Small Actions Upstream

A study of public attitudes toward fresh water resources and pollution prevention in the Huron River watershed.

Sponsored by the Middle Huron Stormwater Advisory Group and the Livingston Watershed Advisory Group.

Huron River Watershed Council 2012

Huron River Watershed Council

Protecting the river since 1965

Middle Huron Stormwater Advisory Group (SAG)
Livingston Watershed Advisory Group (WAG)

The Middle Huron SAG and the Livingston WAG are coalitions of organizations that work collaboratively with regional partners to coordinate and implement best management practices that improve the quality of and manage the volume of polluted urban runoff entering the Huron River system.

Current SAG and WAG activities include monitoring water quality and stream habitat, coordinating efforts to address state-listed water body impairments, and implementing watershed-wide public education to raise awareness about the problems caused by polluted runoff.

The **Middle Huron SAG** is made up of ten local municipalities and agencies within the middle section of the Huron River watershed which lies mostly within Washtenaw County, extending from Portage Lake downstream to the French Landing Dam, which forms Belleville Lake.

Middle Huron SAG members:
Washtenaw County Water Resources Commissioner
Washtenaw County Road Commission
Village of Dexter
City of Ann Arbor
Pittsfield Township
City of Ypsilanti
Ypsilanti Township
Eastern Michigan University
Ann Arbor Public Schools

The **Livingston WAG** is made up of six local municipalities and agencies. It was originally formed to develop watershed management plans for the Huron Chain of Lakes and Upper Shiawassee River watersheds in Livingston County.

Livingston WAG members:
Livingston County Drain Commissioner
Livingston County Road Commission
City of Brighton
Brighton Township
Village of Pinckney

Dear Regional Leader,

Because of many years of effort by leaders and citizens across our region to restore our precious Huron River and its tributaries, we can point to some progress. The Huron is known to be one of the healthier urban watersheds in the state of Michigan.

However, it is not without problems. Unnatural hydrology (stream flow) degrades habitat in our streams and impacts wildlife in them and downstream lakes. Many of our urban streams are high in bacteria, excessive nutrients and other pollutants.

These problems can seem intractable when you consider that one of the biggest contributors to water pollution in this region is non-point source runoff—in other words, contaminants flowing off hundreds of thousands of parking lots, lawns, streets, and rooftops. Uncontrolled runoff continues to alter stream hydrology and habitat and carry pollutants into our waterways.

The Middle Huron Stormwater Advisory Group (SAG) and the Livingston Watershed Advisory Group (WAG) represent fourteen organizations that are working alongside the Huron River Watershed Council (HRWC) to change that. The two groups commissioned the following research into public attitudes about stormwater because this problem must be addressed if we are to secure safe, clean water for both humans and wildlife.

We recognize that this is no easy task. Municipalities now find themselves debating new stormwater permits and contemplating ways to manage contaminated runoff by maintaining and improving grey infrastructure and implementing large scale stream restoration and green infrastructure projects. Yet these efforts are only part of the solution.

Residents must also be widely engaged. Collectively, modest individual actions add up to a big impact on our region's waters—actions like picking up pet waste, disposing of oil and paint properly, planting native plants and using less fertilizer.

HRWC, a nonprofit organization dedicated to protecting and restoring the Huron River, conducted this research through an online survey of public beliefs and concerns. Our work has uncovered: what the public knows about runoff; how much the public values healthy water; and the ways in which citizens are most likely to help.

The survey results provide an understanding of the public education efforts that have been working and lay the foundation for future outreach that can truly bring about change. Our plans are to use this feedback to invigorate community conversations, about how we can protect our area's most important fresh water resources.

This report is the first step but also shows a job well done. Thank you for your interest and engagement.

Sincerely,

Ric Lawson
Watershed Planner
Huron River Watershed Council

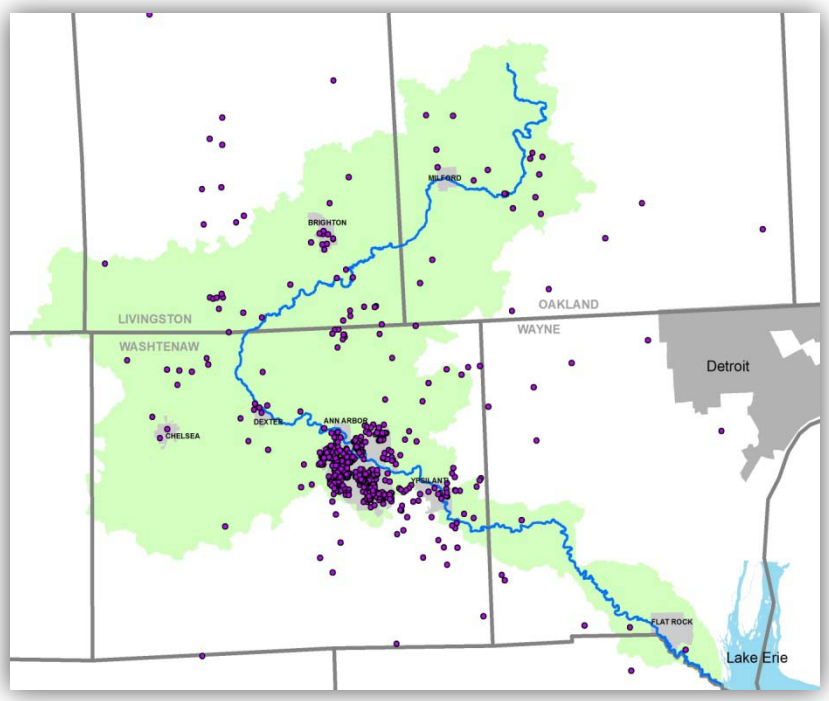
EXECUTIVE SUMMARY

This report summarizes the findings of a recent study of public attitudes about the quality of local water resources and stormwater impacts in Washtenaw and Livingston counties. Our intent was two-fold. First we wanted to understand what residents in the watershed think about issues related to nonpoint source runoff pollution and what they might be willing to do in their everyday lives to address it. As part of this, we wanted to compare to past results to see how these attitudes have changed. Second we hoped to measure whether the regular public education activities of HRWC and the participating communities is reaching and motivating residents to help.

With an eye toward keeping the project cost effective, the survey was conducted via a web survey instrument. Participation was recruited through the 2012 Watershed Community Calendar, e-mail, print and web advertising, direct in-person contact and social media. The 38 survey questions, taking approximately ten minutes to answer, were designed to reasonably compare with two previous surveys, the Southeast Michigan Council of Governments (2004 Regional Water Quality Survey) and the Oakland County Water Resources Commissioner's Office (2008 Community Attitude and Interest Survey).

Who took the survey?

741 residents in total completed our survey (Washtenaw County – 572; Livingston County – 41; Oakland County – 46; and folks who reported their zip code as beyond our watershed boundary made up the rest.



Most of the respondents were White (86%) with other races represented (Asian/Pacifica Islander 3.8%, Black/African American 1.5%, American Indian Eskimo 1.8%, and Other 3.4%).

Almost 60% of respondents were between the ages of 45-64. In the oldest age group (65+) there were fewer responses (14%) and fewer responses from younger residents 35-44 (14%); 25-34 (10%); under 25 (3.3%).

Many respondents reported their annual household income as between $60-99,000 (27%) or $100-199,000 (26%). 17% did not report their income, 16.3% were at $35-59,999; 9.7% under $35,000 and 4.6% over $200,000.

65% were women. 35% were men.

The following key findings reveal the attitudes and concerns of these Washtenaw, Livingston and Oakland County adults who took the survey between September 2011 and March 2012. *A full methodology statement is found at the end of this report.*

1. Respondents are fairly positive about the quality of water in their local lakes, rivers and streams.

Forty-five percent (45%) thought water quality was improving (answering "somewhat better" or "much better"), more than double the result of the 2004 Regional Water Quality Survey (20% answered similarly). In general, based on HRWC monitoring data, that opinion is consistent with reality and public information provided by HRWC. Nineteen percent (19%) reported that they thought it was getting worse ("somewhat worse" or "much worse"), which was a reduction by almost half the result of the 2004 regional survey (where 36% reported it was getting worse).

2. Respondents recognize that local upstream water quality definitely impacts the Great Lakes.

A resounding 94% agreed or strongly agreed that the quality of local streams where they live affects the Great Lakes (and Lake St. Clair). In 2004 only 76% agreed or strongly agreed.

3. Stormwater runoff is a major concern.

Fifty-six percent (56%) recognize that stormwater runoff contributes the MOST pollution to our local lakes, rivers, and streams, as compared to other sources (wastewater treatment plant discharges, factories/industrial discharge, sewage overflows, agriculture, illegal dumping) with an even greater number, 73%, understanding that stormwater goes directly into lakes and streams without treatment after it enters a stormdrain or roadside ditch. National data and analysis in Huron River watershed management plans support that conclusion. EPA and states report that today, nonpoint source (NPS) pollution remains the Nation's largest source of water quality problems. In 2004 only 23% of SE Michigan survey respondents thought stormwater runoff was the greatest contributor.

4. Respondents understand the watershed concept.

As indicated by their recognition that upstream water quality impacts the Great Lakes (94%), their concern for polluted runoff (56%), and their recognition that runoff goes directly to waterways untreated (73%), respondents *generally understand the relationship between runoff, local streams, and the Great Lakes.*

Fifty-two percent (52%) described the location where they live as being in a watershed with 26% reporting that they live near a watershed; 22% said they did not live in a watershed or that they didn't know, indicating that the word "watershed" is still not universally understood.

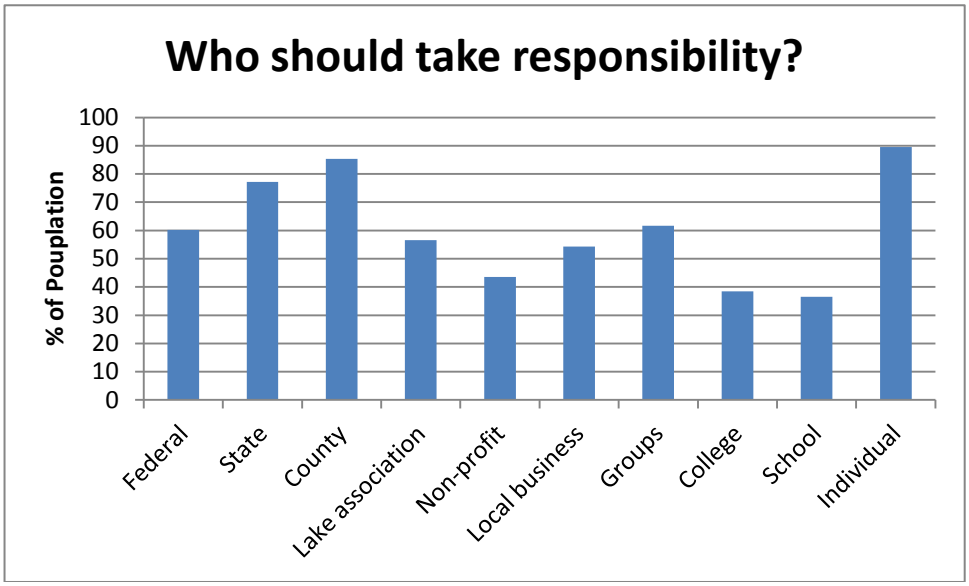
The good news for groups using "watershed" in outreach materials, like HRWC, is that the respondents of this survey have a higher level of understanding of the word overall as compared to the 2004 regional survey in which only 14% knew they lived in a watershed and the 2008 Community Attitude and Interest Survey from Oakland County where slightly more (18%) indicated they live in one.

The responses to these questions are a sign that education on this concept by HRWC and partners has been successful, but there is still work to be done.

5. Respondents believe that everyone is responsible for protecting and preserving water quality.

When asked their opinion about protecting and preserving the water quality of local lakes, rivers and streams *respondents indicated that "each of us as individuals" should take responsibility (89%)*. But they also pointed to a number of others who need to be involved, including our federal, state and county or municipal governments and resource user groups such as boaters, canoeists, kayakers and fishermen.

In the past 2 years I have "cleaned storm drains and raked leaves out of the street" to protect water resources.
—Response to open-ended question.



6. There are some noticeable differences between respondents from Washtenaw County and those outside of it.

Washtenaw County residents appear to be well-focused on watershed issues. Their answers to questions related to actions that protect lakes and rivers, what they think contributes most to pollution, whether stormwater is treated after it enters a stormdrain, and things like whether and how often they fertilize their lawns all show a higher understanding of the connection between stormdrains and local water bodies as well as a belief that personal actions can help prevent polluted runoff.

These concepts have been the crux of the Middle Huron SAG's educational efforts for the past decade and with support from communities like the City of Ann Arbor and the Washtenaw County Water Resources Commissioners Office educational pieces such as the Watershed Community Calendar have been regularly and widely distributed in the urban and suburban areas of the Middle Huron.

But watershed residents outside of Washtenaw County interact with water resources more. Their responses show that they are doing more fishing, boating and swimming than their Washtenaw counterparts. They were less likely to think that water quality is getting better than respondents in Washtenaw and they were more likely to choose factories, sewage overflows, agriculture and illegal dumping over stormwater runoff as contributing the most pollution to water resources.

7. HRWC's education and outreach efforts are reaching those whose age and income reflect that they live in owner occupied homes (the target audience), but are missing others.

Eighty-seven percent (87%) of the people responding to the Watershed Community Survey were white (2010 Census - 74.5%). The Black/African American population made up only 1.5% of our respondents while they represent almost 13% of the total population in Washtenaw County.

Our survey also reached significantly more people in the 45-64 age range (60%) than is reflective of the overall population (30%) and fewer (10%) in the 26-34 age range than the overall population (17%).

8. There is a high degree of willingness to do what is needed to reduce pollution heading to our water bodies.

There were very few respondents who were NOT willing to change or engage in practices that protect our rivers lakes and streams. Examples include: changing how they wash their cars (94%), to promptly picking up and disposing of pet waste (89%), having a septic tank serviced every 3-5 years (98%), sweeping excess fertilizer and grass clippings from pavement onto lawns (96%) disposing of household hazardous waste at community collection days (97%), directing downspouts away from paved areas and into yards (96%), landscaping yards with native Michigan plants (98%) using low phosphorus or slow release nitrogen lawn fertilizer (98%), or changing lawn watering practices (95%)

Willingness drops a bit for actions that require more resources and planning such as installing a rain barrel or putting in a rain garden (slightly fewer —88%— indicated that they were willing to do either). While 65% reported that they don't use a rain barrel, 41% reported they were VERY willing to install one.

We didn't ask respondents if they already had a rain garden, instead opting for a few general gardening questions on soil testing, fertilizer and native plants. However, 89% reported using native plants sometimes (41%), frequently (33%) to always (15%).

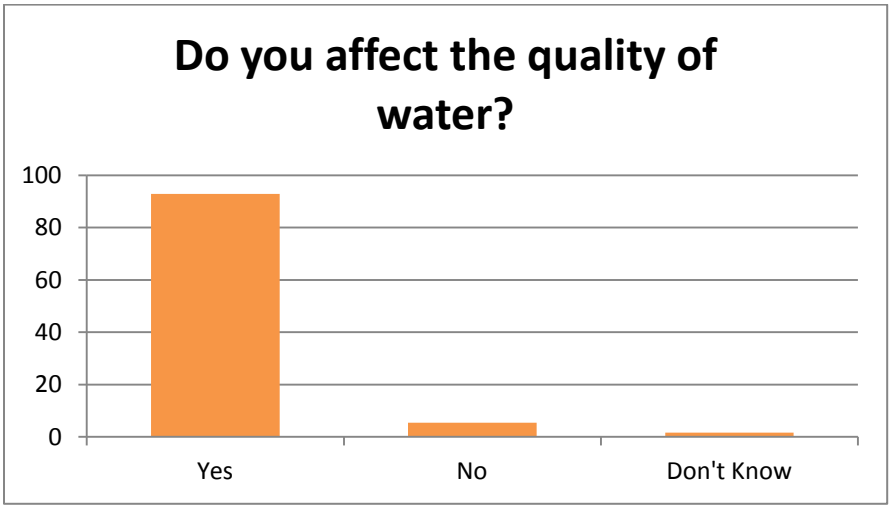
There is high public interest in using rain barrels, native plants and rain gardens as a means to protect water quality.

*Interestingly 71% of respondents reported that they NEVER test their soil for nutrients. This result came in spite of community efforts over the past several years to promote soil testing. Up until 2012 Michigan State University Extension soil testing services were offered at participating retailers in Washtenaw, Livingston and Oakland counties with drop off sites and free consultation during the month of April.

ADDITIONAL STUDY FINDINGS

Beliefs and Activities Inform Actions

•Ninety-three percent (93%) of respondents assumed that the way they care for their lawn and home affects the quality of water in lakes, rivers, and streams in the community where they live, while only seven percent of respondents did not recognize the impact of their lawn-care and home maintenance practices to community water quality.



•Even though most respondents recognized that their care for the lawn and home affects the quality of water in the community, *only seventy-two percent (72%) of the respondents have taken some action in their home, yard or community to protect water resources.*

•Seventy-three percent (73%) of respondents believed that stormwater (rain water) goes directly into lakes and streams *without treatment* after it enters a stormdrain or roadside ditch; about four percent (4%) of respondents believed that the stormwater goes to lakes and streams, but that it is treated; and five percent (5%) of respondents believed that the stormwater goes directly to the wastewater treatment plant after entering a storm drain or roadside ditch.

•Most of the respondents (75.1%) received their drinking water from a public water system or supply, while only about fifteen percent (15%) reported their water comes from individual wells and three percent (3%) reported they get their drinking water supply from bottled water. Others indicated that their water comes from municipal, community or neighborhood association wells.

•When we asked the respondents about their experiences with lakes and streams in their community, the top-three activities were not in directly contact with water: hiking or walking near lakes and streams (80.1%), bird/nature watching (51.9%), biking (45.7%). The top-three activities that involved use of water were canoeing/kayaking (48.8%), swimming (41.9%), and boating (30.1%).

•Most residents (81%) did not have a septic system at their home, while about two percent (2.1%) of the respondents did not know what a septic system was. 12.8% of the people who do own a septic system have checked the system during the past 3-5 years, while 2.8% of the people with a septic system did not know whether the system was checked or not.

Disposal of Hazardous Materials, Pet Waste, Grass Clippings and Leaves

•Most of the respondents (70.2%) dispose of home toxics and hazardous materials (e.g. old oil or fluids from vehicles, batteries, pesticides, and other household hazardous wastes) at community collection sites, while some dispose of them in their regular trash (6.1%), or through special curbside collection programs (9.1%) and containers (4.6%).

•When respondents, who do not dispose of materials at community collection sites, were asked why they do not dispose them this way, answers were that (1) they did not know where they were located (54.4%), (2) they did not have time (21.1%), or (3) they did not have collection sites in their community (21.1%).

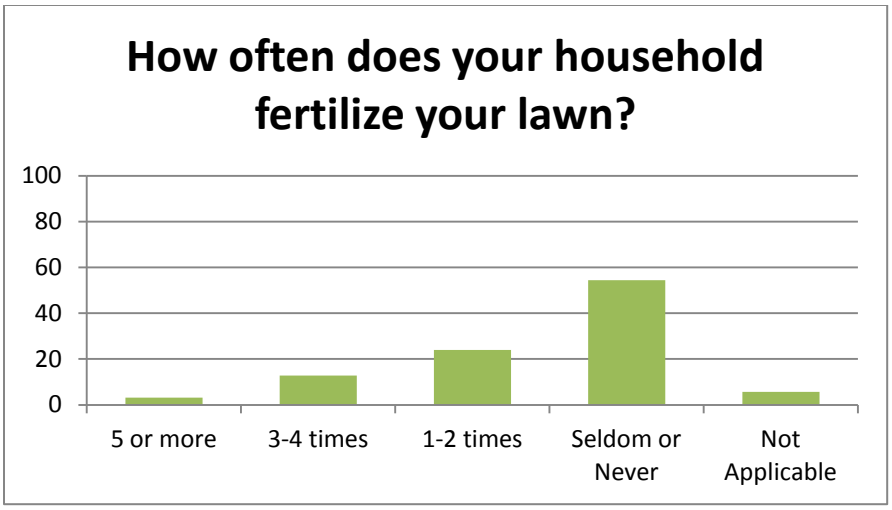
•About eight out of ten people (84%) dispose of their dog's waste in their regular trash; and nobody disposed of the waste into the street or down stormdrains.

•When respondents were asked how they dispose of grass clippings, the top-three answers were: leaving them on their lawn/mulching (72.8%), composting them in their yard (12.8%) and using curbside pickup (7.9%).

•When respondents were asked about the disposal of fall leaves, the top-three answers were: curbside pickup (38.9%), leaving on the lawn/mulching (27.8%), composting them in their yard (24.4%).

Fertilizer Use

•About half of respondents (54.4%) never fertilized their lawns; and those who reported they did fertilize mostly used phosphorous free (44.6%) and organic (39.9%) products.



In the past 2 years I have "paid better attention to what we feed our lawn. We're mulching much more" to protect water resources.

—Response to open-ended question.

•Respondents tended to choose fertilizer mostly based on whether it was safe for the environment (37.3%), their previous experience (22.5%), and the price (15.9%).

•None of the respondents used a lawn service for fertilizer and/or pesticide application.

•When respondents were asked if they were willing to require a lawn service to use environmentally friendly/organic products and practices, more than half of the respondents (55.1%) would ask the service to use eco-friendly products.

•When respondents were asked if they would sweep excess fertilizer and grass clippings from the pavement back onto the lawn to in order to protect water quality, almost all of them were willing (95.9%).

Commercial Facilities for Vehicle Maintenance and Car Washing

•Most respondents typically washed their vehicles at a commercial car wash; however, there were still some people who washed their cars at home (12.8% washed their cars in their driveway and 4.8% on their grass).

•Almost all respondents (94%) were willing to change their car washing practices to help reduce pollution of streams and lakes in their community.

•Most respondents (84%) did not change their vehicle's motor oil, transmission fluid or radiator fluid at home, while about sixteen percent (15.7%) of the respondents regularly changed their vehicle's motor oil, transmission fluid or radiator fluid at home.

•There were no questions specifically about willingness to dispose of motor oil, transmission fluid or radiator fluid using safe practices. Instead respondents willingness to dispose of "household hazardous

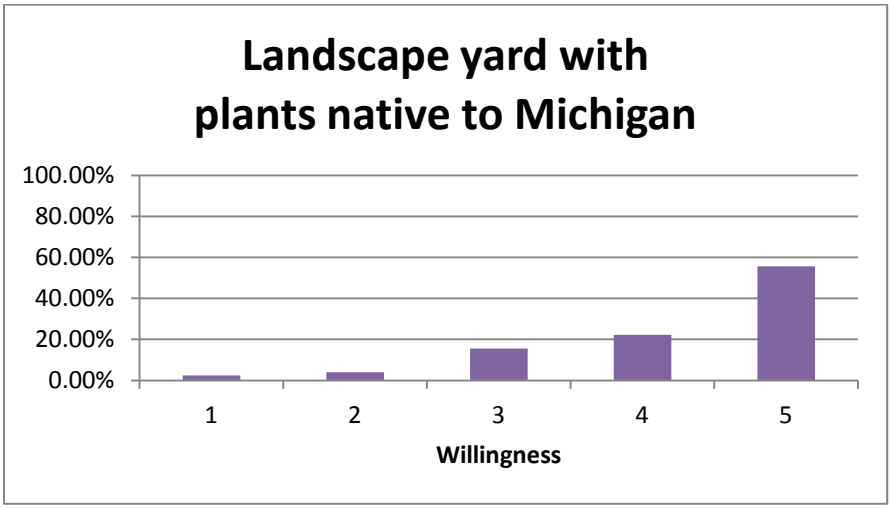
waste" at community collection sites (only 3.4% not willing) is a strong indication of their willingness to similarly dispose of vehicle fluids.

Native Plants, Rain Gardens and Rain Barrels

In the past 2 years I have "added more native plants instead of grass to our landscaping" to protect water resources.

—Response to open-ended question.

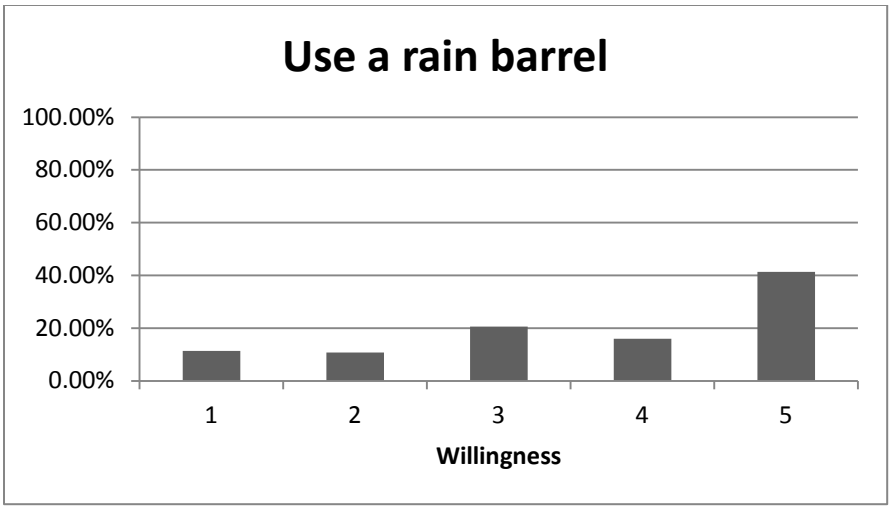
•When respondents were asked about their willingness to do things that reduce water pollution, many respondents already were or had a high willingness to implement changes to their landscaping practices. Almost 40% reported they were *already landscaping with plants native to Michigan* and of the 60% who weren't, 93.5% expressed some willingness to do so in the future (55.6% *very willing)*.



In the past 2 years I have "installed a rain barrel" to protect water resources.

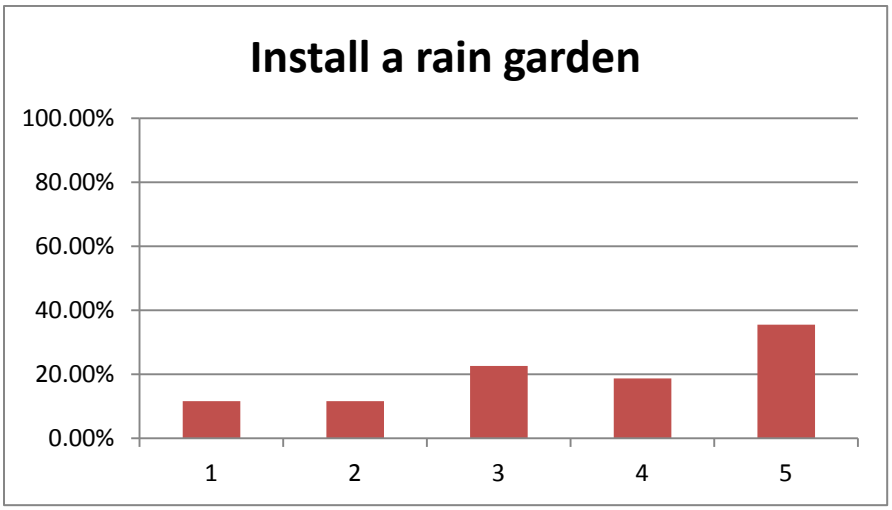
—Response to open-ended question.

•Thirty-one percent (31.4%) reported they were already using rain barrels with 88.7% expressing some willingness to install one in the future (41.3% *very willing*).



In the past 2 years I have "planted a rain garden" to protect water resources.
—Response to open-ended question.

•Of the 86.2% respondents who don't already have a rain garden, only 11.6% were not willing to put one in to protect water quality (88.4% were willing with 35.5% *very willing*).



River Crossing and Watershed Entry Signs

•More than half of respondents from Livingston (65.85%), Oakland (76.09%), Washtenaw (61.89%), and Other (61.54%) saw signs identifying rivers or river crossings.

•Almost half of the respondents from Livingston (56.10%), Oakland (69.57%), Washtenaw (44.58%), and Other (56.41%) saw signs indicating entrance of a watershed.

In the past 2 years I have "signed up as a RiverSafe home" to protect water resources.

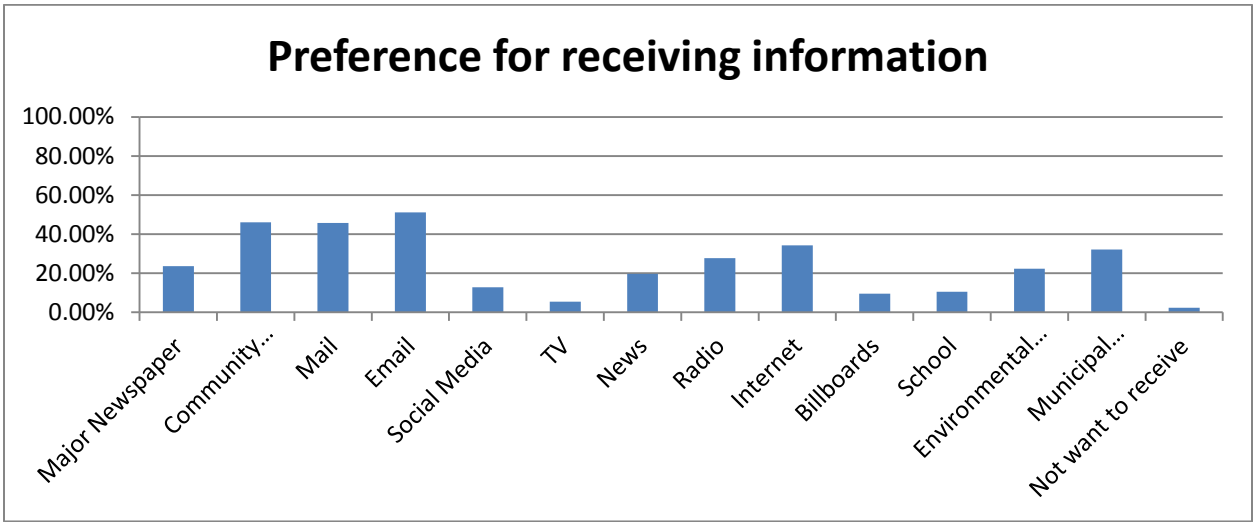
—Response to open-ended question.

•When respondents were asked specifically if they had seen signs promoting either of the two public education programs run by the Washtenaw County Water Resources Commissioner, respondents from Livingston (0%), Oakland (2.17%), Washtenaw (36.54%) and Other (7.69%) *rarely* saw the signs for the RiverSafe Homes residential program; while respondents from Livingston (4.88%), Oakland (4.35%), Washtenaw (9.09%), and Other (15.38%) *rarely* saw the signs for the community partners for Clean Streams program targeting businesses and other commercial entities. It should be noted that the RiverSafe Homes and Community Partners for Clean Streams programs are limited to Washtenaw County.

•Few respondents from Livingston (19.51%), Oakland (13.04%), Washtenaw (19.06%), and Other (25.64%) *have never seen* any of the signs regarding identification of rivers or river crossings, entering a watershed, the RiverSafe Homes program, and the Community Partners for Clean Streams Program.

They Want River Protection Information by Email and Mail,
But they Still Rely on Community News

•When respondents were asked where they would most like to receive information about what they can do to protect lakes and streams, *the top three choices* were email (51.2%), community newspapers (46%) and mail (45.8%). The lowest ranked choices were social media (12.8%), schools (10.5%), billboards (9.6%) and TV (5.5%). In the middle were internet (34.2%), radio (27.8%), and major newspapers (23.6%).



•When respondents were asked what communications method alerted them to the survey 43.7% responded that they heard about it by email and 26.2% heard about it by mail (indicating their receipt of the Watershed Community Calendar). The rest reported that they learned about the survey at municipal offices, a festival or event, the library, their workplace or a retailer, from the newspaper, through social media, on a website, from a friend or in another way.

Web Survey Demographics and Bias

The survey was administered exclusively through the internet, using an online survey. Participation was sought through a variety of distribution methods: 37,000 printed Watershed Community Calendars and print advertisements in local newspapers and community produced newsletters with a direct URL and a special call to action to participate in the survey; and emails, website and social media announcements with links to an announcement page and/or the survey instrument itself.

Generally, "older people (particularly those 65 and older), non-Whites, people with lower income, less educated people, and people living in rural areas have lower Internet access rates than their counterparts and are less likely to have high-speed connections. Therefore, they are more likely to be left out of Internet surveys, and people within these groups who have Internet access may differ considerably from those who do not." (*Internet, Mail and Mixed-Mode Surveys, The Tailored Design Method*, Don A. Dillman, Jolene D. Smyth and Leah Melani Christian, 2009).

In the Watershed Community Survey there is a higher response rate in older adults (age 45-54 and 55-64) and a lower response rate in younger adults (age <25 and 26-34). There is an underrepresentation of African American and Asian residents. There is less representation in the lower income (<$35K) and higher income ($100K-$200K) categories. Some of these differences could be attributed to the primary distribution of the survey through the Watershed Community Calendar which targets tips and information toward home-owners and which is direct mailed by the City of Ann Arbor to approximately 19,000 single family homes. Some can be attributed to the web-based nature of the survey.

Social desirability bias is the tendency of respondents to answer questions in a manner that will be viewed favorably by others. Research shows that social desirability bias is less likely to occur in a self-reporting survey conducted anonymously on line than in an interview setting (*Internet, Mail and Mixed-Mode Surveys, The Tailored Design Method*, Don A. Dillman, Jolene D. Smyth and Leah Melani Christian, 2009).

ABOUT THE SURVEY AND HOW THE RESEARCH WAS CONDUCTED

Project Description: The Watershed Community Survey was designed to measure public awareness of, attitudes toward, behaviors and constraints related to local water bodies and stormwater pollution. The study area included Washtenaw and Livingston Counties and was targeted toward residents of the Huron River watershed who were exposed to nonpoint source pollution prevention and watershed education messaging through the materials and regular outreach channels of HRWC and the participating communities.

The survey was also designed so that results could be compared to a 2004 Southeast Michigan Council of Governments (SEMCOG) Regional Water Quality Survey that was a random sampling of the population of a seven county area that included Washtenaw and Livingston Counties and a 2008 Community Attitudes and Interest Survey which was conducted solely within Oakland County by the Oakland County Drain Commissioner's Office.

Purpose: To evaluate effectiveness of past community information and education efforts in general and use results to inform future activities.

Question-Answer Profile: Questions were comparable to those of the 2004 SEMCOG Regional Water Quality Survey (with some differences) and were designed to determine public awareness or misconceptions about:

- Connections between storm water and pollution
- Connections between, storm drains, local streams and water quality in Great Lakes
- Awareness of roadside and other community signage
- Household practices including car washing, septic system maintenance, auto maintenance, home toxics disposal, pet waste, lawn care and fertilizer use
- Willingness to help reduce pollution through small actions at home
- Preferred information delivery method on water quality topics
- Member of household engaging in pollution prevention activities
- Outreach method prompting them to participate in the survey
- Basic household demographic information, ethnicity, income, age
- Whether they would like to provide their email address for further communication from HRWC

Survey Method: The goal was to achieve a representative sampling of residents who receive the 2012 Watershed Community Calendar by direct mail, from municipal offices, at public libraries, select workplaces, at community festivals or events, or directly from the Huron River Watershed Council.

Approximately 37,000 Calendars were distributed in September through December of 2012. Each calendar was wrapped in a paper cover that contained information about the survey and a call to action to participate by going to a designated URL , www.hrwc.org/survey and answering 10 minutes of questions in exchange for a chance to win prizes.

Additional responses were sought by email, a print advertisement in the Ann Arbor Observer, community-produced newsletters and web announcements as per the general outreach practices of HRWC and participating communities.

The survey was administered using an online survey tool called Survey Monkey.

HRWC and the following communities distributed calendars to residents (approximately 31,000 to residents in Washtenaw, 6,000 to residents in Livingston).

Washtenaw County: City of Ann Arbor, City of Ypsilanti, Pittsfield Township, Village of Dexter, Washtenaw County Road Commission, Washtenaw County Water Resources Commission, Ypsilanti Township, Eastern Michigan University, Barton Hills Village

Livingston County: Brighton Township, City of Brighton, Livingston County Drain Commission, Livingston County Road Commission, Village of Pinckney, City of Howell, Green Oak Township, Hamburg Township, Marion Township, Putnam Township

Data Collection: The survey was offered online through Survey Monkey. It opened at the release date of the 2012 Watershed Community Calendar (September 2011) and remained open until an appropriate sample size for Washtenaw County was obtained (March 2012). Responses were confidential and anonymous. Upon completion of the survey, participants were hyperlinked to an online form where they could provide contact information if they wished to participate in the drawing for prizes or receive future emails on water-related issues from HRWC.

Goals for sample size were based upon the following:
Washtenaw County: Population by SEMCOG Community Profile 2010: 347,699; Population by Census Bureau, 2009: 347,563; Sample size calculator: Confidence level: 95%, Confidence interval: 5%, Sample size: 384

Livingston County: Population by SEMCOG Community Profile 2010: 183,420: Population by Census Bureau, 2009: 183,118 Sample size calculator: Confidence level: 95%, Confidence interval: 5%, Sample size: 383

Sample size results: 742 Total Responses
Washtenaw County – 572; Livingston County – 41; Oakland County – 46; and the rest reported their zip code as being outside of watershed boundaries.

Quality Control, Data Management, Analysis and Reporting: Review and consultation on the survey methodology and questions were provided by Cheryl J. Wiese, SSL Manager, Institute for Social Research, University of Michigan, through a non-profit consulting program offered by the Institute's Survey Research Center.

Survey data analysis and evaluation were conducted by Jane Park, a University of Michigan Masters student in Survey Methodology, under the guidance and supervision of University of Michigan Professor James Lepkowski. Dr. Lepkowski is a survey methodologist at the Institute for Social Research where he directs the Michigan Program in Survey Methodology. He has been on the faculty of Biostatistics and the Institute for Social Research since 1982, conducting research on survey sampling and estimation topics as well as teaching courses on surveys and related topics. He is also a member of the faculty at the Joint Program in Survey Methodology at the University of Maryland, a federally funded degree program created in the early 1990s to train present and future generations of survey methodologists in the federal statistical system.

Data were reviewed and assessed for significance by Jane Park and Dr. Lepkowski along with HRWC staff. Results are presented to participating partners in this written report.

APPENDICES (available at www.hrwc.org/survey)

A: Survey Questions
B: 2012 Watershed Community Calendar
C: Call to Action to Participate on Calendar Cover
D: 2012 Watershed Community Calendar Distribution Report
E: Total Distribution Graphs
F: Washtenaw Distribution Graphs
G: Livingston Distribution Graphs

H: Answers to Open Ended Questions (Q3, Q30, Q32)
I: Respondent Zip Codes

About the Huron River Watershed Council

Since 1965 the Huron River Watershed Council (HRWC) has been protecting the river and its tributary streams, lakes, wetlands and groundwater. HRWC coordinates programs and volunteer efforts that include pollution prevention, hands-on river monitoring, wetland and floodplain protection, public outreach and education, and natural resources planning.

HRWC is the only environmental organization dedicated solely to the health of the Huron River. Individuals, local businesses, and 40 communities support our work through voluntary membership.

To learn about HRWC programs, volunteer opportunities, or what you can do to support our work, go to HRWC's website at www.hrwc.org or call any member of HRWC's professional staff at 734-769-5123.

Huron River Watershed Council

Protecting the river since 1965