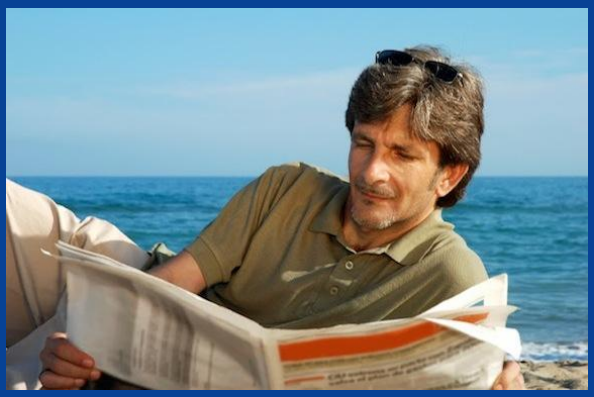
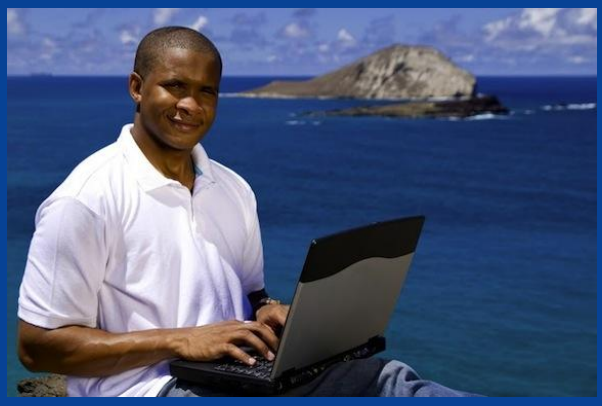
WATER **WORDS**
THAT **WORK**





FY2021 Fowl Water Survey Report

Prepared For Think Blue Massachusetts

June 2021

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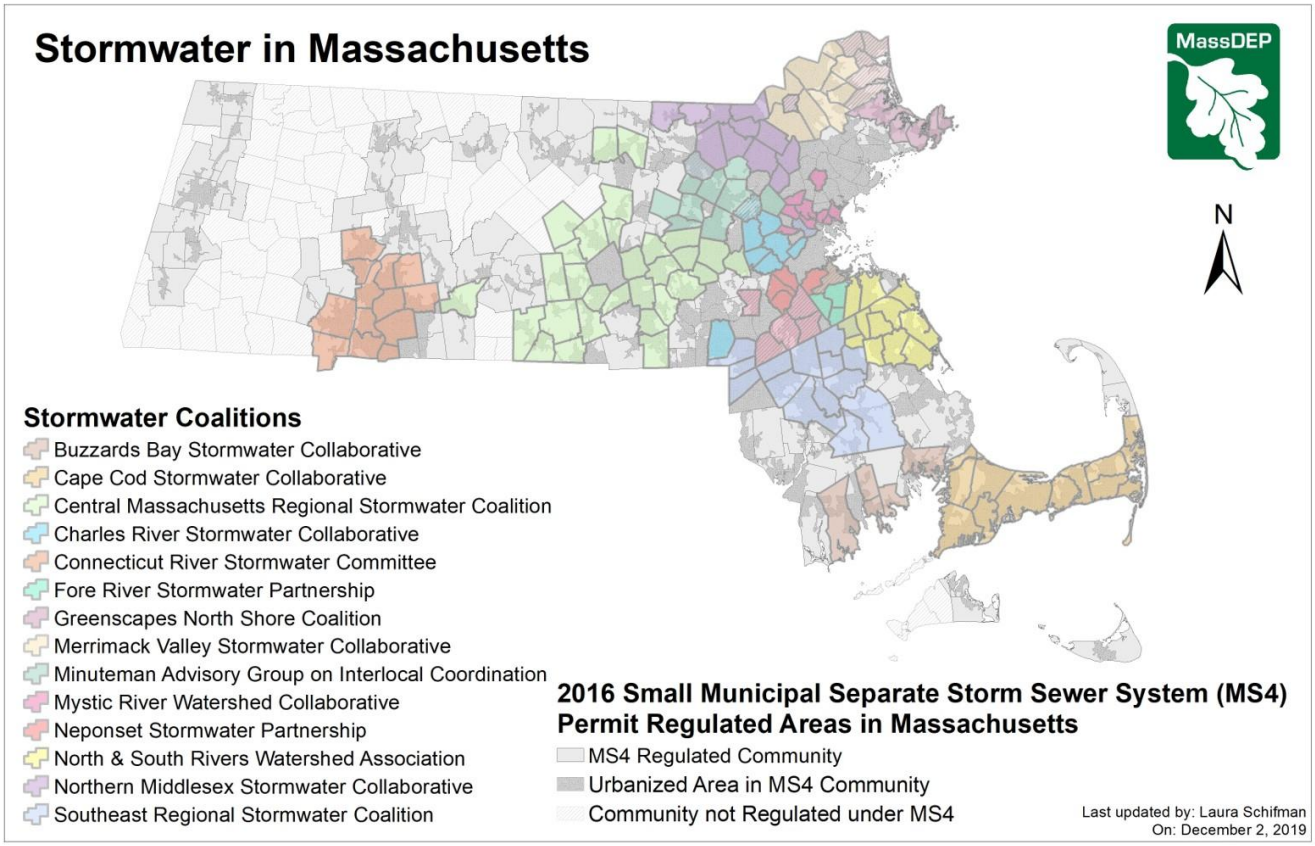
Overview

About Think Blue Massachusetts

Think Blue Massachusetts is a statewide educational campaign to help residents and businesses do their part to reduce polluted runoff and keep our state's lakes, rivers, and streams clean and healthy. More specifically, Think Blue Massachusetts helps local governments across the state meet the education and outreach requirements of the General Permits for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems.

Think Blue Massachusetts is run by the Massachusetts Statewide Municipal Stormwater Coalition. This coalition is made up of fourteen regional stormwater groups, which collectively represent more than 160 communities across the state.



Our Goals & Approach

In 2021, Think Blue Massachusetts built on the annual advertising campaign it has run since 2018. Our goal remains to raise awareness about stormwater among residents of the communities served by regional stormwater coalitions.

To do this, we ran an advertising campaign using the "Fowl Water" public service announcement that we updated in 2019. Following a three-week advertising blitz on social media and YouTube, we measured the effectiveness of the campaign by conducting an online panel survey of residents in the areas where the advertisement ran.

Our Public Service Announcement: "Fowl Water"

View the ad at http://bit.ly/tbm-fowl-water

For this campaign, Water Words That Work LLC used "Fowl Water" public service announcement. This video concept was originally developed in 2005 by Think Blue San Diego. In 2019, Think Blue Massachusetts updated the video using modern production equipment and formatting the presentation for modern screen sizes.

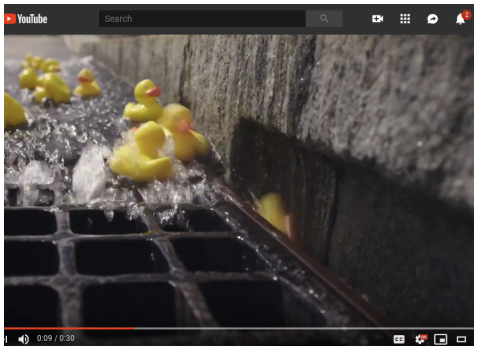
The video helps viewers visualize the problem by transforming components of stormwater pollution into rubber duckies that enter waterways through the storm sewer system:

A drop of motor oil...

… morphs into a rubber ducky

A cigarette butt...

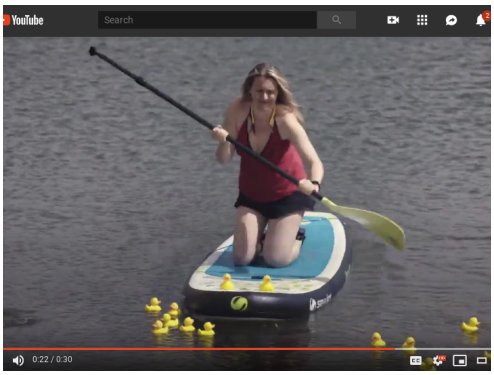
...morphs into a rubber ducky



The rubber duckies go down the storm drain...

...and into public waterways

People play in the water



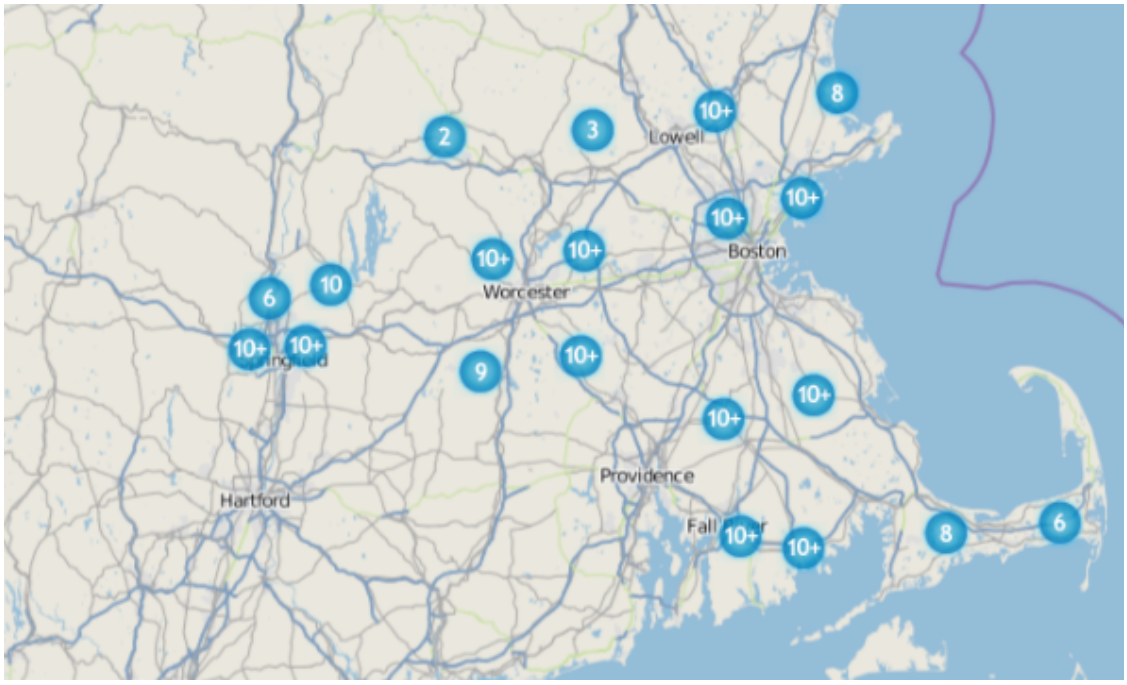
...unaware that the water is polluted.

Post Campaign Survey

Our advertising campaign ran between May 17th and June 4th, 2021. At the close of the campaign, we surveyed 400 Massachusetts residents, evenly split between males and females. We limited the responses to counties where the campaign ran.

Surveying an estimated population of 5,028,995 with a sample of 400 gives us a margin-of-error of 4.9% at the 95% confidence interval.

Here is a map showing the approximate location of the responses received, based on the IP address of the computer or handheld device used to complete the survey:

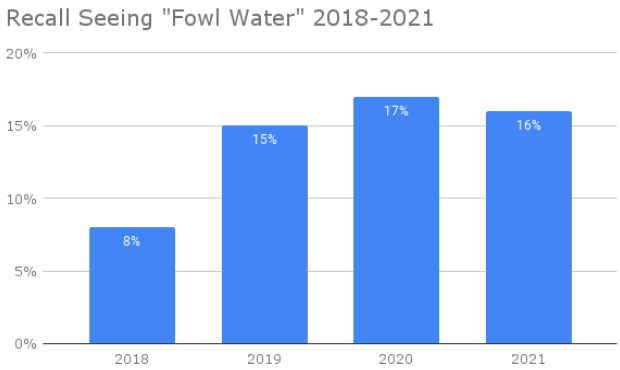


Findings

#1: Despite falling budgets, survey responses were remarkably stable 2018-2021

Ad recall remained high at 16% of those surveyed — slipping only 1% from 2020, and within the survey margin of error.

This is a promising result given that our advertising budgets have steadily fallen since the campaign first launched in 2018. This year, our per-person advertising budget fell below 1 cent for the first time.



How can this be? The most likely explanation is that our recurring investments in advertising have generated residual awareness among the public, so they more readily recall an ad they have seen several years running.

In particular, our 2020 advertising results were exceptionally good — placement costs tumbled during the early part of the pandemic, and we benefitted from that. Stay-at-home orders put people in front of their screens more often and for longer.

#2: Overall concern about water pollution remains stable, but public health loses ground to the economy

In four years of post campaign surveys, Massachusetts residents have consistently rated clean water/water pollution towards the middle of the pack as a priority for *local government*. "Public Health" soared to the top of the list in 2020, no surprise due to the COVID-19 pandemic. In 2021, public health ties with the economy for the top concern, which is also consistent with the course of the pandemic.

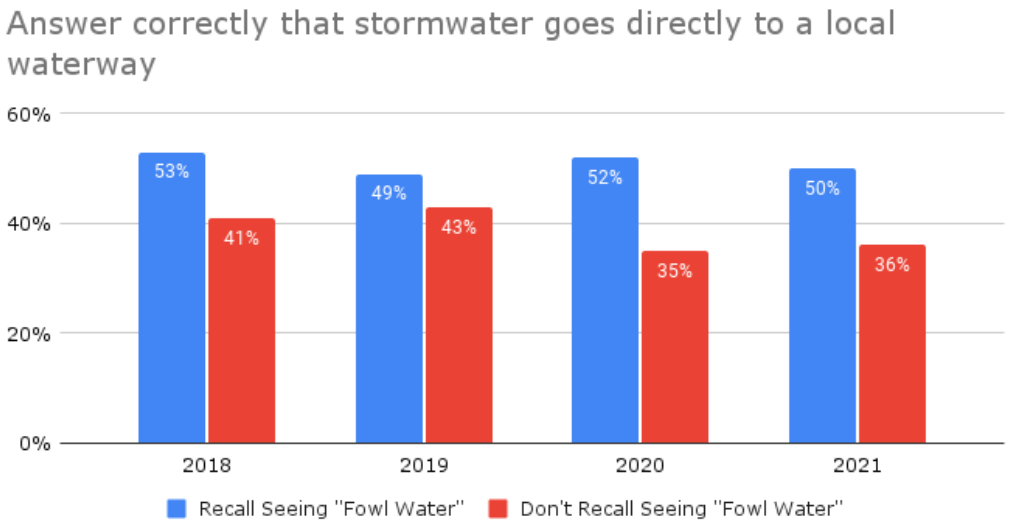
Issue	Average Rank 2020	Average Rank 2021
Public Health	2.7	3.0
Economy	3.1	3.0
Education	3.5	3.3
Crime	3.7	3.6
Clean Water/water pollution	4.1	4.1
Transportation	4.9	4.9
Flooding	5.9	6.0

#3: The Video Successfully Raises Awareness about the Problem

When we compare the answers of residents who remember seeing the video to those who don't, we see a clear correlation between video recall and higher stormwater awareness.

#3a. Understanding Where Stormwater Goes

Those who recall seeing the video are consistently more likely to report that stormwater flows untreated to local waterways.



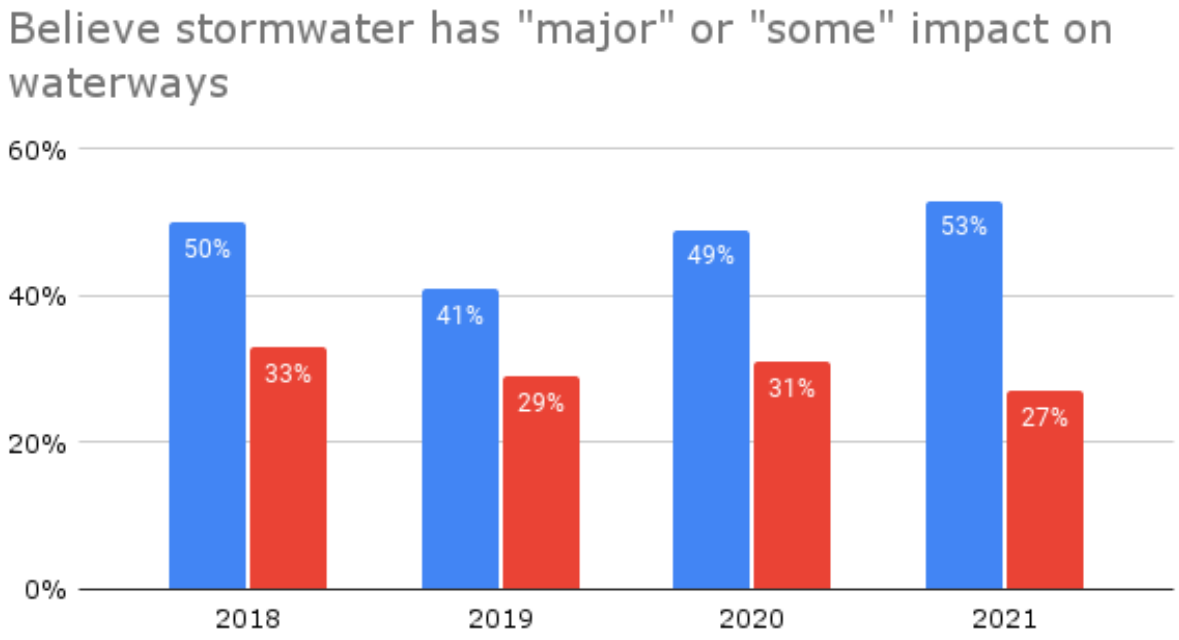
#3b. Recognizing the Relative Importance of Stormwater Pollution

Those who recalled the video rated polluted runoff as the 4th greatest threat, while those who did not recall the video rated it fifth.

Recall Seeing "Fowl Water"		Don't Recall Seeing "Fowl Water"	
Industrial facilities dumping waste	3.1	Industrial facilities dumping waste	3
Global warming (also known as climate change or the greenhouse effect)	3.8	Global warming (also known as climate change or the greenhouse effect)	3.6
Residents disposing of oil or household chemicals down the drain	4	Residents disposing of oil or household chemicals down the drain	4.2
Polluted runoff from yards, streets, parking lots, and farms	4.1	Mining, drilling, and other extractive industries	4.2
Loss of wetlands and natural areas	4.2	Polluted runoff from yards, streets, parking lots, and farms	4.3
Mining, drilling, and other extractive industries	4.2	Loss of wetlands and natural areas	4.3
Overuse of water by homes, farms, and businesses	4.7	Overuse of water by homes, farms, and businesses	4.9

#3c. Recognize the Impact of Stormwater Pollution

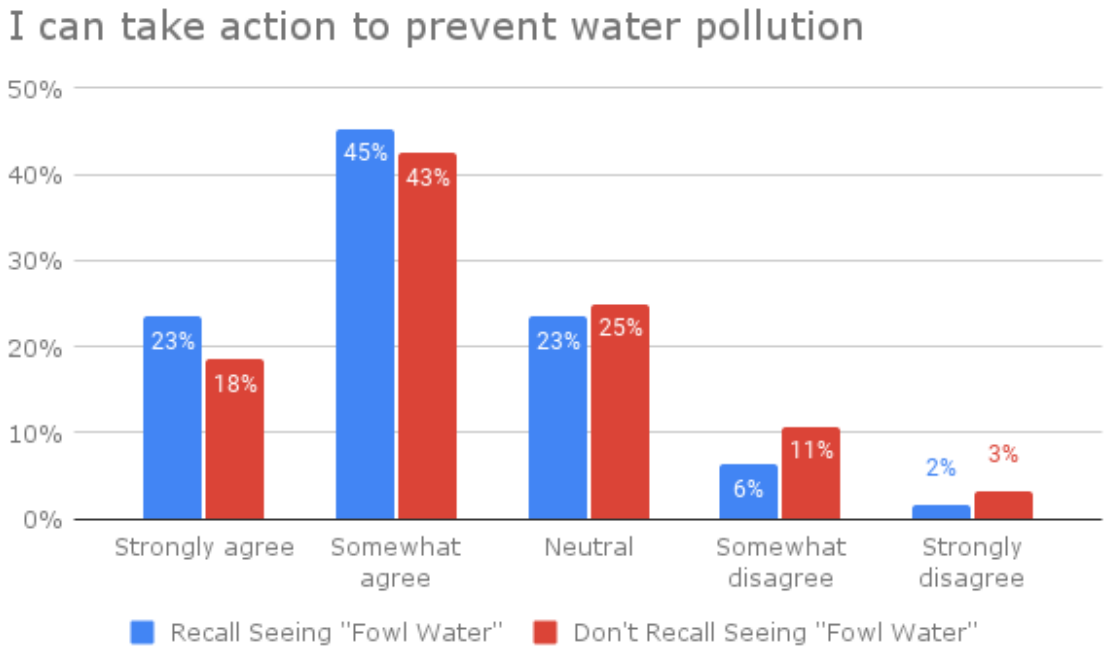
Those who recalled the video are much more likely to report that stormwater pollution is bad for waterways.



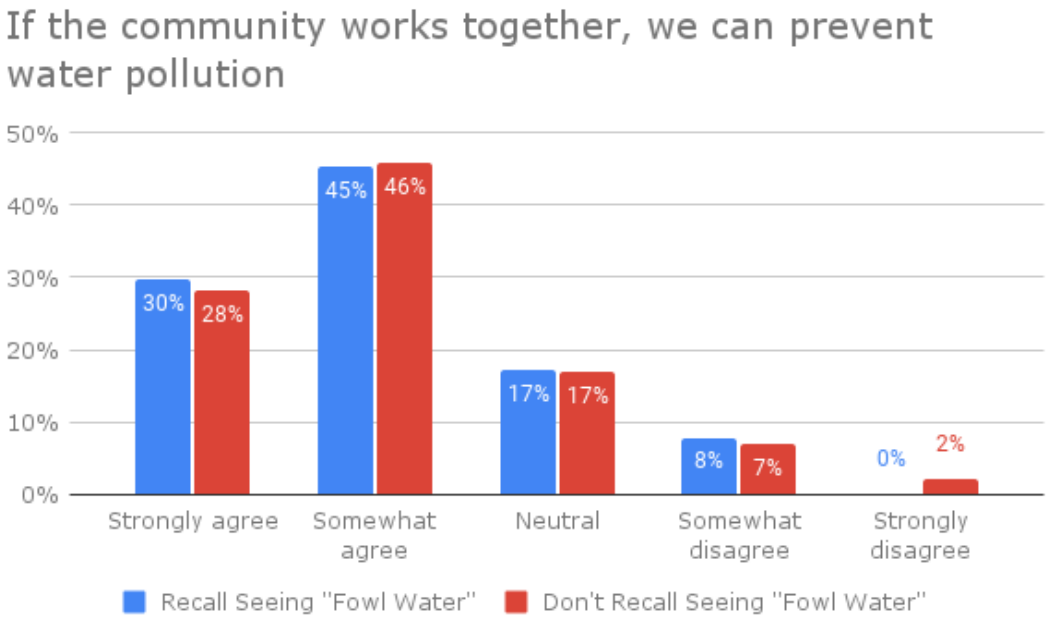
#4: The Video is Less Successful at Encouraging Solutions

While the video clearly influences awareness and opinions about the causes and consequences of stormwater pollution, it has less impact on attitudes towards solving the problem. For the two questions about solutions, the difference between these two groups were negligible and generally within the margin of error.

#4a. Personal Action



#4b. Collective Action



Recommendations for Fiscal Year 2022

#1: Repetition is Key: Continue the Campaign

We recognize that state dollars for stormwater education are finite and there are lots of worthy projects competing for them. We believe this campaign has two unique advantages that other projects can't match:

- Nearly all regulated municipalities rely on the campaign to demonstrate to the EPA that they have met their education and outreach requirements, and can measure the results both in advertising impressions and educational outcomes
- The campaign is efficient and effective. Municipal stormwater staff do not have the expertise to run measurable campaigns on their own.

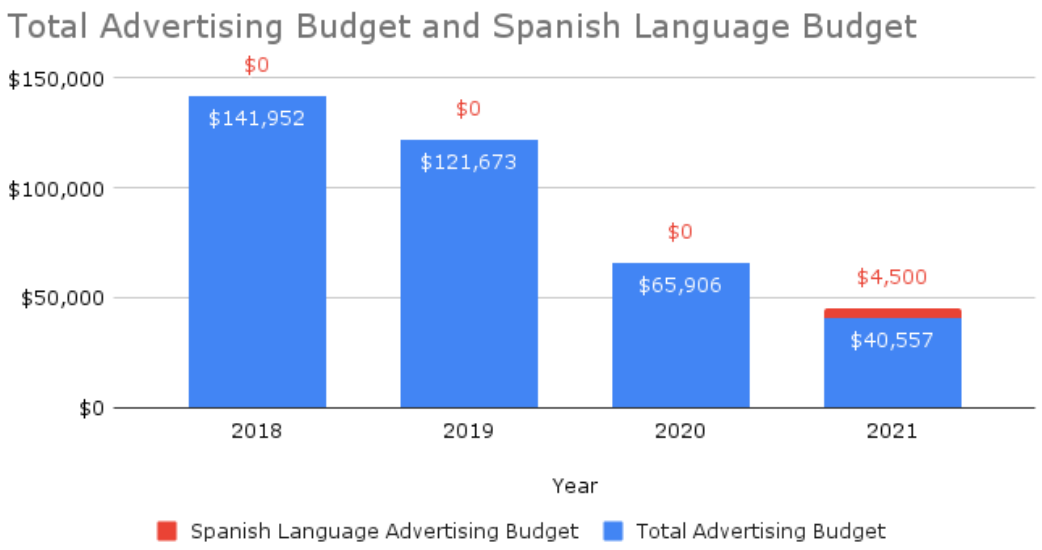
A core strategy of advertising is repetition. Consider how many times we have all seen the Geico Gecko. Because Massachusetts residents are repeatedly exposed to the message on an annual basis, we are experiencing less drop in awareness than we otherwise would in the face of falling budgets.

#2 Restore the Overall Ad Budget to 2018 Levels

We recommend restoring the overall advertising budget to $141,000, our starting budget in 2018. The campaign advertising budget has dropped by more than ⅔ since then. This is compounded by two other factors:

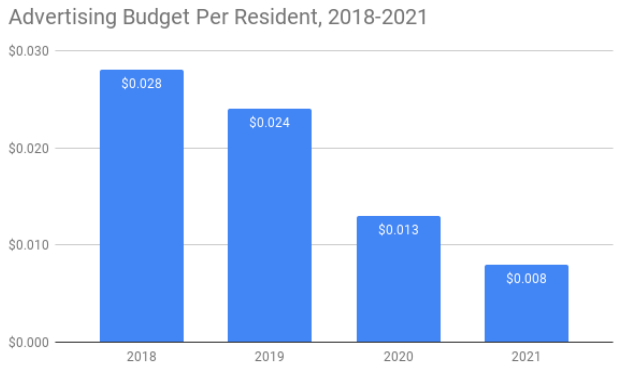
- The number of stormwater coalitions has risen from 12 to 14. We are spreading a shrinking pool of advertising dollars across a larger number of communities.
- The MS4 communities themselves are growing. The Boston Globe[1] reported on April 26, 2021 that the state's population grew by more than 5% between 2010 and 2020.

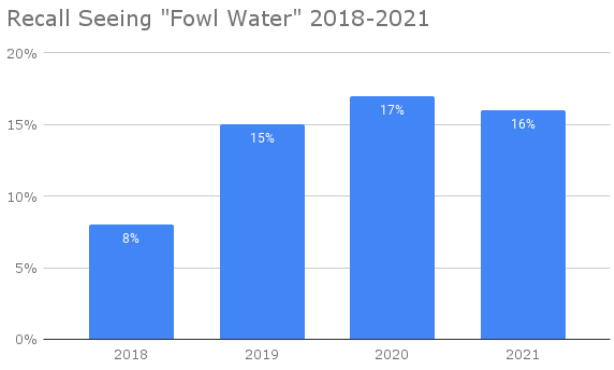
[1] 'Good news for Massachusetts': Population tops 7 million, as state keeps 9 congressional seats after 2020 Census, Boston Globe, April 26, 2021. Retrieved from https://www.bostonglobe.com/2021/04/26/metro/massachusetts-will-keep-9-congressional-seats-after-2020-census



Advertisers like Water Words That Work, LLC typically measure advertising budgets by expenditure *per person*. This allows us to compare results across different target populations. In 2018, we spent almost 3 cents per resident on advertising. In 2018, that number dropped to less than 1 cent.

And in 2021, we recorded the first — very minor — drop in ad recall, despite four years of continuous reinvestment.

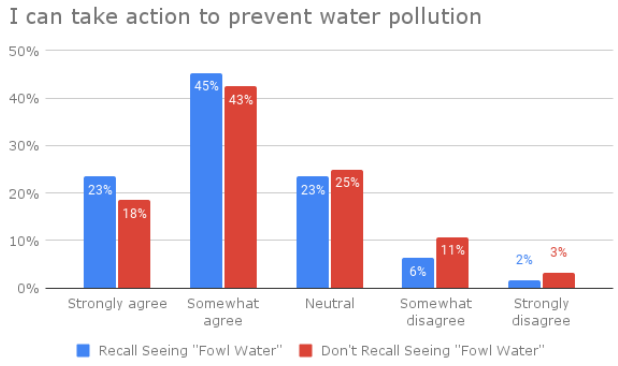


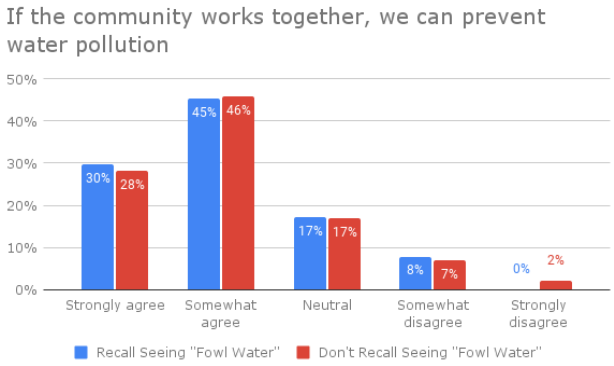


#3: Supplement the General Awareness Campaign with Ads Targeted to Specific Permit Audiences

The "Fowl Water" message effectively brands the "rubber ducky" as a symbol of stormwater pollution, and illustrates the consequences of this problem. However, there is simply not enough time in 30 seconds to also encourage viewers to adopt any particular behavior or habit that will reduce stormwater volume or improve stormwater quality.

We see this in the results of the two survey questions about solutions. For these questions, there is no significant difference in the opinions of those who do and don't remember seeing the video.





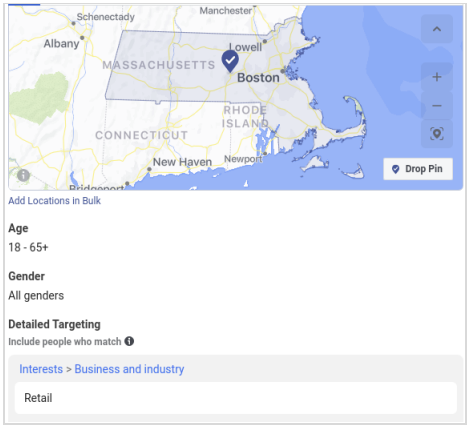
Town stormwater staff report to the Massachusetts Statewide Municipal Stormwater Coalition that feel comfortable with messaging to residents, but they struggle to direct messages to other specific audiences identified in the permit:

- Businesses, institutions (churches,hospitals), and commercial facilities
- Developers (construction)
- Industrial facilities

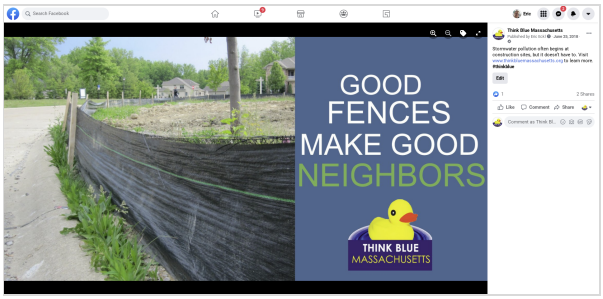
We can easily target these specific audiences using online advertisements. We have ads on the shelf and ready to go for this purpose. Here are just a few examples:

Think Blue Business/Commercial Message

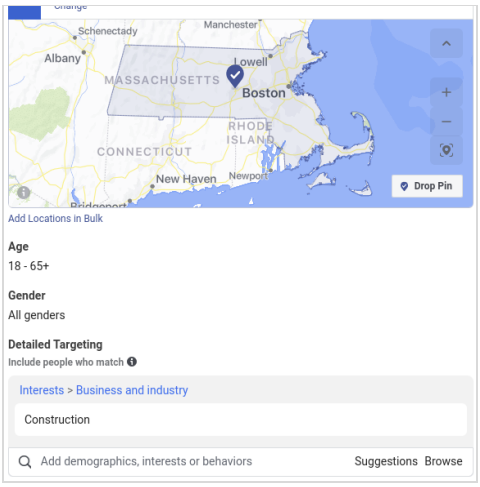
Target Audience



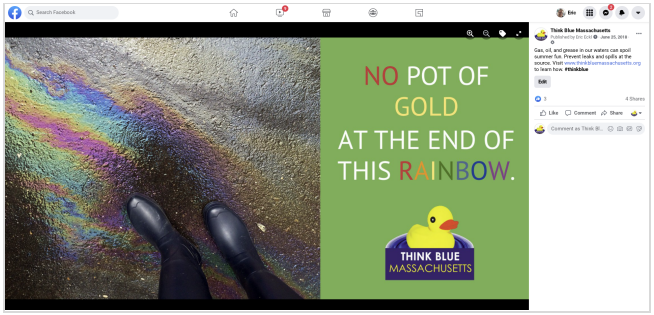
Think Blue Constuctuction Message



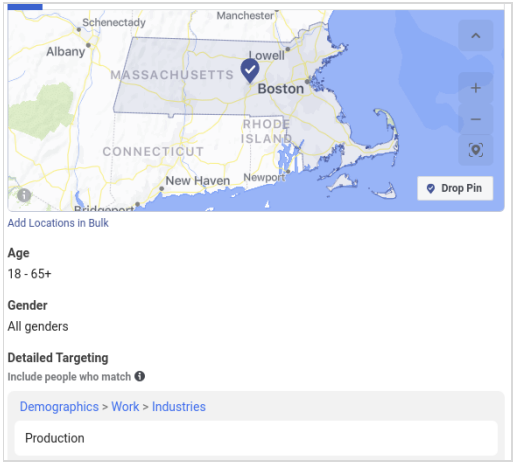
Target Audience



Industrial Message



Target Audience



Survey Questions

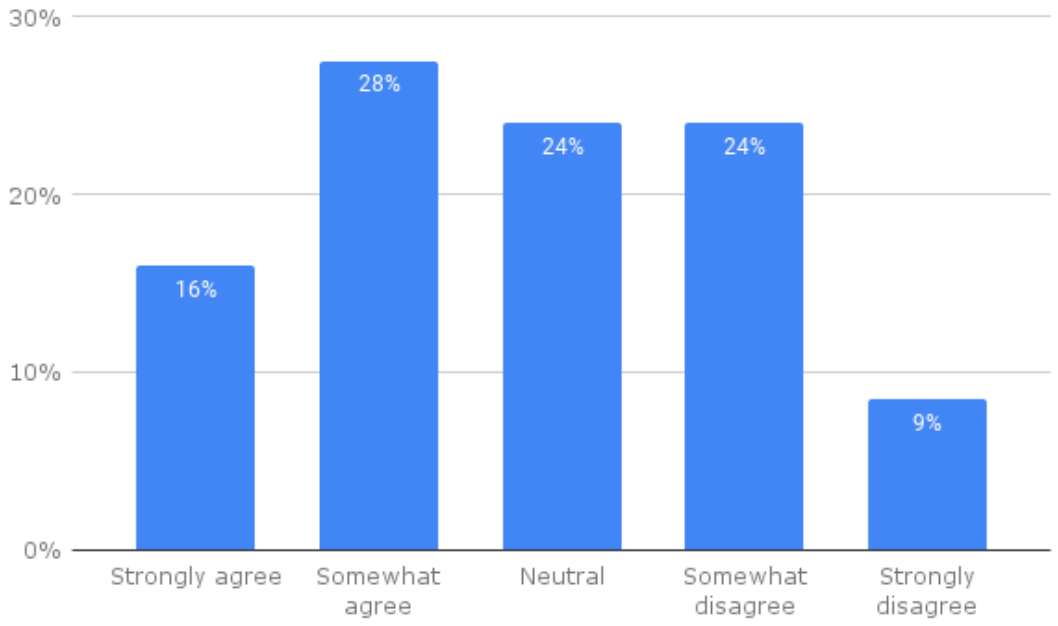
Here are some issues your local government deals with. Please rank from most important (on top) to least (on bottom).

Issue	Average Rank
Public Health	3.0
Economy	3.0
Education	3.3
Crime	3.6
Clean Water/water pollution	4.1
Transportation	4.9
Flooding	6.0

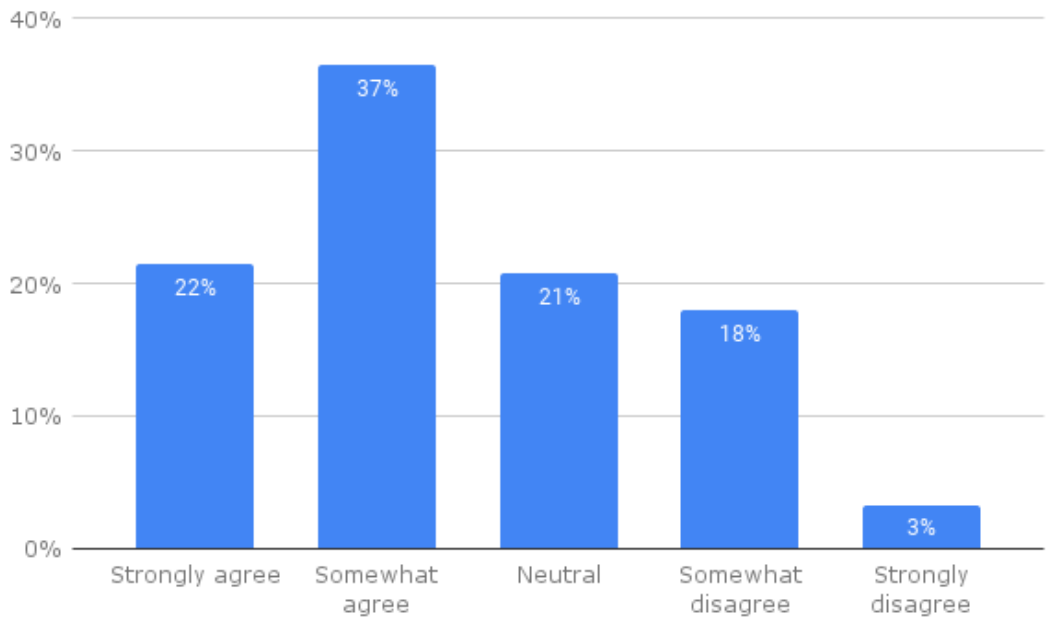
Note: Survey participants rated each issue in priority from #1 to #7. Lower average scores indicate higher average priority.

Here are some statements about water pollution. How do you feel about them?

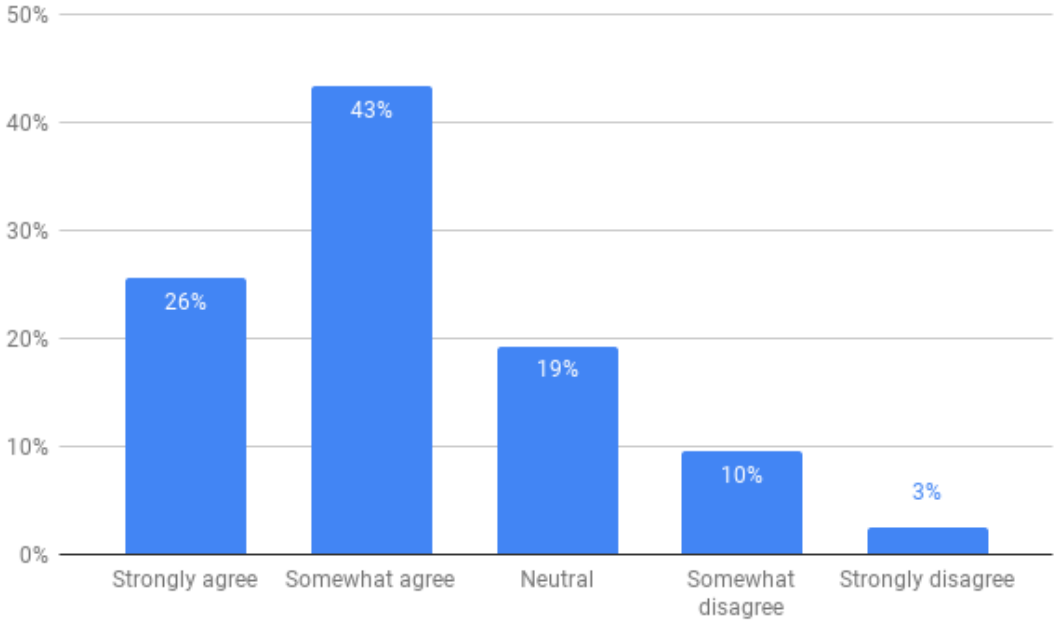
Water pollution affects me or my family



Water pollution affects others in my community

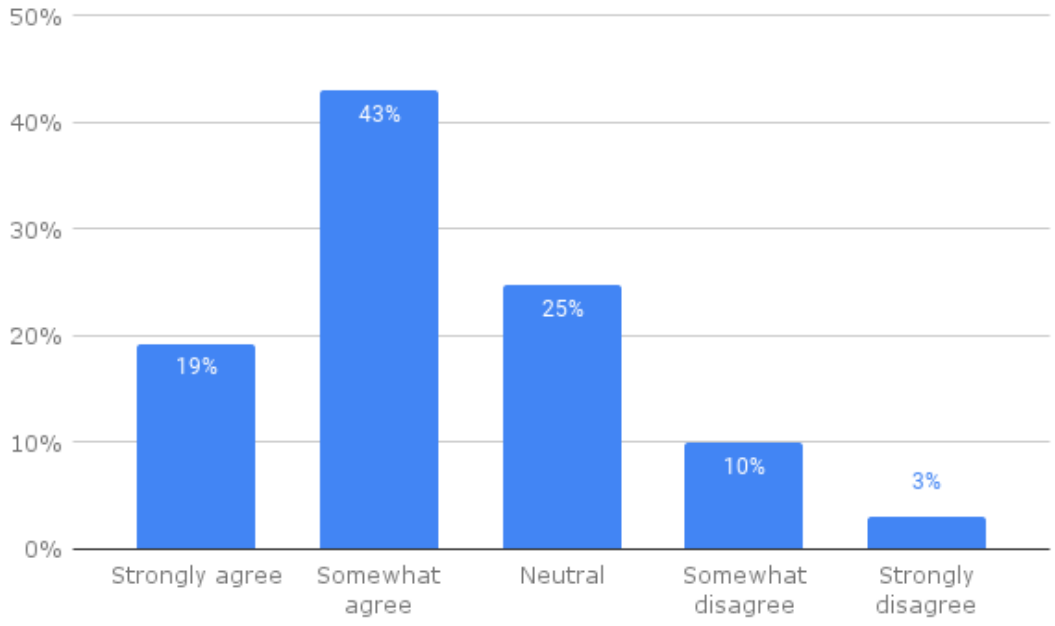


It is urgent to address water pollution now

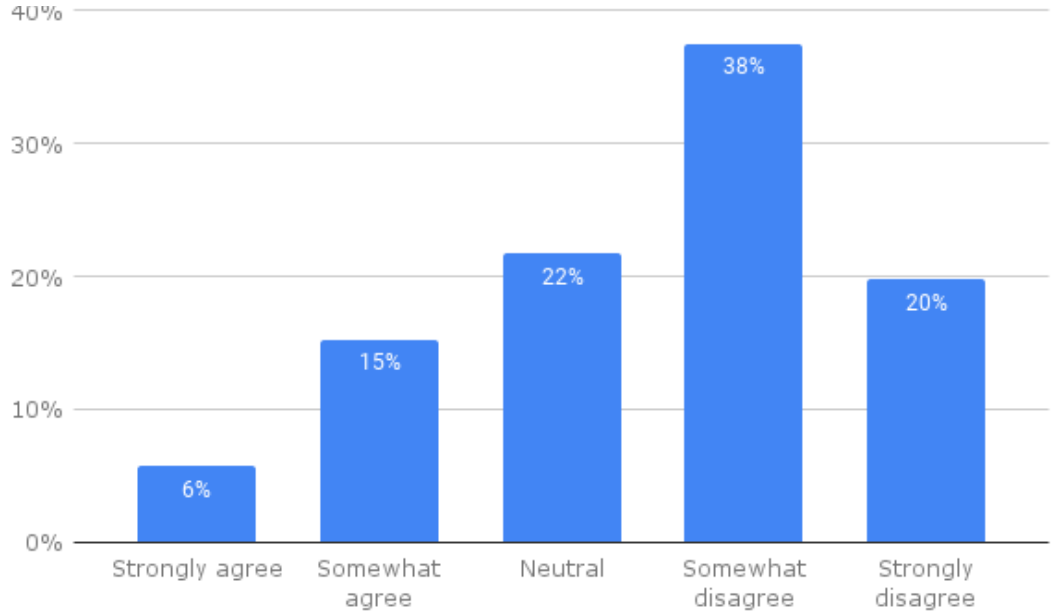


Here are other statements about water pollution. How do you feel about these?

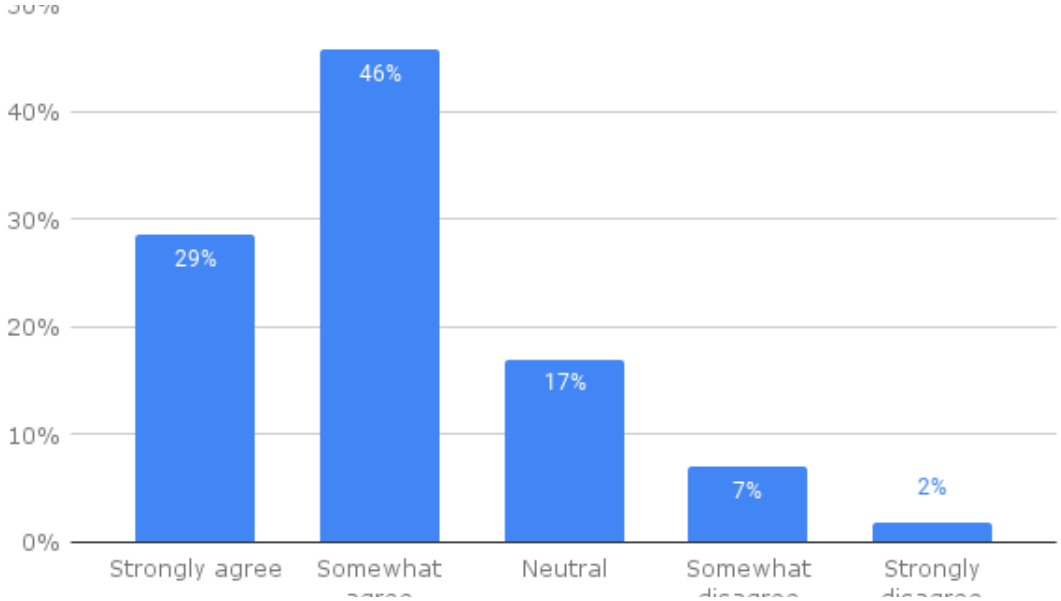
I can take action to prevent water pollution



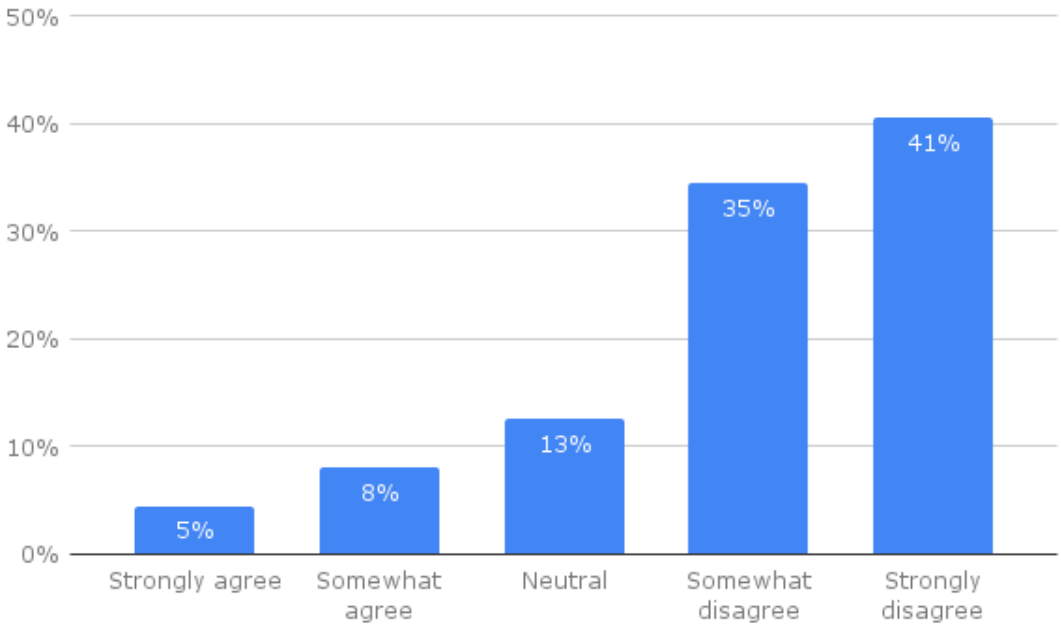
The actions of a single person like me won't make any difference



If the community works together, we can prevent water pollution



There is nothing we can do to prevent water pollution

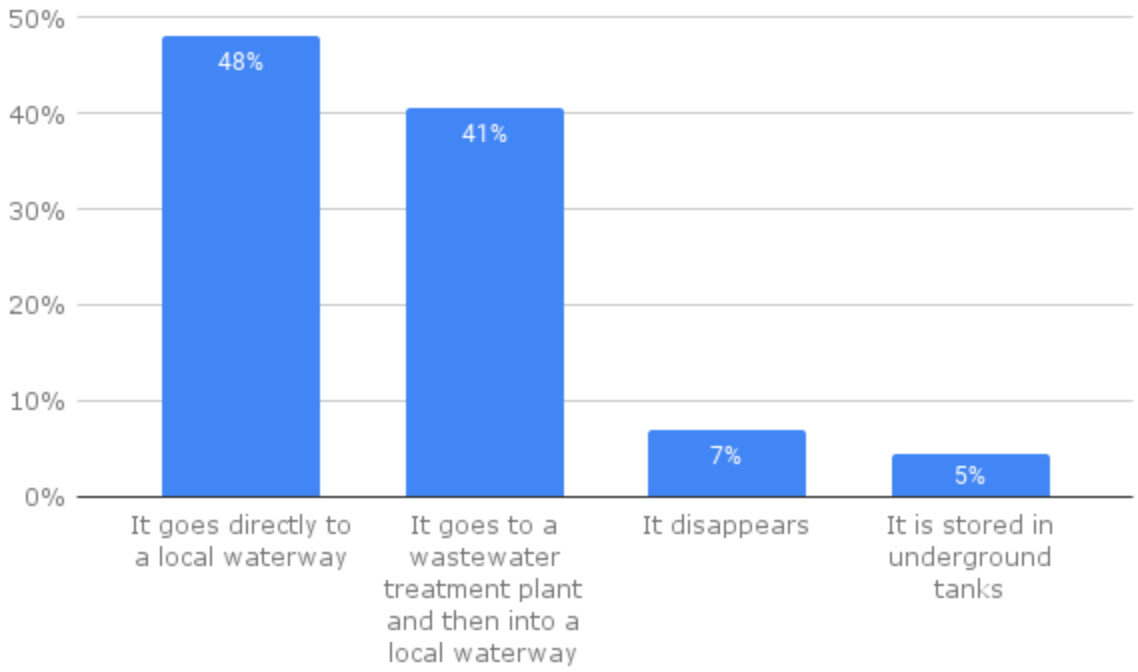


In your personal opinion, how serious are these threats to waterways? Rank from most serious (on top) to least.

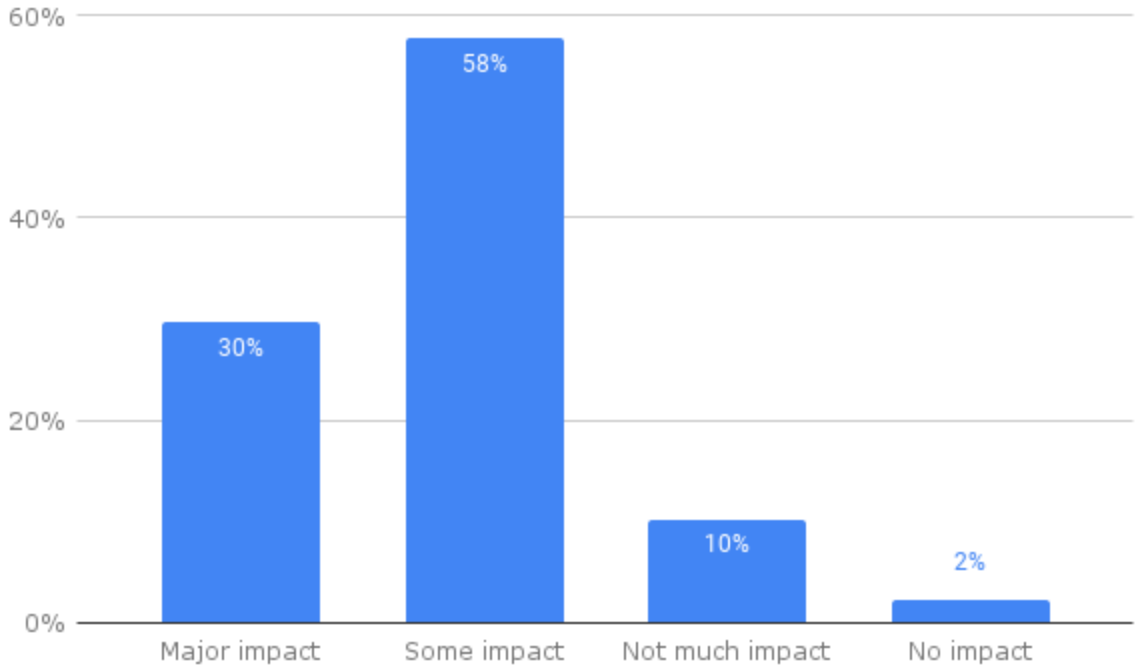
Threat	Average Rank
Industrial facilities dumping waste	2.9
Global warming (also known as climate change or the greenhouse effect)	3.9
Polluted runoff from yards, streets, parking lots, and farms	4.0
Residents disposing of oil or household chemicals down the drain	4.1
Loss of wetlands and natural areas	4.2
Mining, drilling, and other extractive industries	4.3
Overuse of water by homes, farms, and businesses	4.7

Note: Survey participants rated each issue in priority from #1 to #7. Lower average scores indicate higher average priority.

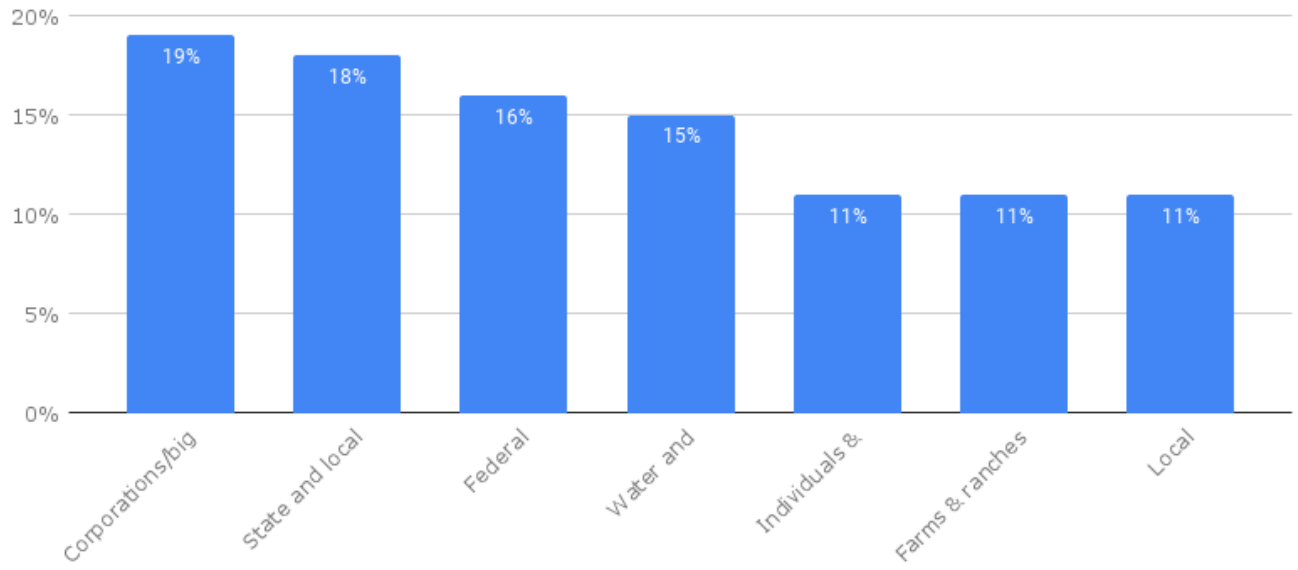
When runoff from rainwater or melting snow drains to the street, what happens to it?



How much of an impact does runoff from rainwater or melting snow have on our waterways?

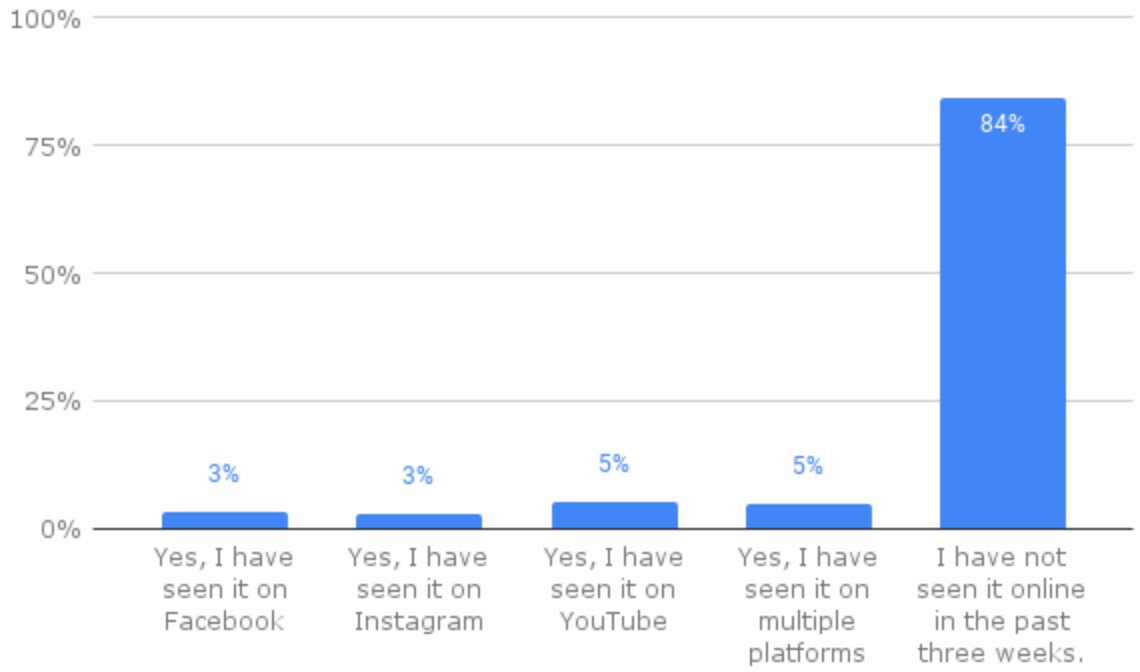


In your opinion, how much responsibility do each of the following have to prevent water pollution and reduce flooding?



Please watch the following video:

Have you seen this video online in the last three weeks?



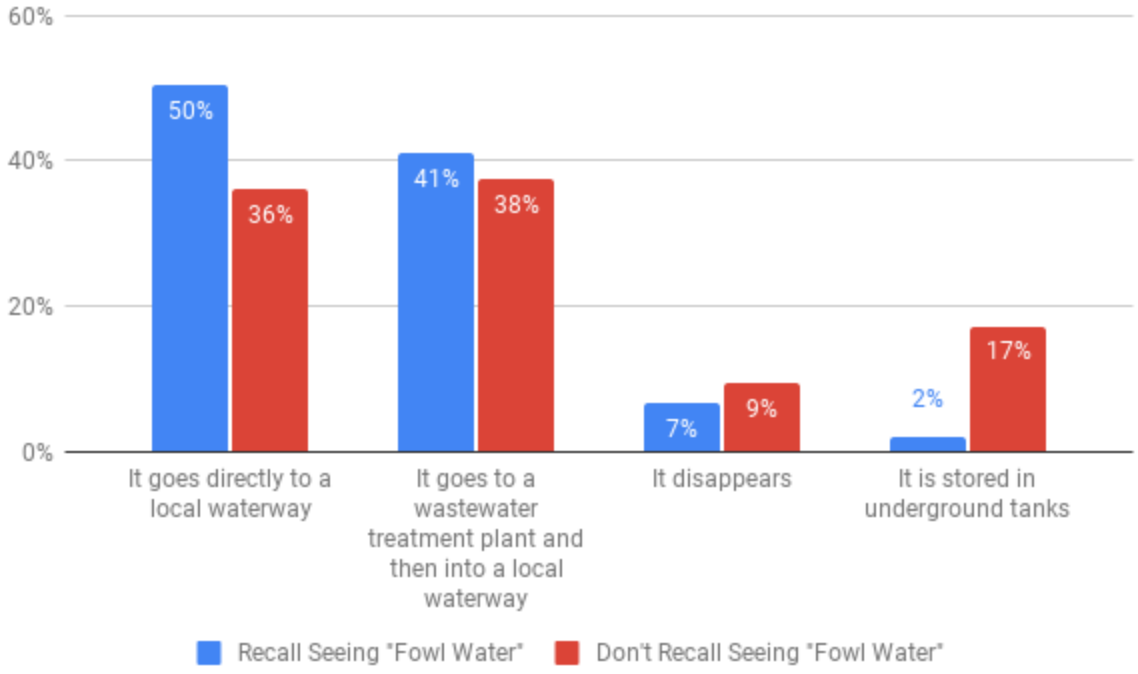
Recall Seeing "Fowl Water" vs. Those Who Don't

In your personal opinion, how serious are these threats to waterways?

Recall Seeing "Fowl Water"		Don't Recall Seeing "Fowl Water"	
Industrial facilities dumping waste	3.5	Industrial facilities dumping waste	2.8
Global warming (also known as climate change or the greenhouse effect)	3.8	Global warming (also known as climate change or the greenhouse effect)	3.9
Polluted runoff from yards, streets, parking lots, and farms	3.7	Residents disposing of oil or household chemicals down the drain	4.1
Residents disposing of oil or household chemicals down the drain	3.8	Mining, drilling, and other extractive industries	4.3
Loss of wetlands and natural areas	4.5	Polluted runoff from yards, streets, parking lots, and farms	4.0
Mining, drilling, and other extractive industries	4.2	Loss of wetlands and natural areas	4.2
Overuse of water by homes, farms, and businesses	4.5	Overuse of water by homes, farms, and businesses	4.7

Note: Survey participants rated each issue in priority from #1 to #7. Lower average scores indicate higher average priority.

When runoff from rainwater or melting snow drains to the street, what happens to it?



How much of an impact does runoff from rainwater or melting snow have on our waterways?