

Horizon Research

Toxic Algae Awareness

Prepared for the Greater Wellington Regional Council

April 2023



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Survey Overview

Introduction

This report gives the results of a survey conducted from 17 March to 27 March 2023 on the Wellington Regional Council's communication about the dangers of toxic algae in rivers in the region.

Respondents were told that the survey was:

- To gather insights on public awareness of toxic algae information placed by Greater Wellington around rivers in the region this summer, and:
- the responses would help provide insight into Greater Wellington's Summer 2024 public awareness campaign, informing people about the risks of toxic algae.

Method and sample details

The online survey was conducted using the Greater Wellington Regional Council's Greater Say panel supplemented by "opt-ins" from links on Facebook directed to people living in the Wellington Region. Greater Say is a panel managed by Horizon Research. Panel members represent the adult population in the GWRC's constituent councils.

The 500 respondents who completed the survey had visited a river in the Wellington Region for recreation and leisure this Summer (Dec 2022-Feb 2023). With a specific focus on:

- People who walk dogs near rivers
- visit with young children for recreation and leisure
- People who swim in rivers.

The sample has been weighted on age, gender and local government area to reflect the region. The survey has a maximum margin of error of $\pm 4.4\%$ overall.

The geographical breakdown of responses across the Region at the beginning of the survey was as follows (unweighted numbers):

From	n=
Pōneke / Wellington City	126
Te Awa Kairangi / Lower Hutt	128
Te Awa Kairangi ki Uta / Upper Hutt	86
Total Hutt Valley	214
Porirua City	16
Kāpiti Coast District	88
Wairarapa (Masterton, Carterton and South Wairarapa Districts)	56
Total	500

Overall research objective

To assess current public awareness and effectiveness of the promotional tools used in the 2023 Safe to Swim campaign (Dec 2022-Feb 2023).

Specific objectives

- To assess public awareness and effectiveness of the toxic algae signage placed beside rivers this Summer.
- To identify public preference for the Danger sign or the Risk sign
- To assess public awareness of online and out of home (OOH) marketing channels used to promote the dangers of toxic algae in the 2023 campaign
- To assess whether people checked water quality online before or during their visit to a river this Summer.
- To assess awareness and effectiveness of the promotional campaign particularly on the target groups of:
 - Dog owners who walk their dogs near rivers
 - Families with small children that swim in or play near rivers
 - People that swim in rivers

Summary of results

Visiting a river

Out of respondents who visited a river in the summer:

- **72%** visited a river to walk/run with a dog;
 - **80%** of residents in Te Awa Kairangi ki Tai / Lower Hutt went for a walk/run with their dog.
- **33%** visited a river to swim;
 - **56%** of residents in Wairarapa who visited a river went for a swim.
- **22%** visited a river with children;
 - **45%** who visited a river with children also swam.
- **45%** said they visited a river more than 10 times over the summer. The people most likely to have visited a river frequently were:
 - Living in Te Awa Kairangi ki Tai / Lower Hutt: **60%** visited 10 or more times
 - Living in Te Awa Kairangi ki Uta / Upper Hutt: **62%** visited 10 or more times
 - Visited the river to walk/run with a dog: **53%** visited 10 or more times

Checking water quality

In total¹, **53%** of respondents said they checked water quality online.

The people most likely to have checked it were those who walked/ran with their dog (**61%**) and live in Te Awa Kairangi ki Uta / Upper Hutt.

Respondents who said they checked water quality online were asked where. The main sites they checked were LAWA (**45%**), followed by Greater Wellington (**43%**).

32% said they checked other places. **78%** who said “other” looked on Facebook.

Sign recognition

Respondents were shown three different signs that were placed near rivers over the summer period. The table below summarises how many saw each sign and if they read it.

	Education sign	Danger sign	Toxic algae risk sign
			
Respondents who saw the sign	52%	41%	20% ²
Read the sign ³	70%	58%	78%
Checked water quality after seeing the sign	33%	Not asked	34%

65% of respondents who saw the **education sign**, saw it on Te Awa Kairangi/Hutt River. **19%** saw it in Waikanae.

69% of respondents who saw the **danger sign**, saw it on Te Awa Kairangi/Hutt River. **17%** saw it in Waikanae.

71% of those who saw the toxic algae risk sign, saw it on Te Awa Kairangi/Hutt River.

¹ Total result is a NETT result of those who answered “yes” in Questions 8 a,b and c

² Total result is a NETT result of those who answered “yes” in Questions 18.1,18.2,18.3

³ Sample = respondents who saw sign

Where heard about toxic algae

When asked where they remembered hearing about toxic algae this summer, **52%** said news media reports and **40%** said word of mouth.

Among the **12%** who said other, most mentions were for social media/Facebook (**59%**).

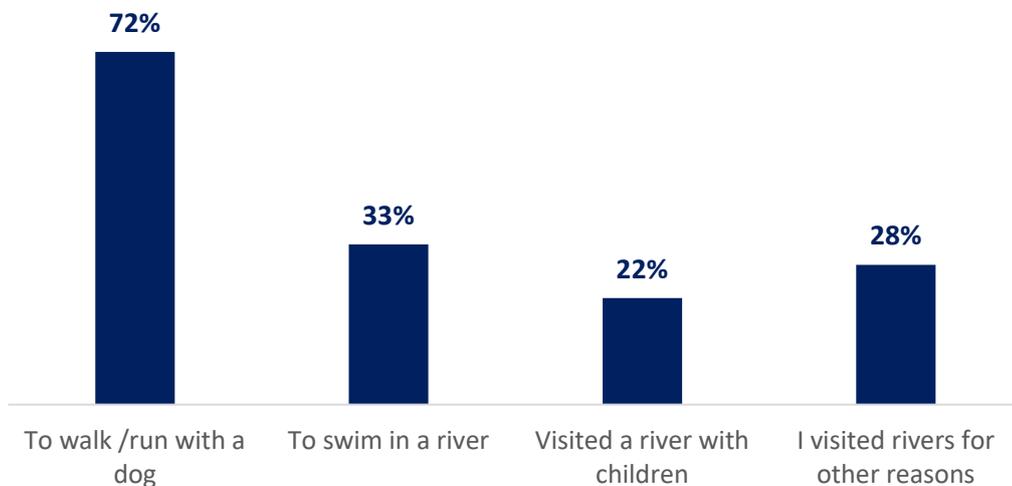
REPORT

1. Visited a river in Wellington region over the summer

At **72%**, the main reason for visiting a river over the Summer was to walk/run with a dog. This is the main reason for the majority of people who living in Te Awa Kairangi ki Tai / Lower Hutt (**80%**) and females (**82%**).

Residents in Wairarapa are more likely to have gone for a swim (**56%**).

Did you visit a river in the Wellington Region this summer specifically for any of these activities?



Sample Size = 500

More likely to have visited river for activities			
Walk/run with dog Total 72%	Swim Total 33%	Visit with children Total 22%	Other reasons Total 28%
Living in Te Awa Kairangi ki Tai / Lower Hutt 80% Females 82%	Living in Wairarapa 56%	Living in Porirua 50% 35-44 and 45-54 year olds 37% Māori ⁴ 41%	Living in Pōneke / Wellington City 39% Males 44% 55-64 year olds 39%

45% of respondents who visited a river with children also swam in a river.

⁴ Sample size = 32. Indicative only

Did you visit a river in the Wellington Region this summer specifically for any of these activities?	ALL	Did you visit a river in the Wellington Region this summer specifically for any of these activities?			
		To walk /run with a dog	To swim in a river	Visited a river with children	I visited rivers for other reasons
To walk /run with a dog	72%	100%	67%	56%	35%
To swim in a river	33%	30%	100%	45%	36%
Visited a river with children	22%	17%	30%	100%	22%
I visited rivers for other reasons	28%	14%	31%	29%	100%

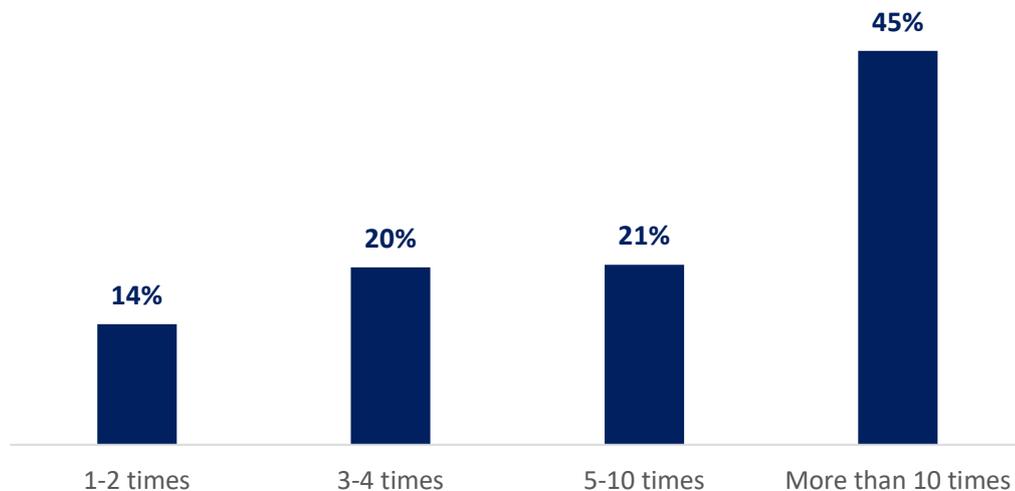
N (unweighted)	500	368	146	118	128
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BLUE = significantly higher than total sample RED =significantly lower than total sample

How often visited a river in Wellington Region over the Summer

45% of respondents said they visited a river more than 10 times over the summer.

How many times did you visit a river in the Wellington Region this summer?



Sample Size = 502

The people most likely to have visited a river frequently were:

- Living in Te Awa Kairangi ki Tai / Lower Hutt: **60%** visited 10 or more times
- Living in Te Awa Kairangi ki Uta / Upper Hutt: **62%** visited 10 or more times
- Visited the river to walk/run with a dog: **53%** visited 10 or more times.

How many times did you visit a river in the Wellington Region this summer?	ALL	Did you visit a river in the Wellington Region this summer specifically for any of these activities?			
		To walk /run with a dog	To swim in a river	Visited a river with children	I visited rivers for other reasons
1-2 times	14%	7%	13%	16%	18%
3-4 times	20%	18%	19%	22%	22%
5-10 times	21%	22%	21%	19%	17%
More than 10 times	45%	53%	47%	43%	44%
Not sure	0%	0%	0%	0%	0%

N (unweighted)	502	368	146	118	128
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BLUE = significantly higher than total sample RED =significantly lower than total sample

Do people check water quality of rivers online?

In total⁵, **53%** of respondents said they checked water quality online. The people most likely to have checked it were those who walked/ran with their dog (**61%**) and live in Te Awa Kairangi ki Uta / Upper Hutt.

TOTAL CHECK WATER QUALITY ONLINE	ALL	Did you visit a river in the Wellington Region this summer specifically for any of these activities?			
		To walk /run with a dog	To swim in a river	Visited a river with children	I visited rivers for other reasons
Yes	53%	61%	52%	55%	32%
No	47%	39%	48%	45%	68%

N (unweighted)	502	368	146	118	126
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BLUE = significantly higher than total sample RED =significantly lower than total sample

TOTAL CHECK WATER QUALITY ONLINE	ALL	Where in our region do you live?					
		Kāpiti Coast	Te Awa Kairangi ki Tai / Lower Hutt	Porirua	Te Awa Kairangi ki Uta / Upper Hutt	Wairarapa	Pōneke / Wellington City
Yes	53%	57%	54%	48%	66%	40%	47%
No	47%	43%	46%	52%	34%	60%	53%

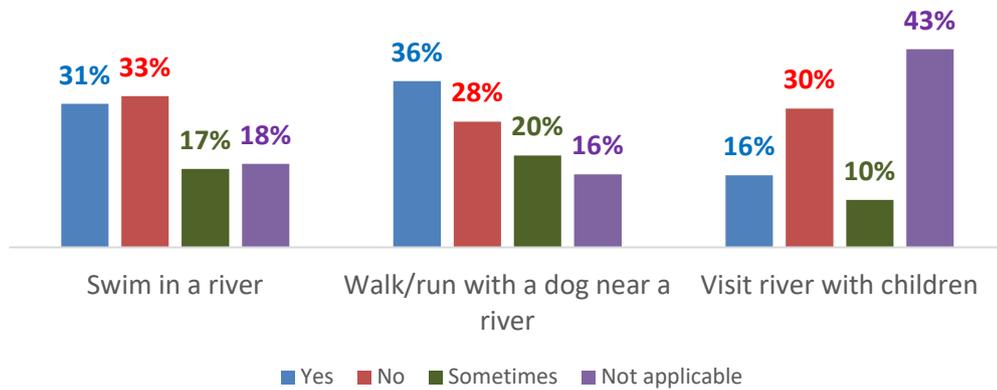
N (unweighted)	502	89	128	16	85	58	126
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BLUE = significantly higher than total sample RED =significantly lower than total sample

⁵ Total result is a NETT result of those who answered “yes” in Questions 8 a,b and c

The question about checking online was asked for each activity separately and the chart below shows the results for each activity.

For each of the following activities, do you check the water quality online before going?



More likely to check water quality online before going		
Swim Total 31%	Walk/run with dog Total 36%	Visit with children Total 16%
No significant differences	Te Awa Kairangi ki Uta / Upper Hutt 52% Females 45%	Māori ⁶ 35%

44% of men and **69%** of Māori are significantly more likely to **not** check water quality online prior to going swimming a in a river.

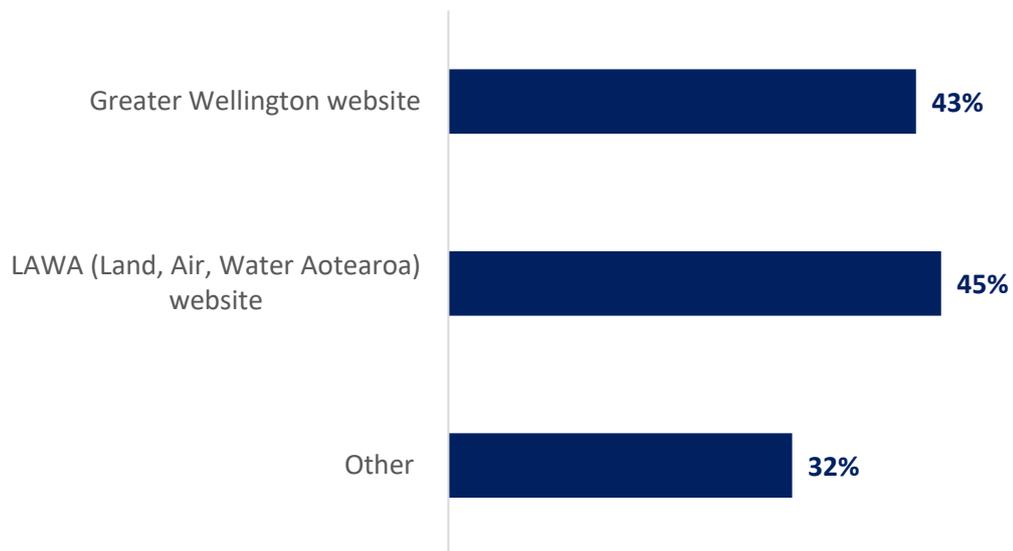
⁶ Sample size = 32. Indicative only

2. Finding information about water quality online

Respondents who said they checked water quality online were asked where. The main site they checked was LAWA (**45%**) and a similar number checked the Greater Wellington site (**43%**).

9% checked both the Greater Wellington and LAWA sites.

Where do you search for this information?



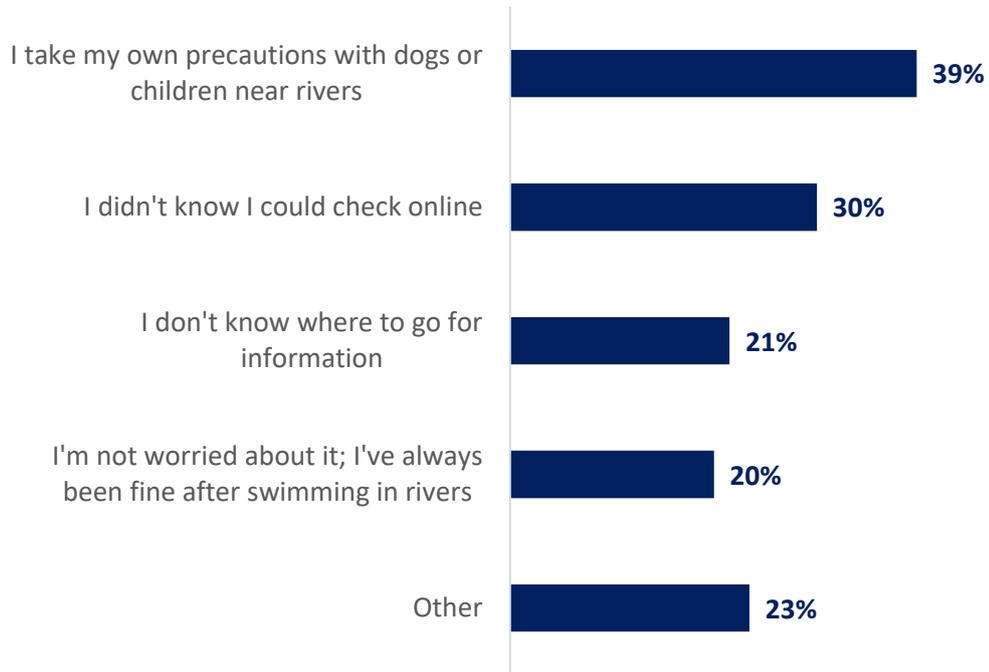
Sample= 343

Among the respondents who said “other”, **78%** said they looked on Facebook. Other mentions were signage, Google and council websites such as Hutt City Council, Kapiti Coast Council.

Why do people not check online?

39% of respondents who did not check online said that they take their own precautions. There was also a lack of awareness that water quality could be checked online (**30%**) and around a fifth (**21%**) were not sure where to go for information.

What is the reason why you would not check?



Sample= 219

50% of dog walkers, who do not check online said they take their own precautions. 39% of swimmers said they were not worried and have always been fine after swimming.

What is the reason why you would not check?	ALL	Activities			
		To walk /run with a dog	To swim in a river	Visited a river with children	I visited rivers for other reasons
I didn't know I could check online	30%	31%	33%	23%	32%
I'm not worried about it; I've always been fine after swimming in rivers	20%	12%	39%	31%	33%
I take my own precautions with dogs or children near rivers	39%	50%	39%	34%	28%
I don't know where to go for information	21%	17%	20%	27%	25%
Other	23%	26%	20%	21%	21%

N (unweighted)	219	146	56	50	63
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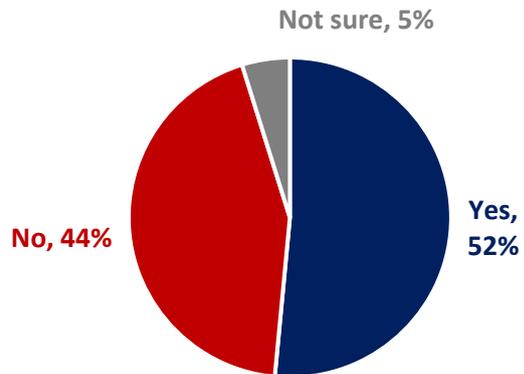
BLUE = significantly higher than total sample RED =significantly lower than total sample

3. Sign Recognition

Respondents were shown three different signs that were placed near rivers over the summer period. The following are awareness results for each of the signs.

Educational sign

52% of respondents said they remembered seeing this sign. There were no significant differences among groups more likely to have seen the sign, apart from 68% of 65-74 year olds.



Do you remember seeing this sign?	ALL	Did you visit a river in the Wellington Region this summer specifically for any of these activities?			
		To walk /run with a dog	To swim in a river	Visited a river with children	I visited rivers for other reasons
Yes	52%	55%	46%	55%	43%
No	44%	41%	51%	42%	51%
Not sure	5%	4%	3%	3%	6%
N (unweighted)	485	353	145	115	126

When asked where they saw the sign, **65%** said around the Hutt river, followed by **19%** saying Waikanae.

Near which river did you see the sign?	
Total Hutt/Ta Awa Kairangi	65%
Waikanae	19%
Ruamāhanga	3%
Wainui	2%
Otaki	3%
Silverstream	2%
Kaitoke	2%
Can't recall	7%

70% of people who saw the sign also read it and a **third (33%)** checked water quality online as a result of seeing it.

	Read the sign	Checked water quality online after
Yes	70%	33%
No	23%	57%
I don't remember	7%	10%
N (unweighted)	269	267

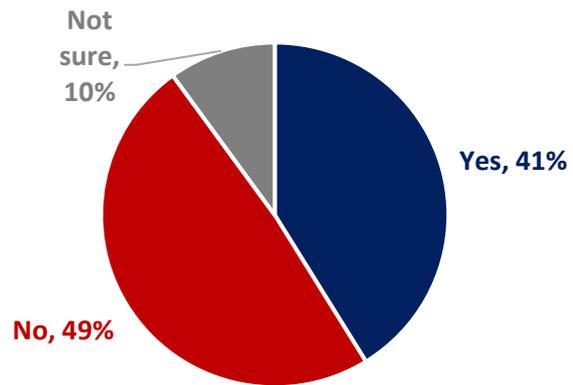
There were no significant differences among groups, apart from **38%** of 65-74 year olds who said they did not stop to read the sign.

Danger sign

Respondents were told:

These A3 size danger signs were placed near rivers with high toxic algae levels this Summer. The signs were removed when toxic algae levels lowered.

The danger sign was seen by **41%** of respondents. There were no significant differences among groups more likely to have seen the sign.



Do you remember seeing this sign?	ALL	Did you visit a river in the Wellington Region this summer specifically for any of these activities?			
		To walk /run with a dog	To swim in a river	Visited a river with children	I visited rivers for other reasons
Yes	41%	46%	39%	50%	32%
No	49%	48%	52%	46%	51%
Not sure	10%	7%	9%	5%	17%
N (unweighted)	475	348	142	112	124

BLUE = significantly higher than total sample RED =significantly lower than total sample

When asked where they saw the sign, **69%** said around the Hutt river, followed by 17% saying Waikanae.

Near which river did you see the sign?	
Total Hutt/Ta Awa Kairangi	69%
Waikanae	17%
Otaki	4%
Silverstream	3%
Ruamāhanga	1%
Wainui	1%
Kaitoke	1%
Can't recall	6%

58% of people who saw the sign also read it.

Read the sign	
Yes	58%
No	21%
I don't remember	21%
N (unweighted)	227

Toxic Algae risk sign

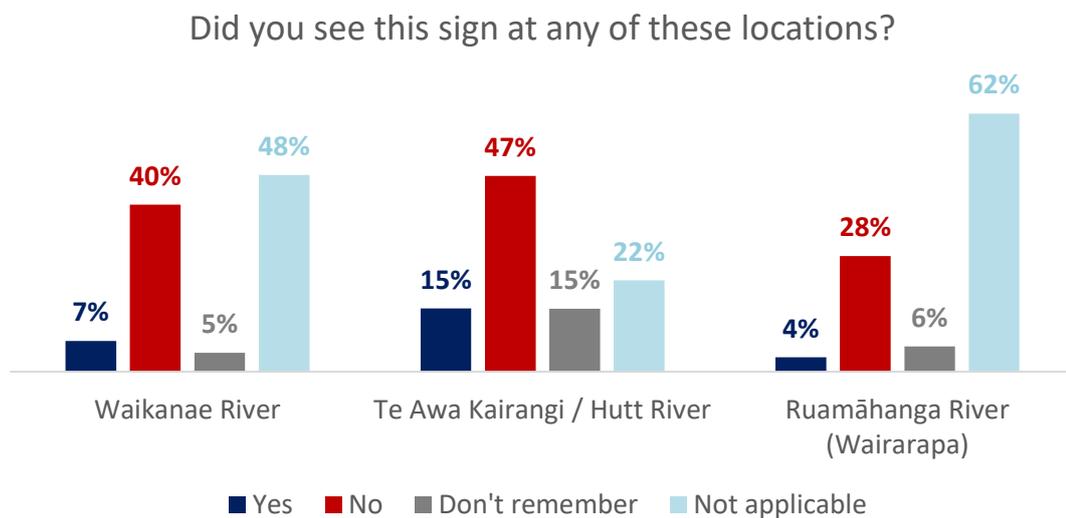
Respondents were told:

These risk signs were placed at five spots known for frequent Toxic Algae presence.



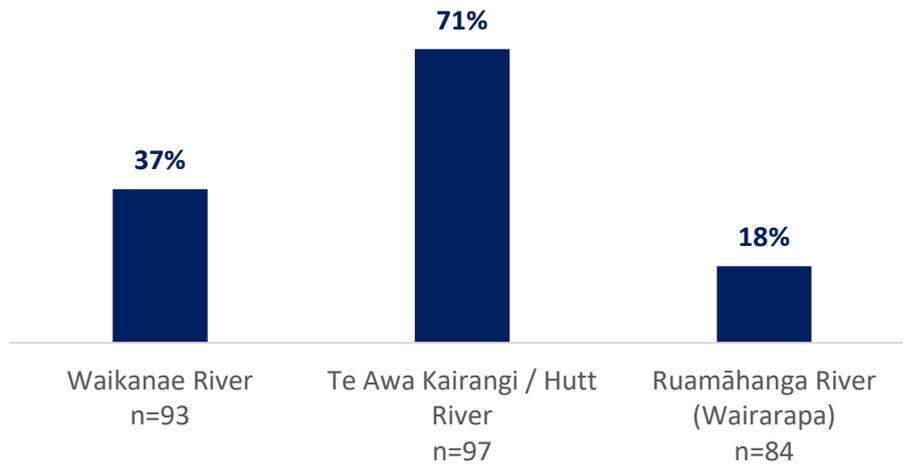
Respondents were asked if they saw the signs at any of the three locations – *Waikanae River, Te Awa Kairangi/Hutt River and Ruamāhanga River (Wairarapa).*

15% of all respondents saw the sign at Te Awa Kairangi.



In total⁷, **20%** of respondents saw the sign at any of the three locations, with **71%** (of those who had seen the sign) saying they saw it at Te Awa Kairangi/Hutt River.

Where saw Toxic Algae Risk sign



TOTAL SAW TOXIC RISK SIGN	ALL	Did you visit a river in the Wellington Region this summer specifically for any of these activities?			
		To walk /run with a dog	To swim in a river	Visited a river with children	I visited rivers for other reasons
Yes	20%	22%	15%	23%	19%
No	80%	78%	85%	77%	81%
N (unweighted)	504	368	146	118	128

Among the respondents who saw the sign, **78%** said they read it and 34% checked water quality online after seeing it.

	Read the sign	Checked water quality online after
Yes	78%	34%
No	17%	63%
I don't remember	5%	4%
N (unweighted)	100	101

⁷ Total result is a NETT result of those who answered “yes” in Questions 18.1,18.2,18.3

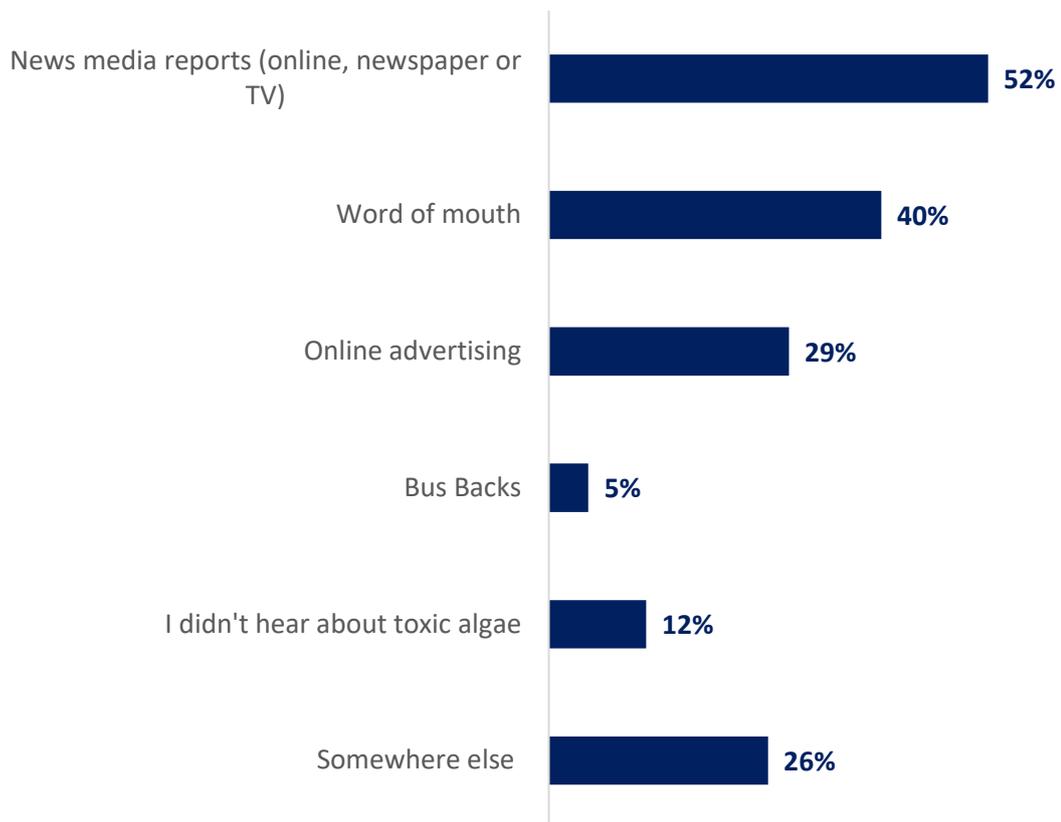
4. Where have people heard about toxic algae this summer?

When asked where they remembered hearing about toxic algae this summer, 52% said news media reports and 40% said word of mouth.

Among the 12% who said other, most mentions were for

- Social media/Facebook (59%)
- Radio (9%)
- Text notifications (8%)
- Signs (8%).

Where do you remember hearing about toxic algae this summer?



Sample= 456

There were no significant differences apart from 65% of 65-74 year olds who had heard about toxic algae from news media reports.

Appendix 1 - Other comments

When asked if they had further comments, **143** responded. The key messages that came through were:

Signs commentary	31%
Social media	8%
Council does good job	4%
Email notifications	3%

Below are some comments by respondents to illustrate these themes.

Signs commentary – such as needing more or having greater visibility

Need more signs

I have come across toxic algae in areas where there weren't any signs.

Some old signs are never taken down so not clear if have been forgotten or not

More signage is needed - especially where dogs go into the water. However, to fix this, GWRC should stop the large draw downs from surface and ground water, so we don't get into the low flow situations.

I saw the sign on the way out, not the way in.

More big signs like the one alongside the Waikanae river would be great in other popular river locations

Are there signs on river entrances warning of local council waste disposal areas?

Need more signs .

We can reduce the occurrence and quantity collectively. Signs are a fence at the bottom of the cliff. The awa should come under an environmental protection act not a flood management act. Start erecting the fence at the top of the cliff. Otherwise one day. Those signs will be on our taps saying. Unfit to drink. The signs would suggest the awa is crying help and you erect signs telling people to stay away from the bad river. Metaphorically. We at Friends of the Hutt River used to do a mid-winter swim to try raise awareness of the health of our awa. Only safe time to swim. Anyway. Thank you.

Where toxic algae exists in a river put a big red danger sign at that spot (in addition to the existing signage)

What about the toxicity from pollutants in our streams - no warnings are, that I can see, are placed by the council. Appears to be up to locals to place signs - yet I see people (because there is only one, not very obvious, sign) gathering watercress (I cannot remember the proper name) from the stream to eat.

A sign next to all the free dog bags spots would get lots of views

Lots of dog walkers start their walks by the Avalon dog training entrance cater st Belmont. Signage there is not great!

Very glad to see increased signage. I'm always very nervous with my young dog about heading to rivers and am grateful for the monitoring.

A QR code on a permanent sign to scan for a real time image about the quality at the specific site could be cool. LAWA can be glitchy or not show data at times. A qr code linking to an associated app would be very beneficial for those who frequent rivers year round even when algae is present. Even small signs at the swimming places further up or down stream from the main hotspots

Thanks for this work it's important Do the signs give advice about what to do if your dog is exposed? Is first aid before vet?

Not enough signage, especially for the many visitors to region. LAWA site wasn't updated in timely manner at the start of season and sites missed that def had it. Warnings weren't clear on website eg the large Silverstream north warning. Not enough sites are identified between Ava & Totara Park - plenty of patches with it in popular access points for dog walkers, but outside of the testing location so not on the website. Biggest dog exercise area adjacent to Hutt River at Trentham Memorial needs better signage & alerts. Pictures and alerts miss the green algae turning bubbly & soupy and lighter colour. Warnings miss the puddles on trails where dogs are walked - plenty of dodgy algae in those eg Remutaka Rail Trail & Maymorn/Tunnel Gully. Signage needs to be on both sides of the river where there are access points, not just one. Fire type alert sign seems much clearer than the what they look like sign. Perhaps they need to co-exist?

Not enough pictures to clearly identify if is toxic algae, or another type of algae. I walk Wainiomata river and there are so many places to stop along it that it is potentially difficult to put signs up at every access point.

The sign in Te Waka rd seems to be a permanent year round feature, leading to most people ignoring it

I didn't see any of the signs, but they look good! I'd make the A3 size ones larger.

I think more visible signs would be good along the river since the river is a large area and not all parts are affected. It can be difficult to keep up with the changing situation. I generally use the rule, if in doubt don't go in the water

You're doing a good job with the signage I've seen this summer.

The signs they put up are very difficult to determine if they are just old signs or a relevant at the time. Some look really old and have been graffitied. Would be better if there was some kind of updating on them perhaps by staff who empty the bins considering they are there anyway

Just that regular checks on the signs may need doing, noticed that some fuckwits had put graffiti on some making them not readable

I love the idea of those green/red/orange warning signs, more of those please! It's often hard to know when there's algae, have to go off word of mouth. Especially after rain etc, would be good to have alerts for when the river is algae free.

I didn't see any of your signage really but I do remember seeing extensive media coverage of the issue and that made me feel informed/aware enough.

Often signs are not updated so don't trust them

Constructive feedback... Can you please explain to the public why toxic algae is now an issue, whereas it never was a problem back in the day? Is toxic algae like didymo, a new foreign algae which has made its way into NZ waterways, or does the drinking water treatment plant discharge result in an optimal environment for this algae species? Can I suggest that GW looks into this, and tests for toxic algae upstream from the treatment plant and compare this to the downstream results. As for the warning signs, maybe they could be orange or yellow to make them stand out - from a distance they look like another standard council possum control sign. Also from a distance, I would probably think that the dial and arrow sign was a standard fire risk sign. As for the wording "Warning kia tupato" on the other warning sign is not very clear straight out what the warning is unless people can read te reo which the majority of the NZ population cannot. To ensure clear communications on a warning sign, I would suggest the titles are in English text.

It helped us keep clear of the water. Went down with kids and dog, saw the signs, played on the grass instead of water. Successful signage at Otaihangā in Kapiti, thank you.

The presence of toxic algae significantly diminishes my enjoyment of the Hutt River riverside.

Note the only river in the region I visited this summer was the Waikawa estuary for birding. There was a dead pied shag washed up by the bridge. No idea of cause of death but may have been algae? I have spent some time birding at the Hokio and Manawatu stream/river mouths, but they are in the Horizons' rohe. Didn't see any toxic algae signs though.

The signs seem to be up all the time now, so the effect has worn off. I prefer the ones that show the current risk level

I like the ones that can change as some signage has been there for ages, and so loses effectiveness as people stop noticing. Signs should be there when risk is and removed when not

It would be good to have these signs further south. I walk my dog usually around the Fraser Park (Taita area) of the Hutt river or the Ewen Bridge to the train bridge or river mouth. I'm never sure what the algae danger is there because there are no signs and to be honest often the signs on the river (Stokes valley) and the community posts say there is algae in the Hutt river, but LAWA says it's safe. I would like these red, orange, green signs up at all of the bridges at the Hutt as these are main dog walk areas and I end up avoiding the river maybe when it's not necessary.

The signs are very small, need to be bigger

The signs and social media work well

I stayed away from Waikanae river walk with my dog after reading about toxic algae on Stuff, so didn't see warning signs.

We visit Te Awa Kairangi closer to its source, at Kaitoke or the Mangaroa River tributaries and other streams in Pakuratahi/Tunnel Gully area. We rely mainly on locally posted signs to make sure it is safe for our dog to paddle in the streams. If there is no sign, we assume it's ok but that may not be ok, right?

The signs and social media work well

Other comments around social media or email notifications

Ongoing summertime algae warnings are good. Word of mouth & Socials are also useful. GWRC should invest in & ensure membership of and participation in local community FB pages. Beach safety reminders are also useful after periods of heavy rain - re: pollutants coming off the land/farms/vehicles after rain. Again, utilising social media pages would add value. Today's (Friday 17/3) heavy rain will degrade water quality on local beaches & now is a useful time to remind people to (maybe) avoid swimming this weekend & enjoy our lovely regional parks instead.

Once I'm notified on Facebook of toxic algae, I stop my dog from going anywhere near the river.

The signs and social media work well

I think pretty good but best place to keep updated is social media such as Facebook

Dog training club had a discussion so advising them so they can spread the word on their social media pages might be good too.

Seems to be working well currently. We share email warnings etc received from GWRC to social media - as we also do for DoC.

We don't get newspapers or check social media much. It would be great to have info on noticeboards of nearby places like dairies or parks.

The signs and social media work well

Respondents who say the Council is doing a good job of warning people and looking after rivers

I do think that Greater Wellington does a very good job of looking after our rivers.

You did a very good job of warning people

You're doing a good job with the signage I've seen this summer.

Be nice to know what causes it, I think council does a good job of alerting the public to its dangers.