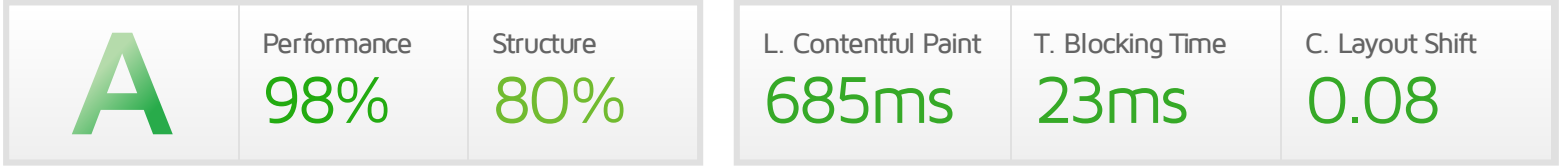## Performance Report for:
http://www.hoarelea.com//

Report generated: Thu, Mar 14, 2024 4:51 AM -0700
Test Server Location: 🇬🇧 London, UK
Using: Chrome 117.0.0.0, Lighthouse 11.0.0

A	Performance 98%	Structure 80%	L. Contentful Paint 685ms	T. Blocking Time 23ms	C. Layout Shift 0.08

Top Issues

High	Avoid enormous network payloads LCP	Total size was 4.68MB
Med	Use explicit width and height on image elements CLS	3 images found
Med	Serve static assets with an efficient cache policy	Potential savings of 4.55MB
Med-Low	Use a Content Delivery Network (CDN)	24 resources found
Low	Properly size images	Potential savings of 2.96MB

Page Details

795ms
Fully Loaded Time

Total Page Size - 4.66MB

IMG 3.59MB	Video 767KB	

Total Page Requests - 38

IMG 47.4%	JS 18.4%	Video 10.5%	Font 7.9%	HTML 5.3%	CSS 5.3%	Other 5.3%

■ HTML ■ JS ■ CSS ■ IMG ■ Video ■ Font ■ Other

How does this affect me?

Today's web user expects a fast and seamless website experience. Delivering that fast experience can result in increased visits, conversions and overall happiness.

As if you didn't need more incentive, **Google has announced that they are using page speed in their ranking algorithm.**
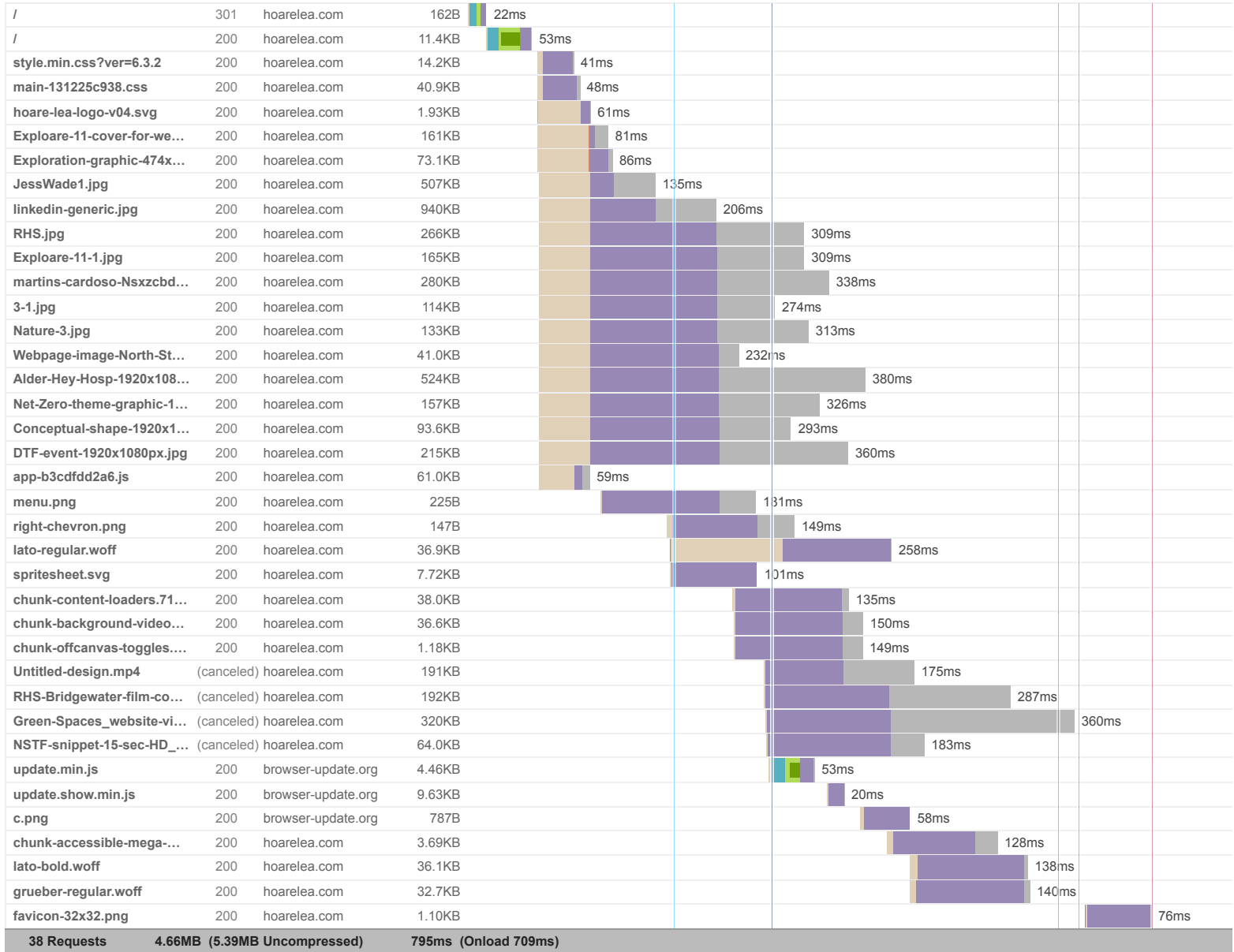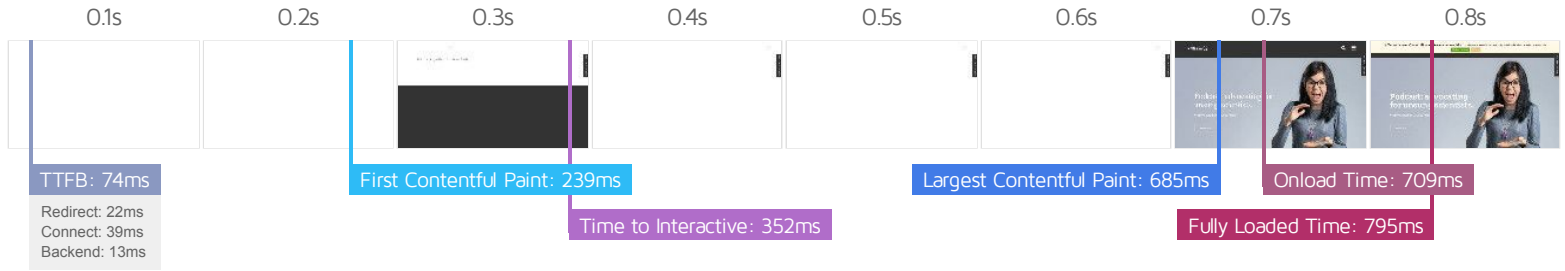
About GTmetrix

CARBON 60
THE MANAGED CLOUD COMPANY

GTmetrix is developed by the good folks at **Carbon60**, a Canadian hosting company with over 28 years experience in web technology.

https://carbon60.com/

The waterfall chart displays the loading behaviour of your site in your selected browser. It can be used to discover simple issues such as 404's or more complex issues such as external resources blocking page rendering.

Hoare Lea | Engineers of human experiences.

Resource	Status	Host	Size	Time
/	301	hoarelea.com	162B	22ms
/	200	hoarelea.com	11.4KB	53ms
style.min.css?ver=6.3.2	200	hoarelea.com	14.2KB	41ms
main-131225c938.css	200	hoarelea.com	40.9KB	48ms
hoare-lea-logo-v04.svg	200	hoarelea.com	1.93KB	61ms
Exploare-11-cover-for-we...	200	hoarelea.com	161KB	81ms
Exploration-graphic-474x...	200	hoarelea.com	73.1KB	86ms
JessWade1.jpg	200	hoarelea.com	507KB	135ms
linkedin-generic.jpg	200	hoarelea.com	940KB	206ms
RHS.jpg	200	hoarelea.com	266KB	309ms
Exploare-11-1.jpg	200	hoarelea.com	165KB	309ms
martins-cardoso-Nsxzcbd...	200	hoarelea.com	280KB	338ms
3-1.jpg	200	hoarelea.com	114KB	274ms
Nature-3.jpg	200	hoarelea.com	133KB	313ms
Webpage-image-North-St...	200	hoarelea.com	41.0KB	232ms
Alder-Hey-Hosp-1920x108...	200	hoarelea.com	524KB	380ms
Net-Zero-theme-graphic-1...	200	hoarelea.com	157KB	326ms
Conceptual-shape-1920x1...	200	hoarelea.com	93.6KB	293ms
DTF-event-1920x1080px.jpg	200	hoarelea.com	215KB	360ms
app-b3cdfdd2a6.js	200	hoarelea.com	61.0KB	59ms
menu.png	200	hoarelea.com	225B	131ms
right-chevron.png	200	hoarelea.com	147B	149ms
lato-regular.woff	200	hoarelea.com	36.9KB	258ms
spritesheet.svg	200	hoarelea.com	7.72KB	101ms
chunk-content-loaders.71...	200	hoarelea.com	38.0KB	135ms
chunk-background-video-...	200	hoarelea.com	36.6KB	150ms
chunk-offcanvas-toggles....	200	hoarelea.com	1.18KB	149ms
Untitled-design.mp4	(canceled)	hoarelea.com	191KB	175ms
RHS-Bridgewater-film-co...	(canceled)	hoarelea.com	192KB	287ms
Green-Spaces_website-vi...	(canceled)	hoarelea.com	320KB	360ms
NSTF-snippet-15-sec-HD_...	(canceled)	hoarelea.com	64.0KB	183ms
update.min.js	200	browser-update.org	4.46KB	53ms
update.show.min.js	200	browser-update.org	9.63KB	20ms
c.png	200	browser-update.org	787B	58ms
chunk-accessible-mega-...	200	hoarelea.com	3.69KB	128ms
lato-bold.woff	200	hoarelea.com	36.1KB	138ms
grueber-regular.woff	200	hoarelea.com	32.7KB	140ms
favicon-32x32.png	200	hoarelea.com	1.10KB	76ms

38 Requests   **4.66MB (5.39MB Uncompressed)**   **795ms (Onload 709ms)**

| 0.1s | 0.2s | 0.3s | 0.4s | 0.5s | 0.6s | 0.7s | 0.8s |

TTFB: 74ms
Redirect: 22ms
Connect: 39ms
Backend: 13ms

First Contentful Paint: 239ms

Time to Interactive: 352ms

Largest Contentful Paint: 685ms

Onload Time: 709ms

Fully Loaded Time: 795ms

Performance Metrics

First Contentful Paint

How quickly content like text or images are painted onto your page. A good user experience is 0.9s or less.

Good - Nothing to do here

239ms

Time to Interactive

How long it takes for your page to become fully interactive. A good user experience is 2.5s or less.

Good - Nothing to do here

351ms

Speed Index

How quickly the contents of your page are visibly populated. A good user experience is 1.3s or less.

Good - Nothing to do here

720ms

Total Blocking Time

How much time is blocked by scripts during your page loading process. A good user experience is 150ms or less.

Good - Nothing to do here

23ms

Largest Contentful Paint

How long it takes for the largest element of content (e.g. a hero image) to be painted on your page. A good user experience is 1.2s or less.

Good - Nothing to do here

685ms

Cumulative Layout Shift

How much your page's layout shifts as it loads. A good user experience is a score of 0.1 or less.

Good - Nothing to do here

0.08

Browser Timings

Redirect	22ms	Connect	39ms	Backend	13ms
TTFB	74ms	First Paint	239ms	DOM Int.	350ms
DOM Loaded	352ms	Onload	709ms	Fully Loaded	795ms

IMPACT	AUDIT	
Low	**Use passive listeners to improve scrolling performance**	1 event listener not passive

Consider marking your touch and wheel event listeners as `passive` to improve your page's scroll performance.

URL	LOCATION
• https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/app-b3cdfdd2a6.js	Line:23

Low	**Efficiently encode images**	Potential savings of 956KB

Optimized images load faster and consume less cellular data.

URL	RESOURCE SIZE	POTENTIAL SAVINGS
https://hoarelea.com/app/uploads/2021/07/linkedin-generic.jpg	940KB	494KB
https://hoarelea.com/app/uploads/2024/03/JessWade1.jpg	507KB	240KB
https://hoarelea.com/app/uploads/2023/11/Exploare-11-cover-for-web-article-474x597-1.jpg	161KB	103KB
https://hoarelea.com/app/uploads/2023/11/RHS.jpg	266KB	69.6KB
https://hoarelea.com/app/uploads/2023/11/Exploare-11-1.jpg	165KB	33.9KB
https://hoarelea.com/app/uploads/2022/11/Nature-3.jpg	133KB	15.0KB

Low	**Avoid large layout shifts** CLS	2 elements found

These DOM elements contribute most to the CLS of the page.

ELEMENT	CLS CONTRIBUTION
html.js `<html lang="en-US" class="js cuts-the-mustard flexbox wf-active-1 wf-active-2" style="margin-top: 113px;">`	0.08
Podcast: advocating for unsung scientists. `<h1 class="page-hero--carousel__slide-title heading--white">`	0.00

Low	**Avoid an excessive DOM size** TBT	585 elements

A large DOM will increase memory usage, cause longer style calculations, and produce costly layout reflows.

STATISTIC	ELEMENT	VALUE
Total DOM Elements		585
Maximum DOM Depth	Submit `<span class="vh">`	14
Maximum Child Elements	body.home > div > svg `<svg xmlns="http://www.w3.org/2000/svg">`	36

Low	**Serve images in next-gen formats**	Potential savings of 2.22MB

Image formats like WebP and AVIF often provide better compression than PNG or JPEG, which means faster downloads and less data consumption.

URL	RESOURCE SIZE	POTENTIAL SAVINGS
https://hoarelea.com/app/uploads/2021/07/linkedin-generic.jpg	940KB	741KB
https://hoarelea.com/app/uploads/2024/03/JessWade1.jpg	507KB	393KB
https://hoarelea.com/app/uploads/2023/11/RHS.jpg	266KB	191KB
https://hoarelea.com/app/uploads/2021/06/Alder-Hey-Hosp-1920x1080px-1.jpg	524KB	150KB
https://hoarelea.com/app/uploads/2023/11/Exploare-11-cover-for-web-article-474x597-1.jpg	161KB	136KB
https://hoarelea.com/app/uploads/2023/03/martins-cardoso-NsxzcbdF8fU-unsplash.jpg	280KB	131KB
https://hoarelea.com/app/uploads/2023/11/Exploare-11-1.jpg	165KB	117KB
https://hoarelea.com/app/uploads/2022/11/Nature-3.jpg	133KB	91.1KB
https://hoarelea.com/app/uploads/2021/06/DTF-event-1920x1080px.jpg	215KB	88.1KB
https://hoarelea.com/app/uploads/2021/06/Exploration-graphic-474x377px.png	73.1KB	64.5KB
https://hoarelea.com/app/uploads/2021/06/Net-Zero-theme-graphic-1920x1080px.jpg	157KB	60.8KB
https://hoarelea.com/app/uploads/2023/03/3-1.jpg	114KB	49.3KB
https://hoarelea.com/app/uploads/2021/06/Conceptual-shape-1920x108px.jpg	93.6KB	44.6KB
https://hoarelea.com/app/uploads/2021/12/Webpage-image-North-Star.jpg	41.0KB	15.9KB

Low	**Avoid multiple page redirects** FCP LCP	Potential savings of 21ms

Redirects introduce additional delays before the page can be loaded.

URL	TIME SPENT
• http://www.hoarelea.com//	21ms
• https://hoarelea.com//	0ms

Low	**Ensure text remains visible during webfont load** FCP LCP	3 fonts found

Leverage the `font-display` CSS feature to ensure text is user-visible while webfonts are loading.

URL	POTENTIAL SAVINGS
• https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/fonts/lato/lato-regular.woff	127ms
• https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/fonts/lato/lato-bold.woff	129ms
• https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/fonts/grueber/grueber-regular.woff	132ms

Low	**Avoid long main-thread tasks** TBT	1 long task found

Lists the longest tasks on the main thread, useful for identifying worst contributors to input delay.

URL	START TIME	DURATION
• https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/app-b3cdfdd2a6.js	210ms	101ms

Low	Reduce unused CSS FCP LCP	Potential savings of 47.1KB

Reduce unused rules from stylesheets and defer CSS not used for above-the-fold content to decrease bytes consumed by network activity.

URL	TRANSFER SIZE	POTENTIAL SAVINGS
• https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/main-131225c938.css	40.9KB	32.9KB
• https://hoarelea.com/wp/wp-includes/css/dist/block-library/style.min.css?ver=6.3.2	14.2KB	14.2KB

Low	Defer offscreen images	Potential savings of 188KB

Consider lazy-loading offscreen and hidden images after all critical resources have finished loading to lower time to interactive.

URL	RESOURCE SIZE	POTENTIAL SAVINGS
https://hoarelea.com/app/uploads/2023/03/3-1.jpg	114KB	114KB
https://hoarelea.com/app/uploads/2021/06/Exploration-graphic-474x377px.png	73.1KB	73.1KB

Low	Avoid non-composited animations CLS	9 animated elements found

Animations which are not composited can be janky and increase CLS.

Close menu

```
<button type="button" class="js-search__toggle--close tcon tcon-menu--xcross tcon-transform js-search__…" aria-label="toggle search">
```

Unsupported CSS Property: flex-grow — flex-grow

Open menu

```
<button id="menu-button" type="button" class="offcanvas-toggle offcanvas-toggle--open tcon js-offcanvas-toggle" aria-label="toggle menu" aria-expanded="false" aria-controls="menu">
```

Unsupported CSS Property: flex-grow — flex-grow

Read more

```
<a class="page-hero--carousel__slide-link billboard__cta" href="https://hoarelea.com/2022/11/03/a-step-into-the-unknown-a-challenge-like-n…" tabindex="-1">
```

Unsupported CSS Property: visibility — visibility

Watch here

```
<a class="page-hero--carousel__slide-link billboard__cta" href="https://hoarelea.com/2023/11/16/watch-our-new-film-rhs-bridgewater-home-of…" tabindex="-1">
```

Unsupported CSS Property: visibility — visibility

Our latest research

```
<a class="page-hero--carousel__slide-link billboard__cta" href="https://hoarelea.foleon.com/thought-leadership/green-spaces/" tabindex="-1">
```

Unsupported CSS Property: visibility — visibility

Listen now

```
<a class="page-hero--carousel__slide-link billboard__cta" href="https://hoarelea.com/2024/03/06/podcast-iadvocating-for-unsung-scientists/" tabindex="0">
```

Unsupported CSS Property: visibility — visibility

Guided by something more

```
<a class="page-hero--carousel__slide-link billboard__cta" href="https://hoarelea.com/2021/12/09/our-north-star/" tabindex="-1">
```

Unsupported CSS Property: visibility — visibility

Learn more

```
<a class="page-hero--carousel__slide-link billboard__cta" href="https://hoarelea.com/2023/12/05/a-year-of-net-zero-carbon-leadership/" tabindex="-1">
```

Unsupported CSS Property: visibility — visibility

Read here

```
<a class="page-hero--carousel__slide-link billboard__cta" href="https://hoarelea.com/2023/11/24/exploare-issue-11/" tabindex="-1">
```
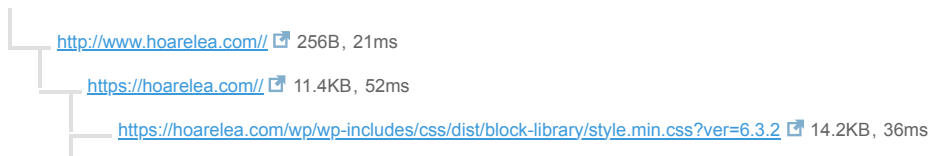
Unsupported CSS Property: visibility — visibility

| Low | **Avoid chaining critical requests** FCP LCP | 5 chains found |

The Critical Request Chains below show you what resources are loaded with a high priority. Consider reducing the length of chains, reducing the download size of resources, or deferring the download of unnecessary resources to improve page load.

Maximum critical path latency: **653ms**

INITIAL NAVIGATION

http://www.hoarelea.com// 256B, 21ms

https://hoarelea.com// 11.4KB, 52ms

https://hoarelea.com/wp/wp-includes/css/dist/block-library/style.min.css?ver=6.3.2 14.2KB, 36ms

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Analyze your site at https://gtmetrix.com

https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/app-b3cdfdd2a6.js ⧉ 61.0KB, 18ms

https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/main-131225c938.css ⧉ 40.9KB, 43ms

https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/fonts/lato/lato-regular.woff ⧉ 37.1KB, 127ms

https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/fonts/lato/lato-bold.woff ⧉ 36.3KB, 129ms

https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/fonts/grueber/grueber-regular.woff ⧉ 32.9KB, 132ms

Low	Reduce unused JavaScript LCP		Potential savings of 96.1KB

Reduce unused JavaScript and defer loading scripts until they are required to decrease bytes consumed by network activity.

URL	TRANSFER SIZE	POTENTIAL SAVINGS
https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/chunk-background-videos.a60530abde61445f3461.js	36.6KB	36.5KB
https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/chunk-content-loaders.718156bafb77cf23b797.js	38.0KB	32.9KB
https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/app-b3cdfdd2a6.js	61.0KB	26.7KB

N/A	Largest Contentful Paint element LCP	690 ms

This is the largest contentful element painted within the viewport.

ELEMENT

Podcast: advocating for unsung scientists. With Wikipedian Dr Jess Wade Liste…

```
<div class="page-hero--carousel__slide slick-slide slick-current slick-active" style="background-image:
url(&quot;https://hoarelea.com/app/uploads/2024/03/JessWade1.…&quot;);" data-slick-index="0" aria-hidden="false"
tabindex="-1" role="option" aria-describedby="slick-slide00">
```

PHASE	% OF LCP	TIMING
TTFB	11%	74ms
Load Delay	9%	64ms
Load Time	12%	79ms
Render Delay	68%	466ms

N/A	Eliminate render-blocking resources FCP LCP		Potential savings of 0 ms

Resources are blocking the first paint of your page. Consider delivering critical JS/CSS inline and deferring all non-critical JS/styles.

Resources that **may** be contributing to render-blocking include:

URL	TRANSFER SIZE	DOWNLOAD TIME
• https://hoarelea.com/wp/wp-includes/css/dist/block-library/style.min.css?ver=6.3.2	14.2KB	150ms
• https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/main-131225c938.css	40.9KB	150ms

N/A	Reduce JavaScript execution time TBT	62ms spent executing JavaScript

Consider reducing the time spent parsing, compiling, and executing JS. You may find delivering smaller JS payloads helps with this.

URL	TOTAL CPU TIME	SCRIPT EVALUATION	SCRIPT PARSE
• https://hoarelea.com//	161ms	4ms	1ms
• Unattributable	150ms	9ms	0ms
• https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/app-b3cdfdd2a6.js	131ms	44ms	2ms

N/A	**Reduce initial server response time** FCP LCP	Root document took 13ms

Keep the server response time for the main document short because all other requests depend on it.

URL	TIME SPENT
• https://hoarelea.com//	13ms

N/A	**Avoid serving legacy JavaScript to modern browsers** TBT	Potential savings of 10.7KB

Polyfills and transforms enable legacy browsers to use new JavaScript features. However, many aren't necessary for modern browsers. For your bundled JavaScript, adopt a modern script deployment strategy using module/nomodule feature detection to reduce the amount of code shipped to modern browsers, while retaining support for legacy browsers.

URL		POTENTIAL SAVINGS
https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/app-b3cdfdd2a6.js		10.4KB
Line:23 Column:67060	`@babel/plugin-transform-c lasses`	
Line:23 Column:85305	`Array.from`	
https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/chunk-offcanvas-toggles.c5b594a4ba4b8474aa83.js		95B
Line:0 Column:109	`@babel/plugin-transform-c lasses`	
https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/chunk-content-loaders.718156bafb77cf23b797.js		75B
Line:0 Column:122	`@babel/plugin-transform-c lasses`	
https://hoarelea.com/app/themes/hoare-lea-website-2017/assets/build/chunk-background-videos.a60530abde61445f3461.js		70B
Line:0 Column:109	`@babel/plugin-transform-c lasses`	

N/A	**Minimize main-thread work** TBT	Main-thread busy for 499ms

Consider reducing the time spent parsing, compiling and executing JS. You may find delivering smaller JS payloads helps with this.

CATEGORY	TIME SPENT
Other	205ms
Style & Layout	157ms
Script Evaluation	82ms
Parse HTML & CSS	26ms

CATEGORY	TIME SPENT
Rendering	18ms
Script Parsing & Compilation	8ms

N/A	**Reduce the impact of third-party code** TBT	Total size was 15.2KB

Third-party code can significantly impact load performance. Limit the number of redundant third-party providers and try to load third-party code after your page has primarily finished loading.

THIRD-PARTY	TRANSFER SIZE	MAIN-THREAD BLOCKING TIME
BROWSER-UPDATE.ORG	15.2KB	0ms
• https://browser-update.org/update.show.min.js	9.63KB	0ms
• https://browser-update.org/update.min.js	4.46KB	0ms

N/A	**User Timing marks and measures**

No user timings and/or marks found.