



WPI



**Greater
Wellington**
Te Pane Matua Taiao

UNIFYING CLIMATE ACTIONS IN THE WELLINGTON REGION

*Sponsor: Greater Wellington Regional Council (GWRC)
Advisors: Prof. Fred J. Looft and Prof. Ingrid Shockey*

The project was partly proposed due to climate change.



"The May 14 downpours flood State Highway 2 at Petone, forcing its closure in one 2015 extreme weather event." (Wannan, 2015)



(Greater Wellington Regional Council, 2019)

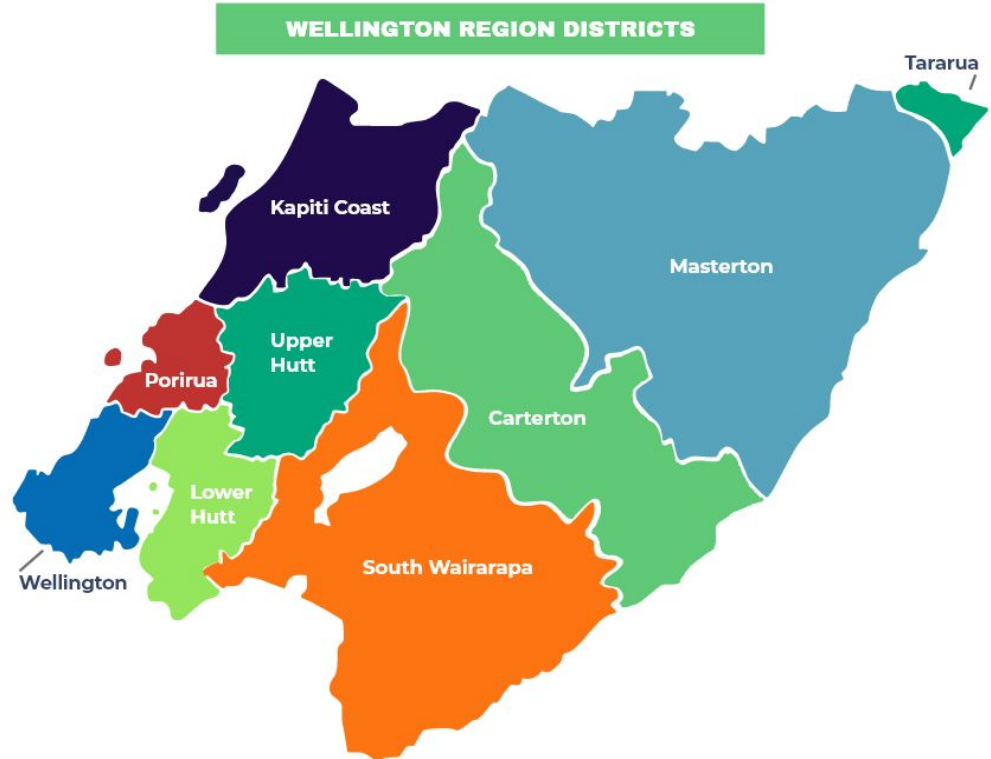
The project was also proposed to coordinate climate action efforts in the Wellington Region.

“

There appears on the surface no coordinated effort across the region but that may be due to there being no one place to source information.

- Survey Participant

”



We identified a goal to focus our approach to the problem.



- Collaborate with GWRC

- Produce a streamlined resource

- Highlight climate change actions

We reached our goal with 4 objectives.

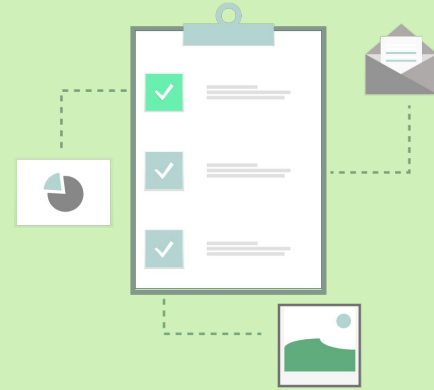
Map the Network

- Baseline assessment
- Interviews



Determine Content

- Interviews
- Survey



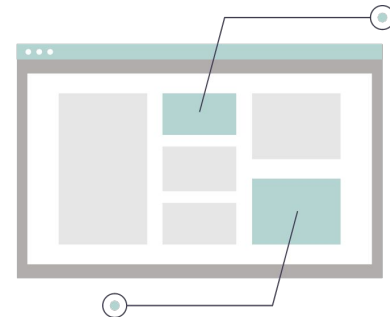
User Interface

- Usability testing
- Feedback group

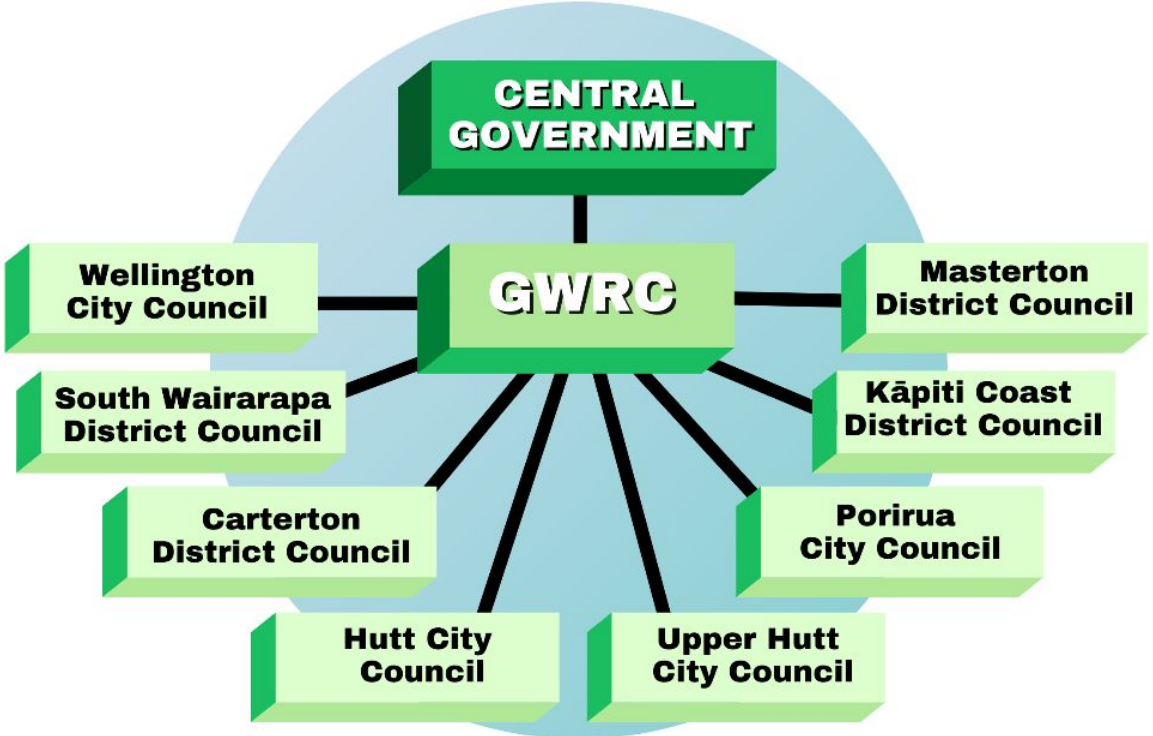


User Experience

- Feedback group
- Expert interviews



Our baseline assessment informed us of government structure and helped prepare website content.



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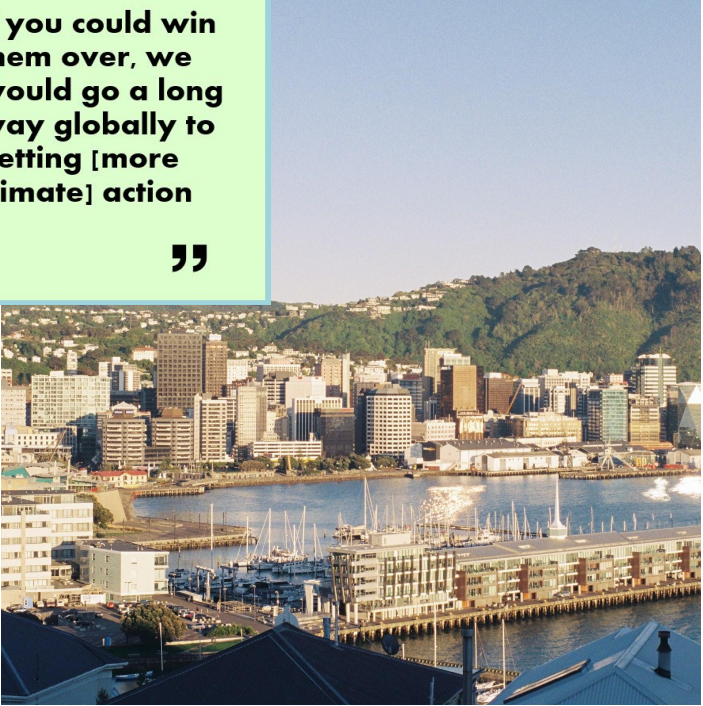


We determined content with the interviews and survey.

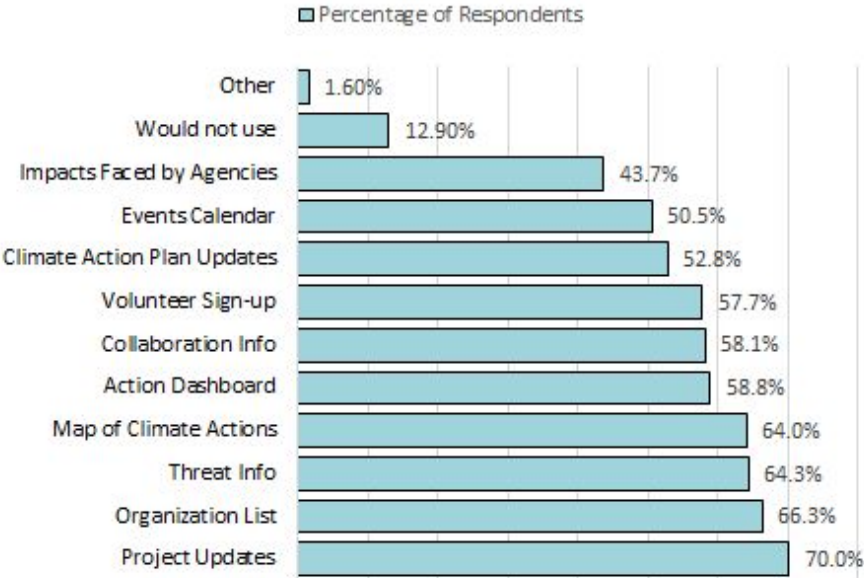
“

if you could win them over, we would go a long way globally to getting [more climate] action


”



What Features Were Desired by Respondents (373 Responses)





Sample posters are included on the website.



BEACH CLEAN UP
DAY

MAKE THE BEACHES #PLASTICFREE!
JOIN US ON 3 APRIL 2021

WE WILL BE NEEDING VOLUNTEERS.
TO KNOW MORE ABOUT BEACH CLEAN UP DAY,
VISIT WWW.GW.GOVT.NZ/EVENTS



THE
OCEAN IS
RISING

STOP SEA LEVEL RISE

GET INVOLVED AT WWW.GW.GOVT.NZ/EVENTS



Protect the Wetlands

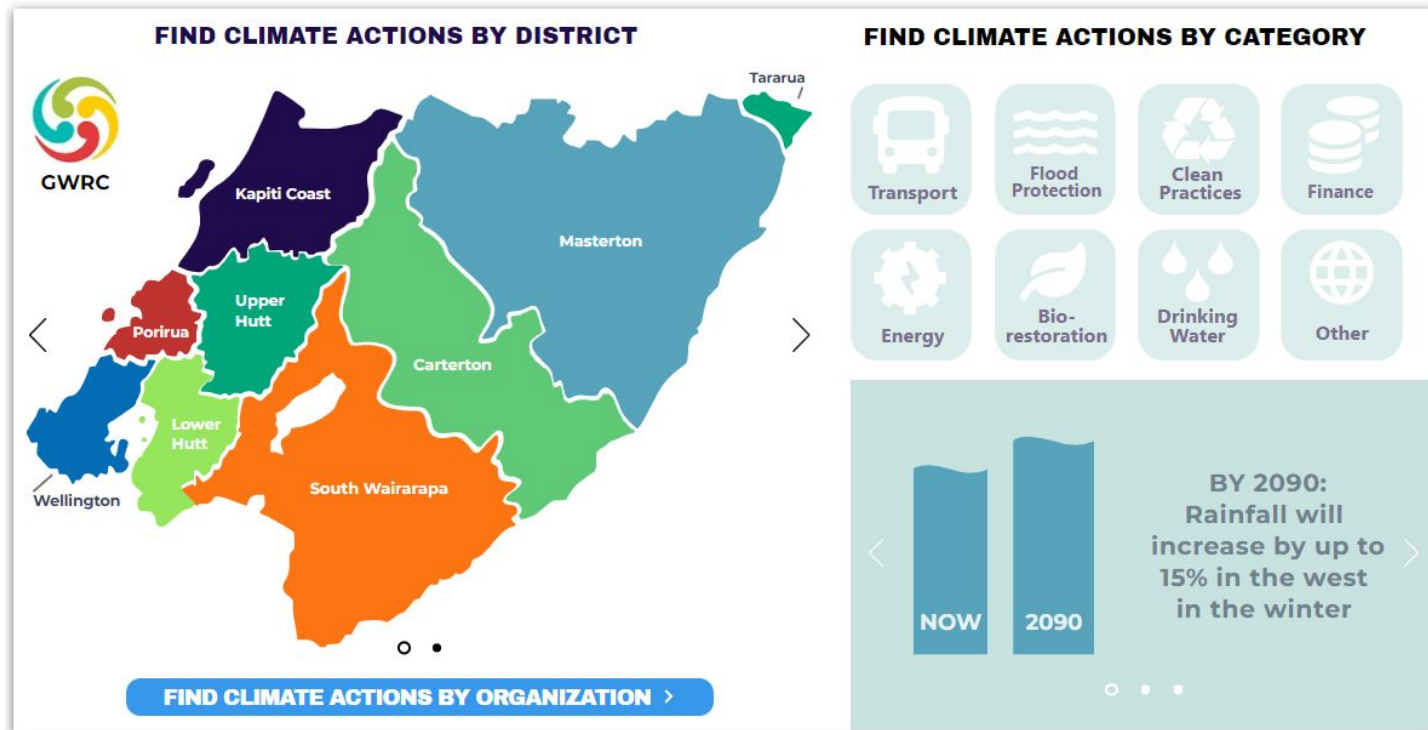
Wetlands:

- Are home to many native fish and bird species
- Reduce the impact of flooding
- Improve water quality
- Have important cultural and historical significance

For more information visit www.gw.govt.nz

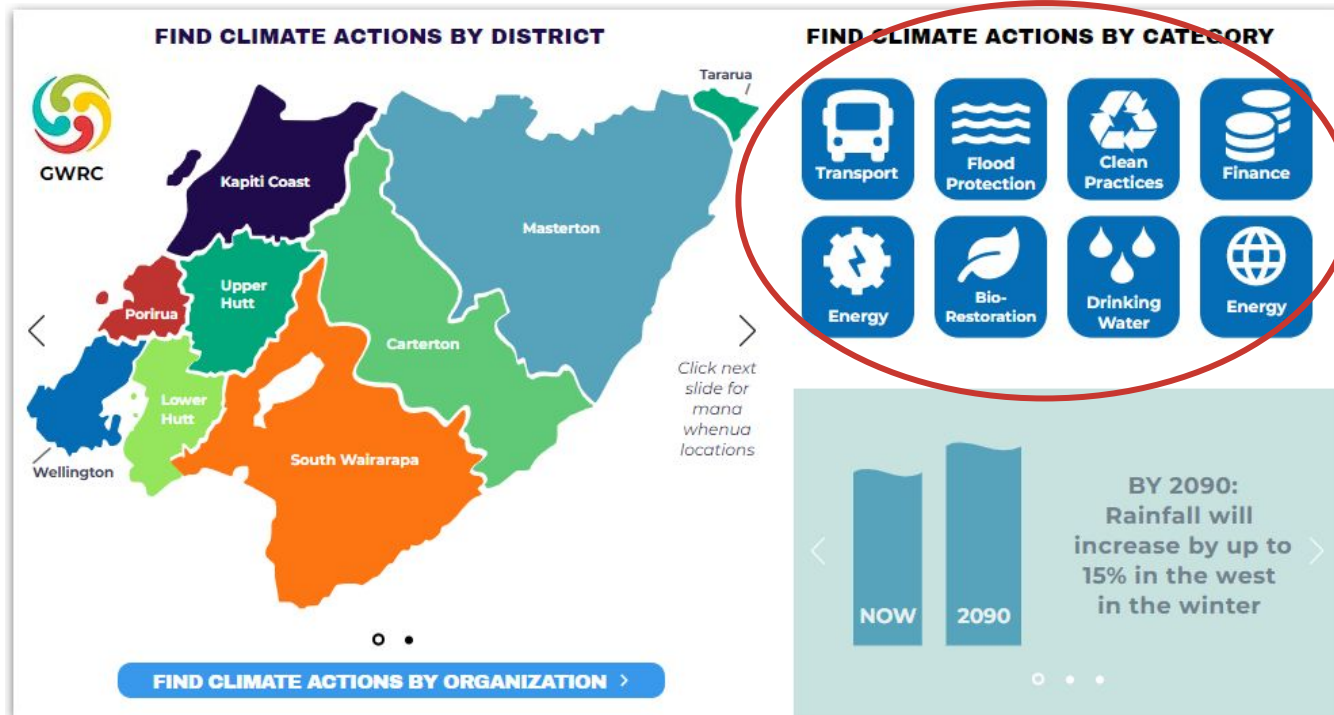


Interviews and a feedback group helped us design our prototype.



BEFORE

Interviews and a feedback group helped us design our prototype.



AFTER

Usability testing revealed areas for improvement in the final design.



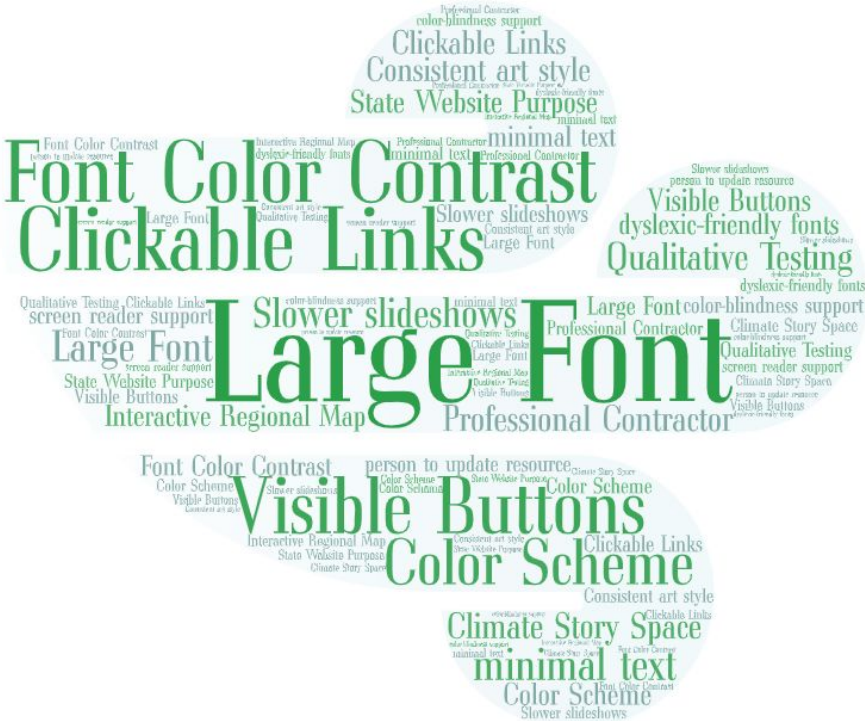
BEFORE

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AFTER

Interviews with experts and a resource feedback group helped refine our prototype.



Interviews with experts and a resource feedback group helped refine our prototype.

The screenshot shows the IEEE VIS 2021 website. The top navigation bar is purple with the VIS 2021 logo and links for Blog, Contribute, Events & Community, and Organize. The main content area features the VIS 2021 logo and the text "the premier forum for advances in visualization and visual analytics". A purple banner at the bottom of the main content area reads "IEEE VIS: Visualization & Visual Analytics" and "24-29 October 2021 in New Orleans, LA, USA". Below this is a photograph of a brass band performing. At the bottom, there is a "Welcome to IEEE VIS 2021!" message and social media links for Twitter and Facebook.

(IEEE Computer Society & Visualization and Graphics Technical Committee, 2021)

The screenshot shows the Wellington Region Climate Action website. The top navigation bar is light blue with the title "Wellington Region Climate Action" and a language dropdown set to "English". Below the navigation bar is a search bar and a menu with links for Home, Take Action!, Science/Knowledge, Districts, Organizations, About, and All Updates. The main content area is divided into two columns. The left column is titled "FIND CLIMATE ACTIONS BY DISTRICT" and features a map of the Wellington region with districts color-coded: Kapiti Coast (dark blue), Upper Hutt (green), Lower Hutt (light green), South Wairarapa (orange), Carterton (light green), Masterton (light blue), and Tararua (dark green). The right column is titled "FIND CLIMATE ACTIONS BY CATEGORY" and features eight icons: Transport (bus), Flood Protection (waves), Clean Practices (recycling), Finance (stack of coins), Energy (gear), Bio-Restoration (leaf), Drinking Water (water drops), and Energy (globe). Below the categories is a bar chart showing rainfall trends from "NOW" to "2090", with a text box stating "BY 2090: Rainfall will increase by up to 15% in the west in the winter". At the bottom of the page is a green banner with the text "OUR STORY" and a light blue banner with the text "Climate change is impacting the Wellington region, and".

To fulfill the goal, we have developed 4 recommendations.

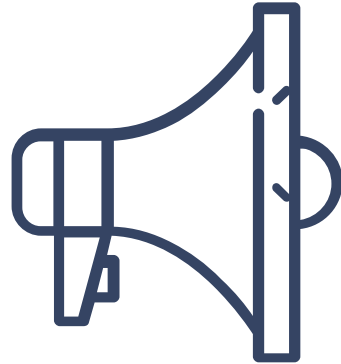
Implementation



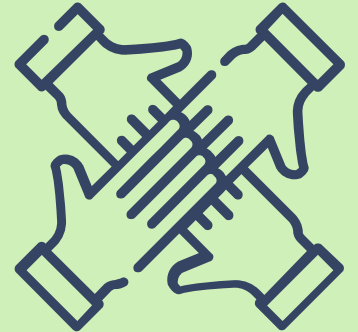
Maintenance



Promotion



Inclusion



Our project meets the 13th UN Sustainable Development Goal.

“Take urgent action to combat climate change and its impacts”

- UN Sustainable Development Goal 13



This project has fulfilled GWRC's 3rd objective.

- Increase community awareness
- Ensure all know how to take action
- Improve resilience and sustainability



(Greater Wellington Regional Council, 2015)

Acknowledgements

Thank you to all who helped us throughout this project!

Special thanks to:

Sponsors:

Katharina Achterberg (GWRC)
Andrea Brandon (GWRC)
Suze Keith (GWRC)

Advisors:

Professor Fred Looft (WPI)
Professor Ingrid Shockey (WPI)

All the participants of our interviews, surveys, & feedback groups
The 2021 New Zealand IQP Class



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Thank you for listening!

Does anyone have any
questions?

Bibliography

Goal 13 | Take urgent action to combat climate change and its impacts. (n.d.). United Nations Department of Economic and Social Affairs. Retrieved December 4, 2020, from <https://sdgs.un.org/goals/goal13>

Greater Wellington Regional Council. (2015). Climate Change Strategy A strategy to guide the Wellington Regional Council's climate change response. Greater Wellington Regional Council.
<http://www.gw.govt.nz/assets/Climate-change/GWRCClimateChangeStrategy7-10-15.pdf>

Greater Wellington Regional Council. (2019). Wellington Region – Sea Level Rise – Commentary about sea level rise issues for the Greater Wellington Region, New Zealand. Wellington Region – Sea Level Rise. <https://slr-gwrc.org/>

IEEE Computer Society, & Visualization and Graphics Technical Committee. (2021). VIS 2021. Welcome to IEEE VIS 2021!
<http://ieevis.org/year/2021/welcome>

Wannan, O. (2015, December 21). Wellington year of weather extremes, from hot dry days to fatal floods. Stuff.
<https://www.stuff.co.nz/dominion-post/news/75317108/wellington-year-of-weather-extremes-from-hot-dry-days-to-fatal-floods>

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