



2016 ALGIM Local Government Web Audit Overview Report

By Dr Pete Parkin

Web Audit Assessment based on:

- ❖ Self-Assessed Online Functionality (Snapshot)
- ❖ WCAG 2.0 Accessibility Audit (Blind Foundation)
- ❖ Enquiry Response Time Tests (ALGIM)
- ❖ Best Practice Review (conducted by ALGIM)

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2016 ALGIM Local Government Web Audit

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Abstract

This paper reports on the results of an annual ALGIM audit of New Zealand Council websites. The audit involved measuring Web Standards compliance using an automated tool, email and Facebook enquiry response times, a selection of best practice factors and elements of a survey regarding website functionality and online services.

Online services on Council websites were found to have been broadly enhanced compared to last year, with a strong increase in the availability of online payments mechanisms, particularly credit cards, and what can be paid for online. There has also been a general improvement in Council website functionality with online submission services, online application forms (for return via email) and interactive mapping tools now available on more than 80% of the Council websites surveyed. The ability to complete some transaction services online is also provided for on 80% of the websites of the Councils surveyed. Councils have also maintained their steady increase in usage of social media channels in general and now almost all have corporate Facebook accounts.

Web standards assessment revealed that the most prevalent WCAG 2.0 standards infractions on Council websites, accounting for a third of all infractions, involved website content requiring relatively advanced reading levels, website pages opening windows uninitiated by a user and not providing accessible names for image links. It was also found that the six most commonly compromised standards on Council websites consisted of two perceivable, two operable and two understandable standards and very few Council websites were found to comply with these particular standards. Overall, although no Council website complied with all 61 WCAG 2.0 standards, more than half of the standards were fully complied with across all Council websites and standards compliance overall averaged nearly 80%.

Email enquiry response times have generally marginally improved and the number of Councils not responding to such enquiries has decreased this year. However the enquiry response tests also uncovered that only slightly more than half of Councils on Facebook responded to a straightforward Facebook enquiry within three hours, and disturbingly more than 41% didn't respond at all.

The Best Practice Review found that facilitation of online payments and the use of mobile responsive design on Council websites has improved markedly since last year. Rates can now be paid online at nearly 80% of Council websites and almost 60% of these websites offer online payments services for two or more other types of payments. In addition, now website layouts adapt automatically for smart-phone users on more than 60% of Council websites.

Introduction

Early each year the Association of Local Government Information Management (ALGIM) conducts an audit of all city, district, regional and unitary Council websites throughout New Zealand (currently, a total of 78). This year the audit consisted of four assessment components:

- Self-Assessed Website Functionality and Online Services (using responses to selected questions from the 2016 ALGIM Snapshot Survey of Council websites)
- Accessibility Audit (A tool-based audit of WCAG 2.0 Website Standards conformance undertaken by the Blind Foundation)
- Enquiry Response Time Tests (using both email and Facebook enquiries and assessed by ALGIM)
- A Best Practice Review (An assessment of selected best practice elements and online services available on Council websites and conducted by ALGIM)

The main objectives for the overall ALGIM audit are to:

1. **To allow a ranking of Council websites** - to celebrate organisations striving to achieve compliance with the web standards, enhance accessibility and functionality, and to provide justification for Councils' wishing to improve their website, especially during any future redesigning or revamping projects.
2. **To record the current state of functionality, online services, accessibility standards compliance and best practice factors among Council websites.** Audit results collected over several years allow the trends in Council websites improving functionality, accessibility and usability to be tracked, analysed and reported.

Self-Assessed Website Functionality and Online Services

Every year ALGIM conducts a self-assessment (Snapshot) survey of Council websites. This survey is designed to give an overview of website related structures and mechanisms within local government.

The survey collects a diverse range of information concerning the strategies, management, content management, available datasets, testing methods, reporting mechanisms, metrics regimes and search facilities of websites. Also gathered is information regarding the usage, functionality, and support for online activities and mobile devices of websites, plus social media channels Councils use and related policies. Although the focus of the 2016 Snapshot Survey remained the same as in previous years, the questions were overhauled this year with some questions being combined and others having their wording updated or simplified.

As in previous years, the audit this year used responses to a small subset of Snapshot Survey questions to measure website functionality and online services provided by Councils. These questions covered:

- online payment mechanisms and what could be paid for via the website

- website functionality in terms of the online availability of interactive mapping tools, application forms for email or submission to backend databases, consultation, customer feedback, submissions and fully-complete transactional services
- the use of social media (typically linked to via the website but also available directly online).

Accessibility Audit

As was the case last year, the accessibility component of the web audit involved of an automated audit of all Council websites regarding conformity with Web Content Accessibility Guidelines 2.0 (WCAG 2.0). WCAG 2.0 is used by the Department of Internal Affairs to formulate the New Zealand Government Web Standards for Government Departments. High levels of conformity facilitate the effective use of a Council website by users of both mobile equipment and adaptive technology, as well as supporting more traditional users.

The automated testing tool used was SortSite, which is listed as one of the W3.orgs tools suitable for checking accessibility. The tests, using this tool were undertaken by the Blind Foundation on behalf of ALGIM. SortSite has the ability to scrutinise website accessibility for all 61 WCAG 2.0 standards to a conformance level of AAA. The 61 standards are composed of:

Perceivable Standards (22 Standards): Which concern the visual appearance of website pages, making sure that the pages do not solely rely on either visual (via images) or aural delivery to convey information.

Operable Standards (20 Standards): Which confirm that the website has multiple navigation mechanisms and can be fully operated using only a keyboard. Also covered are the clarity of control information and ensuring there are facilities to control any automated information delivery on pages.

Understandable Standards (17 Standards): Which, on webpages, cover appropriate language identification, consistent labelling, and ensuring that there are no surprises for users when each element receives focus. Also included are error prevention, messaging, and correction and provision of review facilities for information about to be submitted via input forms.

Robust Standards (2 Standards): Which relate to whether the use of HTML elements on web pages is consistent with HTML grammar standards.

Enquiry Response Time Tests

As was the case last year, this component of the AGLIM Web Audit used both an email enquiry as well as a Facebook enquiry, which was sent to each Council to test the Council response times.

The email enquiry measured the speed of response to a straightforward message sent to the general email address provided on a Council website. The enquiry was from ALGIM and was dual purpose as it requested details of the Council's current Website Manager and who they report to so that the ALGIM Database could be updated.

The Facebook enquiry consisted of a private message sent individually to each of the 73 Councils who were on Facebook from a personal Facebook account. This enquiry requested annual dog registration cost details from City and District Councils and bus service information from Regional Councils.

Best Practice Review

The Best Practice Review examines whether Council websites met best practice in terms of specific content provision and presentation. The content and presentation factors chosen for review cover:

- New Zealand Government link
- legal notices
- file download information
- the printability of webpages
- enhanced site navigation
- online mapping of property or service information
- site support for consents
- site facilitation of online payments
- the use of mobile responsive design

These factors are further described below along with an identification of any sub-factors. These content factors and sub-factors are the same as those used in the 2015 Best Practice Review.

Councils are closely connected to the **New Zealand Government** and operate in accordance with numerous acts of parliament. Correspondingly, it seems reasonable for each Council to provide a link back to the NZ Government website, typically, on the home page of their website.

The **legal notice** factor includes both Copyright and Privacy Statements. Every Council should document in a Copyright Statement on their website that the Council, in the main, is the owner of the copyright of their webpage content. The terms of use of this webpage content, usually that it is freely available for personal or non-commercial use, should also be briefly described. Councils are required to comply with the provisions of the Privacy Act 1993. One of the provisions is that an individual can contact an organisation complying with the Act and seek to access any personal information on themselves held by that organisation. Council website privacy statements should document that the website is bound by the Privacy Act and describe that any individual may contact the Council regarding the privacy of any personal information entered into or appearing on the site. In addition, many sites throughout the web store and utilise small amounts of information on a user's hard drive in the form of "cookies" when they browse the website. A Council website should certainly acknowledge if they employ cookies. Even if they do not, the use of cookies is so prevalent that the website should document that it does not use them to allay any user concerns.

Council websites typically contain many downloadable files often in PDF (e.g. annual reports, annual plans and 10-year plans) and of various sizes. Providing **file download information**, in particular the file size, allows a user to decide whether they want to download/open a file or not. Similarly, supporting **webpage printability** by removing page banners, navigation links, and the search box when a page is to be printed from a browser is also desirable.

The factor of **enhanced site navigation**, like the previous two factors, supports the general usability of a Council website. The particular enhanced navigation considered was if an A-Z of Council services or even the detailed content of the whole website was provided. Such an A-Z allows a user to ascertain whether a service they are after is on the Council site and, if so, quickly navigate to it.

There are three factors, which consider the online services provided or facilitated through a Council website. The first of these is **online mapping** which examines website support for detailed maps of either property information, underground services or, even, land flooding or other hazard information for the area managed by a Council. The second factor in this group considers **site support for consents**. These cover either building or resource consents and scrutinise the provision of consent application forms (i.e. whether they are available in PDF or Word formats and possibly supported through some online application submission mechanism). The last of the online service factors investigates direct provision of **online payments** via the site. The major payments Councils receive from people they serve are rates, so facilitating rates payments through their website via credit or debit cards is desirable for any Council. However, many other payments, such as those for water rates, general (non-rates) invoices, parking fines, dog re-registration, health licenses or various permit fees, could potentially be made online through a Council's website.

Over recent years, increasing percentages of internet users are accessing websites in general via mobile devices, typically smart phones. An appropriate response to this trend is for Councils to adopt **mobile responsive design** to develop their websites so that device specific displays are rendered for their website users.

Website Ranking Methodology

For the purpose of ranking Council websites, the scores achieved in each of the four assessment components of the audit were combined to form an overall score for each website.

The table below details the percentage that each component contributes to the overall score. The self-assessed Web Standards survey used in previous years has been dropped as a component as WCAG 2.0 Standards conformance is now assessed using a tool-based approach in the Accessibility Audit. The discontinuance of the Web Standards survey has prompted a slight increase in contributions to the overall ranking score from the Functionality and Online Services and Best Practice Review components this year. These increases reflect this year's expansion of the services component to include an evaluation of fully-complete transactional services on Council websites and as well as to account for the assessment of specific online service and mobile responsive design factors added to the Best Practice Review component last year.

Assessment Component contributions to the overall Ranking Score

Self-Assessed Website Functionality and Online Services [2015 Contributions]	Accessibility Audit (Blind Foundation)	Enquiry Response Times (ALGIM)	Best Practice Review (ALGIM)
25% [20%]	30% [30%]	10% [10%]	35% [30%]

Method

The four Web Audit components were undertaken within the period from February to early May in 2016.

Website functionality and online services were evaluated from responses to selected questions in the annual Snapshot Survey of Council websites. The Snapshot Survey was conducted in an online self-assessment manner. For each of the 78 New Zealand Councils, a Council officer involved in website operations was invited to participate in the Snapshot surveys. The survey remained open online for Council officers from mid-February to mid-April 2016.

The Accessibility Audit was undertaken on Council websites during early March 2016.

The email enquiry was sent to all Councils during business hours in March 2016. Some 24 Councils provide a form for enquiries on their website. When available, this form was used for the email enquiry, and in other cases the enquiry was sent to the Council's general email address. Responses to enquiries were monitored for five working days from when the enquiries were dispatched and response times recorded. The email was queried by some Councils and it was apparent that Council Spam filters had sometimes intercepted the email enquiry. This possibility might have occurred in some nine Councils. Accordingly, an alternative email enquiry regarding either LIM application processing times (for City and District Councils) or bus services (for Regional Councils) was sent individually to each of these nine Councils via a private email address in early May.

Most of the private message Facebook enquiries were dispatched to during business hours on various workdays in mid-March, although several Councils omitted in the first dispatch process were sent enquiries in early May. Facebook was monitored for responses for up to a week after each enquiry was sent and times to respond were recorded.

Lastly, the Best Practice Review was carried out from February to March 2016. This review included both a brief examination of each Council's website and a check of the homepage via a PC screen and smart phone.

Therefore, please note:

- Your website may have changed or improved since our review period.
- Accessibility Audit was undertaken by the Blind Foundation on behalf of ALGIM.
- Although multifaceted, this is a very light assessment and may not reflect the best or worst practices across a whole Council site.

- If a Council did not participate in the Snapshot Survey of Council websites, they were given a zero score for the Self-assessed Website Functionality and Online Services component. In addition, the five Councils without Facebook accounts received a zero score for this half the Enquiry Response component.

Results and Discussion

Self-Assessed Website Functionality and Online Services

This year a total of 65 Councils or 83% of all Councils responded to ALGIM's self-assessment Snapshot Survey. This response rate was one Council less than in 2015.

Six of the survey questions were selected as pertinent to the Web Audit. These consisted of: **Questions 16 and 18**, which together enquired about what online payment mechanisms were accessible via the website; **Questions 19**, which elicited what could be paid for online through the website; **Question 20**, which examined what website functionality was provided; **Question 22**, which asked about what complete online transaction services were available at the website; and **Question 28**, which identified what social media and networking channels were utilised by the Council. With the exception of Question 22, the above questions cover the same functionality and online services as used in previous Web Audits although the question options offered to respondents have in some cases been extended in this year's survey.

The responses to these questions are summarised in the tables below. Where possible, the response summaries for equivalent questions in the 2015 and 2014 Snapshot Survey are provided for comparison.

The table below identifies that, over the last two years, as a group, Council websites have increased their utilisation of all of online payment mechanisms identified in Questions 16 and 18 of the current survey. Adoption of credit card payment systems via Council websites has particularly improved this year compared to 2015, with now 80% of Councils responding to the Snapshot Survey offering these facilities.

In addition, there has been increase in the variety of things that can be paid for online at most Council websites. Among responding Councils, the most common items payable online are rates invoices, dog re-registrations and fines or infringements of various kinds. In particular, over the last year there has been a strong growth in online payment services for building and resource consents; fines and infringements of various kinds; and a range of types of licenses issued by Councils, as well as LIMS and water rates. The most popular items for which online payment facilities have been established are rates invoices payable at the websites of 78% of responding Councils, dog re-registrations payable at 65% and fines or infringements payable at 62% of sites.

Snapshot Survey Question	Question and Response Options	2016 Survey: % of Respondents	% from the 2015	% from the 2014
16 & 18	Available online payment mechanisms: <ul style="list-style-type: none"> - Credit Card - Debit Card - Direct Debit - Internet Banking - Poli - None 	80% 32% 50% 77% 12% 17%	68% 23% 47% 76% 9% 23%	62% 15% n/a 62% 8% 36%
19	What can be paid for online at the website: <ul style="list-style-type: none"> - Building and/or Resource Consents - Dog re-registrations - New dog registrations - Fines of various types - Events and Venue Bookings - Invoices of various types - Library Fees - Licences of various types - LIMS - Pool & Swimming Lesson Bookings - Rates - Requests for a Property file - Water Rates 	42% 65% 42% 62% 15% 54% 15% 28% 42% 11% 78% 20% 45%	27% n/a n/a 48% 18% 48% n/a 17% 33% 9% 77% 23% 33%	n/a n/a n/a 27% 8% 27% n/a 9% 23% 7% 64% 14% n/a

The results for Survey Question 19 also suggest that the number of Council websites offering online payments for events and venue bookings and property file requests has slightly decreased since last year. However, this small decline is more likely due to a marginally different cohort of Councils responding to the Snapshot Survey this year compared to last rather than any significant reduction in payment facilities among Council websites in general.

Responses to Question 20 indicate that there has been an overall increase in functionality offered on Councils websites. In particular, there has been a solid growth in the number of websites supplying online application forms for return via email and a small rise in Council websites providing facilities for online submissions. The latter functionality is now available on 94% of responding Councils' websites. Question 20's results also recorded slight decreases in the availability of interactive mapping tools and online forms for submission to backend databases among Council websites however; this is probably due to Council sample variations between the 2016 and 2015 surveys. Whereas, the large decrease notable this year in online facilities for customer feedback and engagement on websites is quite inexplicable and cannot be attributable to merely sampling discrepancies.

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Snapshot Survey Question	Question and Response Options Continued ...	
22	Complete Online Transactions Supported:	
	<u>%age</u>	<u>%age</u>
	Building Consents/Applications	Information Requests/Complaints
	Cemetery Search	Job Vacancy Sign Up
	Change of Address	Library Requests
	Contact Us Forms	LIMS Requests
	District Plan Updates	Premise Licensing
	Dog Registrations/Renewals	Property Info Requests
	Education Requests	Rates Rebates/Wavers
	Facilities/Recreation/Venue Bookings	Resources Consents/Applications
	Fines/Infringement Payments	Water Readings
	Fix It Service	Other
	No Complete Online Transactions	20%

The use of Question 22 results in the Website Audit are new to this year. This question elicits information on the kinds of transactions for which processing can be completed online via Council websites. The table above identifies that applying for rates rebates, wavers or reviews and conducting cemetery searches are the most popular transactions, which can be completed online and these services are available on 51% and 48% of responding Council websites respectively. Moreover, only 20% of responding Councils do not have facilities for any complete online transaction processing on their websites.

Scores for the provision of the functionality and online services identified in the tables above were derived in the following manner:

- **Questions 16 and 18:** Councils received a mark of one for each of the five payment mechanism if it was available on their website and zero otherwise. If a Council did not utilise all five mechanisms mentioned in the Questions but provided an alternative, they received one mark for this alternative.
- **Questions 19:** Councils received a mark of one for each of the items in this question if it could be paid for online up to a maximum of eight. This meant that, if any eight of the thirteen items identified in the question could be paid online at a particular Council's website, then the Council was allocated eight marks for online payments.
- **Question 20** regarding website functionality: each of the seven online services identified were given a mark of one if available and zero otherwise. This meant a maximum mark of seven was available for this question.

- **Question 22** concerning complete online transaction processing - a mark of one was allocated for each of the twenty transaction processing services if it was available on the Council website. The maximum mark for this question was capped at five.
- **Question 26:** Councils received a mark of one for each of the social media or networking channels they used up to a maximum of five. If a Council used no social media, they were allocated a mark of zero for this question.

The marks received by each Council for each of the five question groups were tallied to give a mark out of thirty, which was converted to a percentage score to provide a component score for website ranking purposes. This score assessed the functionality and online services provided by each Council participating in the Snapshot Survey.

Functionality and Online Services Score Statistics	2016 Survey Score Statistics	2015 Survey Statistics
Lower Quartile of Scores	50%	44%
Mean Score	64%	56%
Upper Quartile of Scores	83%	72%

The above table presents the statistics for the functionality and online service scores in 2016 along with those of 2015. The statistics cover Councils responding to each of the Snapshot surveys and do not include non-responding Councils who receive zero for this website audit component. The general increase in scores this year reflects the greater levels overall functionality and online services among Council websites found in responses to most of the individual questions used in this website audit component.

Further 2016 Functionality and Online Service score analysis also found several disparities between different groups of Councils. Among City and District Councils, medium and large sized Councils (i.e. those serving more than 40 thousand people) tended to have higher scores averaging 74% compared to the very small Councils serving less than 10 thousand people who averaged only 47%. The Functionality and Online Service scores for the 11 Regional and Unitary Councils participating in the Snapshot survey were quite low averaging only 46%.

Accessibility Audit

The Accessibility Audit involved applying the SortSite testing tool to the website of each Council to ascertain its conformance to all of the 61 WCAG 2.0 standards. The tool was set to test website accessibility to a WCAG 2.0 conformance level AAA and the test applied to the homepage and one level of internal (off page) links down from the homepage.

The output of the SortSite tool was a list of standards infractions for each Council website and a summary tallying the infractions found across all Council websites. Each infraction could compromise between one and four of the 61 standards. The total number of infractions across all sites was more than 11,500 and an average of 148 infractions were found per Council website.

The summary of infractions was analysed to produce the table below which identifies each infraction which accounted for 4% or greater of the observed infractions and the corresponding WCAG 2.0 standards which were contravened.

WCAG Infraction /Standard	Infractions occurring at High Levels on Council Websites and the corresponding WCAG Standards Compromised	Infraction % (of observed infractions)
WCAG 2.0 1.1.1	IMG tags occurring without an ALT attribute. <u>Standards Compromised:</u> WCAG 1.1.1	5%
WCAG 2.0 A F91	Not correctly marking up data table headers with TH elements. <u>Standards Compromised:</u> WCAG 1.3.1	9%
WCAG 2.0 A F68	User Interface Controls not having a programmatically determined names. <u>Standards Compromised:</u> WCAG 4.1.2 and indirectly WCAG 1.3.1	7%
WCAG 2.0 A F89	Not providing an accessible name for an image, which is the only content in a link. <u>Standards Compromised:</u> WCAG 2.4.4, WCAG 2.4.9 and WCAG 4.1.2	10%
WCAG 2.0 2.4.6	Having headings on webpages that are empty. <u>Standards Compromised:</u> WCAG 2.4.6	4%
WCAG 2.0 2.4.9	Using generic text for link texts. <u>Standards Compromised:</u> WCAG 2.4.9	5%
WCAG 2.0 AAA 3.1.5	Page content requires a reading level more advanced than the lower secondary education level impacting on users with dyslexia or learning disabilities. <u>Standards Compromised:</u> WCAG 3.1.5	13%
WCAG 2.0 AAA F22	Opening windows that are not initiated by a user request (e.g. windows with target links specified with target="_blank"). <u>Standards Compromised:</u> WCAG 3.2.5	12%

The infractions above, document those that were most often compromised across all Council websites. The associated standards contravened cover all four of the WCAG 2.0 standards groupings.

For each Council, its individual infraction information can be examined to determine which WCAG 2.0 standards have been violated at least once in their website homepage or one internal page down from the homepage. This examination reveals that 35 of the 61 standards covering perceivable, operable and understandable groupings are fully complied with across all Council websites. The standards with less than 100% compliance among Councils are documented in the tables below.

Standard	Standards with High Compliance among Councils ($\geq 90\%$ but $< 100\%$)	Type and Compliance Level
WCAG 2.0 1.4.6	Visual presentation of text and images of text have a contrast ratio of at least 7.1 (excluding large text, incidental/decorative text and logotypes).	Perceivable 95%
WCAG 2.0 2.2.1	If a time limit is set on any site activity, the limit can be disabled or extended.	Operable 98%
WCAG 2.0 2.2.2	All blinking, scrolling and automatic content updates on pages have facilities to pause, stop or hide movement.	Operable 99%
WCAG 2.0 2.4.3	The Tab order of elements receiving focus on a page matches the left-to-right and top-to-bottom layout of the page content.	Operable 96%
WCAG 2.0 3.1.2	If a page has a section of content in other than the page's main language, the section has an appropriate html LANG attribute.	Understandable 96%
WCAG 2.0 3.2.2	On input forms within pages, when a form element receives focus there is no change of context (excluding appropriate drop-down lists).	Understandable 95%

Standard	Standards with Moderate Compliance among Councils (>= 50% but < 90%)	Type and Compliance Level
WCAG 2.0 1.3.2	The content sequence on pages in the HTML mark-up matches the visual order on screen independent of any CSS styling.	Perceivable 73%
WCAG 2.0 1.4.1	Colour or colour coding is not solely relied on to convey information particularly for error messaging, mandatory field indicators graphs and charts.	Perceivable 68%
WCAG 2.0 2.1.1	Site navigation and page functionality (e.g. use of forms such as for searching) can be operated purely using a keyboard.	Operable 82%
WCAG 2.0 2.4.2	Every page has a unique title (i.e. <title> HTML element) identifying its relevant content.	Operable 53%
WCAG 2.0 2.4.7	On pages, when each element receives focus there is a clear visual indication of this regardless of a page's visual design.	Operable 83%
WCAG 2.0 2.4.10	On pages, within sections of writing, section headings (including titles and other ways to differentiate content) are used to organize content.	Operable 65%
WCAG 2.0 3.1.1	Pages mainly in English have their html LANG attribute as "en-NZ" and if mainly in Māori the attribute is "mi".	Understandable 69%
WCAG 2.0 4.1.1	HTML elements on each page have validity and consistency in terms of start and end tags, nesting, non-duplicate attributes, and unique ID attributes.	Robust 68%

The table below identifies that nearly all Council websites contain violations of:

- the perceivable standards 1.1.1 (providing text equivalents for non-text information) and 1.3.1 (marking up content structures and relationships in HTML)
- the operable standards 2.4.4 (having the purpose of a link discernable from the link text and the link context) and 2.4.6 (providing meaningful content headings and form labels)
- the understandable standards 3.1.5 (content not requiring an advanced readability level for users) and 3.2.5 (initiating page content changes only by user request).

All six of these standards are represented in the earlier table detailing the infractions occurring at high levels on Council websites.

Standard	Standards with Low Compliance among Councils (< 50%)	Type and Compliance Level
WCAG 2.0 1.1.1	For all non-text information, appropriate accessible text equivalents (e.g. suitable Alt text on site images) are provided.	Perceivable 6%
WCAG 2.0 1.3.1	All content structures and relationships (e.g. headings, lists, paragraphs, block-quotes, form control etc.) are equally present in the HTML mark-up.	Perceivable 4%
WCAG 2.0 1.4.3	Colour contrast on pages meets minimum WCAG 2.0 standards.	Perceivable 21%
WCAG 2.0 1.4.4	Text enlargement using text resize or text zoom is not produced with the obscuring of page content or loss of functionality.	Perceivable 10%
WCAG 2.0 1.4.8	Mechanisms are available to alter the visual presentation of blocks of text (i.e. foreground/background colour, line width, justification, line spacing and limited resizing without assistive technology).	Perceivable 35%
WCAG 2.0 2.4.1	Site users, particularly keyboard-only users, have a facility to bypass blocks of content that are repeated on every page.	Operable 19%
WCAG 2.0 2.4.4	On pages, the purpose of each link can be clearly discerned from the link text along with its programmatically determined link context.	Operable 3%
WCAG 2.0 2.4.6	On pages, blocks of related content have appropriate headings and the labels for forms and other controls are meaningful.	Operable 8%
WCAG 2.0 2.4.9	On pages, a mechanism is available for the purpose of each link to be clearly discerned from the link text alone.	Operable 14%
WCAG 2.0 3.1.5	Text on pages requires a reading ability no more advanced than a lower secondary education level or supplementary content requiring a lower reading level is available.	Understandable 3%
WCAG 2.0 3.2.5	On pages, changes of content are initiated only by user request, or a mechanism to turn off such changes is available.	Understandable 3%
WCAG 2.0 4.1.2	Interactive controls have appropriate HTML elements (e.g. <a>, <button>, <label>, <input> etc.) so that the name, role, state and value of a component is available to a browser or adaptive technology.	Robust 37%

Similarly, the operable standard 2.4.9 (providing a mechanism to derive the purpose of a link from the link text alone) is referenced in the high infraction table and is compromised in most Council websites. However, the perceivable standards 1.4.3 (supplying minimum colour contrast on pages), 1.4.4 (properly supporting text enlargement) and 1.4.8 (providing a means to alter the visual presentation of text blocks) and the operable standard 2.4.1 (supplying facilities to bypass common blocks of page text) are violated on the majority of Council websites but these standards have comparatively low infraction rates when the sites are considered as a group. This indicates that most sites each have a small number of infractions of these standards, possibly only one or two per standard; however, it merely requires one occurrence for the website to be labelled as compromising a particular standard. The one robustness standard in the above low compliance table is 4.1.2 (properly marking up page interactive controls in HTML). While this standard is cited twice in the high infraction table, some 37% of Council websites do manage to fully conform to this standard. This suggests that the 63% of websites that do not conform typically contain repeated violations of robustness standard 4.1.2.

Accessibility audit scores were allocated to Councils on the basis of the percentage of the 61 WCAG 2.0 Standards that were found not to be compromised among the pages tested on their websites. The score statistics detailed below identify that Council websites on average meet 79% of the 61 standards. The compliance averages for the standards groups and overall are mostly marginally lower than comparable averages in the self-assessed standards survey in the 2015 Web Audit. Nonetheless, the trend among the groups for understandability to have the highest conformance and robustness the lowest is consistent with previous standards surveys. The table below documents that the Council websites typically meet the most of the WCAG 2.0 AAA standards. The robustness standards group is somewhat of an exception to this. However, this group only contains two standards.

Grouping of Web Standards	2016 Average Compliance Level
All WCAG 2.0 Standards	79%
Perceivable Standards	78%
Operable Standards	76%
Understandable Standards	86%
Robust Standards	53%

Further accessibility score statistics below show that, while the lower quartile of scores has slightly decrease this year compared to 2015, the scores allocated to Councils for this web audit component still occur within a quite a tight range. Additional score analysis revealed that the minimum score achieved remained the same as last year at 70% while the maximum increased from 88% to 95% this year.

Overall Accessibility Audit Score Statistics	2016 Accessibility Audit Score	2015 Accessibility Audit Score
Lower Quartile of Scores	75%	77%
Mean Accessibility Audit Score	79%	80%
Upper Quartile of Scores	82%	82%

Enquiry Response Time

One part of this web audit component assessed the speed of response to an email enquiry. The table below shows that less Councils are responding to an email within an hour compared to previous years. However, since last year, overall response times have slightly improved with 61% of Councils responding within three hours compared to 57% in 2015 and only 4% did not respond at all this year.

Email Response Time	2016 Survey – % of Councils	Previous Surveys		
		2015	2014	2013
Responded in less than 1 hour	33%	42%	78%	60%
Responded between 1 - 3 hours	28%	15%	13%	12%
Responded between 3 - 5 hours	10%	9%	1%	5%
Responded between 5 hours - 1 day	14%	8%	5%	5%
Responded between 1 - 2 days	8%	8%	1%	0%
Responded greater than 2 days	3%	5%	1%	6%
No response at all	4%	13%	0%	12%

The second part of response time testing involved recording the speed of response to a Facebook enquiry sent to the Facebook account of each of the 73 of Councils with such accounts. The table below identifies that the number of Facebook non-responders was high in 2015 but it has nearly doubled this year. A major difference this year is that the Facebook enquiry was sent from a personal Facebook account via Facebook messenger, rather than a publicly viewable wall post from the ALGIM Corporate Facebook account. This year's approach is more consistent with a general customer enquiry so the large increase in uncommunicative Councils is worrying.

Facebook Response Time	2016 Survey – % of FB Councils	2015 Survey – % of FB Councils
Responded in less than 1 hour	41%	39%
Responded between 1 - 3 hours	10%	23%
Responded between 3 - 5 hours	3%	3%
Responded between 5 hours - 1 day	4%	4%
Responded between 1 - 2 days	1%	4%
Responded greater than 2 days	0%	4%
No response at all	41%	22%

For both the email and Facebook enquiries, response scores for website ranking purposes were allocated to Councils based on the response time category into which they fell. Councils responding within:

- an hour were given 100%
- between 1 and 3 hours 83% (i.e. 5/6)
- between 3 and 5 hours 66% (i.e. 4/6)
- and so on.

The 6% of Councils (5 in number) who are not on Facebook received zero as their Facebook enquiry score. For each Council the email and Facebook scores were then averaged to obtain an Overall Enquiry Response Score. The statistics for these overall scores for 2016 and 2015 given in the table below indicates that the lower response scores ensuing from greater numbers of non-responding Councils in Facebook this year have impacted on the upper quartile of overall enquiry score. This suggests that some Councils who responded in a punctual manner to both enquiries last year have only managed to respond promptly or at all to the email enquiry this year.

Overall Enquiry Response Score Statistics	2016 Enquiry Response Score	2015 Enquiry Response Score
Lower Quartile of Scores	42%	42%
Mean Score	62%	63%
Upper Quartile of Scores	83%	92%

Best Practice Review

To undertake the Best Practice Review, ALGIM staff examined each Council website and the chosen content details scrutinised to determine whether the best practice factor or its sub-factors were available. An exception to this was the check of the website homepage for responsive design. To achieve this, the view of the homepage on the screen of a PC was

compared to the homepage when viewed from a smart phone to ascertain the presence of device specific rendering. The table below identifies the percentage of Council websites who fully provide each of the best practice factor or sub-factors.

Best Practice Review Factor	Description of Factor or Sub-Factor [-] {-} 2015 & 2014 Review % if available	% of Councils Fully Complying
New Zealand Govt. Link	Active New Zealand Government Link	91% [87%] {81%}
Legal Notices – Copyright	Copyright Statement available on site	81% [82%] {86%}
	Copyright Terms of Use available on site	78% [78%] {79%}
Legal Notices – Privacy	Adherence to Privacy Act 1993 identified	73% [74%] {72%}
	Potential to contact the Council regarding privacy issues identified	71% [78%] {76%}
	Any or no use of browser cookies identified	35% [29%] {24%}
File Download Information	File size given	69% [71%]
Web Page Printability	Navigation and Links removed for printing	76% [77%] {71%}
	Both page banners and search box removed for printing	78% [79%] {72%}

The compliance to several best practice factors and sub-factors have remained roughly unchanged since 2015. These include those involving Council website copyright statements, provision of sizes for downloadable files, the printability of web pages and website privacy statements noting that the site complies with the Privacy Act 1993. Compliance with these factors and sub-factors is steady at approximately 70% or higher among Councils.

Slight improvements are evident this year in the provision on Council websites of links to central government, an A-Z of Council services, information on the use of cookies by the site and site support for consents. However, the latter two factors still have very low conformance with only 35% of Council websites documenting their use of cookies and 24% providing consent application forms in more than one format or having a mechanism for online consent application submission.

Best Practice Review Factor (continued)	Description of Factor or Sub-Factor [-] {-} 2015 & 2014 Review % if available	% of Councils Fully Complying
Enhanced Site Navigation	A-Z of Council services or the Council website available	82% [79%]
Online Mapping	Detailed online Property or Service maps provided	71% [77%]
Site Support for Consents	Building or Resource Consent Applications available in two forms or otherwise supported (e.g. PDF and Word or PDF and an online submission mechanism)	24% [22%]
Site Facilitation of Online Payments	Site facilitation of online Rates Payments via credit or debit card	79% [65%]
	Site facilitation for the paying online via credit or debit card of two or more non-rates bills (e.g. water rates, permit fees, dog registration or parking fines)	59% [41%]
Use of Mobile Responsive Design	Website Homepage is designed to be the device specific	62% [54%]

Facilities for direct provision of online payments via Council websites have strong improved since last year as have the prevalence of sites constructed with responsive design. Currently 79% of Council websites facilitate online payments of rates, up from 65% a year ago, and the proportion of the websites offering online payments services for two or more other types of payments has risen from 41% to 59% in the same period. In addition, 61% of Council websites have now been developed using responsive design, compared to 54% in 2015.

The proportion of Council websites considered to have a privacy statement detailing that an individual may contact the Council regarding any personal information appearing on or entered into the site has decreased this year compared to 2015. Similarly, the number of sites providing adequate detailed property and service maps has reduced. The decline in these factors might

be due to them being detrimentally impacted during some individual website upgrades, however, it is more likely that the decrease is due to these factors being more stringently assessed this year. To achieve these best practice factors a website now needs to directly stipulate the ability of a person to contact the Council about information privacy matters and provide maps containing in-depth property and service information, rather than say just aerial or road maps.

For web audit ranking, an overall mark for best practice for each Council was calculated by assigning a maximum mark of one for conformity to each sub-factor (or factor if there were no sub-factors) in the table above and summing the marks. Half marks were also given for some sub-factors, which were partially attained. Instances of this were:

- Council sites not having a formal Copyright Statement but having the copyright symbol and Council name on each webpage (13% of Councils)
- providing size information for most but not all downloadable PDF files on a website (9% of Councils)
- removing only some of the navigation or link elements off webpages when printing (5% of Councils)
- removing either banners or a search box but not both off webpages when printing (4% of Councils).

Additional instances included websites:

- where the site A-Z itemised only the site pages rather than services or content (13% of Councils)
- limited provision of online property or service maps but a supplying a database of rates and property information searchable by address (22% of Councils)
- building or resource consent applications being only available in one format, invariably PDF (76% of Councils)
- online payment services only being available for one kind of non-rates bill rather than two or more (5% of councils).

The overall mark out of a maximum of 15 was converted to a percentage to produce a best practice score for each Council. The table below gives the statistics among Councils for this score and reveals that overall the lower quartile and mean scores have increased a little this year although the upper quartile score has decreased marginally.

This suggests that a number of Councils who attained somewhat lower best practice scores last year have improved their websites, however, some Councils achieving higher scores last year have had their scores slightly decreased probably by their website privacy statements and online mapping facilities being more strictly appraised.

Even with this tighter assessment, an inspection of scores identified that two Councils achieved 100% of the best practice factors and sub-factors this year, as was also the case in 2015.

Best Practice Review Score Statistics	2016 Best Practice Review Score	2015 Best Practice Review Score
Lower Quartile of Scores	63%	57%
Mean Best Practice Review Score	74%	71%
Upper Quartile of Scores	83%	87%

Further 2016 Best Practice score analysis also found that among City and District Councils, medium and large sized Councils (i.e. those serving more than 40 thousand people) tend to have higher best practice scores averaging 82% compared to those serving less than 10 thousand people who averaged only 61%.

Council Website Rankings

The table below summarises the overall ranking scores achieved by Councils in 2016 and 2015. It seems that the dropping of the self-assessed Web Standards survey as a website audit component, the inclusion of an appraisal of complete transaction processing on websites in the Functionality and Online Services component, and various changes to scoring regimes made this year have had little impact at the macro level on overall ranking scores. However, there may still have been some alterations to the ranks of individual Councils.

Overall Ranking Score Statistics	2016 Web Audit Ranking Scores	2015 Web Audit Ranking Scores
Lower Quartile of Ranking Scores	59%	58%
Mean Ranking Score	69%	67%
Upper Quartile of Ranking Scores	78%	78%

The size of the Council, measured by population served, seems to have some influence on the overall ranking score achieved between City and District Councils. The scores for:

- medium and large sized City and District Councils (i.e. serving more than 40 thousand people) averaged 77% whereas,
- City and District councils serving less than 10 thousand people only averaged 57%.

Summary

The website audit component that examined the responses to specific Snapshot survey questions found that both the functionality and online services available on Council websites has generally improved since 2015.

There has been a strong increase in the provision of online payment mechanisms. This is especially the case for credit card services, which are now available on 80% of the Council websites surveyed. What can be paid for online has also generally been extended and rates, dog re-registration, fine and infringement payments can be done online on a majority of the websites of the Councils responding to the survey this year.

Overall, the functionality of websites has increased with more than 80% of Council websites surveyed now providing online submission services, online application forms for return via email and interactive mapping tools. However, there has been a puzzling drop in customer feedback and online engagement functionality on websites.

Most Council websites in the survey also offer some transaction services, which can be completed online, and applying for rates rebates, waivers or reviews and conducting cemetery searches can be completed on around half the websites surveyed.

The adoption of social media channels by Councils has increased with Instagram and LinkedIn showing particular growth in usage and Facebook has almost reached saturation point among Councils with only five Councils not having a corporate Facebook account.

The Accessibility Audit found, that across all Council websites, the most common WCAG 2.0 infractions found were to:

- the understandable standards 3.1.5 (websites requiring users to have relatively advanced reading levels) and 3.2.5 (specifically, opening windows not initiated by a user request), and
- the infraction of omitting to provide accessible names for image links which compromises operable standards 2.4.4 and 2.4.9 and robustness standard 4.1.2.

Together, these infractions account for more than a third of the infractions found. However, the high number of understandable standards infractions did not overly impact on the overall compliance of Council websites to understandable standards. Indeed, among the groups of standards, the understandable group has the highest average compliance at 86%.

Six WCAG 2.0 standards were found to have particularly low compliance rates among Council websites (i.e. less than 10% of websites complied). These consisted of two perceivable, two operable and two understandable standards. The perceivable standards were:

- supplying text equivalents for non-text information (WCAG 1.1.1) and
- marking up in HTML the page content structures and relationships (WCAG 1.3.1).

The operable standards were:

- describing the purpose on a link in the link text (WCAG 2.4.4) and
- providing meaningful content headings and form labels (WCAG 2.4.6).

The understandable standards with low conformance were:

- structuring content so users do not require an advanced reading level (WCAG 3.1.5) and
- initiating page content changes only by user request (WCAG 3.2.5).

Although all Council websites were found to compromise some of the 61 WCAG 2.0 standards, 35 of the standards were fully complied on the pages examined across all 78 Council websites and standards compliance in general on sites averaged a respectable 79%.

The analysis of enquiry response times this year found that email response times have generally marginally improved with only 4% of Councils not responding to the email enquiry this year. However, there has been overall deterioration in the time it takes for Councils on Facebook to respond to enquiries via this social media channel. This year, only 51% of Councils responded within three hours to a straightforward Facebook enquiry sent via private message compared to 62% in 2015. In addition, 41% of Councils failed to respond at all, which was almost double compared to last year. Hopefully this is just a wrinkle in the way Councils manage their social media at the corporate level and not the beginning of a trend.

The Best Practice Review found that, as was the case last year,

- only about a third of Council websites describe that their site uses or does not use cookies and
- that three quarters of Council websites supply building or resource consent applications in only one format (inevitable PDF) and
- do not provide any general means for online submission of completed application forms.

However, the review did uncover that the number of Council websites that provide various facilities for online payments has improved noticeably from last year. The ability to pay rates online via Council websites has moved from around two thirds of sites in 2015 to nearly 80% this year and on almost 60% of sites at least two other types of payments can now be processed, up from only about 40% last year. The use of mobile responsive design for websites has also improved with utilisation growing from a little over a half of sites last year to the current level of over 60% of Council websites.