











HRWC ADW Resident Research: ADW Communities Online Survey Prepared For HRWC ADW November 2016

Overview

The Alliance of Downriver Watersheds (ADW) is a Southeast Michigan organization consisting of 24 public agencies in the Ecorse Creek, Combined Downriver, and Lower Huron River Watersheds within Wayne County. The specific municipalities are:

- 1. Allen Park
- 2. Belleville
- 3. Brownstown Township
- 4. Dearborn Heights
- 5. Ecorse
- 6. Flat Rock
- 7. Gibraltar
- 8. Grosse Ile Township
- 9. Huron Township
- 10.Inkster
- 11.Lincoln Park
- 12.Melvindale
- 13. Riverview
- 14.Rockwood
- 15.Romulus
- 16. Southgate
- 17. Sumpter Township
- 18.Taylor
- 19. Van Buren Township
- 20. Wayne County
- 21.Westland
- 22.Woodhaven
- 23. Woodhaven-Brownstown School District
- 24. Wyandotte

The Alliance and the Huron River Watershed Council (HRWC) invited Water Words That Work, LLC to survey area residents to determine their knowledge, attitudes, and behavior regarding stormwater pollution. ADW and HRWC will use the information to plan the next phase of stormwater outreach and education efforts.

Next Steps:

Please review these survey results and let us know if you have any questions or clarifications.

Survey Methodology & Implications

This report blends the findings of three separate surveys.

Survey #1: An Online Panel Survey of Wayne County Residents

Water Words That Work, LLC conducted an online panel survey between September 23 and September 29, 2016. We secured 401 responses from Wayne County residents, giving us a margin of error of 4.89%. Most of these panelists (71%) reported that they live in one of the ADW communities.

Survey #2: An Opt-In Survey circulated by ADW members

We conducted an opt-in online survey between September 16th and November 8th, 2016. The questions were identical to the Wayne County panel survey.

ADW members circulated links to the survey via their email newsletter, website, Facebook, and other channels. However, we secured just 158 responses. Not only that, 43% of those were from just from the township of Grosse Ile. According to the U.S. Census, Grosse Ile residents enjoy significantly higher income and education levels than residents of neighboring communities.

We encourage you to keep in mind that the ADW sample is both small <u>and</u> unevenly distributed among ADW member communities. These results are interesting, but not particularly definitive or reliable.

Survey #3: An Online Panel Survey of U.S. Residents

On September 13th 2014, Water Words That Work, LLC completed an online panel survey of U.S. residents. In some cases, the question wording was identical to the surveys above. We have included those responses in this report to provide additional context.

Findings & Recommendations

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:

- 70% agreed with the statement "I can take actions to prevent water pollution and protect waterways."
- Only 20% felt that "the actions of a single person like me won't make any difference."
- 82% agreed with this statement: "If the community works together, we can solve these problems."
- Only 9% felt "there is nothing anybody can do to solve these problems."

Finding #2: ADW Members struggle to deliver messages to their residents

We find ample evidence in this survey that ADW members' efforts to inspire residents to make a difference simply aren't getting through.

Over a period of six weeks, the collective membership of ADW was able to secure just 158 survey responses. Only one member of the Alliance, Grosse Ile, was able to secure more than 50 responses from its residents.

Some of the findings from within the surveys corroborate this observation:

- 20% or fewer reported they have come across ADW's "Year of Waterways" calendar
- 10% or fewer participants in our study report they had picked up *any* brochures or literature from a government office
- 7% or fewer reported attending *any* meeting or hearing sponsored by their local government
- 6% or fewer reported calling or writing their local government with a question about any topic

Finding #3: Local residents appear to be less knowledgeable about water problems than U.S. residents as whole, and are confused about what actions to take.

Residents rated "polluted runoff" as the 2nd leading threat to local waterways, after industrial facilities dumping waste.

Local residents were substantially less likely to choose the correct definition of nonpoint source pollution than U.S. residents as a whole. Just 40% of Wayne County residents answered this question correctly, vs. 54% of U.S. residents. Only 34% of Wayne County residents could choose the correct definition of "watershed" from four choices, vs. 44% of U.S. residents.

Few local residents (just 14%) report using a search engine like Google to seek information "about local waterways, the Detroit River, or Lake Erie." In our national sample, 40% of participants indicated they had done this.

When we asked residents to volunteer in their own words what they might do to protect waterways, their responses ranged over a wide variety of possibilities. This suggests a lack of a clear sense of priorities for individual action:

- "Try to keep fertilizer out of the waterway"
- "Pick up after my dog"
- "Stop factories from dumping products /waste materials into waterways"
- "Make it know to our State Representatives that it is a priority to stop waste water contamination from Municipalities"

Finding #4: Local residents report comparable levels of environmental concern than U.S. residents as a whole, but have higher recognition of the impacts.

Wayne County residents rated "environment" 6th out seven possible issues their "community leaders deal with." But these residents also rated drinking water and polluted waterways as their top environmental concerns.

The highly-publicized lead contamination issue in nearby Flint appears to have had an impact on residents. Half of the survey respondents reported they hear about contaminated drinking water "frequently" or "fairly often." And nearly as many report hearing about polluted waterways that often.

By a small -- but statistically significant -- margin, local residents were more likely to report that water pollution affected their family and others in the community than our national sample. They were more likely to agree that it is "urgent to address water pollution and related problems now" than U.S. residents as a whole.

Residents reported that the state government in Lansing had the largest share of responsibility to address water problems, followed by their local government.

Finding #5: Residents who have picked up the calendar remember the content and (especially) photos well

When we asked participants to volunteer what they remember about the calendar, they honed in on the photography and the tips. This suggests that the calendar is an effective message when it finds its way into residents hands:

- "excellent monthly photos of area waterways with monthly pollution prevention tips."
- "Beautiful photographs"
- "Good information about practical steps."
- "Nice pictures interesting facts"
- "It has helpful tips"

Recommendation #1: Emphasize promotion and distribution in the next outreach and education plan

Placing brochures and literature on racks at government offices is simply not an effective way to distribute a message to residents. In our survey, respondents were much more likely report that they would come across stormwater messages in the following channels:

- News story or documentary film, 39%
- Online article or web page, 28%
- Online discussion (Facebook, Twitter, email group, Yelp, Amazon.com, etc.), 24%

Recommendation #2: Consider concentrating promotion in series of short-term campaigns

In our work with local governments and nonprofits across the country, Water Words That Work, LLC has observed that deadlines are a crucial component to an outreach program's success. Here are a few hypothetical examples:

- Pledge to can your grease by April 21st, and your child's school will be in the running for cash prizes
- To receive your street tree in 2016, submit your request by March 5th
- The first 100 volunteers to register for the spring cleanup will receive a two-for-one coupon for a fine dinner offered by one of our local sponsors
- Submit your native plant purchase receipts by October 10th to receive a rebate of up to \$500

The campaign approach to outreach makes it possible to concentrate your promotional efforts into a short time frame, increasing the impact of your message.

Recommendation #3: Prioritize a short list of top behaviors to promote

Residents reported a high degree of faith their individual actions could make a difference, but when asked what they could do to, their answers were all over the place. Some focused on fertilizer, others on pet waste, others on challenging industrial polluters, etc.

ADW will stand a better chance of producing a measurable result for its efforts if you concentrate your efforts on a discrete list of 2 or 3 actions. You can cycle through additional actions on annual basis to make sure you cover all the bases in your permit.

Survey Questions

Question #1: Opening Text

This survey is sponsored by the Alliance of Downriver Watersheds 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 results will help the ADW conduct future public outreach efforts. Thank you for taking a few minutes to share your thoughts with us.

Question #2:

Which of these Michigan communities do you live in?

Community	Wayne County Survey	ADW Survey
Allen Park	16	
Belleville	9	4
Brownstown Township	4	10
Dearborn Heights	70	2
Ecorse	2	
Flat Rock	3	3
Gibraltar	1	21
Grosse Ile Township	4	68
Inkster	7	
Lincoln Park	18	2
Melvindale	5	8
Riverview	3	2
Romulus	7	3
Southgate	11	4
Sumpter Township	1	0
Taylor	24	18
Van Buren Township	5	2
Westland	71	2
Woodhaven	8	3
Wyandotte	15	1
None of the above	117	5
Total:	401	158

Question #3:

Here are some issues your community leaders deal with. Please rank from most important (on top) to least (on bottom).

Wayne County	ADW Survey Priority 2014 National Sample		
Crime	Education	Public Health	
Education	Public Health	Education	
Economy	Environment	Economy	
Public Health	Crime	Crime	
Housing	Economy	Housing	
Environment	Housing	Environment	
Transportation	Transportation	Transportation	

Question #4:

Here are environmental topics your community leaders deal with. Please rank from most important (on top) to least (on bottom).

Wayne County Survey	ADW Survey
Contaminants in drinking water	Contaminants in drinking water
Water pollution in local waterways, the Detroit River, and Lake Erie	Water pollution in local waterways, the Detroit River, and Lake Erie
Waste disposal and recycling	Parks, natural areas, and wildlife
Hazardous waste sites	Hazardous waste sites
Air Pollution	Waste disposal and recycling
Parks, natural areas, and wildlife	Air Pollution
Global warming, also known as climate change	Global warming, also known as climate change

Question #5:

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

1. Contaminants in drinking water

Answer	Wayne County	ADW Communities
Frequently	19%	18%
Fairly often	31%	43%
Once in awhile	33%	32%
Practically never	18%	7%

2. Global warming, also known as climate change

Answer	Wayne County	ADW Communities
Frequently	14%	15%
Fairly often	25%	33%
Once in awhile	38%	36%
Practically never	24%	16%

3. Protecting parks, natural areas, and wildlife

Answer	Wayne County	ADW Communities	
Frequently	8%	15%	
Fairly often	20%	39%	
Once in awhile	48%	40%	
Practically never	24%	7%	

4. Hazardous waste sites

Answer	Wayne County	ADW Communities
Frequently	6%	8%
Fairly often	14%	23%
Once in awhile	45%	51%
Practically never	36%	18%

5. Water pollution in local waterways, the Detroit River, and Lake Erie

Answer	Wayne County	ADW Communities
Frequently	17%	18%
Fairly often	29%	35%
Once in awhile	36%	41%
Practically never	18%	7%

6. Waste disposal and recycling

Answer	Wayne County	ADW Communities
Frequently	10%	12%
Fairly often	29%	38%
Once in awhile	42%	44%
Practically never	19%	6%

7. Air pollution

Answer	Wayne County	ADW Communities
Frequently	9%	8%
Fairly often	18%	32%
Once in awhile	47%	46%
Practically never	27%	14%

Question #6:

In your personal opinion, how serious are these threats to local waterways, the Detroit River, and Lake Erie? Rank from most serious (on top) to least.

Wayne County Survey	ADW Survey
Industrial facilities dumping waste	Industrial facilities dumping waste
Polluted runoff from yards, streets, parking lots, and farms	Polluted runoff from yards, streets, parking lots, and farms
Residents disposing of oil or household chemicals down the drain	Loss of wetlands and natural areas
Invasive pest species like Asian carp or zebra mussels	Residents disposing of oil or household chemicals down the drain
Mining, drilling, and other extractive industries	Invasive pest species like Asian carp or zebra mussels
Loss of wetlands and natural areas	Mining, drilling, and other extractive industries
Unnaturally intense weather and floods, caused by global warming	Overuse of water by homes, farms, and businesses
Overuse of water by homes, farms, and businesses	Unnaturally intense weather and floods, caused by global warming

Question #7:

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

1. Water pollution and related problems affect me or my family

Answer	Wayne County	ADW Survey	2014 National Sample
Strongly agree	33%	48%	30%
Somewhat agree	33%	30%	37%
Neutral	19%	15%	18%
Somewhat disagree	10%	4%	11%
Strongly disagree	6%	3%	3%

2. Water pollution and related problems affect others in my community

Answer	Wayne County	ADW Survey	2014 National Sample
Strongly agree	40%	49%	33%
Somewhat agree	33%	30%	38%
Neutral	17%	15%	17%
Somewhat disagree	6%	4%	9%
Strongly disagree	4%	2%	3%

3. It is urgent to address water pollution and related problems now

Answer	Wayne County	ADW Survey	2014 National Sample
Strongly agree	55%	56%	43%
Somewhat agree	30%	30%	34%
Neutral	10%	9%	17%
Somewhat disagree	3%	4%	5%
Strongly disagree	3%	1%	1%

Question #8:

How much responsibility do each of the following have to prevent water pollution and protect local waterways and Lake Erie? Sort from most (on top) to least (on bottom).

Wayne County Survey	ADW Survey
State government in Lansing	Corporations/big business
Local Government	State government in Lansing
Water and wastewater utilities	Water and wastewater utilities
Corporations/big business	Local Government
Local businesses/small businesses	Individuals like me
Individuals like me	Local businesses/small businesses

Question #9:

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

1. I can take actions to prevent water pollution and protect waterways

Answer	Wayne County	ADW Survey	2014 National Sample
Strongly agree	27%	35%	23%
Somewhat agree	43%	44%	44%
Neutral	20%	13%	23%
Strongly disagree	6%	7%	9%
Somewhat disagree	3%	1%	1%

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

Answer	Wayne County	ADW Survey	2014 National Sample
Strongly agree	6%	1%	6%
Somewhat agree	14%	11%	18%
Neutral	20%	15%	18%
Somewhat disagree	34%	43%	37%
Strongly disagree	27%	30%	22%

3. If the community works together, we can solve these problems

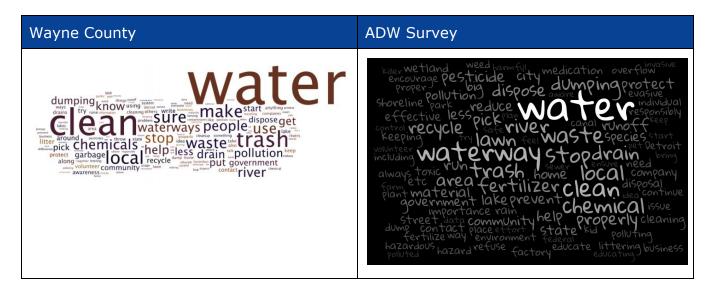
Answer	Wayne County	ADW Survey	2014 National Sample
Strongly agree	43%	39%	42%
Somewhat agree	39%	44%	42%
Neutral	12%	11%	12%
Somewhat disagree	5%	5%	2%
Strongly disagree	2%	1%	1%

4. There is nothing anybody can do to solve these problems

Answer	Wayne County	ADW Survey	2014 National Sample
Strongly agree	2%	1%	3%
Somewhat agree	7%	3%	8%
Neutral	7%	8%	12%
Somewhat disagree	24%	23%	27%
Strongly disagree	61%	68%	50%

Question #10:

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



ADW Survey Verbatim Responses

- Pick up refuse near the shoreline to prevent it from entering the water and injuring wildlife
- Try to keep fertilizer out of the waterway
- I don't know
- Not use pesticides on my lawn
- Continue my heavy use of our recycling service
- Nothing different
- stop using those nasty chemicals from Monsanto companies, use natural remedies instead. Reuse, refuse and recycle items. I have picked up trash from canal on Grosse Ile. I found mostly bottles, plastic bags with food (dropped from kids on boats), toys, etc. Use less trash that can be lost in the wind or fall off of garbage trucks.

- Clean up the steel plant.
- Pick up after my dog
- Stop overuse of fertilizers by homeowners
- Research what the opportunities are to help
- Not use pesticides
- I won't fertilize my lawn.
- Comprehensive management plan to restore and increase wetlands, eliminate all sewer overflows, prevent nutrient runoff from residential, farms and industry.
- Dispose of toxic materials responsibly.
- Firstly, i Pray to Jesus. Then, id contact my local native american tribe to find a reputable organization that has already been protecting the waters, and find my place there.
- It would be to first do extensive sampling on the waterways to figure out what is the problem, chemically, then based on whether it's high phosphorus, nitrogen or any other chemicals, we can have a feel for what needs to be targeted. Once that target is obtained, preventative actions can then be taken for them.
- Restriction of the use of phosphate fertilizers
- Be more conscience of water usage in my home. Recycle more. I've complained to our city council and mayor about all of the pollution in the creek that runs behind our home and is a part of the Rouge river, I believe. They have shown no interest in cleaning up anything in the city. We don't have street cleaning but twice a year, I believe. So I clean the drains on our street but all over the city I see them clogged with garbage etc.
- I think people everywhere are concerned about keeping our waterways free of contaminants and evasive species. Creating an awareness in our communities and educating the people about this important issue is a great place to start. Grow zone projects to help control run offs. Scheduled water collection samples and data comparisons can help gather factual information critical to addressing the actual severity of our current water conditions. Volunteer efforts are a big part of data collections and are very effective in monitoring the water quality of a given area. This gives us a report to compare with previous times which shows us where we are and where we need to be. From this point we can consider our alternatives and options moving forward. Also, we need to set guidelines for effective water management with continuous improvement as a key factor. We should keep our eco-system in mind with the process. Keeping evasive species at bay and devise a plan to rid evasive species if possible.
- Make sure my refuse is properly disposed of. Pick up things that may enter the waterways.encourage others to do the same.
- No industrial run off. Even golf courses and farms run off.
- Recycle
- Be informed
- a approach that works. less government more logic
- Stop factories from dumping products /waste materials into waterways
- Nothing
- Locally I would encourage proper use of waste disposal to my community
- N/A

- Clean up the local beach areas and waterways, identify areas of runoff from homes and streets
- Make it know to our State Representatives that it is a priority to stop waste water contamination from Municipalities
- Inspect companies that border the waterways to ensure that they are not dumping harmful chemicals into the waters.
- Be aware of what I pour in drains, recycle
- Communicate to my local and state representatives that we need to protect our environment
- Contact legislature
- Always recycle, especially with liquids.
- Properly dispose of pet waste and reduce fertilizer on lawn
- Produce documents and take it to local officials or make a petition to get going in the downriver community and pass it along to State or Federal officials
- Reduce or eliminate lawn fertilization or use organic ways to do so
- Little things like disposing of waste and hazardous material in safe manner, not polluting, conserving water and educating my kids to do the same
- Act responsibly
- I have no idea
- don't use pesticides and harmful chemicals.
- Extract the known pollutants. Stop dumping from factories
- Be more careful when I fertilize the lawn
- Use less weed killer on the lawn so runoff is not polluted.
- Stop industrial dumping. Work on keeping invasive species out of our waterways. Protect our wildlife and parks in the area.
- Bring awareness to people who are blind to the importance of clean water, people are too comfortable in their worlds
- Educate in fertilizer and other run off issues.
- 1.Don't waste clean water 2.Continue to protect wetlands from disruption from individuals and local government
- Use proper disposal methods, recycle as many materials as practical, water my plants with captured rainwater, use car washes
- I have no idea.
- Don't pollute, don't use weed killer and fertilizers that harm environment.
- Move
- Use less water be more conservative
- I'II
- Contact local community leaders
- Call out polluters
- River clean up
- Dispose of unused medications properly.
- Conserve water use, dispose of waste material properly
- check for blocked sewer drains with debri
- 1ci
- Tell friends to take this survey
- Kill the gobies

- Regulate businesses from dumping. Government regulation to monitor big business from dumping. Remind Residents of the hazards/impact on dumping
- Clean up the flotsam
- Limit pesticide use in lawn and garden
- Restore wetlands
- Fertilize responsibly
- Avoid lawn chemicals
- Fine big and small companies enough that would make it cheaper to prevent polluting in the first place. Of course, we have to have honest people checking all polluted water originations and close them down immediately until fine is paid and remediation is completed. I've read in the news many times where toxic liquid runoff origination couldn't be determined. This is obvious B. S. Someone is always paid to look the other way. I've heard that all a company has to do to meet the legal limit of toxicity is add enough clean water to it to meet the standard. Makes no sense.
- With elections coming up look for those candidates that want to protect our local waterways
- Make sure I dispose of waste properly, including picking up pet waste.
- Avoid unnatural and toxic runoff into our waterways.
- Cut chemical fertilizer
- pull out the trash that I see floating by.
- n/a
- I don't know.
- Clean up surrounding areas of Detroit River and Lake Erie. Continue to prevent littering of waterways
- Pick up trash along shoreline
- Put
- Recycle trash, proper hazards waste disposal
- Share information about how we affect the water
- advertise on social media
- Throw out old Shampoo instead of pouring down drains
- Not really sure what I can do to protect the waterways.
- Stop using pesticides in grass
- Always return from the waterways with trash you picked up from water or shoreline
- Control the weeds and the speeding boaters.
- Contact state and federal government to remove toxins from sediment in our local waters and canals!
- Convincing big and local business to stop dumping pollution into our water.
- Not pollute.
- Use common sense using chemicals around waterways
- I would go out on the water and pick up trash to help make the water cleaner.
- Rain barrels.
- Fight to get the pipeline out of the Straits
- Scour my home for chemicals that might be used or disposed of in a way that can threaten the waterways.
- I'm not sure what to do.

- Encourage use by non motorized vehicles like kayaks and canoes.
- Reduce runoff, research invasive species, organize to pick up trash around our parks/nature reserves
- Having a clean up party down the canals
- Educate myself and my neighbors about the hazards of flushing medication down the sink/toilets, and the importance of not allowing runoff water and chemicals from lawn or cleaning to drain down the storm drains. Educate more people about the medication disposal site at the police station. Classes or educational brochures about boaters keeping waterways safe. Recycle bins. (If not cost effective for individual use, then offer a larger scale at the city building).
- Stop factories from polluting the water
- I don't know what I could do that would be effective.
- Share a social media campaign
- Pick up trash along the shore line..
- Clean leaves from neighborhood street storm drains. Plant a rain garden. Use a rain barrel.
- Enforce current laws and require polluters to pay for cleanup
- Pick up debris.
- Reduce my water consumption
- Prevent rain water runoff at home. Follow local developments to ensure environmentally sustainable measures are taken in them.
- Don't know
- Eliminate fertilizer and pesticide use in my yard
- stop Asian carp
- Conserve water volunteer to clean rivers and streams
- aaa
- Teach a class of young kids what NOT to put in the drains and waterways
- Make sure my cars do not have any fluid leaks. Never dump anything chemical down the drain, get involved in a clean-up effort.
- Stop letting Canada bring their trash here for our dumps
- None
- No Litter
- Get rid of sewage overflows
- communicate to those i know the importance of not littering while on the water. don't dump hazardous chemicals in your toilet or sink
- Properly dispose of household chemicals and medications.
- use less water
- Recycle
- Encourage neighbours to stop overwatering, using fertilizers, etc. Don't throw away pills. Do a big cleanup.
- Clean Rivers and Lakes
- Water grass for shorter periods of time to prevent saturation and runoff
- Not using toxic pesticides in my yard. Disposing waste and hazardous waste properly. Not littering in our bodies of water. Testing our lakes and rivers continuously. Enforcing strict laws to protect our water. Informing severe penalties to those who damage our water. Not wasting water.

- Clean up trash along the shorelines.
- Be proactive
- Make water contamination a criminal offense, up to, and including attempted murder if recourses are not taken to notify the public and fix the issue, and NOT at the taxpayers expense
- Stopping cities from dumping sewage overflows into the rivers and lakes
- Vote for the politicians who take this subject seriously.
- learn what the local regulations are and suggest changes to make the environment better
- Talk to people, especially fishermen about the importance of cleaning up after
 yourself while at locals parks or other areas that are in close proximity of water
 areas including Lake Erie, The Detroit River and the Huron River. A large portion of
 the non-chemical pollution in the Huron River and Detroit Rivers are from
 individuals.
- I will not put stuff on my lawn that can go into the water way.
- Recycle
- Be more careful about what goes down my drain and continue to recycle as much as possible.
- Stop fertilizing lawn with chemicals
- I would start by contacting my local and state government, to help rectify any problems regarding pollution in the waterways. I would try to set forth a community outreach to make everyone aware of the causes and concerns.
- Stop corporations from dumping waste
- Clean them up
- Don't dispose of materials improperly
- Teach my children ways to help.
- ok
- ok
- ok
- Clean up litter and trash that ends up in the waterways. Use less water and dispose of motor oil and the like properly.
- Unless someone hires experts to make suggestions on ways i can help, i already feel like i'm not an abnormally large burden on local waterways.
- What I put it down my drains. Through thinks in lakes ECT..
- Reduce the loss of wetlands and extend the protected areas, reduce the influx of pollution from farmers, industry and homes

Question #11:

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

Answer	Wayne County Survey	ADW Survey
Removed pet waste from backyard at least twice a week	44%	48%
Made a special effort to dispose of household or automotive chemicals safely	53%	73%
Purchased a product or service because it was better for the environment	50%	67%
Attended a public meeting about an environmental topic	10%	20%
Voted for a candidate because of their environmental record or campaign promises	23%	38%
Supported a local environmental organization with time or money	11%	26%
Participated in a neighborhood cleanup event	19%	24%
Planted trees or shrubs in my yard	35%	60%
Avoided using chemicals or fertilizers in my lawn or garden	48%	54%
None of the Above	10%	4%

Question #12:

Which of the following is the best definition for "nonpoint source pollution?" Is it:

Answer	Wayne County Survey	ADW Survey	2014 National Sample
Dirty water runoff from yards, paved areas, farm fields, and construction areas	40%	55%	54%
Pollution that falls into water from the sky (like acid rain or mercury)	32%	29%	25%
Low priority pollution	20%	10%	12%
Pollution that won't get through your skin if you are in the water	7%	6%	9%

Question #13:

Which of the following is the best definition for a "watershed?" Is it:

Answer	Wayne County Survey	ADW Survey	2014 National Sample
The land area that drains into a body of water	34%	73%	44%
An area that retains water like a swamp or marsh	38%	25%	30%
A building at a water treatment facility	18%	1%	18%
A measurement of an area's flood risk	10%	1%	8%

Question #14:

What are the primary benefits of wetland habitats to the surrounding area?

Answer	Wayne County Survey	ADW Survey	2014 National Sample
Wetlands help filter pollution from water and reduce floods	64%	90%	61%
Wetlands prevent the introduction of undesirable plants and animals	16%	6%	17%
Wetlands protect communities from forest fires	14%	4%	19%
Wetlands are good sites for landfills	7%	1%	3%

Question #15:

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

Answer	Wayne County Survey	ADW Survey
It goes directly into a local waterway or Lake Erie	33%	67%
It goes to a wastewater treatment plant and then into a waterway or Lake Erie	56%	29%
It is stored in underground tanks	4%	2%
It is pumped back into homes and businesses	7%	2%

Question #16:

Where do you recall coming across information or discussion about local waterways, the Detroit River, or Lake Erie in the past 12 months?

Answer	Wayne County Survey	ADW Survey
News story or documentary film	39%	18%
Online article or web page	28%	24%
Online discussion (Facebook, Twitter, email group, Yelp, Amazon.com, etc.)	24%	11%
A report from a non profit organization or government agency	16%	13%
Something in the mail	14%	7%
Signs or literature at parks, zoos, or nature centers	11%	11%
Brochure or flyer	9%	8%
Email	7%	4%
Conversation with a store clerk or sales person	3%	1%
None of the above	31%	4%

Question #17:

Do you recall using an Internet search engine to look for information about local waterways, the Detroit River, or Lake Erie?

Answer	Wayne County Survey	ADW Survey	2014 National Sample
Yes	14%	44%	40%
No	70%	41%	47%
Not Sure	16%	16%	13%

Question #18:

As best as you can recall, what was the search term that you used?



ADW Survey Responses

- Huron River
- Detroit river
- Stony island protection
- Detroit River Wildlife
- Air quality
- hazardous algal bloom
- kayak
- Elevation of Detroit
- Google
- eutrophocation
- huron river water run off points
- Micro plastics in our environment. Pipelines across our waterways. Run off from corporate farms and industries
- Wetland
- uk
- Detroit river
- green algae growth
- Detroit River
- Livingstone channel. I kayak in the river and I'm interested in the history.
- Great Lakes pollution

- Flooding
- Detroit, monroe or downriver habitats and waterway or land preserves
- Fishing retort
- clean water
- Great Lakes pollution
- Lake erie
- Protecting area wetlands
- Googled Great Lakes, area lakes, Detroit River
- Great Lakes pollution
- Algae bloom on Lake Erie , Asian carp
- local parks
- Wastewater
- Charts, weather, bird species
- Wetlands
- Detroit river
- Huron metro parks
- Weather, Charts
- lake erie maps, detroit river maps
- Detroit river
- huron river portage
- lotus
- water contaminants in Detroit River
- Detroit river and Lake Erie pollution
- Global warming?
- International wildlife refuge
- Alge bloom
- DRIWF
- Detroit River watershed
- Huron River
- Detroit river clean up
- Lake Erie Wetlands
- Toxins
- huron river watershed
- Detroit river pollution
- detroit river, lake erie
- Huron River Watershed
- I used an online search to see if Lake Erie was safe for my children to swim in.
- Waste water runoff
- Detroit River
- Google
- Steelhead Fishing Huron River
- boating
- Friends of the Rouge River
- Lake Erie fishing
- Is lake erie safe for swimming?
- I was looking at the amount of pollution in local water and beaches.

• Huron River

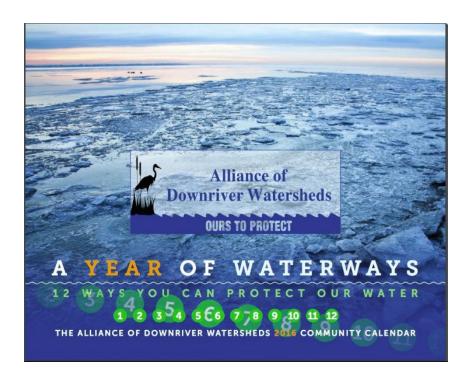
Question #19:

Which of the following have you personally done in the past 12 months:

Answer	Wayne County Survey	ADW Survey
Read informational materials included in my water bill	40%	15%
Looked for information on the website of my local government	27%	17%
Read a social media post from my local government	26%	18%
Watched official programming on public access television	24%	8%
Read an email newsletter from my local government	18%	16%
Picked up brochures or literature from a local government office	10%	7%
Attended a meeting or hearing sponsored by my local government	6%	7%
Called a local government official with a question	4%	6%
Emailed a local government official with a question	6%	4%
None of the above	29%	3%

Question #20:

Take a minute to look at the cover of this calendar



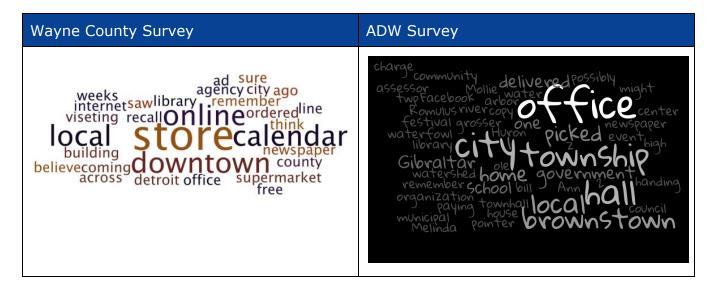
Question #21:

Have you come across this calendar before?

Answer	Wayne County Survey	ADW Survey
No	90%	70%
Yes	5%	20%
Not Sure	5%	10%

Question #22:

Where do you recall coming across this calendar?



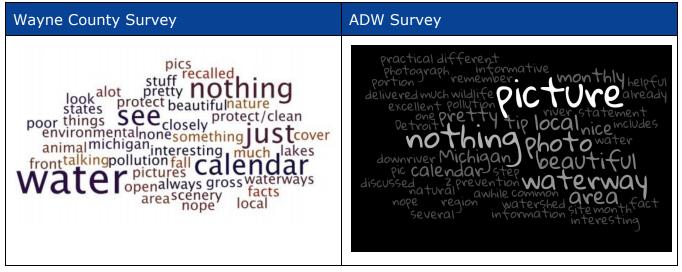
ADW Survey Responses

- City offices
- Picked it up when paying my water bill
- An event put on by the organization.
- Might have been local government offices or local newspaper office, or local library.
- The Huron River Watershed Council of Ann Arbor
- townhall
- Picked up (2) copies at City Hall. (1) for home and (1) for office.
- I have one at my house. Got it from grosse ole township schools
- It was delivered to my home.
- Not sure. Possibly at the township office
- n/a
- city hall
- Facebook
- Pointe moulliee waterfowl festival
- Not sure
- Gibraltar City hall Gibraltar Community Center
- Romulus City Hall
- My office
- Have one at home. Picked up from township hall.
- Brownstown Township offices
- Brownstown Township hall
- Brownstown Township Assessors office
- at work
- Brownstown Twp offices
- Brownstown Township Municipal Office handing them out at no charge

- Local government
- City of Melvindale city hall
- work
- At City Hall
- Was delivered to our local high school.
- don't remember

Question #23:

What do you remember about the content of this calendar?



ADW Responses

- Beautiful photographs
- Each month includes a photo of a portion of the Detroit River
- I don't remember
- Nothing
- Pictures of water sites in Michigan
- informative
- excellent monthly photos of area waterways with monthly pollution prevention tips.
- All the downriver watersheds and common wildlife in area
- Pictures and statements.
- Nothing
- n/a
- na
- Nothing
- It was a calendar
- Not much at all. It's been awhile.
- The beautiful pictures
- Beautiful photos from natural areas in the region.
- Nothing other than they were local waterway pictures
- Pretty pictures.
- Waterway pictures

- Good information about practical steps.
- It discussed several different Michigan waterways
- Did not use the calendar. I already had one by the time they were delivered.
- It has helpful tips
- Nice pictures interesting facts
- Nothing
- I liked the photos
- nothing
- Nice Local Pics
- Pretty local pictures
- nope

Question #24:

Do you have any parting thoughts you would like to share?



ADW Responses

- Ours to protect
- no
- No
- No
- No
- Fertilizer run off is bad. Man made climate change has been debunked by 31,000 scientists
- Please do not give up protecting our future, especially for our children's children. Thank you.
- No
- Everyone should help the waterways be healthy
- The average homeowner needs to be educated about fertilizers and pesticides
- No

- Grosse Ile local government has extremely poor communication to its residents.
 Outdated information on their website, rambling posts on Facebook by our superintendent and nearly zero oversight by our township inspectors when it comes to keeping our town clean and safe. Really sad.
- No
- no
- no
- A concern is that I live within about a mile of I-75. I believe the air and noise pollution is extreme, even though I live upwind of the highway.
- If we humble ourselves and turn to Jesus with repentence, He WILL hear us and HEAL OUR LANDS. God Bless America. Peace on Earth
- No
- No
- Local officials need to care.
- Yes. I believe we can make a difference creating awareness and educating our people. Getting involved and volunteering in our communities one family at a time! It's our world. It's our environment! (:
- Stop the politics of protecting big business
- Save my grandchildren future.
- No
- No
- State and federal government need to take a supportive roll not punitive. Which helps no one
- None
- no
- I know there is much more that can and should be done.
- N/A
- Nothing to share at this time
- no
- please help protect our waterways.
- no
- The river is one of my sources of enjoyment. We must protect it for our children. We can't make the same mistakes as our parents by dumping in our rivers. Nobody has the right to dump in my water (and air) simply to make a bigger profit. We all pay to clean it up.
- Not at this time
- Our water and waterways is one of our greatest state treasures and resources. They MUST be protected!!
- I remember the 60's and early 70's when the Detroit River and Lake Erie were so dirty and polluted that we didn't swim in them and were afraid to eat the fish we caught. We've come a long way since the Clean Water Act was enacted but we're not done and need to protect the progress we have made even though we have more work to do regarding clean water.
- I do attend meetings or watch local city council meeting on the public access channel. It'd be nice for you to show up at a meeting and discuss or do a presentation on how we or you can help us (the community)

- No
- Not at this time
- No
- No
- There is much more pollution than is acceptable in our largest freshwater source
- No
- na
- I love Michigan!
- We should be the last state on earth to have poisoned waterways
- People, including elected officials, do not always practice what they know to be good to protect waterways. Vigilance is necessary
- We moved to Grosse Ile because it is in the Detroit River. We previously lived near both the Hudson and Ihio Rivers. The Detroit River is cleaner!!
- No
- No
- No
- Most people do not react unless personally effected. Not pro active. Also if a
 project is done no matter how small we like to see results or progress keeps
 people interested and motivated to keep involved
- Yes, if you think the river and lake are dirty now than you should seen then 60 years ago!
- None
- Where can I get the calendar
- No
- No
- No
- I am not an alarmists
- No
- I would suggest updating the logo.
- No
- Clean water is our most precious asset. Continued watchdog efforts are crucial for the preservation of clean water.
- No
- No
- Keep up the good work.
- No
- None
- Yes. Don't waste money on brochures if nobody gets to see and read them. Of
 course it's my belief that individuals are only 10% of the problem and business
 90%, but let's keep picking on the little guys. Our city water comes thru 60 year old
 pipes and Twp/county keeps putting off replacing them. Sounds like a gov.
 Responsibility. not an individual. Just like Flint.
- Our lives are so busy....keep these reminders coming. ...every little bit helps
- I believe responsibility for our welfare begins at home. We each are responsible for protecting our environment. The less government involvement the better.
- No

- No
- keep up the good work
- n/a
- Not really
- As a resident who lives on the water along the border of the Detroit River and Lake Erie. Please keep us posted on happenings related to pollution prevention or clean up efforts
- No
- No
- No
- no
- attend local city council meetings and broadcast what your achieving or post on social media sites
- Every little thing we do counts. No matter how small. One person can make a difference.
- Water levels are high I think that's a good thing.
- No
- na
- We need to control the weeds around the Gibraltar islands. This is a boating community and heavy weed infestation impedes boating.
- I would like to see the canals of Gibraltar dredged to remove high levels of PAHs and PCBs as well as other hazardous materials that were identified from the core samples that were take in the last couple years by the DEQ. This is more important than building a fishing pier in my opinion.
- N/a
- No
- No
- N/a
- You can't drink \$.
- Invasive, non native species are of major concern to me
- I am 78 years old and have lived less than a mile from the Detroit River or Lake Erie for all but 3 of those years. I tried to create concern for our ecology, including local waterways, among my science students in a local school district for 32 years.
- no
- Water is a right as is public access to use and enjoy.
- No
- Need to involve more kids to help clean up
- None at this time
- No.
- No
- No
- No
- None.
- no
- Have a contest for pictures from local residents for calendars instead of professional photographers.

- No
- No
- No
- No
- stop asian carp
- No
- no
- no
- I would like to commend Wayne County for taking good care of our drinking water. I know that it still has contaminants in it, but I still think it tastes better than water in other areas of the country.
- No
- None
- N/A
- No
- i think its all "talk" teh Government will not recognize that global warming is happening. The EPA does not care about the pollution that they putting into the air for Downriver residents. no one is doing anything about the greasy "film" that accumulates on our cars during various seasons in Melvindale. its a JOKE and all talk
- No.
- no
- no
- Nope! Good questions.
- Keep up the good work on keeping public focus to lakes and streams
- No
- Water conservation is extremely important. Making residents knowledgeable about pollution in water and air is equally important. Global warming is real.
- no
- No
- Keep Asian carp out of the Great Lakes
- We cannot survive without clean water.
- nope
- A lot of people do not now that storm drains, drain directly into local water ways
 even though it says so right on the drain cover. It may be useful to put up signs
 near some storm drains in and around the downriver communities informing people
 that all storm drains drain directly into your local waterways where the fish you eat
 live and people you love swim.
- no
- No
- NO.
- no
- Pollution in our waterways is a serious matter, though not all community members are made aware of how serious it is. However once informed, everyone will want answers as to how we are handling the problem.
- No

- No
- I'm interested in the calendar
- no
- No
- ok
- 0
- No
- I don't have time to be an expert in everything, so i expect our leaders to hire people to figure out how to best deal with things such as water contamination. Everyone has some responsibility to keep the water clean, but we need people who deal with it full time to let us know how to do things best. People care, but people have too many things to take care of to focus enough energy on any one major task.
- No water bills in our city is ridiculous
- Need to protect our natural environment!