

2022 Resident Survey Report

Analysis and Report written by

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OVERVIEW

Between November 1, 2022 and November 30, 2022, the Huron River Watershed Council conducted a public survey on behalf of the Alliance of Downriver Watersheds (ADW) to gather public feedback on stormwater pollution to better inform public education initiatives.

The goal of the survey was to measure ADW attitudes toward and understanding of water related issues (e.g., pollution) and their relationship to water in the ADW region.

For the 2022 survey, we offered residents an incentive to take the survey. Upon completion of the survey, participants could enter information to be entered into a drawing for 1 of 6 \$50 gift cards.

We had 261 respondents.

The ADW previously surveyed residents in 2016. The opt-in Survey circulated by ADW members secured just 158 responses, with 43% coming from Grosse Ile residents. This survey was conducted Water Words That Work, LLC and had three different surveys to conduct their analysis, an Online Panel Survey of Wayne County Residents, an Online Panel Survey of U.S. Residents, and finally the ADW specific opt-in survey. Their methodology resulted in five key findings:

- Local residents express faith that individual and collective action can make a difference for local waterways;
- ADW Members struggle to deliver messages to their residents;
- Local residents appear to be less knowledgeable about water problems than U.S. residents as whole and are confused about what actions to take;
- Local residents report comparable levels of environmental concern than U.S. residents as a whole, but have higher recognition of the impacts;
- Residents who have picked up the calendar remember the content and (especially) photos well

The 2022 survey used results from 2016 to provide comparative analysis. It is important to note that the 2022 survey only used an opt-in survey to ADW residents as its only survey methodology.

TARGET AUDIENCE

Our target audience was residents in ADW communities. We reached out to these individuals via:

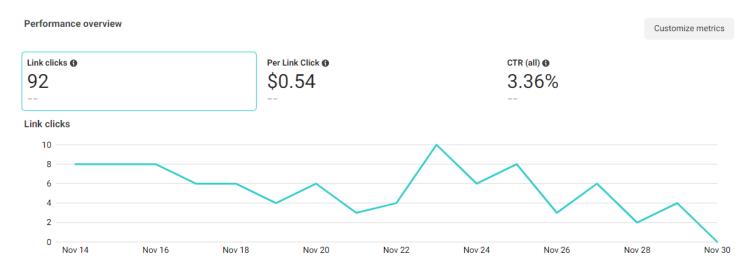
- Email
 - o 2022 Schools for Clean Water Audience via Mailchimp
 - The ADW began building this email list in 2021 for the storm drain pledge campaign. After completing year two of the competition, the list has just over 3,500 subscribers.
 - Community Leader Audience via Mailchimp
 - The ADW began building this list in 2021 to send quarterly updates to community leaders within the ADW. The list currently sits at 237 subscribers.
 - o 2022 Photo Contest participants
 - When the survey was sent out in November, an email was sent to 53 participants who had submitted photos over the last ten months.
- Social Media
 - Ran a \$50 Facebook/Instagram ad buy from November 14 through November 30 to targeted ADW zip codes
 - Gain 6,330 impressions (the total number of times the ad referenced has been shown on the site), a 2,159 reach (number of unique users who see your post or page (regardless of whether they've engaged with it)), and 92 clicks which result in a \$0.54 cost per click (the average cost per click across all industries is \$1.72)
 - These numbers indicate a successful ad for a low budget ad buy
 - We can estimate that approximately 92 individuals (who don't know the ADW well) took the survey.
- Communities
 - ADW members were sent promotional materials and a link to share the survey with their residents

We reached out to those who had previously been in contact with us or their municipality directly. A Facebook Ad broadened the scope of survey participant recruitment by reaching individuals who may not follow communications from the ADW or be aware of the ADW brand.

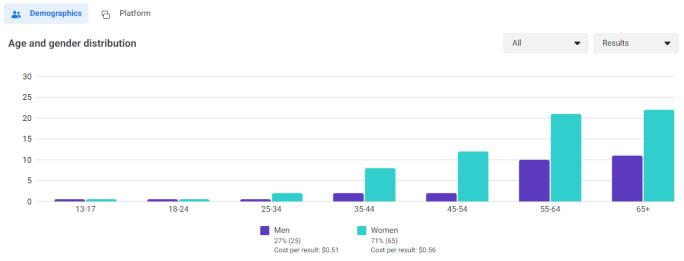
Survey Collectors

Social (Linktree)					
https://www.surveymonkey.com/r/2LX6FZ2	Copy URL QR Code	CLOSED	0	12/1/2022	•••
Created 10/20/2022					
Website					
https://www.surveymonkey.com/r/7HKCJ	Copy URL QR Code	CLOSED	6	12/1/2022	•••
Created 10/28/2022					
Community Partners					
Community Partners https://www.surveymonkey.com/r/7HVF2	Copy URL QR Code	CLOSED	95	12/1/2022	•••
	Copy URL QR Code	CLOSED	95	12/1/2022	•••
https://www.surveymonkey.com/r/7HVF2	Copy URL QR Code	CLOSED	95	12/1/2022	•••
https://www.surveymonkey.com/r/7HVF2 Created 10/28/2022	Copy URL QR Code	CLOSED	95 173	12/1/2022 12/1/2022	

SOCIAL MEDIA AD - REACTIONS



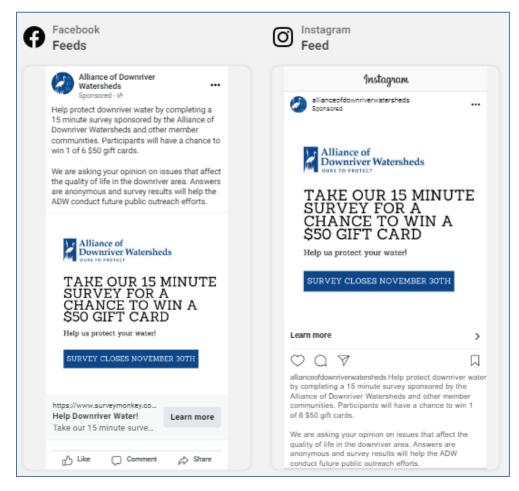
Click-through rate (CTR) is the total number of clicks your link gets divided by the total number of impressions (views). High CTR confirms that your ad is interesting for those who saw it. Low CTR signals that you're targeting the wrong audience, or they don't understand the benefits of your ad. .75%-1.5% is considered a good CTR rate across industries, indicating this ad performed well among the targeted group.



Gender Breakdown: 27% Men (\$0.51 CPC) /71% Women (\$0.56 CPC)

Age: Highest interaction from women 55+

Advertisements



Ad Comments + Interactions

00	6		2 comments 7 shares
	ြာ Like	Comment	🖒 Share
			Most relevant 👻
	Write a comment		Q 0 0 0 0
(Linda Spangler Thank you! Compl	ete survey.	
	Like Reply 2w		
	Rosemary Nicholson Already done 😏		
Write	Love Reply 2w a comment		

Shared Media



John N Kathy Milberg ▶ Downriver and Friends November 25 at 6:00 PM · ⊕

Think of all the ways we enjoy our waterways! Fishing, kayaking, boating and my fav... sitting in Bishop Park (and others along the Downriver shores) watching the boaters and freighters and birds, etc...

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Answering this survey will help funders understand where to put their money as they continue to strive to improve our precious waterways. TIA



TAKE OUR 15 MINUTE SURVEY FOR A CHANCE TO WIN A \$50 GIFT CARD

Help us protect your water!

SURVEY CLOSES NOVEMBER 30TH

HTTPS://WWW.SURVEYMONKEY.COM/R/7HVF2RR



NO Intermodal Shipping or Heavy Industry on McLouth
Steel Waterfront

November 16 at 7:56 AM · 🔇

Great community member survey about our local water. Participating in the survey only takes a minute and has potential to influence decisions to create positive changes that can help us now and long into the future



Alliance of Downriver Watersheds Published by Marisa Salice **O** · November 11 at 10:39 AM · **O**

Help protect downriver water by completing a 15 minute survey sponsored by the Alliance of Downriver Watersheds and other member communities. Participants will ... See more



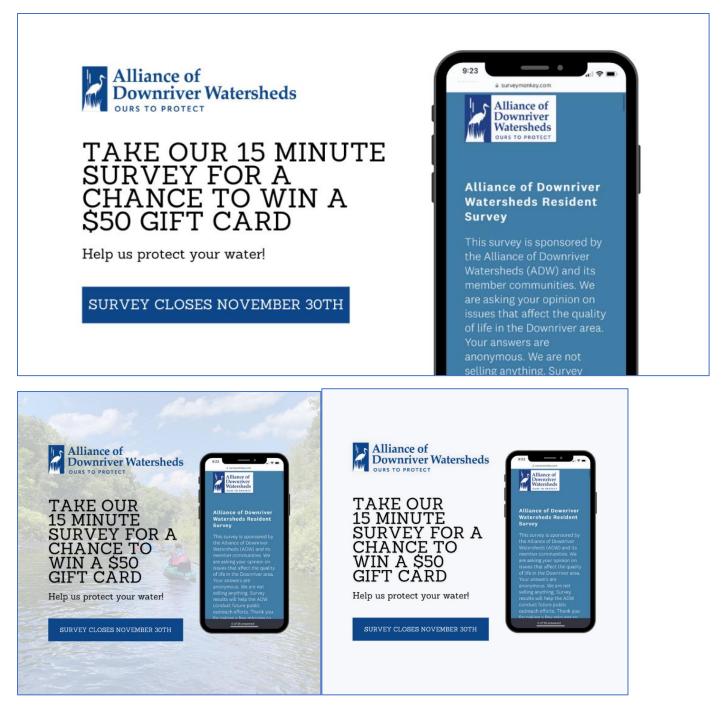
TAKE OUR 15 MINUTE SURVEY FOR A CHANCE TO WIN A \$50 GIFT CARD

Help us protect your water!

SURVEY CLOSES NOVEMBER 30TH

PROMOTIONAL MATERIALS + COMMUNITY SUPPORT

Graphic Developed for Community Use



Communities Sharing the Message



The City of Wyandotte, Michigan November 17 at 12:29 PM · 🕥

Help protect downriver water by completing this 15 minute survey sponsored by the Alliance of Downriver Watersheds and other member communities. We are asking your opinion on issues that affect the quality of life in the downriver area. Answers are anonymous and survey results will help the ADW conduct future public outreach efforts.

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https://www.surveymonkey.com/r/7HVF2RR

TAKE OUF SURVEY F CHANCE T \$50 GIFT O Help us protect your	Downriver Watersheds		Alliance of Downriver Watersheds Cost to Asorter Matersheds Resident Survey This survey is sponsored by the Alliance of Downriver Watersheds (ADW) and its member communities. We are asking your opinion on issues that affect the quality of life in the Downriver area. Your answers are anonymous. We are not selling anything. Survey				
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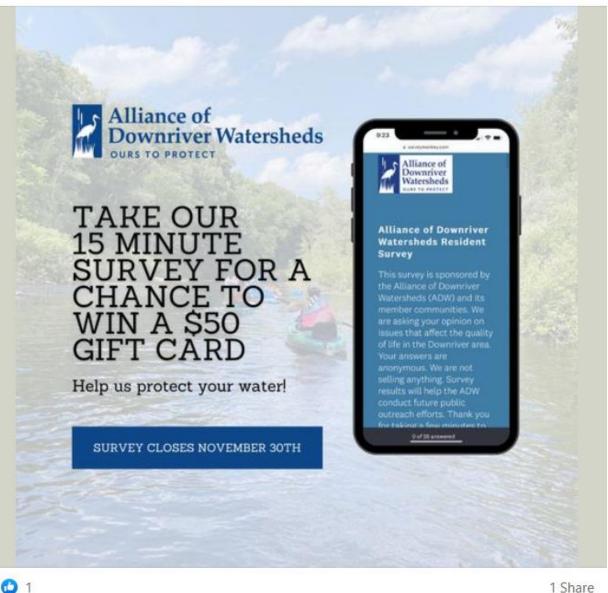


City of Allen Park - Government November 17 at 1:28 PM · 🚱

ALLIANCE OF DOWNRIVER WATERSHEDS

Help protect downriver water by completing this 15 minute survey sponsored by the Alliance of Downriver Watersheds and other member communities. We are asking your opinion on issues that affect the quality of life in the downriver area. Answers are anonymous and survey results will help the ADW conduct future public outreach efforts.

Survey Link: https://www.surveymonkey.com/r/7HVF2RR



1 Share

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City of Lincoln Park November 15 at 11:14 AM · 🚱

Help protect downriver water by completing this 15-minute survey sponsored by the Alliance of Downriver Watersheds and other member communities. We are asking your opinion on issues affecting the downriver area's quality of life. Answers are anonymous and survey results will help the ADW conduct future public outreach efforts.

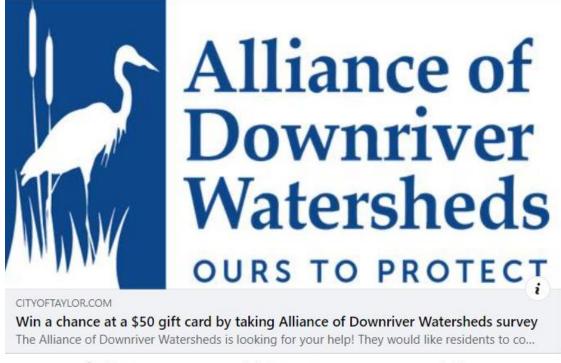
https://www.surveymonkey.com/r/7HVF2RR





Taylorcity November 16 at 12:21 PM · 🔇

The Alliance of Downriver Watersheds is looking for your help!



🖒 Like

Comment

A Share

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INSIGHTS

Finding #1: Local residents express faith that individual and collective action can make a difference for local waterways.

We inquired about residents "faith in solutions" by asking them to agree or disagree with a series of four questions. Residents reported considerable confidence in the ability of an individual to make a difference, and even more confidence in the impact of collective action. Here are the highlights:

- 80% agreed with the statement "I can take actions to prevent water pollution and protect waterways."
 - This is a 10% increase from 2016
- 25% felt that "the actions of a single person like me won't make any difference."
 - Unfortunately, this is a 5% increase from 2016
- 87% agreed with this statement: "If the community works together, we can solve these problems.
 - This is a 5% increase from 2016
- 12% felt "there is nothing anybody can do to solve these problems."
 - Unfortunately, this is a 3% increase from 2016

Finding #2: ADW collaborative efforts are improving, and some individuals' communities are helping spread the word on digital platforms

Over a period of four weeks, the ADW's collaborative survey recruitment campaigns (see above) and the efforts of individual communities were able to secure 261 survey responses, an increase of 103 responses from 2016. Wyandotte gathered the most responses at 44. Some of the findings from within the surveys corroborate this observation:

- 36% reported that they have come across the 2022 ADW Focus on Downriver Water Community Calendar.
 - A 16% increase from 2016
- 16% of respondents in our study reported they had picked up brochures or literature from a government office.
 - A 6% increase from 2016
- 11% reported attending a meeting or hearing sponsored by their local government.
 - A 4% increase from 2016
- 67% have read a social media post from their local government.
- 55% have read a newsletter from their local government.
- When asked where they heard about the survey, participants that selected other indicated they heard it from:
 - Lincoln Park City Facebook
 - City of Westland official website
 - City of Taylor news feed

Finding #3: Local residents believe Public Health is the most important issue in their community, but the Environment remains an important priority for residents.

We asked residents of the issues your local community leaders deal with, what is the most important to you. The issues included public health, housing, education, environment, crime, economy and transportation. These results may be the result of many events such as the COVID-19 pandemic, a 2022 <u>chemical spill in Flat Rock</u>, a 2021 <u>gas leak from the Ford Factory in Flat Rock</u>, 2022 hexavalent chromium spill by Tribar, and the discovery of PFAS in 2018. Since 2016, there has been an increase of news coverage on flooding, environmental contamination and other incidents tied to public health.

- Public Health as the most important issue with 34.5% respondents ranking it as #1, with 65% ranking it in their top three.
- While Environment's average rank was 4th, majority of respondents ranked it in the top three (47%) rather than the bottom three (30.6%). This indicates that the environment is a top priority for residents.

Finding #4: Local residents are concerned about drinking water quality.

We asked residents multiple questions that referred to drinking water quality. We found that:

- 77.82% believe that *Contaminants in Food and Drinking Water* is personally an important environmental topic their local community leaders deal with. (Question 4)
- 68.87% of residents ranked *Drinking Water Quality* as a top three watershed issue they are most concerned with, behind Pollution and Ecological and natural area protection. (Question 19)

Finding #5: Local residents are coming across conversations about global warming, but rarely coming across conversations about other issues.

When asked if they have come across information or conversations about environmental topics, it disclosed opportunities for the ADW members to push more messaging on other topics. We found that:

- Respondents are most likely to come across conversation involving Global Warming, followed by Contaminants in Food and Drinking Water and Protecting Parks, Natural Areas, and Wildlife.
- They are least likely to come across conversation regarding *Hazardous Waste Sites*.

Finding #6: Local residents are not familiar with what nonpoint source pollution is.

When asked if they familiar are you with the concept of "nonpoint source pollution." We found that:

- Only 20% of respondents were familiar with the concept (extremely and very familiar).
- 67.83% of respondents were not familiar with the concept (Not so or not at all familiar).

Finding #7: In comparison to 2016, stormwater pollution prevention actions wavered.

When respondents were asked what actions they had taken in the last 12 months, their responses wavered slightly up and down. Most choices decreased by varying percentages. See question 12 for data context

• Removed pet waste from backyard at least twice a week, voted for a candidate because of their environmental record or campaign promises, supported a local environmental organization with time or money, participated in a neighborhood cleanup event **increased by** 4.5%, 2.15%, 2.96%, and 8.82 respectively.

- The following choices decreased in 2022:
 - Made a special effort to dispose of household or automotive chemicals safely decreased by 3.5%
 - Purchased a product or service because it was better for the environment decreased by 8.7%
 - Attended a public meeting about an environmental topic decreased by 5.33%
 - Planted trees or shrubs in my yard decreased by 12.51%
 - Avoided using chemicals or fertilizers in my lawn or garden decreased by 3.42%
 - None of the above (a positive decrease) decreased by 2.07%

Demographic Finding #1: Majority of our survey participants were individuals who identified themselves as *she/her (60.62%), white (81.85%)* not *Hispanic/Latino (76.83%),* between 25-44 (50.2%), and making between \$60,000-\$99,999 (29.46%) a year and have a *bachelor's or graduate degree (47.88%)*.

NEXT STEPS

Recommendation #1: All ADW members should utilize social and digital platforms to spread the word.

Respondents were most likely to receive water news from an online article or web page, news story or documentary film, or an online discussion on (FB, Twitter, email, etc.).

Respondents were most likely to interact with their local government through email newsletters (55%) and social media posts (67%).

When the ADW supplies member representatives with digital content, members should repost on their channels, but also share the posts that the ADW posts to its channel, @allianceofdownriverwatersheds. The easiest way to do this is for ADW member representatives to have a direct line of communication with the individual in charge of all external communications for your municipality and to provide updates and materials to that individual.

Recommendation #2: Continue the calendar program as a brand awareness and visibility tool.

Not only does the calendar provide great stormwater education tips for Downriver homeowners, but it is also a great tool to bring awareness of the ADW's presence in these communities.

This year's survey showed an increase in awareness of the calendar.

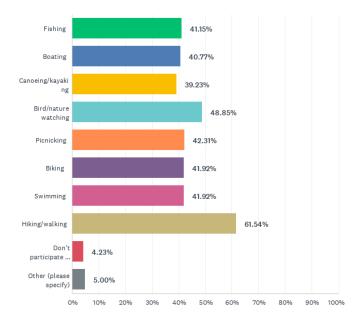
It is important to note that the ADW only produces 30,000 of these calendars that members distribute to their residents at their customer service desks*, so not all residents receive a calendar.

RESULTS

Q1: Which of these townships, villages, or cities do you live in?

Wyandotte 16.86% (44) Woodhaven 1.53% (4) Van Buren Township 1.15% (3) Trenton 3.45% (9) Taylor 6.51% (17) Southgate 4.98% (13) Romulus 3.07% (8) Rockwood 4.60% (12) Riverview 4.21% (11)	Allen Park 9.96% (26) Belleville 1.92% (5) Brownstown 7.66% (20) Flat Rock 4.60% (12) Gibraltar 6.51% (17) Grosse Ile Township 4.98% (13) Huron Township 3.45% (9) Inkster 2.30% (6) Lincoln Park 8.43% (22)	
ANSWER CHOICES	RESPONSES	
Allen Park	9.96%	26
Belleville	1.92%	5
Brownstown	7.66%	20
Dearborn Heights	1.53%	4
Ecorse	0.38%	1
Flat Rock	4.60%	12
Gibraltar	6.51%	17
Grosse lle Township	4.98%	13
Huron Township	3.45%	9
Inkster	2.30%	6
Lincoln Park	8.43%	22
Melvindale	1.15%	3
Riverview	4.21%	11
Rockwood	4.60%	12
Romulus	3.07%	8
Southgate	4.98%	13
Sumpter Township	0%	0
Taylor	6.51%	17
Trenton	3.45%	9
Van Buren Township	1.15%	3
Westland	0.77%	2
Woodhaven	1.53%	4
Wyandotte	16.86%	44
Other (please specify)	0%	0
TOTAL		261

Q2: Which activities have you or other members of your household participated in or near lakes and streams in this area during the past year? (Check all that apply)



Q2 Which activities have you or other members of your household participated in or near lakes and streams in this area during the past year? (Check all that apply)

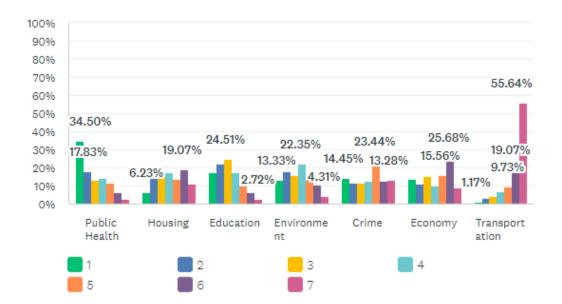
ANSWER CHOICES	RESPONSES
Fishing	41.15%
Boating	40.77%
Canoeing/kayaking	39.23%
Bird/nature watching	48.85%
Picnicking	42.31%
Biking	41.92%
Swimming	41.92%
Hiking/walking	61.54%
Don't participate in activities near lakes/rivers/streams	4.23%
Other (please specify)	5.00%

OTHER RESPONSES:

- didn't make it to do anything this year
- Golfing
- Camping
- Dog walking
- Metal detecting

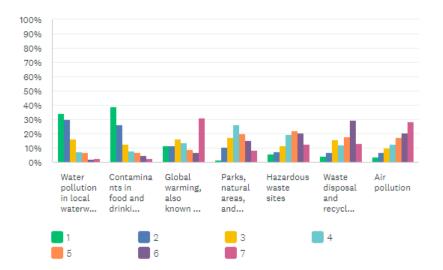
- photography of nature and wildlife
- Photography
- Chalking
- Camping
- Foraging
- Walking Dog
- Scout clean ups
- Family Photographs

Q3: Here are some issues your local community leaders deal with. Please rank by what you personally consider most important (on top) to least important (on bottom).

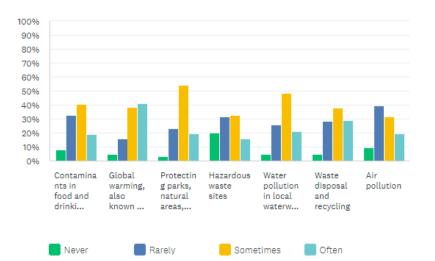


	1	2	3	4	5	6	7	TOTAL	WEIGHTED AVERAGE
Public Health	<mark>34.50%</mark> 89	17.83% 46	13.18% 34	13.95% 36	11.63% 30	6.20% 16	2.71% 7	258	5.20
Housing	6.23% 16	16.73% 43	15.95% 41	17.12% 44	13.62% 35	19.07% 49	11.28% 29	257	3.82
Education	17.12% 44	<mark>22.18%</mark> <mark>57</mark>	<mark>24.51%</mark> 63	17.12% 44	10.12% 26	6.23% 16	2.72% 7	257	4.89
Environment	13.33% 34	18.04% 46	15.69% 40	<mark>22.35%</mark> 57	15.69% 40	10.59% 27	4.31% 11	255	4.42
Crime	14.45% 37	11.72% 30	11.33% 29	12.89% 33	<mark>23.44%</mark> 60	12.89% 33	13.28% 34	256	3.89
Economy	13.62% 35	10.89% 28	15.18% 39	10.12% 26	15.56% 40	<mark>25.68%</mark> 66	8.95% 23	257	3.84
Transportation	1.17% 3	3.11% 8	4.28% 11	7.00% 18	9.73% 25	19.07% 49	<mark>55.64%</mark> 143	257	1.99

Q4: Here are environmental topics your local community leaders deal with. Please rank by what you personally consider most important (on top) to least important (on bottom).



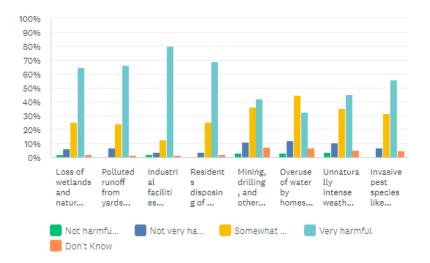
	1	2	3	4	5	6	7	TOTAL	WEIGHTED AVERAGE
Water pollution in local waterways, the Detroit River, and Lake Erie	<mark>34.12%</mark> 87	<mark>30.20%</mark> 77	16.47% 42	7.45% 19	6.67% 17	2.35% 6	2.75% 7	255	5.60
Contaminants in food and drinking water	<mark>38.91%</mark> 100	<mark>26.46%</mark> 68	12.45% 32	7.78% 20	7.00% 18	4.67% 12	2.72% 7	257	5.58
Global warming, also known as climate change	11.42% 29	11.42% 29	16.14% 41	13.78% 35	9.06% 23	7.09% 18	<mark>31.10%</mark> <mark>7</mark> 9	254	3.57
Parks, natural areas, and wildlife	1.56% 4	10.55% 27	17.58% 45	<mark>26.56%</mark> 68	19.92% 51	15.23% 39	8.59% 22	256	3.67
Hazardous waste sites	5.86% 15	7.42% 19	11.72% 30	19.53% 50	22.27% 57	20.70% 53	12.50% 32	256	3.43
Waste disposal and recycling	4.30% 11	7.03% 18	15.62% 40	12.11% 31	17.97% 46	<mark>29.69%</mark> 76	13.28% 34	256	3.25
Air pollution	3.91% 10	7.03% 18	10.16% 26	12.89% 33	17.19% 44	<mark>20.31%</mark> 52	28.52% 73	256	2.93



Q5: How often do you come across information or conversations about these topics?

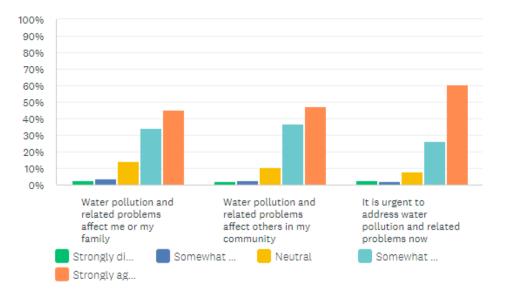
	NEVER	RARELY	SOMETIMES	OFTEN	TOTAL	WEIGHTED AVERAGE
Contaminants in food and drinking water	7.69% 20	32.69% 85	40.77% 106	18.85% 49	260	2.71
Global warming, also known as climate change	4.63% 12	15.83% 41	38.61% 100	40.93% 106	259	3.16
Protecting parks, natural areas, and wildlife	3.09% 8	23.17% 60	54.44% 141	19.31% 50	259	2.90
Hazardous waste sites	20.0% 52	31.54% 82	32.69% 85	15.77% 41	260	2.44
Water pollution in local waterways, the Detroit River, and Lake Michigan	4.62% 12	25.77% 67	48.46% 126	21.15% 55	260	2.86
Waste disposal and recycling	4.63% 12	28.57% 74	37.84% 98	28.96% 75	259	2.91
Air pollution	9.69% 25	39.53% 102	31.40% 81	19.38% 50	258	2.60

Q6: In your personal opinion, how harmful are these threats to local waterways, the Detroit River, and Lake Erie?



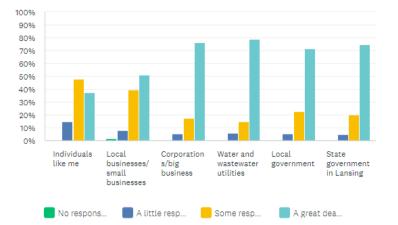
	NOT	NOT VERY	SOMEWHAT	VERY	DON'T	TOTAL	WEIGHTED
	HARMFUL	HARMFUL	HARMFUL	HARMFUL	KNOW		AVERAGE
	AT ALL						
Loss of wetlands and	1.93%	6.18%	25.10%	64.86%	1.93%	259	3.56
natural areas	5	16	65	168	5		
Polluted runoff from	0.77%	6.95%	24.32%	66.41%	1.54%	259	3.59
yards, streets, parking	2	18	63	172	4		
lots, and farms							
Industrial facilities	1.94%	3.88%	12.40%	80.23%	1.55%	258	3.74
dumping waste	5	10	32	207	4		
Residents disposing of	0.39%	3.47%	25.10%	69.11%	1.93%	259	3.66
oil or household	1	9	65	179	5		
chemicals down the							
drain							
Mining, drilling, and	3.08%	11.15%	36.15%	42.31%	7.31%	260	3.27
other extractive	8	29	94	110	19		
industries							
Overuse of water by	3.08%	12.31%	45.00%	32.69%	6.92%	260	3.15
homes, farms, and	8	32	117	85	18		
businesses							
Unnaturally intense	3.86%	10.42%	35.14%	45.17%	5.41%	259	3.29
weather and floods,	10	27	91	117	14		
caused by global							
warming							
Invasive pest species	0.77%	6.95%	31.66%	55.98%	4.63%	259	3.50
like Asian carp or zebra	2	18	82	145	12		
mussels							

Q7: Here are some statements about water pollution and related threats to waterways. How do you feel about them?



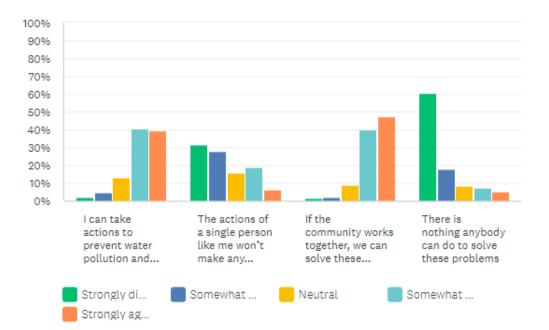
	STRONGLY	SOMEWHAT	NEUTRAL	SOMEWHAT	STRONGLY	TOTAL	WEIGHTED
	DISAGREE	DISAGREE		AGREE	AGREE		AVERAGE
Water pollution	2.69%	3.46%	14.23%	34.23%	45.38%	260	4.16
and related	7	9	37	89	118		
problems affect							
me or my family							
Water pollution	2.32%	2.70%	10.42%	37.07%	47.49%	259	4.25
and related	6	7	27	96	123		
problems affect							
others in my							
community							
It is urgent to	2.69%	2.31%	7.69%	26.54%	60.77%	260	4.40
address water	7	6	20	69	158		
pollution and							
related							
problems now							

Q8: How much responsibility does each of the following have to prevent water pollution or protect local waterways, including the Detroit River and Lake Erie?



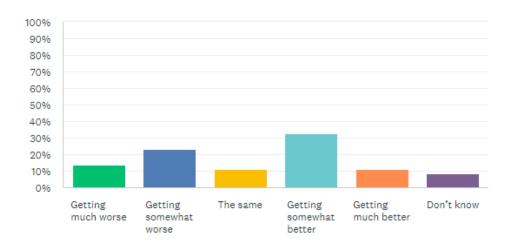
	NO	A LITTLE	SOME	A GREAT	TOTAL	WEIGHTED
	RESPONSI	RESPONSIB	RESPONSI	DEAL OF		AVERAGE
	BILITY	ILITY	BILITY	RESPONSIB		
				ILITY		
Individuals like me	0%	14.84%	47.66%	37.50%	256	3.23
	0	38	122	96		
Local businesses/small businesses	1.54%	8.08%	39.23%	51.15%	260	3.4
	4	21	102	133		
Corporations/big business	0.77%	5.38%	17.31%	76.54%	260	3.70
	2	14	45	199		
Water and wastewater utilities	0.77%	5.79%	14.67%	78.76%	259	3.71
	2	15	38	204		
Local government	0.77%	5.02%	22.39%	71.81%	259	3.65
	2	13	58	186		
State government in Lansing	0.38%	4.62%	20.0%	75.00%	260	3.70
	1	12	52	195		

Q9: Here are other statements about water pollution and related threats to waterways. How do you feel about these?



	STRONGLY	SOMEWHAT	NEUTRAL	SOMEWHAT	STRONGLY	TOTA	WEIGHTED
	DISAGREE	DISAGREE		AGREE	AGREE	L	AVERAGE
I can take actions	1.92%	5.00%	13.08%	40.38%	39.62%	260	4.11
to prevent water	5	13	34	105	103		
pollution and							
protect waterways							
The actions of a	31.54%	27.69%	15.77%	18.85%	6.15%	260	2.40
single person like	82	72	41	49	16		
me won't make							
any difference							
If the community	1.54%	2.31%	8.85%	40.0%	47.31%	260	4.29
works together,	4	6	23	104	123		
we can solve							
these problems							
There is nothing	60.62%	18.15%	8.49%	7.34%	5.41%	259	1.79
anybody can do to	157	47	22	19	14		
solve these							
problems							

Q10: In your personal opinion, the water quality of local waterways, the Detroit River, and Lake Erie is:



ANSWER CHOICES	RESPONSES	
Getting much worse	13.46%	35
Getting somewhat worse	23.08%	60
The same	11.15%	29
Getting somewhat better	32.69%	85
Getting much better	11.15%	29
Don't know	8.46%	22
TOTAL		260

Question 11: Imagine tomorrow you will do something to protect your local waterways, the Detroit River, and Lake Erie. What would it be?

dispose hazardous waste helps prevent rain away Education environment along every drop water Educate people water resources going storm drain Leave river lake roads areas garbage build Stop using Keep dumping use WATET water good job litter chemicals stop water water production water good job litter chemicals stop water water production shores Start saving every publicity around relatives friends water good job litter chemicals stop water water production shores Start saving every i.e rain barrels refers anything helps recycle goes pollution things streets property dispose use fertilizers Around relatives i.e rain barrels refers anything helps Clean first ructure refers barrels rain gardens Clean storm drain Reduce sewage discharge

- Prevent dumping, use water responsibly, and handle my own waste accoringdly.
- Clean up litter
- Educate others on our responsibility to protect our local waterways.
- ban Pfas chemicals that enter our waterways.
- Switch to eco friendly cleaning products
- waste water awareness
- Clean up trash on the shorelines
- Keep my yard and driveway free from debris that can cause harm if it goes down the storm drain.
- Pick up garbage in and around the lakes
- Clean up the trash along the roads and river banks
- Handle the oil leak in my car.
- Clean off our sewers and drains
- Protect what is put in our households drains.
- Clean up surrounding areas
- Clean up garbage
- Pick up trash I walk past.
- Recycling and not littering
- Conserve use
- Dispose of paint according to guidelines
- Trash removal
- Try to conserve on water use and try to dispose for things better
- not liter
- I would investigate to find out what pollutants are in the water and write to Lansing.
- Do my best to not contribute to the problem
- More patrol
- clean up the trash in the area
- To spread awareness about these problems. To educate people about this.

- Stop using disposable plastic
- Stop trash from blowing into water ways. Items dropped on land eventually make it into waterways.
- Stop the use of rock salt
- Pick up trash along the waterfront
- Educate the general public on what they can do to help.
- Unsure
- The Ecorse river goes through my backyard and my family and I have a long claw that we use to grab trash out of it and in the shore line
- Choose biodegradable detergent
- Go thier and protest and pick up garbage
- Not sure
- Education
- Pickup after my dog and dispose of my hazardous waste appropriately
- Picking up trash
- I never use chemicals on my grass
- I try to reduce my environmental footprint in every aspect of my life and encourage other's to do the same.
- Scoop out the trash in the water and surrounding areas
- In a machine to filter out micro plastics and Pfas
- Clean up garbage along shores
- Start a local used oil recycling facility. Also, tire recycling facility.
- Urging people move away from the shores & more planting on eroosion control plants etc
- Protest the use of chemicals on lawns.
- avoid using chemical fertilizer on my lawn, recycle my waste/garbage.
- Avoid dumping , clean with natural cleaners
- Reduce water waste and water pollution
- Blow fall fertilizer from sidewalk back onto the grass
- Keep fertilizers & insecticides away from streets & driveways
- Stop the dumping .
- Cutting water usage. Voting for laws to that protect our waters. Prosecute pollutors.
- Vote for politicians who believe that this is important.
- Think twice about what I want to put down the drain
- Make locations to turn in toxic substances/chemicals easier and more accessible
- Don't know.
- Educate myself more
- Stop runoff
- Clean up efforts
- Unsure but would like to help if given opportunity
- Pick up trash.
- Take part in a clean up day.
- Properly dispose of pet droppings from property
- online propaganda

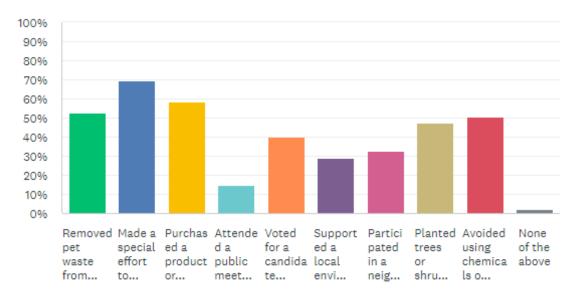
- Be aware of what I put down the drains.
- I would put up warning signs, warning people that they would be fined if they didn't follow the rules. I would install filters in the waterways to filter out garbage and other things that could cause pollution.
- No, it's everyone's responsibility. We'll do our best to monitor everyone. Don't throw rubbish away. Harmful things are left lying around,
- First of all, the whole society should mobilize to change the traditional concept of water use. People should realize that water is precious. We should call on the whole society to save water, use more water and fully recycle water. People must build up the awareness of water resources crisis, save water resources as our conscious code of conduct, take various forms of water resources warning education. Sewage reuse technology. After treatment and purification, the high quality miscellaneous drainage produced by some industrial production and living in the city can reach certain water quality standards, and be used as non-drinking water in greening, sanitation and other aspects. Effective prevention and control of production and domestic sewage. Centralized sewage treatment can be adopted in the city; Industrial enterprises must implement the "three simultaneous" system for environmental protection; According to the different properties of production sewage, corresponding sewage treatment measures are adopted. Finally realize the comprehensive utilization of water resources. Most detergents are chemical products, and a large amount of waste water with high detergent content is discharged into rivers, which will worsen the water quality. Our country produces laundry powder mostly contains phosphorus. After a large number of phosphorus contaminated water enters the water source, it will cause algae growth in the water, resulting in eutrophication of water, decrease of oxygen content in the water, and death of water organisms due to hypoxia. Water bodies also become stagnant water, stink water. Every production enterprise is using water resources, and while using water resources, a large amount of industrial waste water is generated. Some enterprises do not purify industrial waste water and discharge waste water maliciously. For such enterprises, governments at all levels must take measures to immediately stop production and order them to stop. As the enterprise should increase the scientific research force to change the production mode, take the road of green production. Environmental protection and water resources protection are in the same line, is not in conflict, the quality of the environment directly affects the quality of water quality, so in some places where the original vegetation has been destroyed, we can carry out targeted activities to return farmland to forest, in a real sense to protect our living environment.
- I don't know. I can only keep myself from doing things that pollute the environment
- I'd build dredging facilities, install filters, filter water from waterways.
- Clean up run off road waste away from the waterways
- I can take action to prevent water pollution and protect waterways, build warning signs and customize rules.
- Watch my water usage
- Not use fertilizer on my lawn.
- Not dispose of hazardous waste
- Not sure
- Not sure
- Check into chemicals in my home

- Education about where water run off on streets goes and what things are harmful to put into the environment from street water run off. Ie cleaning chemicals, car fluids etc.
- Trash cleaning
- No fertilizer
- Hold polluting companies financially liable
- I don't know
- I feel like I am already doing what I personally. I should make sure my government is staying focused on the waterways
- make people stop dumping bad stuff in our water
- Don't know
- I CANOT THINK OF ANYTHING I COULD DO TO HELP
- Don't really know
- Use less water
- Help stop illegal dumping
- Pick up garbage
- Not use fertilizer
- Simple steps like paying attention to what you put into the drain could make a difference
- Pick up liter
- No pesticides, stop spraying our skies, no chemicals. Ever.
- Plant trees to protect the environment
- I don't know
- Reduce pollutant discharge
- Clean more
- Irregular repair
- Multiple dikes
- Conservación del agua uso secundario del agua
- Canoeing
- pick up rubbish
- to protect the environment
- 11 Start from saving every drop of water, to do a good job of publicity around their relatives and friends
- I would draw boundaries to keep them away and put up signs to warn them not to litter.
- On a personal level, try not to throw garbage into the lake, dump dirty water, pick up trash when you see it in the lake, etc.
- Purchased a product or service because it was better for the environment
- Go to the river to pick up rubbish and take pictures of the pollution to the relevant government officials
- Reduce sewage discharge.
- Help pick up the trash near the waterway
- I might have to fine you to maintain the waterway
- Water is a natural resource, please don't pollute the environment.
- Green infrastructure refers to anything that helps prevent rain water from going down the storm drain (i.e. rain barrels, rain gardens, trees, and much more).

- Salvage the water rubbish, clean up the shore rubbish
- Recycle water to reduce sewage discharge
- Don't throw household garbage at will
- Spread the word
- Electric vehicles
- When I go camping by the river, I will clean up the waste around me and in the water. Reduce any behavior that can contaminate the water
- Personally I would share water pollution with my friends and neighbors. Then reduce the discharge of agricultural waste water at home
- Start from saving every drop of water, to do a good job of publicity around their relatives and friends
- to protect the environment
- Reduce sewage discharge
- Reduce waste production
- Pollution reduction
- Start from saving every drop of water, to do a good job of publicity around their relatives and friends
- No littering, more to promote environmental protection
- the action to protect environment
- garbage sorting
- Plant green plants
- Reduction of sewage discharge
- Salvage river floating objects
- Avoid using chemicals or fertilizers on my lawn or garden
- Dredge water channel
- Dredge water channel
- clear the rubbish
- Keep it clean
- Pick up trash
- clean up the trash
- Volunteer with Friends of the Rouge or pick up litter.
- Pick up litter
- Make sure I personally do things that do not pollute our local waterway. Things such as proper disposal of all household waste and pet waste. Also continuing to remove floating trash from the river and lake when found while boat, fishing and maintaining my waterfront home.
- properly dispose of waste
- not using fertilizer on my lawn
- I really do not know
- Less litter and pollution
- No littering
- don't pollute, find safe areas to dispose of waste
- Use less water
- clean up areas near waterway

- Closely monitor Frank and Poet drain and all other small creeks and rivers
- Stop using pesticides
- Advocate for less parking lots and smaller roads (runoff)
- Leave the area cleaner than it was when I arrived.
- Send inspection teams out to all industrial facilities monthly to make sure that they're not breaking any laws. "If" they are breaking the law, they get a hefty fine on the first offense along with cleaning up whatever mess they created. The second and all other infractions the fines keep doubling, but jail time is imposed. Sorry to be so harsh, but they'll never learn if you're not tough.
- Clean the sewer drains of debris
- Clean Up trash, anywhere run off occurs
- Use less water in my own home.
- Stop pollution that affects waterways in all ways.
- Properly dispose of garbage and recycling in my home
- Clean up Zug Island
- Not sure how.
- Prevent chemical runoff from entering our drainage system and prevent harmful chemicals from being dumped down the drain.
- Remove Debris from Local Drains and Ditches
- Prevent sewage overflow due to strong storms
- Remove and replace the Wayne County Drain Commission for not doing what they are paid to do
- Avoid using harmful cleaners.
- Pick up garbage in the neighboring areas
- Make sure medicines are not poured down the drain or flushed down the toilet.
- Encourage people to be mindful of how they dispose of harmful products.
- Recycle
- Conserve water at home and at work.
- Stop using plastic & help with clean up efforts
- Walk the shore line and clean or trash
- Clean a storm drain
- I try to conserve water in my home whenever possible.
- Limit water usage
- Talk to a local government official.
- whatever I can!!!
- Research ways to protect local waterways at the individual level
- USe less water
- Enforce disposal laws. More inspections. Higher fines.
- Keep our grates clear on the streets. Pick up trash. Not pollute down drains.
- Clean Storm Drain
- Pick up litter/trash around the waterways.
- Bring awareness, donate, help with cleaning efforts
- ?

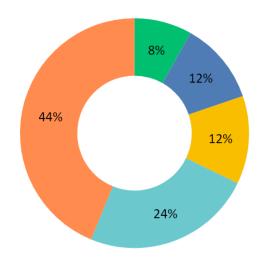
- Less fertilizer run off from my home.
- n/a
- Not dump anything harmful down the drains
- Cleaning up the water ways from rubbish
- Conserve water Disposal of waste properly
- Clean up after yourself. Dispose of hazardous waste in the proper manner.
- Pick up garbage
- Consume less wasteful products that could end up in our waterways
- Clean up after ourselves when we use our parks and enjoy our rivers and lakes.
- Educate those I see that may be doing harm, dumping trash in the waters, etc.
- Prevent lawn runoff
- No ifea
- Survey businesses that operate along these waterways to see if they are polluting the river and lake. Hold businesses accountable for keeping the river and lake safe. Fine them if they don't and make them pay cleanup costs.
- use less chemicals
- KEEP OUR COMMUNITY CLEAN FROM GARBAGE, AVOID USING PESTISIDES ON OUR LAWNS, AND RECYCLE.
- Take fewer showers
- recycle more
- Be more conscious
- I clean the storm drain in front of my house and dispose of my waste properly.
- To help control runoff contamination in our waterways
- Do not use fertilizers
- Compost
- ?
- not use fertilizers, leave the leaves in my yard (but not by stormwater drains)
- Proper disposal of household waste
- clean up garnage along the river
- Compost waste
- Be vigil as to how I treat contaminents
- Clean up waste
- Cleanup animal waste
- Clean up trash around my local watershed



Question 12: Which of the following actions do you recall taking in the last 12 months? (Check all that apply)

ANSWER CHOICES	RESPONSES
Removed pet waste from backyard at least twice a week	52.51%
Made a special effort to dispose of household or automotive chemicals safely	69.50%
Purchased a product or service because it was better for the environment	58.30%
Attended a public meeting about an environmental topic	14.67%
Voted for a candidate because of their environmental record or campaign promises	40.15%
Supported a local environmental organization with time or money	28.96%
Participated in a neighborhood cleanup event	32.82%
Planted trees or shrubs in my yard	47.49%
Avoided using chemicals or fertilizers in my lawn or garden	50.58%
None of the above	1.93%

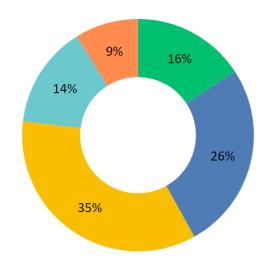
Q13: How familiar are you with the concept of "nonpoint source pollution?"



Extremely familiar Very familiar Somewhat familiar Not so familiar Not at all familiar

ANSWER CHOICES	RESPONSES
Extremely familiar	8.14%
Very familiar	11.63%
Somewhat familiar	12.40%
Not so familiar	24.03%
Not at all familiar	43.80%

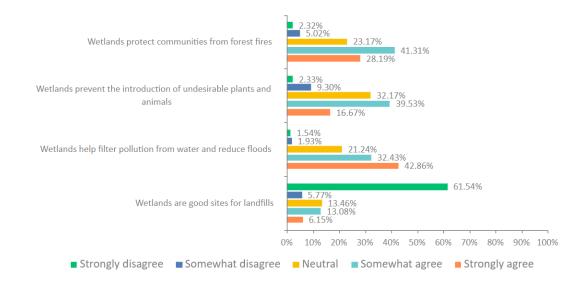
Q14: How familiar are you with the concept of a "watershed?"



Extremely familiar Very familiar Somewhat familiar Not so familiar Not at all familiar

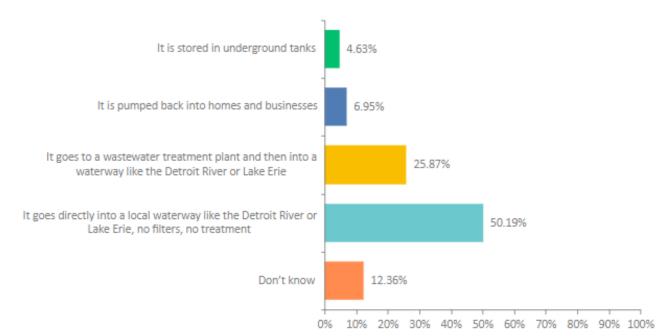
ANSWER CHOICES	RESPONSES
Extremely familiar	15.77%
Very familiar	26.15%
Somewhat familiar	35.00%
Not so familiar	14.23%
Not at all familiar	8.85%

Q15: How much do you agree or disagree with the following statements about wetland habitats' impact on surrounding areas?



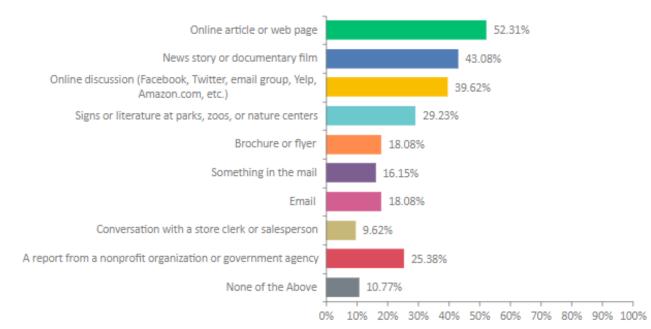
	STRONGLY DISAGREE	SOMEWHAT DISAGREE	NEUTRAL	SOMEWHAT AGREE	STRONGLY AGREE	TOTAL	WEIGHTED AVERAGE
Wetlands protect communities from forest fires	2.32% 6	5.02% 13	23.17% 60	41.31% 107	28.19% 73	259	3.88
Wetlands prevent the introduction of undesirable plants and animals	2.33% 6	9.30% 24	32.17% 83	39.53% 102	16.67% 43	258	3.59
Wetlands help filter pollution from water and reduce floods	1.54% 4	1.93% 5	21.24% 55	32.43% 84	42.86% 111	259	4.13
Wetlands are good sites for landfills	61.54% 160	5.77% 15	13.46% 35	13.08% 34	6.15% 16	260	1.97

Q16: When rainwater or melting snow goes into the storm drains along the street, what happens to it?



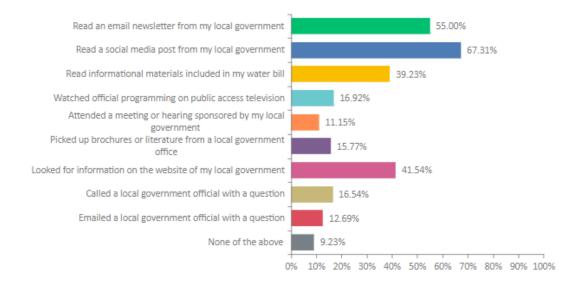
ANSWER CHOICES	RESPONSES
It is stored in underground tanks	4.63%
It is pumped back into homes and businesses	6.95%
It goes to a wastewater treatment plant and then into a waterway like the Detroit River or Lake Erie	25.87%
It goes directly into a local waterway like the Detroit River or Lake Erie, no filters, no treatment	50.19%
Don't know	12.36%

Q17: Where do you recall coming across information or discussion about local waterways, the Detroit River, or Lake Erie in the past 12 months? (Check all that apply)

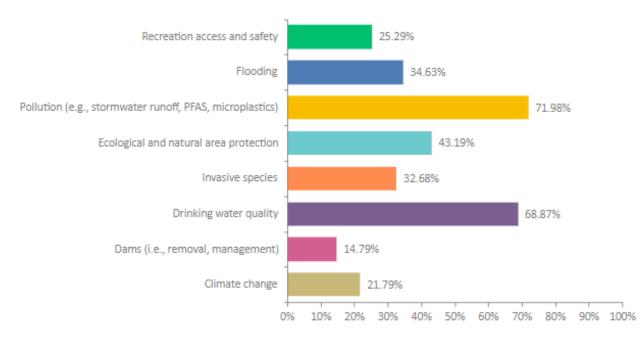


ANSWER CHOICES	RESPONSES
Online article or web page	52.31%
News story or documentary film	43.08%
Online discussion (Facebook, Twitter, email group, Yelp, Amazon.com, etc.)	39.62%
Signs or literature at parks, zoos, or nature centers	29.23%
Brochure or flyer	18.08%
Something in the mail	16.15%
Email	18.08%
Conversation with a store clerk or salesperson	9.62%
A report from a nonprofit organization or government agency	25.38%
None of the Above	10.77%

Q18: In the past 12 months, in which of the following ways have you interacted with your local government? (Check all that apply)



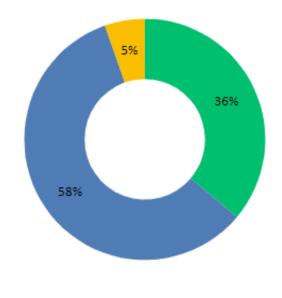
ANSWER CHOICES	RESPONSES
Read an email newsletter from my local government	55.00%
Read a social media post from my local government	67.31%
Read informational materials included in my water bill	39.23%
Watched official programming on public access television	16.92%
Attended a meeting or hearing sponsored by my local government	11.15%
Picked up brochures or literature from a local government office	15.77%
Looked for information on the website of my local government	41.54%
Called a local government official with a question	16.54%
Emailed a local government official with a question	12.69%
None of the above	9.23%



Q19: What watershed issues are you most concerned with? Please select your top 3.

ANSWER CHOICES	RESPONSES
Recreation access and safety	25.29%
Flooding	34.63%
Pollution (e.g., stormwater runoff, PFAS, microplastics)	71.98%
Ecological and natural area protection	43.19%
Invasive species	32.68%
Drinking water quality	68.87%
Dams (i.e., removal, management)	14.79%
Climate change	21.79%

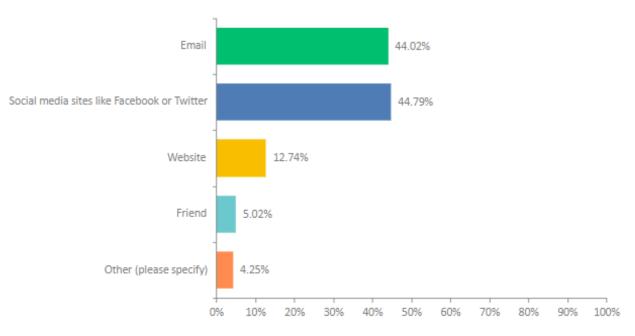
Q20: Have you come across this calendar before?



Yes No Not sure

ANSWER CHOICES	RESPONSES
Yes	36.15%
No	58.46%
Not sure	5.38%

Q21: How did you hear about this survey?



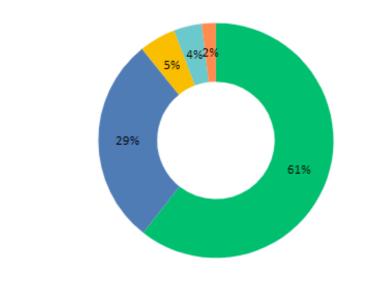
ANSWER CHOICES	RESPONSES
Email	44.02%
Social media sites like Facebook or Twitter	44.79%
Website	12.74%
Friend	5.02%
Other (please specify)	4.25%

OTHER RESPONSES:

- Lincoln park city facebook
- Flyer
- my office
- Metro park
- Weiss Elm
- City of Westland official website
- children's school
- city of taylor news feed
- Work

Demographic Questions (Optional)

Q22: What are your pronouns?



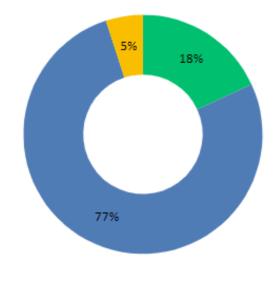
She/her He/him They/them Prefer not to answer Other (please specify)

ANSWER CHOICES	RESPONSES
She/her	60.62%
He/him	28.57%
They/them	5.02%
Prefer not to answer	3.86%
Other (please specify)	1.93%

OTHER RESPONSES:

- Ridiculous question
- SERIOUSLY?
- Seriously?
- That's a stupid question! I'm not a democrat!
- stop with this stuff. It has nothing to do with your important survey

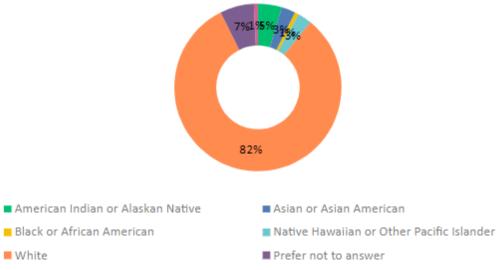
Q23: Are you Hispanic or Latino?



Yes No Prefer not to answer

ANSWER CHOICES	RESPONSES
Yes	18.15%
No	<mark>76.83%</mark>
Prefer not to answer	5.02%

Q24: Which of the following best describes your race/ethnicity?



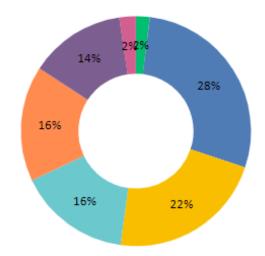
Other or multiple ethnicities (please specify)

ANSWER CHOICES	RESPONSES
American Indian or Alaskan Native	4.63%
Asian or Asian American	2.70%
Black or African American	0.77%
Native Hawaiian or Other Pacific Islander	2.70%
White	<mark>81.85%</mark>
Prefer not to answer	6.56%
Other or multiple ethnicities (please specify)	0.77%

OTHER RESPONSES:

- Mexican
- Filipino/Polish

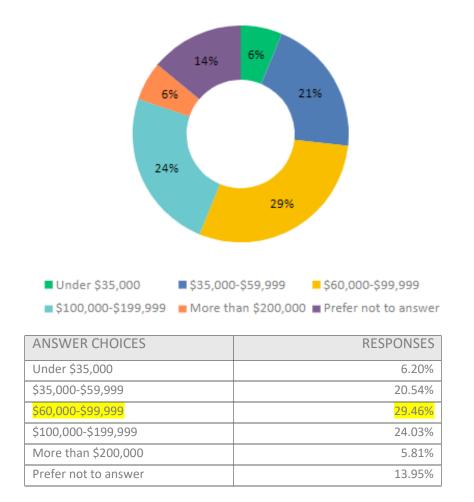
Q25: What is your age?



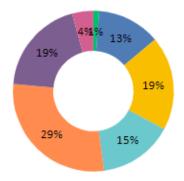
■ Under 25 ■ 25-34 ■ 35-44 ■ 45-54 ■ 55-64 ■ 65+ ■ Prefer not to answer

ANSWER CHOICES	RESPONSES
Under 25	1.93%
<mark>25-34</mark>	28.19%
<mark>35-44</mark>	22.01%
45-54	15.83%
55-64	16.22%
65+	13.51%
Prefer not to answer	2.32%

Q26: Would you say your annual household income is:



Q27: What is the highest level of school you have completed or the highest degree you have received?



- Less than high school degree
- High school degree or equivalent (e.g., GED)
- Some college but no degree
- Bachelor's degree
- Prefer not to answer

Associate degree
 Graduate degree

ANSWER CHOICES	RESPONSES
Less than high school degree	1.16%
High school degree or equivalent (e.g., GED)	12.74%
Some college but no degree	18.92%
Associate degree	15.06%
Bachelor's degree	28.57%
Graduate degree	<mark>19.31%</mark>
Prefer not to answer	4.25%

Question 28: Do you have any parting thoughts you would like to share?

- I would be interested to know more about watershed
- Thank you for all that you do in working to protect our local watersheds
- I appreciate the effort put forth to educate and inform those in the community about pollution and the direct impact to our environment.
- Keep promoting the importance of protecting our watersheds in the downriver communities
- Thank you for the work you do!
- thank you for what you do
- Please keep helping for our children and their children
- Thank you for all you do to protect the environment & local communities.
- Please clean our water
- We all can do better here in our world! Lets start NOW!
- #1 concern, flooding-sewer back up in my basement whenever there is a major rain storm.
- Without clean water we have nothing.
- Thank you
- Water is essential for life.
- Keep doing the good work.
- Everyone from the DRIWR visitors is so informative
- Interesting
- Not enough recycling centers!
- To protect the environment and pay attention to water sanitation is everyone's due responsibility and obligation, which is related to the health of each of us and the future generations
- Downriver is beautiful and I will continue to do my part to keep it that way!
- I hope we can protect the environment together, creating a good living environment can make us happy, and also make our future generations full of happiness to come to this world.
- I couldn't accurately answer the survey because I think that local officials have little control over climate change, even though it is a very important issue. I ranked public health as #1 because of how COVID profoundly affected the public, not that the environment is less important.
- Thank you
- Let's keep at it!
- Climate change is not the issue, government overreach is huge issue. Anything to line their pockets and force their agenda. They failed flint, the Detroit river is gross.
- keep up the good work!
- I hope the environment is getting better and better, after all, this is our common home
- It's important to protect the environment
- I hope the government can always pay attention to environmental issues and implement more policies and regulations to protect the environment.
- Everyone is involved in protecting water
- To protect our rivers is to protect our drinking water
- Protecting the environment is everyone's responsibility
- Don't throw household garbage at will

- Electric cars should be free with trade in of a gas vehicle
- Take care of Nature
- To protect the water environment is to protect our own home
- Protecting the environment is everyone's duty
- Protecting our environment is everyone's business
- Start going after big corporations that dump pfas and other chemicals in our waterways. Big time fines and restitution for proper clean up.
- The Frank and Poet dran is a toxic watershed that no one pays attention to. please please, let's raise awareness and get it cleaned up.
- Thank you for the chance to answer a survey
- Great survey, these issues are extremely important. Would like to see more focus on decreasing transportation by automobile. Also, no need for the gender pronoun page.
- Yes, on the last question, why don't you include "Trade School" as one of the answer?
- When it's gone, it's gone.
- This is important info. Thank You!
- according to the EPA they do not monitor all pollutants
- More information should be available 11/15/2022 2:48 PM
- I think change is needed to preserve our Great Lakes!
- Thank you for all you do to help our environment!
- Thanks.
- Go Blue! I love the DNR'S Outdoor Adventure Center. And the new Boardwalks near Lake Erie.
- I appreciate that you are raising awareness
- Some of the responses were hard to put in order of importance... I feel that many of these are interconnected and I care about many equally strongly! But I did my best :) thanks for sending the survey out to downriver residents!
- I'm very happy to see some progress made concerning our local waterways. They seem to be getting cleaner and awareness of issues has been heightened. More people seem to be getting involved and the wildlife is thriving. But we need to continue to get the word out and continue to educate people so they can join the movement.
- You need to stop letting businesses unload their supplies off their trucks & onto their barges from the community bridges. They can do that at the marinas!
- Glad I found you online. Have been looking for Downriver environmental groups
- Thank you for the work you do
- Flooding in the form of sewage back up in basements.
- Yes stick to your issue and don't add the PC stuff