: (WCAG 2.1)</p> <p>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:</p> <ul style="list-style-type: none"> • Turn off: A mechanism is available to turn the shortcut off; • Remap: A mechanism is available to remap the shortcut to use one or more non-printable keyboard characters (e.g. Ctrl, Alt, etc); • Active only on focus: The keyboard shortcut for a user interface component is only active when that component has focus. <p>(Level A)</p>	<p>Not Applicable (N/A)</p>
<p>Timing Adjustable:</p> <p>2.2.1 For each time limit that is set by the content, at least one of the following is true:</p> <ul style="list-style-type: none"> • Turn off: The user is allowed to turn off the time limit before encountering it; • 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; • 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; • 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; • Essential Exception: The time limit is essential and extending it would invalidate the activity; • 20 Hour Exception: The time limit is longer than 20 hours. <p>Note: This success criterion helps ensure that users can complete tasks 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.</p> <p>(Level A)</p>	<p>Not Applicable (N/A)</p>



<p>Pause, Stop, Hide: 2.2.2 For moving, blinking, scrolling, or auto-updating information, all of the following are true: Understanding Success Criterion 2.2.2</p> <ul style="list-style-type: none"> • 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. <p>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. 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)</p>	<p>Not Applicable (N/A)</p>
<p>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)</p>	<p>Not Applicable (N/A)</p>



<p>Interruptions: 2.2.4 Interruptions can be postponed or suppressed by the user, except interruptions involving an emergency. (Level AAA)</p>	<p>Not Applicable (N/A)</p>
<p>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)</p>	<p>Not Applicable (N/A)</p>
<p>Timeouts: (WCAG 2.1) 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)</p>	<p>Not Applicable (N/A)</p>
<p>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. (Level A)</p>	<p>Not Applicable (N/A)</p>
<p>Three Flashes: 2.3.2 Web pages do not contain anything that flashes more than three times in any one-second period. (Level AAA)</p>	<p>Pass (P)</p>



Animation from Interactions: (WCAG 2.1) <u>2.3.3 Motion animation</u> triggered by interaction can be disabled, unless the animation is <u>essential</u> to the functionality or the information being conveyed. (Level AAA)	Pass (P)
Bypass Blocks: <u>2.4.1</u> A <u>mechanism</u> is available to bypass blocks of content that are repeated on multiple <u>Web pages</u> . (Level A)	Not Applicable (N/A)
Page Titled: <u>2.4.2 Web pages</u> have titles that describe topic or purpose. (Level A)	Fail (H)
Focus Order: <u>2.4.3</u> If a <u>Web page</u> can be <u>navigated sequentially</u> and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability. (Level A)	Pass (P)
Link Purpose (In Context): <u>2.4.4</u> The <u>purpose of each link</u> can be determined from the link text alone or from the link text together with its <u>programmatically determined link context</u> , except where the purpose of the link would be <u>ambiguous to users in general</u> . (Level A)	Pass (P)
Multiple Ways: <u>2.4.5</u> More than one way is available to locate a <u>Web page</u> within a <u>set of Web pages</u> except where the Web Page is the result of, or a step in, a <u>process</u> . (Level AA)	Pass (P)
Headings and Labels: <u>2.4.6</u> Headings and <u>labels</u> 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 (P)
Location: 2.4.8 Information about the user's location within a set of Web pages is available. (Level AAA)	Fail (L)
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)	Pass (P)
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)	Pass (P)
Pointer Gestures: (WCAG 2.1) 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)	Not Applicable (N/A)



<p>Pointer Cancellation: (WCAG 2.1) 2.5.2 For functionality that can be operated using a single pointer, at least one of the following is true:</p> <ul style="list-style-type: none"> • 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. <p>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)</p>	<p>Pass (P)</p>
<p>Label in Name: (WCAG 2.1) 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)</p>	<p>Fail (H)</p>



<p>Motion Actuation: (WCAG 2.1)</p> <p>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:</p> <ul style="list-style-type: none"> • 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. <p>(Level A)</p>	<p>Not Applicable (N/A)</p>
<p>Target Size (WCAG 2.1):</p> <p>2.5.5 The size of the target for pointer inputs is at least 44 by 44 CSS pixels except when:</p> <ul style="list-style-type: none"> • 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. <p>(Level AAA)</p>	<p>Pass (P)</p>
<p>Concurrent Input Mechanisms (WCAG 2.1):</p> <p>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.</p> <p>(Level AAA)</p>	<p>Pass (P)</p>



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 (P)
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)	Not Applicable (N/A)
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)	Not Applicable (N/A)
Abbreviations: 3.1.4 A mechanism for identifying the expanded form or meaning of abbreviations is available. (Level AAA)	Not Applicable (N/A)
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)	Pass (P)
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)	Not Applicable (N/A)



On Focus: 3.2.1 When any component receives focus, it does not initiate a change of context . (Level A)	Pass (P)
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)	Fail (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)	Fail (M)
Consistent Identification: 3.2.4 Components that have the same functionality within a set of Web pages are identified consistently. (Level AA)	Pass (P)
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)	Not Applicable (N/A)
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)	Not Applicable (N/A)
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)	Not Applicable (N/A)



<p>Error Prevention (Legal, Financial, Data):</p> <p>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:</p> <ul style="list-style-type: none"> • 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. <p>(Level AA)</p>	<p>Not Applicable (N/A)</p>
<p>Help 3.3.5 Context-sensitive help is available.</p> <ul style="list-style-type: none"> • Provide instructions and cues in context to help inform completion and submission. <p>(Level AAA)</p>	<p>Fail (L)</p>
<p>Error Prevention (All):</p> <p>3.3.6 For Web pages that require the user to submit information, at least one of the following is true:</p> <ul style="list-style-type: none"> • 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. <p>(Level AAA)</p>	<p>Not Applicable (N/A)</p>



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:

[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)

Fail (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 (WCAG 2.1)

[4.1.3](#) In content implemented using mark-up 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)

Fail (M)



Appendix III

The Process

The website is measured against the Web Accessibility Initiative's (WAI) Web Content Accessibility Guidelines 2.1 (WCAG 2.1) to give an accurate feedback on any non-compliant issues. To attain our standard accreditation all A and AA criteria must be achieved.

To give a more accurate review of the website 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 website.

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 website need the most urgent attention.



CRITERIA

High

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

The digital product has one or more issues that need remediation before meeting the WCAG 2.1 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

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 2.1 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 2.1 AA Standard, these issues were found to hinder users.



DAC Testing Procedure

The website 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 website 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.

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 website with further credibility and quality.



Visually Hidden Text for Screen Reader Users

Adding extra visually hidden text can help Screen Reader Users give context to the information and elements they encounter.

By adding the following code to your CSS file, it can be used in many situations where it may be beneficial to Screen Reader Users and their understanding of the page content.

```
.sr-only {  
  position: absolute !important;  
  overflow: hidden !important;  
  white-space: nowrap !important;  
  width: 1px !important;  
  height: 1px !important;  
  margin: -1px !important;  
  padding: 0 !important;  
  border: 0 !important;  
  clip: rect(1px, 1px, 1px, 1px) !important;  
  -webkit-clip-path: inset(50%) !important;  
  clip-path: inset(50%) !important;  
}
```



Focus Highlight for Keyboard Only Users

Adding a focus highlight enables keyboard users to follow the focus as they navigate through the page.

By adding the following code to your CSS file, keyboard users will be able to see the focus on all actionable elements.

Some bespoke elements in the tab index could need a class added to them. (See the class "`addFocus`" below).

```
a:focus,  
area[href]:focus,  
input:focus,  
select:focus,  
textarea:focus,  
button:focus,  
iframe:focus,  
[tabindex]:focus,  
[contentEditable=true]:focus,  
.addFocus:focus  
{  
    outline-width: 2px;  
    outline-style: solid;  
    outline-color: #FD5200;  
}
```

If the use of the outline styling cannot be used then the use of border styling or other visible option must be employed

```
{  
    border-style: solid;  
    border-width: 2px;  
    border-color: #FD5200;  
}
```



Skip to content

Keyboard users navigate through the page left to right, top to bottom; this means that on every page they encounter the same navigation menus seen on the top of most webpages.

To allow a more fluid experience for these users a “Skip to content” link is added as the first encountered on the page to skip over the many links that could be contained in the navigation menus.

Adding the following HTML and CSS code to your page will allow this to happen.

Assuming you are using the html5 standards (using landmark areas) the following can be added to your main content section.

```
<main id="maincontent" tabindex=-1>
```

This next section is the link itself, and should be the first encountered element by keyboard users on the page.

```
<a href="#maincontent" class="skip">Skip to main content</a>
```

Lastly, here is the CSS code to hide the link until it receives focus so no visual change can be seen to your page by adding this.

```
main {  
  border: none;  
  outline: none;  
}  
  
.skip {  
  position: absolute;  
  overflow: hidden;  
  top: -1px;  
  width: 1px;  
  height: 1px;  
}  
  
.skip:focus {  
  position: relative;  
  top: auto;  
  width: auto;  
  height: auto;  
  overflow: auto;  
}
```



Tooltips

Tooltips are a good way to give secondary information to a user; be that abbreviation expansions, explaining icon uses or adding notes.

Using the title attribute is not accessibly sufficient for tooltips as it has inherent flaws:

- Text cannot be enlarged without assistive software.
- Often not read out by screen reading software.
- Cannot be activated by keyboard alone.

Ensuring that the tool-tip is accessible is a simple process of:

- Adding the class of “hasTooltip” to the element
- Adding a span directly after the element with the tool tip in.
- Adding the following CSS and JavaScript code to your page/project.
- When the page is loaded, run the “setTooltipEvents();” function.

If the object does not normally take focus from the keyboard, adding an attribute of tabindex with a value of 0 will allow keyboard users to access the item.

Note about WCAG 2.1 **Success Criterion 1.4.13 Content on Hover or Focus**

This success criterion advises that of anything covering any other content on mouse hover or keyboard focus, it must be ‘dismissible’ without moving the mouse or keyboard focus. (e.g. by using the ‘Esc’ key)

CSS:

```
.hasTooltip + span {
    color: black;
    background-color: #FFFFC0;
    display: inline;
    position: absolute;
    height: 1px;
    margin: -1px;
    padding: 0;
    overflow: hidden;
    border: 0;
    z-index: 10;
}

.hasTooltip[tooltipStatus=active] + span,
.hasTooltip + span:hover {
    border: 2px solid black;
    height: auto;
    margin: auto;
    top: 1em;
}
```



JavaScript:

```
<script>
function makeActive(elmnt) {
    elmnt.setAttribute("tooltipStatus", "active");
}

function makeInActive(elmnt) {
    elmnt.setAttribute("tooltipStatus", "inactive");
}

function setTooltipEvents() {
    // Add javascript event for all tooltips
    obj = document.querySelectorAll(".hasTooltip");
    for (c = 0; c < obj.length; c++) {
        makeInActive(obj[c]);
        obj[c].addEventListener("mouseenter", function() { makeActive(this); });
        obj[c].addEventListener("mouseleave", function() { makeInActive(this); });
        obj[c].addEventListener("focus", function() { makeActive(this); });
        obj[c].addEventListener("blur", function() { makeInActive(this); });
    }

    // Check for all tooltip being active an inactivate them when 'Esc' is pressed
    document.addEventListener("keyup", function(e) {
        if ((e.keyCode || e.which) === 27) {
            obj =
document.querySelectorAll(".hasTooltip[tooltipStatus=active]");
            for (c = 0; c < obj.length; c++) { makeInActive(obj[c]); }
        }
    });
}
</script>
```

HTML Example:

This is an example of a tooltip by the
`<abbr class="hasTooltip" tabindex=0 aria-hidden="true"> DAC </abbr>`
`Digital Accessibility Centre`
that pass the WCAG 2.1 Success Criterion 1.4.13: Content on Hover or Focus.

```
<script>setTooltipEvents();</script>
```



Error message best practices

Form errors are problematic issues for users, but especially screen reader users. The best approach is to have a list of errors at the top of the page (above the top-level heading) so it is visible when the page is refreshed and is immediately focused so it can be read out by screen reading software.

The list should have a heading (level 2) and each field name be a link to the field in question. To become focusable the heading will need a `tabindex`, and to keep it out of the tab order it should be negative ("`-1`").

As an example:

The form contained errors:

- [First name:](#) Required field.
- [Home Phone:](#) Invalid telephone number.
- [Terms and Conditions:](#) You must agree with the Terms and Conditions to Proceed.

```
<div class="border-red">
  <h2 tabindex="-1" >The form contained errors:</h2>
  <p>
    <ul class="errorList">
      <li><a href="#fName">First name:</a> Required field. </li>
      <li><a href="#hTel">Home Phone:</a> Invalid telephone number. </li>
      <li><a href="#TnCs">Terms and Conditions:</a>
        You must agree with the Terms and Conditions to Proceed.
      </li>
    </ul>
  </p>
</div>
```

FIN.

