# Websites that Welcome Voters

## Creating a Disability-Friendly Website

August 2016

# Websites that Welcome Voters
Disability Rights Washington

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# Introduction

Between May and July of 2016, Disability Rights Washington surveyed the elections websites of all 39 counties in Washington to screen basic accessibility of online voter information across the state. This was <u>not</u> an audit to determine whether websites complied with the law.  Rather, our intent was to identify common mistakes that result in barriers to access, and make suggestions for improvements.  We conducted our survey with free, readily available, easy to use tools – the same tools counties could use to improve the accessibility of their websites. The issues we identify can all be readily corrected. This report is a summary of what we found, and our recommendations for improvements.

Voting is the single most important tool US Citizens have to participate politically and advocate their interests. Unfortunately, many people with disabilities face barriers to voting. As a result, there is a disproportionately low turnout of Americans with disabilities in elections.

In the 2014 midterm elections, 92.3 million people voted, or 38.5 percent of the eligible, voting age population.[1] Of those who voted 12.6 percent - or about 11.6 million - had a disability, even though statistics show that there are at least 36 million voting-age people with disabilities in the United States.[2] Based on these numbers and the total voting-age population in 2014, the turnout gap between people without disabilities and people with disabilities was about 8.5%.[3] The gap in 2014 is not an outlier. Percentage point gaps were found consistently in 2008, 2010 and 2012, as well as in surveys in 1998, nearly 20 years ago, in which a 20-point percentage gap was observed.[4]

Election reform, vote-by-mail systems and absentee voting have been proposed as means of combating low turnout and systematic disenfranchisement of people with disabilities. These remedies are based on the assumption that physical accessibility is the main barrier people with disabilities face in voting. In a 2002 survey, 27.5 percent of people with disabilities experienced some sort of difficulty when voting, most of which involved transportation to the polls and difficulty with mobility when there.[5] In 2002, US Congress enacted the Help America Vote Act, which provided federal funding and new accessibility requirements for polling places.[6] In the state of Washington, voters can cast their ballots by mail independently, or if they need help, with assistance from anyone other than their employers or union representatives.[7] But even with the barriers of transportation and mobility addressed by a vote-by-mail system, challenges with voting still remain for people with disabilities in Washington, and a turnout gap remains.

It is essential to have access to voter information in order to exercise the right to vote. Fortunately, we live in an age of technology where people with and without disabilities have access to more information than ever before. Websites allow voters to learn about rules and regulations of their state and county's elections processes, and in the state of Washington, register to vote, access the voter's pamphlet and video voter guide, and locate the nearest ballot drop box or elections office. Websites also provide contact information for election officials in their respective county. All of this information facilitates a more convenient and transparent voting experience for voters and especially voters with disabilities.

"Voting is an important way to be able to voice one's opinion on how the government should run, as well as influence the kind of laws that are passed. People with disabilities have just as much a voice as anybody else, and therefore, are entitled to have full access to the voting process."

– Kittitas County Disability Advocate

As websites are such an important resource for today's voters, making them accessible is a necessary part of making voting accessible. Websites that are poorly designed, or designed without accessibility in mind, are rendered useless. Web content accessibility guidelines and regulations have been written to help website designers make their content more accessible. The World Wide Web Consortium (W3C) notes that their guidelines (WCAG 2.0) help make website content accessible to people with a range of disabilities including deafness and hearing loss, blindness and low vision, learning disabilities, cognitive limitations, limited movement, speech disabilities, photosensitivity and any combination of these. Following these guidelines makes websites more accessible to users in general, including people who are aging and people with temporary disabilities.[8] If these guidelines are not taken into account and incorporated into websites, even a particularly informative elections website may not provide a voter with a disability the information they need.

# Background

## Disability Rights Washington

Disability Rights Washington is a private non-profit organization that serves as the designated protection and advocacy system for Washington State. Every US state and territory has a designated protection and advocacy with a federal mandate to protect the rights of people with disabilities.[9] Disability Rights Washington's mission is to advance the dignity, equality, and self-determination of people with disabilities. As a protection and advocacy system, DRW utilizes multiple advocacy strategies that include education, investigation, public policy and litigation. For more information about Disability Rights Washington, please visit our website www.disabilityrightswa.org.

## Purpose and Scope

The purpose of this report is to present the most significant trends identified in the survey DRW conducted on the accessibility of all Washington county elections websites. This report will demonstrate the impact of website accessibility on the experience of voters with disabilities and identify common website errors among the counties in Washington State. Neither this report, nor the survey data collection on which it is based, is meant to serve as an accessibility compliance check. None of the observations or recommendations in this report should be interpreted as legal advice or as a legal compliance review. Instead, the survey and the results presented in this report should be seen as a brief screening of the website accessibility of the county elections websites.[10] We hope this report will motivate Washington state and county

officials to evaluate and improve the accessibility of their websites to ensure that people with disabilities can fully and effectively participate in the voting process.

This report does not include details on the surveys of each specific county, but rather the report is an overview of the most important issues for the counties collectively. However, as part of this process, DRW provided each county with an individualized scorecard with written feedback on their specific website.

# Methodology

## Laws and Guidelines

DRW identified existing web accessibility standards upon which to base its survey. Our sources included Section 508 of the Rehabilitation Act of 1973, as amended in 1998.[11] Section 508 applies to all Federal agencies when they develop, procure, maintain or use electronic and information technology. As required in Section 508, the survey incorporated questions focused on tagging non-text elements and providing skip navigation links and text only versions.[12] Also on the federal level, the Help America Vote Act, passed in 2002, requires that all polling places have an accessible voting system that provides voters with disabilities "the same opportunity for access and participation (including privacy and independence) as for other voters."[13]

The Revised Code of Washington (RCW) mandates that every county "maintain an advisory committee that includes persons with diverse disabilities."[14] The committees are also mandated to "develop a plan to identify and implement changes to improve the accessibility of elections for voters with disabilities." The plan must be updated at least annually.[15]

The Web Content Accessibility Guidelines (WCAG 2.0) are a set of World Wide Web Consortium (WC3) recommendations that the Web Accessibility Initiative created for web content developers, web accessibility evaluation tool developers, and others who want or need a standard for web accessibility.[16] These technical standards provide recommendations for making web content more accessible for people with a range of disabilities including blindness and vision loss, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech disabilities, photosensitivity and combinations of these. Adherence to these guidelines can also make the web content more accessible to users in general.[17]

This report focused specifically on WCAG 2.0 guidelines relating to content ordering and headings (2.4.10), contrast errors (1.4.3 & 1.5.6) and untagged non-text elements (1.1.1).[18] Page headings are invisible to a sighted user but part of the website's design and allow a person using a screen reader to understand the order of the page and access only the parts they need. Contrast errors are places where text is difficult to distinguish because of the contrast between the color of the text and the color of the background. Untagged non-text elements are any pictures, graphics, tables, buttons or forms on the page that do not have a coded text tag and are therefore invisible to a screen reader. We set out to document the laws and regulations not so that we could provide a compatibility analysis, but rather to be grounded in the language and standards that currently define web accessibility.

## Survey Instrument

With a basic understanding of web accessibility guidelines, we created a survey using Google Forms that asked about the technical elements of the page as well as the content. The survey included questions about tags, the ordering of the pages, contrast errors, availability of alternate languages, the presence of a

skip navigation link and text-only version, and which specific information on accessible voting was provided.

In order to answer the questions regarding the technical aspects of each website, we used the WebAIM WAVE Google Chrome plug-in. This tool allows users to check a webpage quickly for web accessibility by screening for errors, alerts, features, structural elements, HTML5 and ARIA elements, tagging issues and contrast errors.

> Identifying web accessibility errors does not take vast amounts of money or time…

WAVE Google Chrome plug in was used for every survey for efficiency, as the items identified appear directly on the page and one is still able to navigate through the website. The survey also contained a section on screen-readers and keyboard navigation. To answer the questions in this section, our surveyor used the NVDA free downloadable screen reader and observed as the screen reader read through the websites.[19] She also performed testing of keyboard navigation by navigating through the websites using only the keyboard.

We checked our work by asking five people with disabilities to visit their counties' website, attempt to find the accessible voting information, and provide comments about their experience and on the importance of voting. We recognize that automated accessibility testing tools have limits in their capabilities, which is why the survey utilized a combination of tools and human testing. We intentionally ensured that the tools we used to complete this accessibility screening were readily available, free tools that anyone who has access to the internet can also use. The purpose of this was to demonstrate that identifying web accessibility errors does not take vast amounts of money or time, and that this screening and the subsequent recommendations are no more advanced than what anyone with a computer and internet service could accomplish.

Timeframe

The survey was created solely for the purpose of this report and was administered to all county websites between May 26 and July 5, 2016. After the Google Form survey was completed, each survey was then copied onto a PDF to create hard copy duplicates of the data. As part of the data collection, we also took screen shots of the websites to time stamp them, including each Elections homepage and Accessible Voting page with the WAVE feedback icons. Once the data was collected, a scorecard was completed for each county with individualized feedback.

Limitations

This tool and the subsequent report were created to be used as a preliminary screening, and not an exhaustive diagnostic evaluation. We were able to identify significant errors and make suggestions, but the purpose was not to discern if each website complies with accessibility guidelines. If a county receives a good report card from Disability Rights Washington, it does not mean that the website does not have any accessibility errors. Furthermore, the term compliance is somewhat of a misnomer in the context of website accessibility. Web accessibility to its core is dynamic and ever evolving, meaning that it can always be improved upon. We want to emphasize to the counties that creating accessible web content—and making voter information accessible online—is an ongoing process, not a one-time compliance check.

The survey was designed and completed by a sighted, hearing person who does not have a mobility disability and does not identify as a person with a disability. The survey process was not representative of the experience of a person with a disability. The survey was created to identify general trends across counties and to make recommendations. The purpose of the recommendations is not to dictate the needs of voters with disabilities but

rather to point out common areas where websites could be made more accessible.

We reported the exact numbers of contrast errors and untagged non-text elements as identified by the WAVE WCAG 2.0 compatibility screener. We did this to provide consistency throughout the survey though we recognize that automated tools miss errors and in some cases identify errors that upon review are not. As is the recommendation provided by WebAIM, we augmented all of our automated tools with in-person testing, and reviewed all contrast and tagging errors identified by WAVE.

"This website tells me that [accessibility] is not important to the county. That's what's communicated to me by the way that the website doesn't work."

– President of the Washington Chapter of the National Federation of the Blind, speaking about her experience using a county's elections website

# Findings

The findings of this report generally indicate a need for more attention and resources put forth for the accessibility of the county websites. Disability Rights Washington identified five major areas of focus, as reflected in the sections of the scorecards received by the counties.

## 1. Availability of Accessible Voting Information

The most fundamental action a county can take towards increasing the accessibility of voting is providing adequate information on accessible voting. The survey looked at whether or not the county elections website in question had an accessible voting page directly linked from the elections homepage, and whether that accessible voting page contained the following information:

- Information on the Accessible Voting Units (AVUs) in the county: locations, hours, and dates of operation
- Information on accessible ballots
- Information on the Disability Advisory Committee in the county: contact information, times and locations of meetings
- Drop box locations in the county
- Contact information for further help of someone in the county

We found that seven counties did not have an accessible voting page or page with accessible voting information at all, and one third of the counties (13) did not have an accessible voting (or similarly named) page directly linked to the elections homepage (Figure 1). While some of these websites did have

accessible voting pages, their utility and accessibility were diminished by the need to navigate through multiple pages. This practice, intentional or not, is called "burying information" and can make the information inaccessible in practice. A disability advocate from Western Washington commented on the importance of the "Accessible Voting" page link being one of the first things on an Elections website. She noted feeling that the accessible voting information on the website in question was "hidden" and that rather than try to navigate through many pages, she would most likely decide to call the county, meaning that the website design made the information very difficult to find.

Only about half of the websites (21, 54%) provided an accessibility statement (Figure 2). An accessibility statement is important as it contains language that alerts the voter that the county cares about ensuring an equal right to vote. Only 15 counties (38%) had complete information for the AVUs in the county. Five additional counties provided some incomplete information on the AVUs. The most common error encountered was the lack of information on hours for the AVUs. Many counties provided a general statement - as is provided by the Secretary of State's Office - explaining that AVUs are available 18 days before Election Day and until 8pm on Election Day, but failed to provide the address and hours of the county office where the AVU is accessible. Washington State law requires an AVU in each county.[20] Many voters with disabilities need to make advance arrangements for transportation in order to access the AVU, so it is very important to have this information on the location and availability of the AVU on the website.

The majority of counties had some information on accessible ballots (59%), county drop box locations (67%) and contact information in the county (79%), though many counties did not have all of this information located on one

> "I would like to see a link on the front page directing to where they can access more information on the AVU's."
>
> – Disability Advocate from Eastern Washington

accessible voting page (Figure 2). As was explained in many of the individual scorecards sent to the counties, even if the accessible voting information is available elsewhere on the website, it is important that it all be compiled onto one accessible voting page to eliminate the need for a person using a screen reader or keyboard navigation to navigate through many pages just to find voter information. The counties with the most complete accessible voting pages as a whole were Kitsap and Mason. The President of the National Federation of the Blind Washington State Chapter contributed user feedback, noting:

> "The questions you asked me [about accessible voting information] are things I would be looking for if I didn't know how to vote. I would look for a voters with disabilities or accessible voting page. No matter where I live, I want to know that there's an easy way to find information about voting as a disabled person. I would like to see something like that on every website."

The most alarming observation regarding content was that only one county, Thurston, had complete information on the county's Disability Advisory Committee (Figures 2 and 3). A further 10 counties had some information, but it was not complete. Thurston County was especially impressive in that they included the minutes and accessibility and outreach plans in multiple formats including audio, PDF and Word documents.

Figure 4 shows what the Thurston County "Voting Accessibility Advisory Committee" page looks like.  The table shows the alternate formats of the information.

In general, nearly all counties were missing some accessible voting information. Counties can check their websites to ensure inclusions of: information on locations, hours, and dates of operation of the AVUs; information on accessible ballots; information on the Disability Advisory Committee (including contact information, times and locations of meetings); drop box locations in the county; and contact information of someone in their county for further help.

Figure 1: Does the Website Have an Accessible Voting Page with a Direct Link from the Elections Homepage?
All Counties, (n=39)

No 33%
Yes 67%
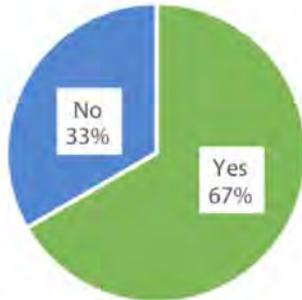
Figure 2: Availability of Accessible Voting Information
All Counties (n=39)

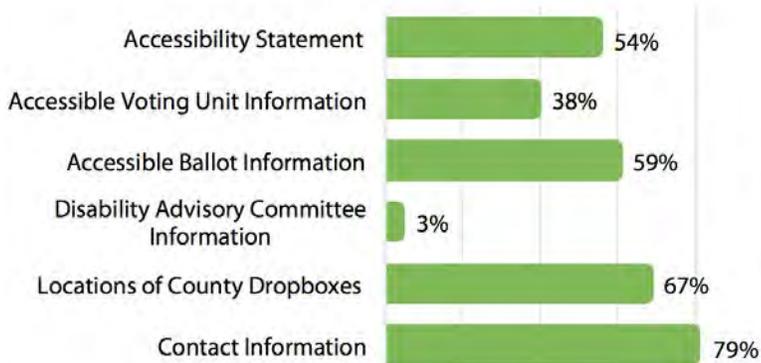| | |
|---|---|
| Accessibility Statement | 54% |
| Accessible Voting Unit Information | 38% |
| Accessible Ballot Information | 59% |
| Disability Advisory Committee Information | 3% |
| Locations of County Dropboxes | 67% |
| Contact Information | 79% |

Figure 3: Information on the Disability Advisory Committee in the County (contact information, times, and locations of meetings, accessibility and outreach plans)
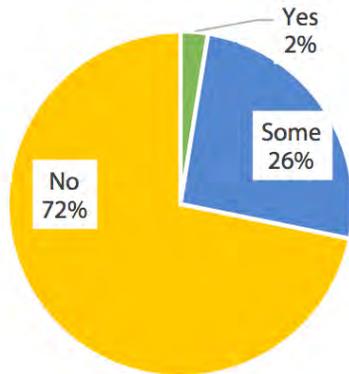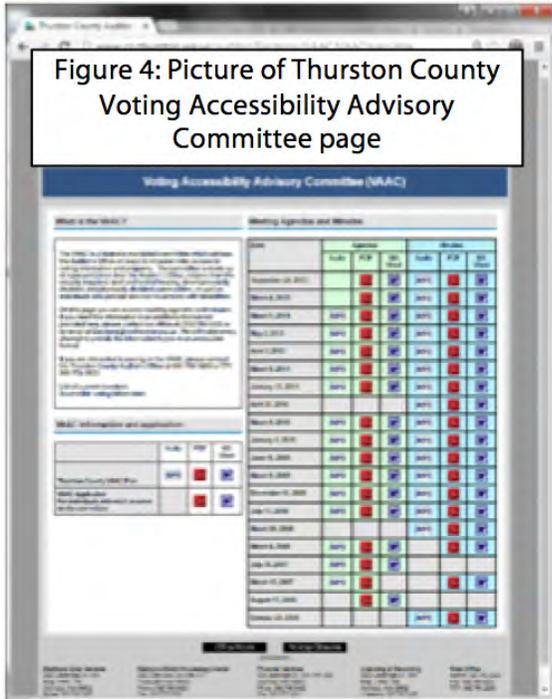All Counties, (n=39)

Yes
2%

Some
26%

No
72%

Figure 4: Picture of Thurston County Voting Accessibility Advisory Committee page

## 2. Ordering

More than two thirds of the websites (27, 69%) were not ordered using appropriate heading levels (Figure 5). A heading level is a numbered heading that indicates the structure of the page to a person using a screen reader. When pages are ordered correctly, the page will be read logically, and the person using the screen reader will be able to identify the main headings and subheadings of the page (heading level 1=main point of page). Heading levels also allow people to navigate directly to the section of information they are looking for. One can direct the screen reader to read the heading levels of the page using a keyboard command, and then navigate directly to the heading that they choose.

When asked about her experience navigating through one of the county elections websites, a Disability Advocate informed Disability Rights Washington, "It's not easy, and the reason for that is it keeps getting stuck on [a heading]. So then I try pressing tab which is one way that I can a lot of times scroll through what's on a website, but when I do that it just goes to the bottom of the page."

> "It's not easy, and the reason for that is it keeps getting stuck [on a heading]."
>
> – Disability Advocate describing her experience using a screen reader on an elections website

Common errors in ordering and heading levels across the counties included a total lack of headings, missing heading levels, and skipped heading levels. Skipped heading levels are problematic because it is unclear whether a screen reader has skipped content on a page. Figure 6 shows an example of what the WAVE screener shows when there are errors in ordering. Though many of the accessible voting information pages were ordered correctly, many of the same websites had incorrectly ordered elections homepages. Figure 7 shows a correctly ordered page.

Figure 5: Is The Website Ordered with Appropriate Headings Levels?
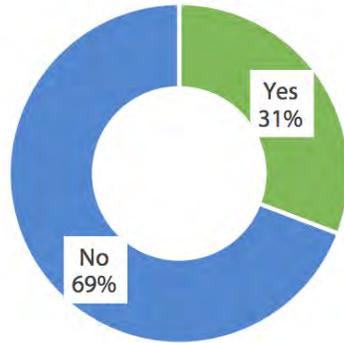All Counties (n=39)

Yes 31%

No 69%



Figure 6: On the left, this County Elections homepage is missing all heading levels. In the center, this County Elections homepage is missing heading levels 1-4. On the right, this County Elections homepage has a skipped heading level at level 2.
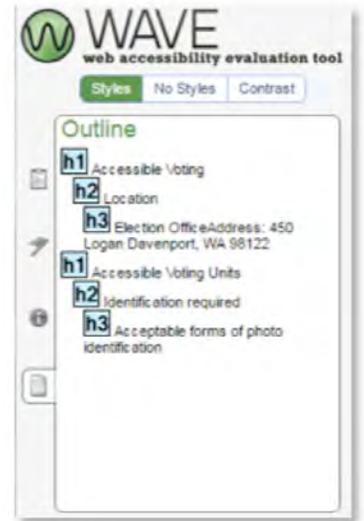


Figure 7: Taken from the Lincoln County Accessible Voting page, picture showing correct ordering

# 3. Contrast Errors

The WCAG 2.0 guidelines provide conformance levels for color contrast. We reviewed the AA level of contrast because it identifies the point at which a person with moderately low vision can read the page without the use of contrast-enhancing assistive technology.[21] The contrast levels are also set to ensure that people with color blindness or color deficiencies can access the content. According to the WCAG 2.0 guidelines, "the contrast is calculated in such a way that color is not a key factor so that people who have color vision deficit will also have adequate contrast between the text and the background."[22] According to the WCAG 2.0 guidelines, in order to pass standard level AA, the contrast ratio between any text and its background must be at least 4.5:1, except for large text, decoration or incedental text, and logos. In order to pass level AAA, the visual presentation of text must have a contrast ratio of at least 7:1, barring the same exceptions.[23]

The WAVE screener found contrast errors on nearly all of the county websites. All of the contrast errors were reviewed and some were false positives and found to pass level AA, but more than half of the websites had at least one legitimate contrast error.

"Blues and grays are hard to read."

– Western Washington Disability Advocate

Figure 8 shows the number of contrast errors found, grouped into the sections that appear on the county scorecards.
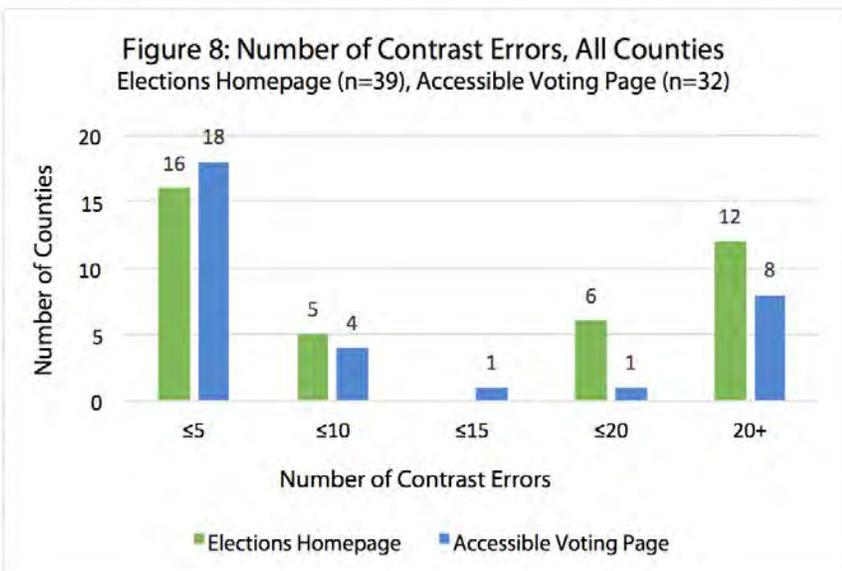
Figure 9 shows the number of contrast errors found on each county's page, with each county being represented by a dot. The number of counties for "Accessible Voting Page" is 32 in both graphs, instead of 39, because 7 counties had no Accessible Voting Page or similar page at all, so we were unable to

check the contrast errors on that page for those counties. The most common contrast errors found were gray text on a white background, which rarely ever produces the contrast ratio needed, and similar colors being used for the text and background, such as blue on green or red on orange.

Figure 10 shows a county elections homepage with the total number of contrast errors identified on the left and some of them marked with icons on the page. We have also used the contrast tool to check the errors on the left, and where there is a contrast of 1.9:1 the gray text identified does not appear to pass level AA and probably presents a contrast error. A disability advocate from Western Washington reported that the Elections homepage in Figure 10 that the "blues and grays are hard to read," and that she sometimes could not distinguish between the two colors which, in this case, meant that she did not know that some text represented a link and some did not.

Contrast errors are easy to test for and fix using the WAVE Contrast Tool. Contrast errors also affect the largest number of people, because they can make content difficult to read or inaccessible for people with low vision, people with color deficiencies, the elderly and aging, and potentially people who wear glasses or contact lenses with corrective perscriptions.



Figure 8: Number of Contrast Errors, All Counties
Elections Homepage (n=39), Accessible Voting Page (n=32)

Figure 9: Number of Contrast Errors, All Counties
Elections Homepage (n=39), Accessible Voting Page (n=32)
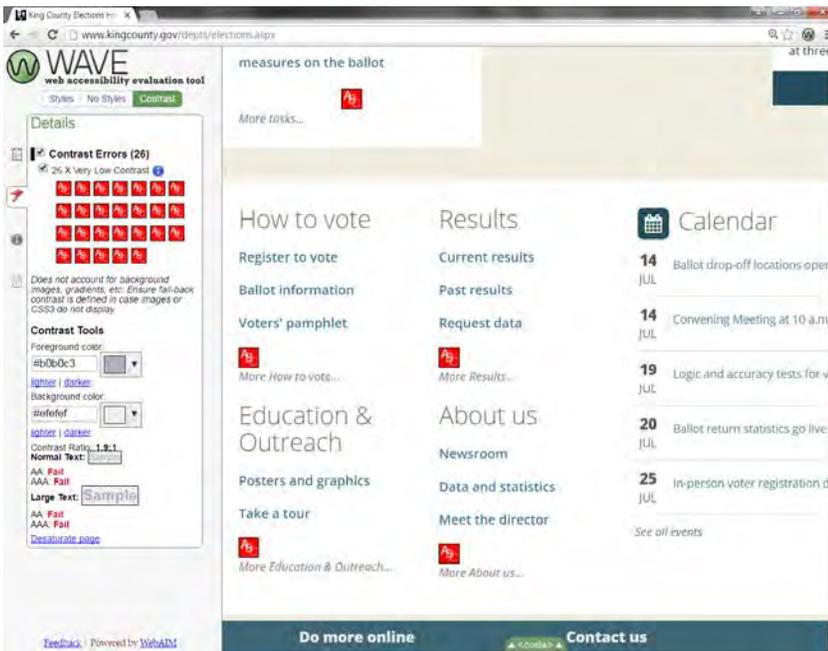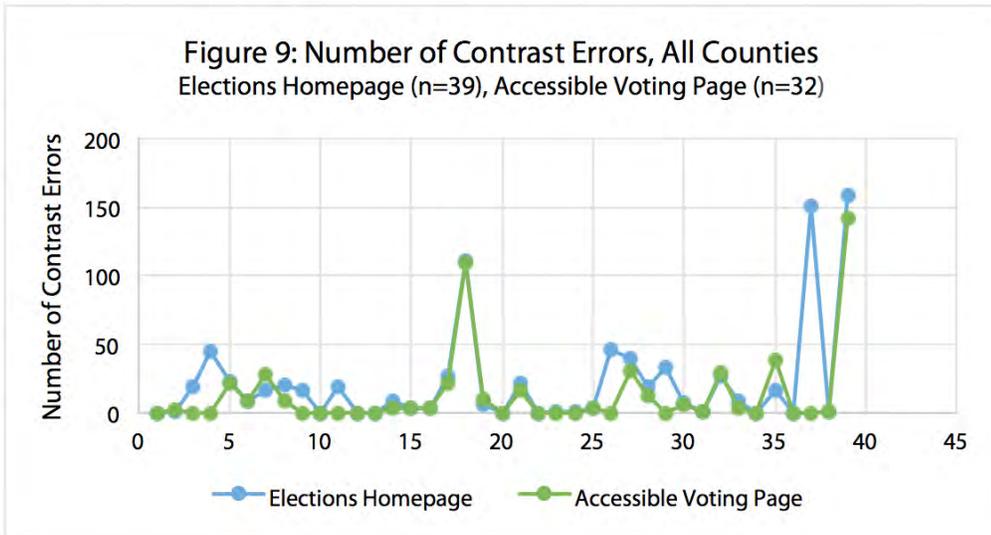


Figure 10: Screenshot of an elections homepage with the contrast errors identified by the WAVE screener. There is gray text that only has a contrast of 1.9:1 and does not pass level AA of the WCAG 2.0 guidelines.

## 4. Skip Navigation and Text-Only Versions

Skip navigation links and text-only versions are features that facilitate more efficient navigation for people using screen readers, keyboard navigation, and other assistive technologies. They are grouped together in the survey to demonstrate that every website has some basic function to help simplify navigation, but each element serves a different purpose and both could be implemented to make a website the more accessible. 28 counties (72%) had one or both of these elements, while 11 counties (28%) did not (Figure 11).

A skip navigation link is a link at the very top of the page that allows a person using a screen reader to skip to the main content of the page, just as a sighted person would. It eliminates the need to listen to all of the menu options before arriving at the main text of the page, an exercise that is cumbersome and time consuming. The most common errors observed in skip navigation links were the lack of a link or the placement of the link somewhere other than the top of the page. If the link is not the first thing read on the page, its usefulness is diminished.

A text-only mode of a website presents the entire website in text, without any pictures, graphics, icons, videos or other non-text elements. Non-text elements that are not tagged correctly) can not only be confusing, but they can actually impede the user from accessing the important content of the page because screen readers and keyboards can get stuck on elements they are not able to process. Even properly tagged non-text elements can simply add unnecessary time to the navigation process. Therefore, a text-only mode is helpful to people using screen readers and keyboard navigation. Disability Rights Washington was pleased to discover in the survey that the Secretary of State's website template, used by many counties, always included a text-only mode. Figure 12

shows the text only mode of the Adams County Elections homepage compared to the graphic mode.

It is usually possible to add a skip navigation link to a website without undergoing a redesign, and we strongly recommend that counties do so. Adding a text-only mode is more likely to require further redesign, but there are free and openly available templates that provide text-only modes, and all county elections websites should consider this addition.[24]

Figure 11: Does the website have a text-only mode or a skip navigation link?
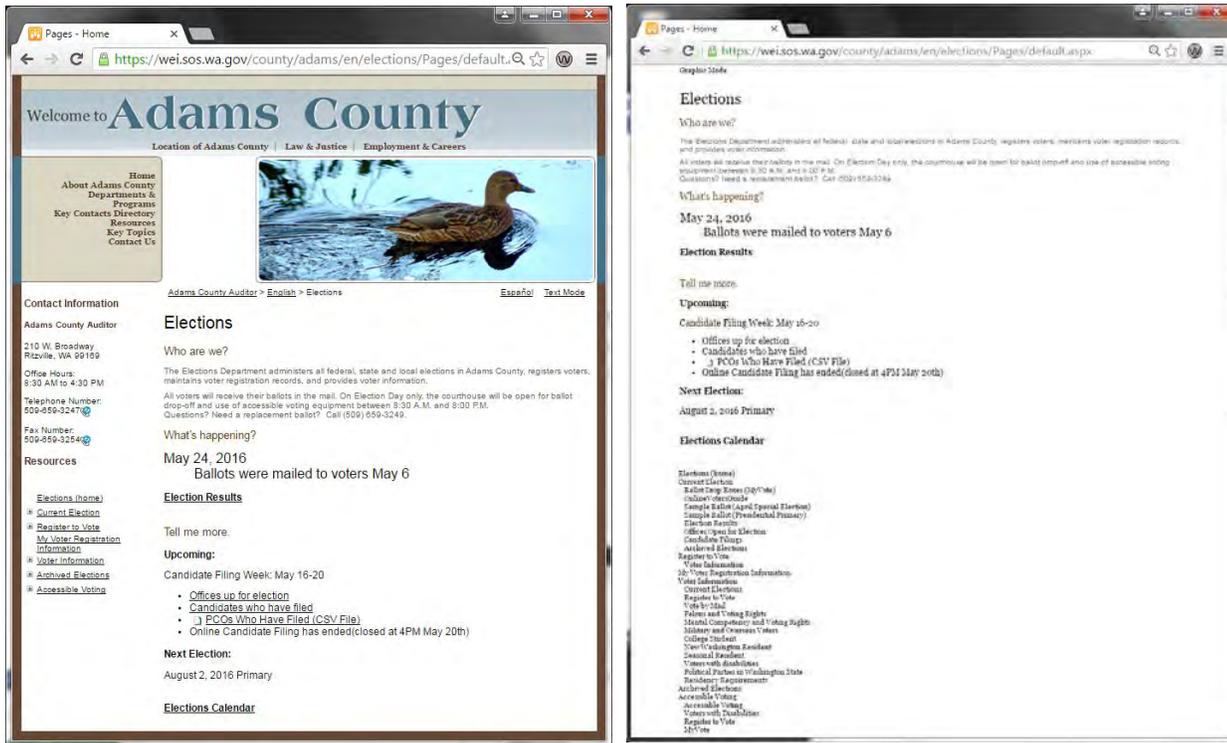All Counties, (n=39)

No 28%

Yes 72%
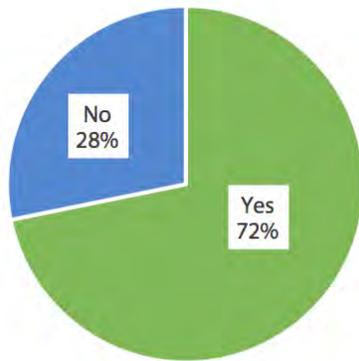
Figure 12: Screenshots of the Adams County Elections homepage, shown
in graphic mode in the left and text mode on the right.

# 5. Tagging of Non-Text Elements

Tagging non-text elements is generally one of the most basic things website
developers can do to improve the accessibility of their websites. WCAG 2.0
1.1.1 guideline states that "All non-text content that is presented to the user
has a text alternative that serves the equivalent purpose".[25]

Non-text elements that contribute to the content of the website can be
confusing to voters using a screen reader unless the elements are given an
alternative text tag. There are many such non-text elements. For example, on
the county websites, relevant non-text elements include phone and e-mail
icons that indicate that the following information is a phone number or e-mail
address, pictures of elections offices that show where the office is or indicate
that the following information is an address, search boxes, PDF icons indicating
that the link will take the user to a PDF, graphic expand icons that indicate that

a menu has subheadings, and county banners that inform the user of the host of the website.

Once the WAVE screener identified the untagged non-text elements, we reviewed them to determine relevance before making a reccomendation to each county for additional tags. The survey also required the use of a screen reader to determine how much non-text content was actually read by the screen reader.

Figure 13 shows that of the counties that had pictures, tables, or graphs on the two pages reviewed (n=32), less than half (47%, 15 counties), had appropriately tagged all of their non-text relevant content so that the screen reader could access it.

Figure 14 shows the number of untagged non-text elements as identified on each county's Elections homepage and Accessible Voting page by the WAVE screener. As was the case with the contrast errors, there were only 32 Accessible Voting pages to test. The data shows not only that over two-thirds of the Elections homepages and Accesible Voting pages, respectively, had more than two untagged non-text elements, but that there were more counties who had more than 10 untagged non-text elements on each page than counties that had less than two. In other words, 11 counties had more than 10 untagged non-text elements on their Accessible Voting pages, while only 10 counties had less than two. Seventeen counties had more than 10 untagged non-text elements on their Elections homepages, while only 12 counties had less than two.

Figure 15 shows the number of untagged non-text elements, with each county represented by a dot.

The most common errors in tagging were a lack of a tag, or a tag with either generic text (such as "Describe your picture"), or tags left blank. Figure 16 shows the Skamania County Logo, which is tagged correctly. Tagging is easy to fix and does not require any redesign. Many counties had some elements tagged and others not—most likely, tagging was forgotten as new content was added. Counties can significantly improve the accessibility of their websites by reviewing the non-text elements on their elections websites including pictures, forms (search boxes and other fill-ins), graphics, icons and banners to check for relevent untagged non-text elements, and making the appropriate corrections.

Figure 13: Does the Screen Reader describe the pictures, the tables and the pie graphs (the use of alt or londesc tag)?
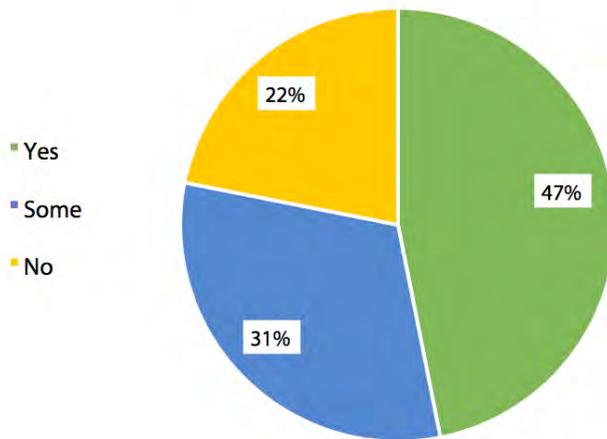All Counties with These Elements, (n=32)

- Yes
- Some
- No

22%
47%
31%

## Figure 14: Number of Untagged Non-Text Elements, All Counties
### Elections Homepage (n=39), Accessible Voting Page (n=32)

|  | ≤2 | ≤4 | ≤6 | ≤8 | ≤10 | 10+ |
|---|---|---|---|---|---|---|
| ■ Accessible Voting Page | 10 | 7 | 2 | 2 | 0 | 11 |
| ■ Elections Homepage | 12 | 2 | 0 | 4 | 4 | 17 |

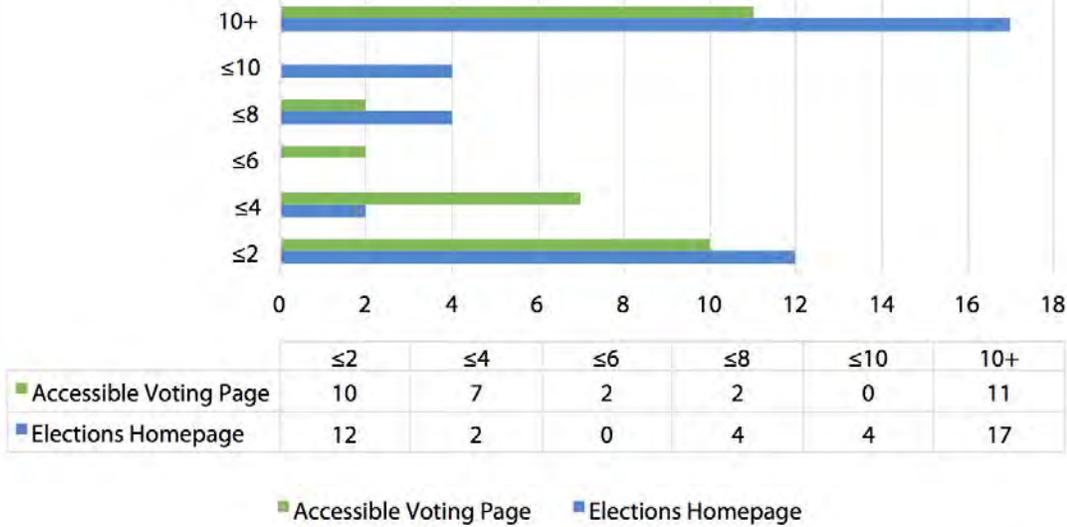■ Accessible Voting Page    ■ Elections Homepage

## Figure 15: Number of Untagged Non-Text Elements; All Counties, Ordered Alphabetically
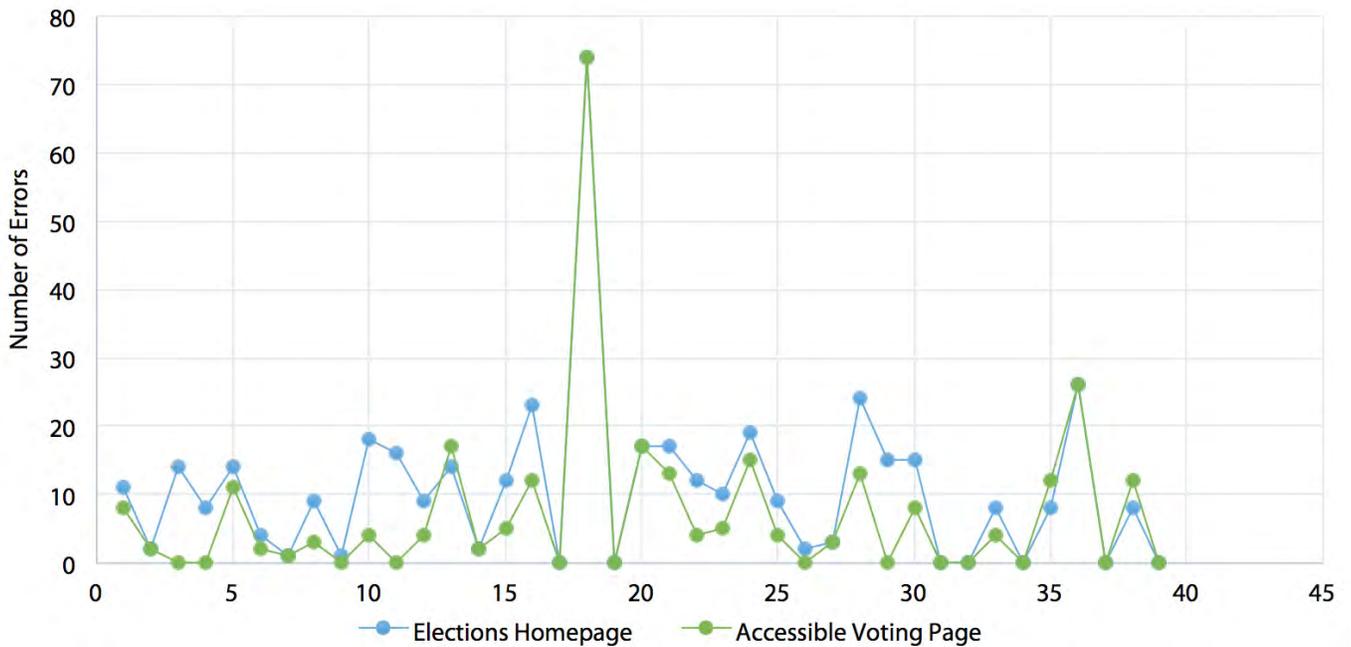### Elections Homepage (n=39), Accessible Voting Page (n=32)

Number of Errors

Elections Homepage    Accessible Voting Page

Figure 16: Screenshot showing the Skamania County Logo with a correct alternative text tag.

# Recommendations

## Short Term Recommendations

### Scorecard Review

We hope that each county will review their individualized scorecard and address the issues identified while performing an accessibility review of the website. It is important to note that we only screened two pages of each website—the Elections homepage and the Accessible Voting page—and any errors with contrast, ordering and tagging that were on other pages were not reported. We also encourage counties to promptly update the accessible voting information on their elections websites and link their Accessible Voting pages to the Elections homepage.

### Address Additional Technical Features

There are some other technical features that were not addressed in our scorecard but have been brought to our attention as places of common error. As counties review their websites, the following elements are important to review.

- On the list of drop boxes provided on their websites, we encourage counties who have drop boxes that are not accessible to indicate which drop boxes are accessible and meet ADA regulations, and which are not accessible.
- We recommend marking all PDFs on the page with a tagged PDF icon, so that users are alerted that the link is a PDF. It is especially important

that PDFs be marked as they often open a new window and sometimes are not accessible when using a screen reader, and thus can be very confusing and inaccessible.

- Search boxes are more readily identified if tagged appropriately with the correct ARIA landmark tag. As a further step, spell suggest functions can make search boxes more accessible by suggesting options for people who have difficulty with spelling or people whose first language is not English.

- CAPTCHA feature, if used, is often not accessible. This article may be helpful to counties who use this feature: https://www.w3.org/TR/turingtest/.

## Website Accessibility Plan

We also suggest that counties develop a plan for the improvement and maintenance of accessibility of their websites. This plan should include a designated person or group of people responsible for the accessibility of the website, a corrective action plan to prioritize the removal of current online barriers, and policies and procedures ensuring that all new, newly added or modified online content and functionality will be accessible to people with disabilities.[26]

# Long Term Recommendations:

## Website Audit

We recommend that counties conduct a thorough audit of existing online content and functionality performed by an auditor who has the requisite knowledge and experience to audit content and functionality. The audit should identify barriers to access on the existing website for people with disabilities.[27]

## Redesign with Accessibility in Mind:

Counties planning to undergo a website redesign are well advised to do so with accessibility in mind. This includes ensuring that a text-only mode is available. Website redesign often includes planning for responsive design. Having responsive design means that the website will accommodate different website templates, different technologies (including computers, smart phones and tablets), and that content and functions available using one of the technologies are also available on the other types. As a starting point, counties can check for mobile accessibility, a part of responsive design, by using the Google mobile accessibility check tool.[28]

## Personas and User Testing:

We encourage counties to learn more about ongoing ways to test their websites for accessibility. [29] County Disability Advisory Committees can be a helpful resource for user testing.

## Staff Training

We also encourage counties to incorporate in their long-term plan a means of providing website accessibility training to all appropriate personnel. There are free webinars on website accessibility available via 3PlayMedia.[30]

## Resources

We recognize that counties will have different resources and expertise available to them to address issues with the accessibility of their websites. The following are some additional resources for counties who need help implementing upgrades in website accessibility:

- WebAIM provides a "Resources" page that has articles, videos, tools and simulations all available at no cost. The page can be found here: http://webaim.org/resources/

- WebAIM WAVE Google Chrome plug-in web accessibility testing tool is available free online: http://wave.webaim.org/extension. A free tool for agencies who do not support or use Google Chrome is available http://wave.webaim.org/.

- W3C offers resources available online for planning and implementing web accessibility including articles on how to develop policy around web accessibility and how to plan, manage, and improve the accessibility of your website. More information can be found here: https://www.w3.org/WAI/managing.html

- Counties that are planning a website redesign or a website accessibility audit who need assistance identifying outside parties to do this work can contact the Secretary of State's Office for referrals and further resources.

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# End Notes

[1] US Census Bureau; Voting and Registration in the Election of November 2014; Table 1. Reported Voting and Registration, by Sex and Single Years of Age: November 2014. Available: https://www.census.gov/hhes/www/socdemo/voting/publications/p20/2014/Table01.xls. (Last visited July 13, 2016).

[2] Based on data in Andrew Houtenville and Tony Ruiz, 2014 ANNUAL DISABILITY STATISTICS COMPENDIUM, available http://disabilitycompendium.org/statistics/population-and-prevalence. (Last visited July 13, 2016) US Census Bureau; Voting and Registration in the Election of November 2014; Table 1: Reported Voting and Registration, by Sex and Single Years of Age: November 2014. Available: https://www.census.gov/hhes/www/socdemo/voting/publications/p20/2014/Table01.xls and Table 6: Reported Voting and Registration, by Sex, Employment Status, Class of Worker, and Disability Status: November 2014. Available: https://www.census.gov/hhes/www/socdemo/voting/publications/p20/2014/Table06.xls (Last visited July 13, 2016).

[3] McDonald, Michael P. "2014 November General Election Turnout Rates." United States Election Project. University of Florida, 30 Dec. 2015. Available online: http://www.electproject.org/2014g. (Last visited July 13, 2016).

[4] Schur, L., Shields, T., Kruse, D., & Schriner, K. (2002). Enabling Democracy: Disability and Voter Turnout. Political Research Quarterly, 55(1), 167-190. Available online: http://www.jstor.org/stable/3088070. (Last visited July 13, 2016). Referred to herein out as Schur et al 2002.

[5] Schur et al 2002.

[6] 42 U.S.C. § 15301; 42 U.S.C. § 15481.

[7] See Voters with Disabilities, Washington Office of the Secretary of State, available: https://wei.sos.wa.gov/agency/osos/en/voters/Pages/voters_with_disabilities.aspx. (Last visited July 13, 2016).

[8] Available online: http://www.w3.org/TR/WCAG20/. Copyright © 2015 W3C® (MIT, ERCIM, Keio, Beihang). This software or document includes material copied from or derived from Web Content Accessibility Guidelines 2.0.

[9] DRW's authority comes from the Developmental Disabilities Assistance and Bill of Rights (DD) Act, 42 U.S.C. § 15041, et seq., the Protection and Advocacy for Individuals with Mental Illness (PAIMI) Act, 42 U.S.C. § 10801, et seq., the Protection and Advocacy for Individual Rights (PAIR) Act, 29 U.S.C. § 794e, the regulations promulgated thereto, and RCW 71A.10.080.

[10] The survey does incorporate standards as set forth by expectations of federal and state statutes, and broadly accepted web content guidelines (Federal laws: Section 508, Washington State law RCW: 29.04.223 Guidelines: WCAG and WC3 Guidelines), but inclusion or exclusion of a standard or indication of issues is not determinative of legal compliance.

[11] 29 U.S.C. § 794 (d); "Section 508 Law and Related Laws and Policies." Section508.gov. Web. Available online: http://www.section508.gov/content/learn/laws-and-policies. (Last visited July 6, 2016).

[12] Section 508 (a), (b), (k), (l), and (o); "Section 508 Checklist." WebAIM. Web. Available Online: http://webaim.org/standards/508/checklist. (Last visited: July 7, 2016).

[13] 42 USC 15 § 301(a)(3)(A)(B)(C).

[14] "Vote by mail impacts on voters with disabilities—Mitigation—Advisory committee, plan." RCW29A.04.223

[15] RCW29A.04.223

[16] Resources for how WAI develops Accessibility Guidelines through the W3C Process:
"Milestones and Opportunities to Contribute" and "Web Content Accessibility Guidelines (WCAG) Overview" https://www.w3.org/WAI/intro/w3c-process.php. (Last visited July 13, 2016)

[17] (Previously cited- WCAG Guidelines) Available online: http://www.w3.org/TR/WCAG20/. Copyright © 2015 W3C® (MIT, ERCIM, Keio, Beihang). This software or document includes material copied from or derived from Web Content Accessibility Guidelines 2.0.

18 (Previously cited- WCAG Guidelines) Available online: http://www.w3.org/TR/WCAG20/. Copyright © 2015 W3C® (MIT, ERCIM, Keio, Beihang). This software or document includes material copied from or derived from Web Content Accessibility Guidelines 2.0.

19 A "screen reader" is a software application that converts text into synthesized speech, which allows a user to listen to the content. This enables people who cannot read printed words to access the content. Many people with disabilities such as blindness or learning disabilities rely on screen readers in order to access the web. http://webaim.org/techniques/screenreader/

20 RCW 29A.40.160 (1), (4).

21 "Contrast (Minimum): Understanding SC 1.4.3." Understanding WCAG 2.0. W3C, 2016. Web. Available online: https://www.w3.org/TR/UNDERSTANDING-WCAG20/visual-audio-contrast-contrast.html. (Last visited July 14, 2016).

22 Id.

23 (Previously cited- WCAG Guidelines) Available online: http://www.w3.org/TR/WCAG20/. Copyright © 2015 W3C® (MIT, ERCIM, Keio, Beihang). This software or document includes material copied from or derived from Web Content Accessibility Guidelines 2.0.

24 One resource for free website templates is drupal.org. We would like to thank Brian Rowe for providing us with technical assistance and information on the resources available to implement these elements.

25 (Previously cited- WCAG Guidelines) Available online: http://www.w3.org/TR/WCAG20/. Copyright © 2015 W3C® (MIT, ERCIM, Keio, Beihang). This software or document includes material copied from or derived from Web Content Accessibility Guidelines 2.0.

26 Some of our recommendations were adapted from the recent settlement between the US Department of Education's Office for Civil Rights and education departments in seven states and one territory, including the Bellingham Washington School District and the Washington Office of the Superintendent of Public Instruction. More information on the settlement can be found online: http://www.ed.gov/news/press-releases/settlements-reached-seven-states-one-territory-ensure-website-accessibility-people-disabilities?utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term= (Last Visited July 14, 2016).

27 Id.

28 For more information on responsive design, please see the following article: https://www.smashingmagazine.com/2011/01/guidelines-for-responsive-web-design/. (Last visited July 14, 2016). Link to the Google mobile accessibility tool: https://www.google.com/webmasters/tools/mobile-friendly/. (Last visited July 14, 2016).

29 For information on user testing, please see the following article: http://webaim.org/blog/accessibility-user-testing/ (Last visited July 31,2016) For information on accessibility testing with personas  with disabilities, please see the following article: https://www.w3.org/wiki/Accessibility_testing#Personas_with_disabilities (Last visited July 31, 2016).

30 Link for 3PlayMedia web accessibility webinars: http://www.3playmedia.com/resources/webinars/. (Last visited July 14, 2016).