

# Research Brief

## Ambivalent Attitudes Toward Protecting the Region's Waterways Support for government protections, mixed feelings about individuals' roles

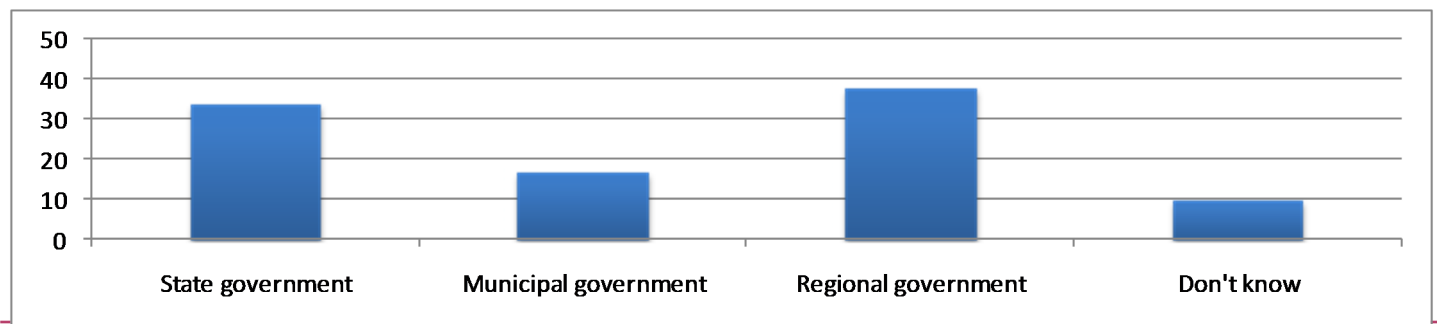
A new survey of nearly 400 residents of the Milwaukee, Kinnickinnic, and Menomonee River watersheds shows general support for government actions to protect water resources, but mixed views on which level of government should be implementing such actions. The survey, designed and analyzed by the Public Policy Forum and commissioned by 1000 Friends of Wisconsin, also indicates that local environmental groups may have an important role to play in educating the public about water issues.

Respondents were asked a series of questions designed to elicit their views and understanding of critical water resource issues. The survey shows residents are split on whether water resource management and quality issues should be governed by regional water governance districts or the state. Municipal governments are not favored for the role (**Chart 1**).

When asked about the effectiveness of specific local government actions, most respondents viewed the actions as at least somewhat effective. The role of individuals in protecting local waterways is seen as less important, in that just four percent of respondents agree they "have a responsibility to future generations to protect the region's water resources." Nevertheless, respondents report having taken actions or a willingness to take action to conserve water or protect water quality.

These contradictions in attitudes may reflect the fact that few residents spend time recreating on local rivers or lakes, and that many do not know where stormwater runoff goes after it leaves their neighborhoods. Environmental organizations, which are viewed as the most trustworthy sources of information on water issues, have an opportunity to improve residents' knowledge and understanding of water issues.

**Chart 1: Which one level of government should be responsible for managing and improving water quality and water use in southeast Wisconsin?**



### Data and methodology

The 15-minute telephone survey was conducted by Advantage Research from October 5 -19, 2010. Respondents were selected by random digit dialing of exchanges and cell phone numbers located in 47 zip codes in Milwaukee, Waukesha, Washington, Ozaukee, Sheboygan, and Fond du Lac Counties within the Milwaukee, Kinnickinnic, and Menomonee River watersheds. The survey contained 15 opinion questions plus several questions about the respondent’s demographics and characteristics. Only adults over age 18 were surveyed.

The 388 completed surveys are fairly representative of the estimated characteristics of the population within these three watersheds. By our estimates, the survey sample over-represents people over age 60 and under-represents wealthier households (**Table 1**). The survey responses were weighted to better reflect the watersheds on these measures, but the weighting

**Table 1: Representativeness of the survey sample**

percent of population	survey sample	watersheds (estimated)
Milwaukee Co.	71	71
Waukesha Co.	13	13
Washington Co.	8	7
Sheboygan Co.	4	4
Ozaukee Co.	2	2
Fond du Lac Co.	2	2
Spanish speakers	1	8
age 60 or over	43	16
white	72	72
female	59	51
household income \$50,000 or greater	32	49

*Watersheds estimates from 2005-2009 American Communities Survey, U.S. Census Bureau*

did not significantly change the results. The unweighted responses are presented in this *Research Brief*.

The population within each watershed is as follows: Menomonee River watershed, 336,700; Kinnickinnic River watershed, 145,000; and Milwaukee River watershed, 485,000. Thus, a sample of 388 respondents representing a total population of 966,700 people results in a margin of error of plus or minus 4.97 at a confidence level of 95% – meaning there is a 95% probability that the survey results are accurate within 4.97 percentage points in either direction.

#### About the Forum:

Milwaukee-based Public Policy Forum – which was established in 1913 as a local government watchdog – is a nonpartisan, nonprofit organization dedicated to enhancing the effectiveness of government and the development of southeastern Wisconsin through objective research of regional public policy issues.  
[www.publicpolicyforum.org](http://www.publicpolicyforum.org)

#### About our partners:

1000 Friends of Wisconsin advocates and promotes uses of land, water and air that shape healthy communities where people want to live, work, and play.  
[www.1kfriends.org](http://www.1kfriends.org)

The Southeastern Wisconsin Watersheds Trust, Inc. (Sweet Water) is a unique partnership established in 2008 to achieve healthy and sustainable water resources throughout the 1,100 square mile greater Milwaukee watersheds through coordinated, collaborative efforts.  
[www.swwtwater.org](http://www.swwtwater.org)

#### Research Brief underwritten by:

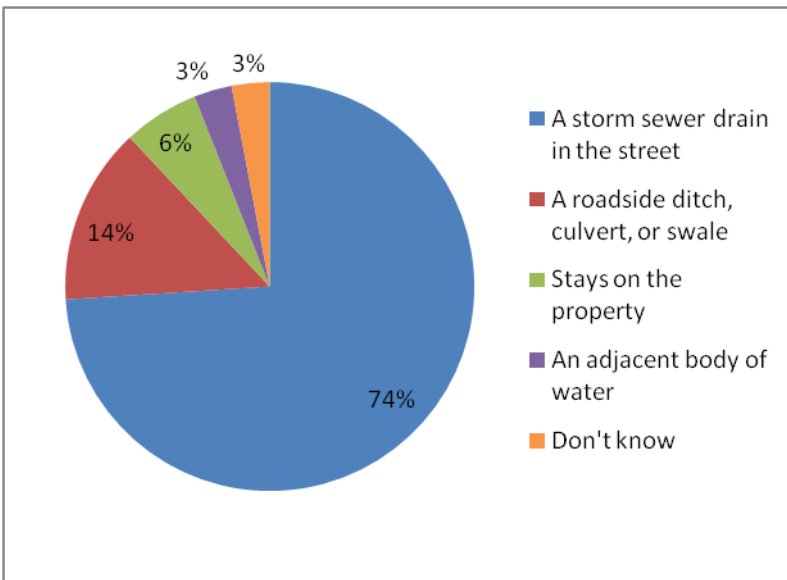
Badger Meter, founded in 1905, is a leading manufacturer and marketer of flow measurement and control products, serving water utilities, municipalities and industrial customers worldwide.  
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### Knowledge of watershed geography

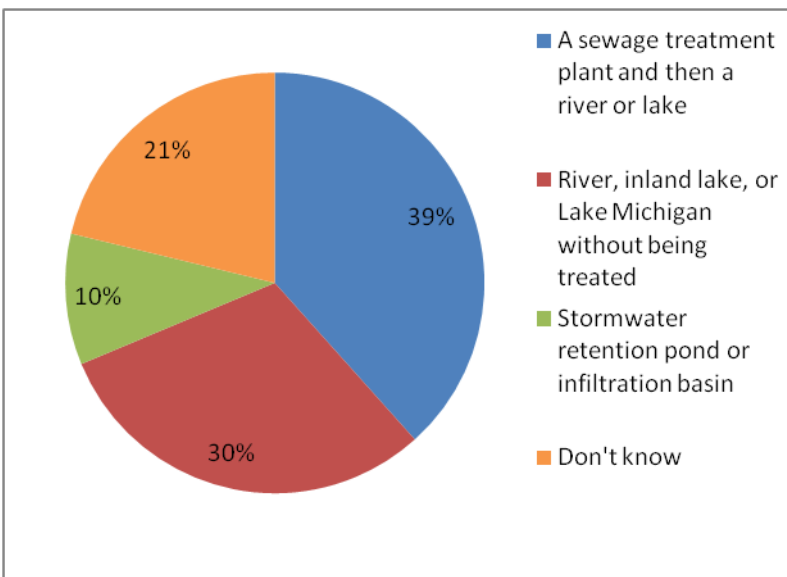
Survey respondents are fairly knowledgeable about watershed geography, although a significant number of people are uncertain about some aspects.

Most respondents, including most in Milwaukee and Waukesha Counties, report that stormwater runs off their property and into a storm sewer drain in the street after a rain or snow storm (Chart 2). About a fifth of all

**Chart 2: After it rains or the snow melts, where does the runoff go after it leaves your property?**



**Chart 3: Where does this runoff go after it leaves your neighborhood?**

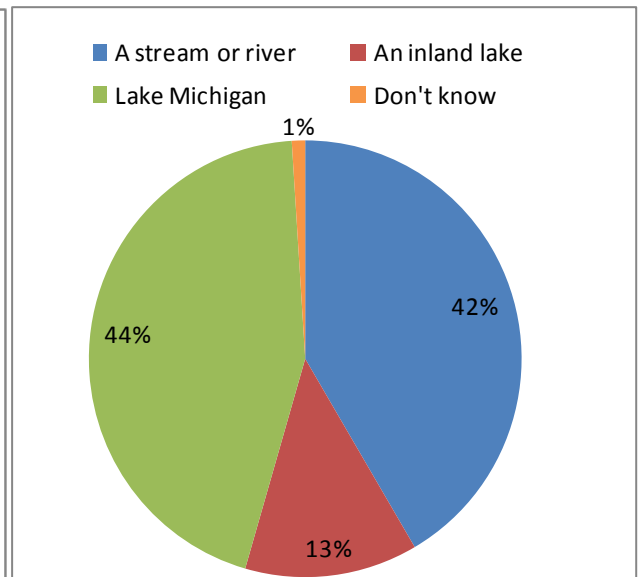


respondents don't know where that stormwater goes once it leaves their neighborhood (Chart 3). Going "into a river or lake without being treated" is the most frequent response of residents of all counties except Milwaukee.

When asked what type of waterway is closest to their home, the most frequent response was "Lake Michigan," including 32% of Waukesha County residents (Chart 4). In all counties except Milwaukee and Washington, more people answered, "A stream or river" than any other option. In Milwaukee County, more people offered, "Lake Michigan," while in Washington County more report living closest to an inland lake.

Interestingly, despite the large portion of respondents who report living closest to an inland lake, river, or stream, the portion of people who have been out on the water in the past year was relatively low, as discussed on the following page.

**Chart 4: What is the closest body of water to your home?**



### Water-based recreation

**Chart 5** shows the percentage of survey participants that have participated in several water-based recreational activities over the past year. The only activity in which more than half of respondents have participated is “walking, bird-watching or appreciating nature near a river, lake or stream.”

This was the only survey question in which age is a significant explanatory variable. Those over age 60 are less likely to have participated in any of these activities. Even among the younger age groups, however, with the exception of beach-going among 65% of 18-39 year olds, none of the activities have been conducted by a majority of people over the past year.

In addition, less than a fourth of respondents (23%) agree that “rivers and lakes are an important part of my family’s recreational activities.”

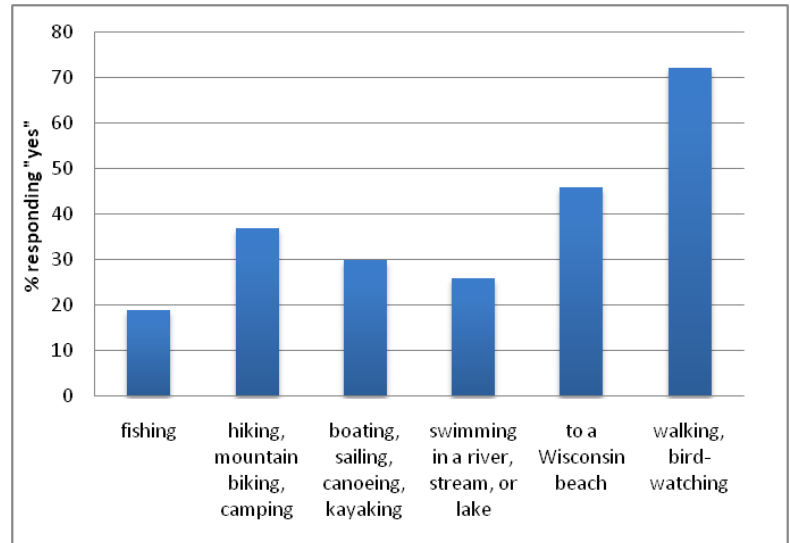
Opinions on the other questions in the survey do not vary significantly according to participation in water-based recreational activities, indicating that participation in these activities is not related to opinions or perceptions of water issues.

### Water quality perceptions and concerns

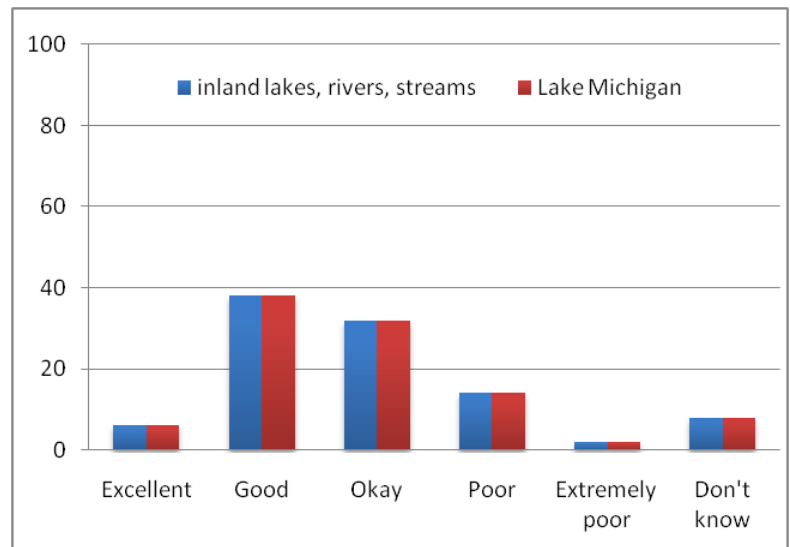
When asked to judge water quality on a five-point scale, with 5 representing “excellent” and 1 representing “extremely poor,” 76% of respondents judge the region’s water quality to be okay or better (**Chart 6**).

Specifically, “the quality of water in the inland lakes, rivers, and streams in southeastern Wisconsin,” averages 3.3 among respondents, as does “the quality of water in Lake Michigan.” Both inland waters and Lake Michigan average highest scores from Ozaukee County residents and lowest scores from Milwaukee County residents. African-American respondents award the lowest scores among all sub-groups of respondents, rating both

**Chart 5: Over the past year, have you gone...**



**Chart 6: Perceptions of water quality**



types of waters slightly below average at 2.95.

**Table 2** shows a list of possible future water problems in the region. Sewer overflows, water quality in surface waters, and water quality in ground water rank first, third, and fourth most concerning. Thus, despite feeling the current water quality in the region is slightly above average, most respondents are concerned water quality will be a problem in the future. Flooding also ranks high in the list of possible problems.

**Table 2: Which of the following will be a water problem for southeast Wisconsin during the next decade? Will ... be a problem?**

% responding "yes"	
sewer overflows into Lake Michigan	80
flooding	71
water quality in lakes and rivers	66
water quality in underground water sources	57
climate change	46
water shortages or low water levels	45
water availability for new commercial or housing developments	45

Interestingly, the concern about water quality is not reflected in respondents' opinions about the value of clean water to the region. Just 14% of respondents agree that "the quality of water affects property values in my community" and just 4% agree that "water is a key part of the region's economic vitality."

### Water pollution sources

Concern about sewer overflows remained high when respondents were asked about various contributors to water quality problems. A large majority of respondents feel sewer overflows are a major problem (**Table 3**). Also ranking high among the list of problems is "industrial waste discharged into waterways." These two contributors are forms of *point source* pollution, as they cause pollution to enter waterways at a specific point and come from a specific source.

*Non-point source* pollution in the form of "runoff after rain or snow" is seen as less of a problem. Soil erosion also is considered a minor problem, as is waste from pets and geese.

None of the factors probed in the survey are viewed as *not* contributing to water quality problems by a majority of respondents.

**Table 3: To what extent do the following contribute to water quality problems in rivers, streams, and lakes in your community?**

% responding...	major contributor	minor contributor
discharge or overflow from sewage treatment plants or deep tunnels	71	21
improper disposal of used motor oil, antifreeze, or other hazardous household wastes	53	35
fertilizers and pesticides from lawns	49	39
industrial waste discharged into waterways	64	23
runoff after rain or snow melt from streets, rooftops, driveways, and parking lots	39	48
flushing unwanted or expired prescription drugs down the toilet or drain	49	37
fertilizers, such as manure, and pesticides from farms	53	32
pet waste, geese droppings, or other animal waste	29	55
air pollution from industries and power plants	42	41
soil erosion from construction sites	31	49
soil erosion from farmland	28	52

As a follow-up to this question, perceptions of non-point source pollution were tested by asking the extent to which stormwater runoff contributes to water quality problems in the region (**Table 4**, next page).

The problem for which the most respondents view stormwater as a *major* contributor is not a water quality problem, but flooding (**Table 4**). About half of respondents, however, also see stormwater runoff as a major contributor to several water quality problems: weed and algae growth in waterways, bacteria and viruses in waterways, making local fish less safe to eat, beach closings, and negative impacts on fish habitats. Of all the problems probed, only the question of increased temperatures in lakes and streams resulted in a significant (12%) portion of respondents answering “don’t know.”

Concerns about flooding echo throughout the survey responses and may be related to the fact that roughly half of all respondents agree with the statement, “Basements in my neighborhood are likely to flood during a major storm.” When the opinions of flood-prone respondents are compared to those who do not agree that their neighborhood is likely to flood, however, there is not a statistically significant difference in opinion.

### Effectiveness of government action

While the majority of respondents do not see government actions to protect the region’s water sources as being “very effective,” most do believe these actions are at least “somewhat effective.”

In contrast to respondents’ relatively minor concern about soil erosion (**Table 3**), government efforts to combat erosion by regulating construction and vegetation along stream banks and lake shores are seen as quite effective (**Table 5**).

Regulations to protect and restore wetlands also are seen as highly effective by about half of respondents, as are efforts to prevent or remove invasive aquatic species.

Efforts to combat non-point source pollution from salt- and pesticide-laden stormwater runoff

**Table 4: To what extent does stormwater runoff from populated land contribute to each of the following problems?**

% responding...	runoff is major contributor	runoff is minor contributor
flooding	63	26
weed and algae growth in rivers and lakes	52	34
making local fish less safe to eat	53	31
delivery of bacteria and viruses into rivers and streams	53	30
negative impacts on habitat for other wildlife	42	39
beach closings and swimming advisories	50	31
negative impacts on fish habitats	47	33
poor quality drinking water	41	37
increased temperatures in lakes and streams	26	44

are viewed as effective, but not necessarily “very effective.” Requiring developers to reduce the amount of hard pavements in their projects is deemed effective by just over half of respondents. Finally, about half of respondents see using increased water fees as an effective way to fund water quality improvements.

When asked whether they agree that “Southeast Wisconsin is a leader in water resource protection,” more than a fourth of respondents say they do not know. Half of respondents feel the region is not a leader in this area (**Chart 7**).

**Table 5: How effective are the following types of policies or actions by local governments in helping protect your community's lakes, rivers, and streams?**

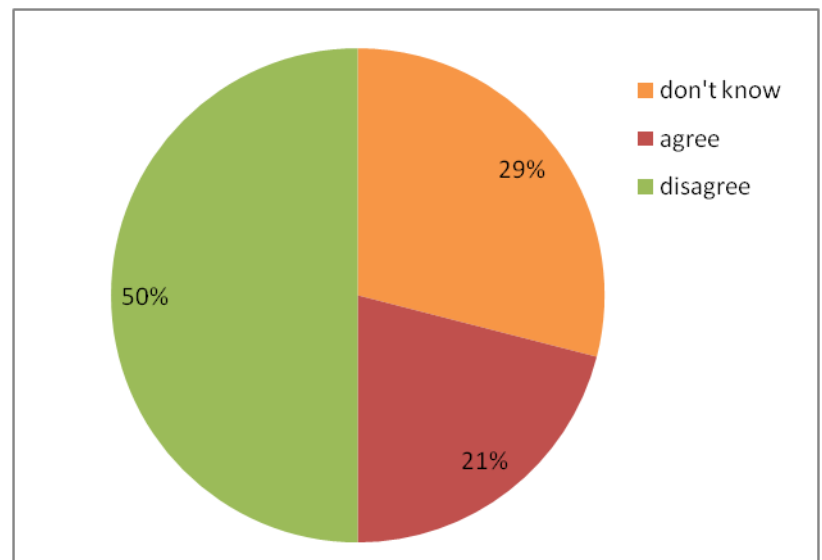
% responding...	very effective	somewhat effective
requiring building crews to prevent soil erosion during construction	45	39
requiring natural vegetation along river and stream banks	47	36
reducing use of salt on roads and highways	40	41
frequent street sweeping and leaf and yard waste collection	38	42
restricting new construction on wetlands or open spaces	47	32
restoring damaged wetlands	47	32
preventing or removing invasive aquatic species in rivers and lakes	45	30
offering tax incentives to encourage homeowners to use less water	31	36
requiring developers to reduce hard surfaces, by using narrower streets, porous pavement, or green roofs	28	39
increasing homeowners' water fees to fund water quality improvements	16	39

### Effectiveness of individual actions

The survey also asked a series of questions to gauge respondents' views on the effectiveness of individual actions to address water quality and water resource issues, as well as their participation or willingness to participate in such actions.

**Tables 6-8** on the following pages highlight respondents' views.

**Chart 7: "Southeast Wisconsin is a leader in water resource protection"**



**Table 6: How effective are the following types of actions by citizens like yourself in helping protect your community's lakes, rivers, and streams?**

<b>% responding...</b>	<b>very effective</b>	<b>somewhat effective</b>
participating in river or beach clean-up days	54	37
reducing the amount of pesticides, fertilizer and weed killer used on the garden or lawn	54	36
conserving water at home by using efficient appliances and fixtures	55	33
cleaning up pet waste	51	34
reducing the amount of salt used in the winter	43	41
participating in river and wetland restoration projects	47	37
conserving water at home by using less for household tasks	43	39
composting leaves and yard waste and leaving grass clippings on the lawn	42	40
installing a rain barrel or rain garden to collect rain from the downspout	39	37
repairing or replacing privately-owned lateral lines running from the house to the street sewer	44	32
using less water at home during major storms	35	36

**Table 7: Which of these actions do you do, or are you willing to do?**

<b>% responding...</b>	<b>already do it</b>	<b>willing to do it</b>	<b>need more info</b>	<b>not willing to do it</b>
participating in river or beach clean-up days	10	37	16	30
reducing the amount of pesticides, fertilizer and weed killer used on the garden or lawn	58	16	4	4
conserving water at home by using efficient appliances and fixtures	69	20	3	5
cleaning up pet waste	45	6	1	3
reducing the amount of salt used in the winter	53	18	4	10
participating in river and wetland restoration projects	9	35	20	29
conserving water at home by using less for household tasks	71	17	4	7
composting leaves and yard waste and leaving grass clippings on the lawn	60	12	4	7
installing a rain barrel or rain garden to collect rain from the downspout	16	31	15	23
repairing or replacing privately-owned lateral lines running from the house to the street sewer	9	15	25	17
using less water at home during major storms	52	26	9	8



**Table 8: Respondents' actions versus respondents' feelings on effectiveness**

	% responding...		ranked by...	
	effective	already do/ willing to do	effectiveness	action
participating in river or beach clean-up days	91	47	1	8
reducing the amount of pesticides, fertilizer and weed killer used on the garden or lawn	90	74	2	4
conserving water at home by using efficient appliances and fixtures	88	89	3	1
cleaning up pet waste	85	51	4	7
reducing the amount of salt used in the winter	84	71	5	6
participating in river and wetland restoration projects	84	44	5	10
conserving water at home by using less for household tasks	82	88	7	2
composting leaves and yard waste and leaving grass clippings on the lawn	82	72	7	5
installing a rain barrel or rain garden to collect rain from the downspout	76	47	9	8
repairing or replacing privately-owned lateral lines running from the house to the street sewer	76	24	9	11
using less water at home during major storms	71	78	10	3

On the whole, most survey respondents feel specific actions taken by individuals are at least somewhat effective in protecting local waterways. Meanwhile, roughly half of respondents feel actions such as river/beach clean-up days, reducing pesticide use, using water-efficient household appliances, cleaning up pet waste, and river/wetland restoration projects are very effective ways to protect local water resources (**Table 6**).

Actions seen as less effective include use of rain barrels and using less water at home during major storms.

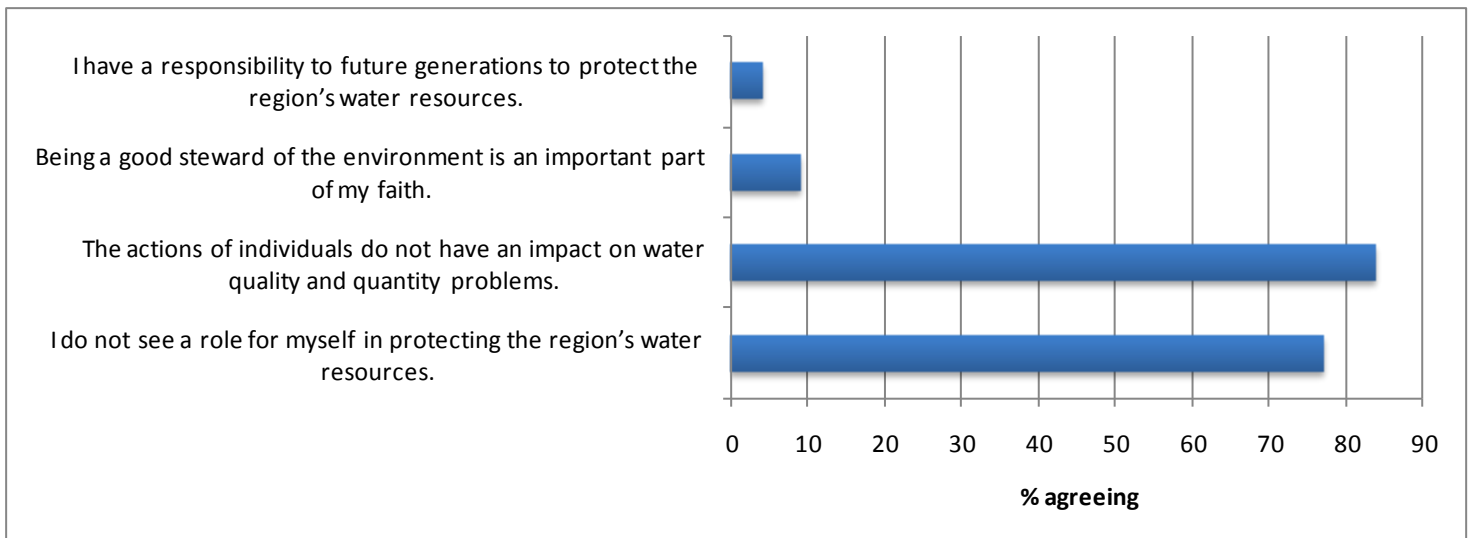
Respondents also were asked whether they currently perform any of these actions and, if not, whether they might be willing to do so. In general, most respondents are willing take action to protect local waterways (**Table 7**). The actions they are willing to take are not necessarily those they deem

most effective, as shown in **Table 8**. For example, despite seeing participation in river and beach clean-up days as a very effective action, less than half of respondents say they do so, or are willing to do so.

Actions that do align with perceptions of effectiveness include two aimed at reducing non-point pollution: reducing use of pesticides/fertilizer and reducing use of salt. In addition, using water-efficient appliances at home is seen as both effective and doable.

Actions seen as both less effective and less doable include two that would combat non-point source pollution in stormwater runoff (reducing yard waste and using rain barrels) and one that would combat sewer overflows (repairing sewer lateral lines).

**Chart 8: Opinions about individual responsibility**



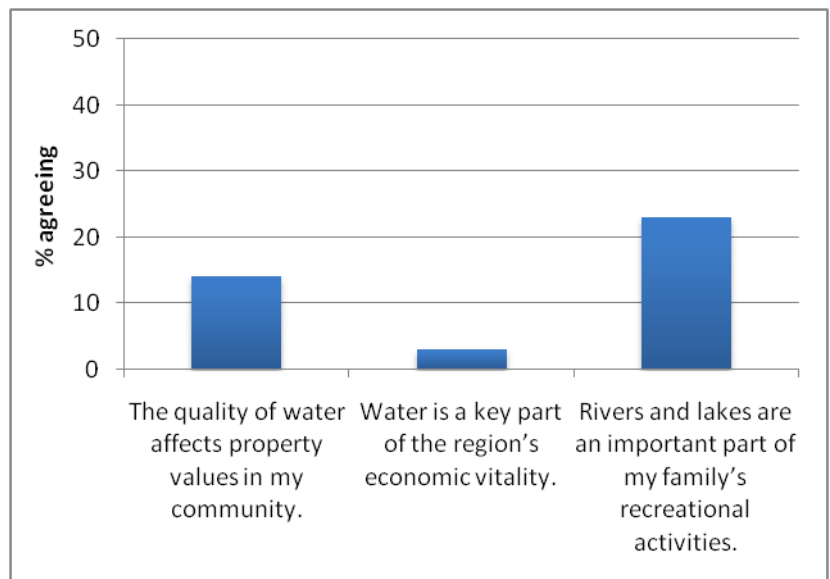
**Values**

The general mismatch between effectiveness and actionability may not be surprising given the responses to several questions aimed at measuring respondents' sense of individual responsibility toward water resource protection.

**Chart 8** shows most respondents do not feel a responsibility to future generations to protect the region's water resources, and that being a good steward of the environment is not an important part of their faith. In addition, most respondents say the actions of individuals do not have an impact on water problems, and they do not see a role for themselves in protecting the region's water resources.

These responses may be explained by respondents' feelings toward water as a regional amenity. **Chart 9** shows that few respondents see water quality as having an impact on property values or as a key part of the region's economy. More respondents—but still less than a quarter—indicate rivers and lakes are important to their family life.

**Chart 9: Opinions about water's value**



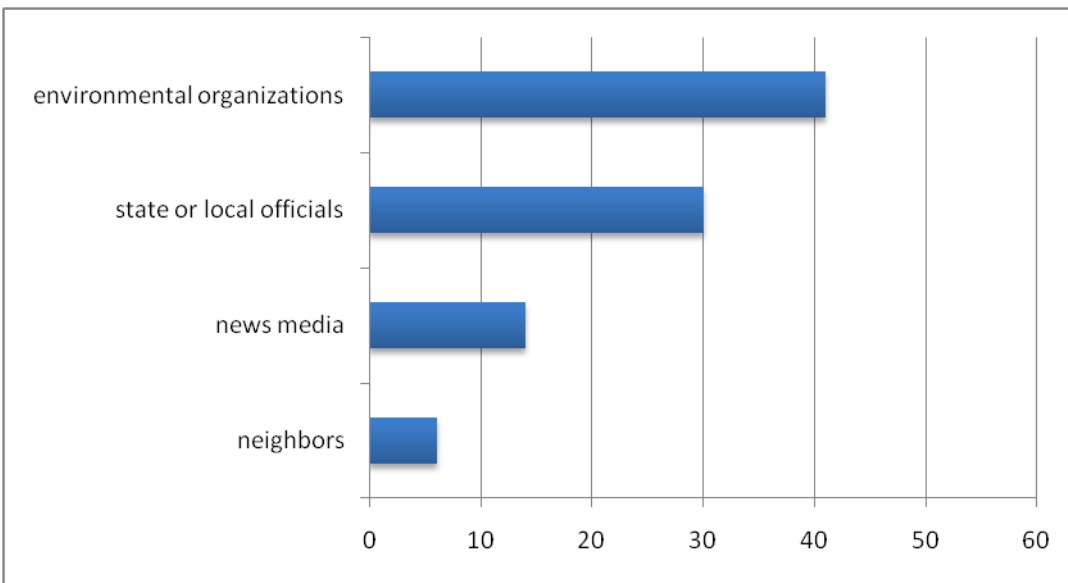
**Sources of information**

The low value placed on water resources by survey respondents may present an important opportunity for environmental and conservation groups. Such groups garner substantial trust as a source of information about water issues. State and local officials also are seen as reliable sources

of information by roughly a third of respondents (**Chart 10**).

With regard to how respondents seek information on water issues, a majority indicate they are most likely to seek such information on the Internet (**Chart 11**).

**Chart 10: Of the following, who do most trust for information about water issues and water resources?**



**Chart 11: Of the following, where would you be most likely to look for information on water and other environmental issues?**

