



Yellow River Headwaters Watershed Citizen Awareness Campaign

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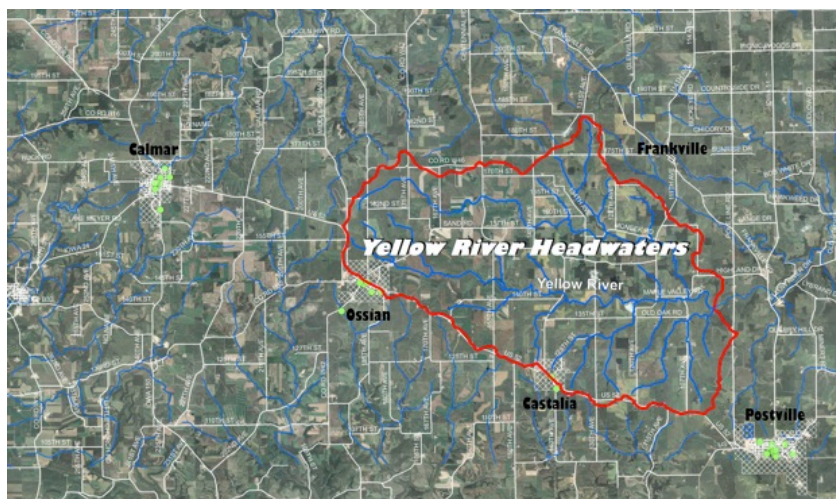
Background

Located in Winneshiek and Allamakee counties, Yellow River Headwaters is a 26,730-acre watershed in northeastern Iowa. Ossian (pop. 800) and Castalia (pop. 150) are located within the Yellow River Headwaters watershed.

“The Yellow River Headwaters is the gateway to the largest trout stream in the state of Iowa with roughly 22 miles of trout friendly waters. The Yellow is heavily utilized for canoeing, kayaking, camping, but is mostly known for its angling opportunities of trout and smallmouth bass” (*Watershed Projects in Iowa – Keeping land productive, water cleaner*, Iowa Department of Agriculture and Land Stewardship, 2009, and Winneshiek County Soil & Water Conservation District: http://www.winneshiekswcd.org/Watershed_Projects.html). While the Headwaters itself is not known for trout fishing, the overall health of the Yellow River and the health of its fish populations begins in the Headwaters.

The Iowa Department of Natural Resources 303(d) list of impaired water bodies indicates the Yellow River Headwaters’ impairments include sediment, excess bacteria, ammonia, phosphate, nitrate and nitrite. According to Corey Meyer, Yellow River Headwaters watershed project coordinator, there were four fish kills in the headwaters during the summer of 2011 due to livestock issues. Ongoing assessment of the land area and testing of the water will determine the best management practices for the watershed.

A survey was mailed in June 2011 to all watershed residents assessing their perceptions and understandings of water quality issues. Of the 91 returned surveys, respondents indicated that livestock operations (61%, n=56), row crop production (54%, n=49) and streambank erosion (23%, n=21) were the main causes of poor water quality in the Yellow River Headwaters watershed.



Goals/Strategies

The Winneshiek Soil and Water Conservation District has been carrying out watershed work for twenty years, and began a water quality improvement project specifically for the Yellow River Headwaters watershed in 2009. Their project goals include reducing livestock access to the stream by 75% and decreasing bacteria loading by 35%. This outreach campaign will work in harmony with these goals, building a culture of conservation among the residents of Yellow River Headwaters watershed (see http://www.winneshiekswcd.org/Watershed_Projects.html).

Survey results indicate that watershed residents are generally aware of what is contributing to the poor water quality within their watershed; however, this campaign seeks to educate all residents--not just landowners--about the importance of water quality and to inspire them to care for Yellow River. This will ultimately require changes in habits and practices. The changes made can eventually remove Yellow River Headwaters from the Iowa Department of Natural Resources 303(d) list of impaired water bodies and ensure the health of the largest trout stream in Iowa.

Overarching goals of this outreach campaign include the following: increase awareness of poor water quality of Yellow River Headwaters watershed, inform area residents of necessary improvements within the watershed and inspire residents to feel greater ownership in the river's water quality.

After visiting with watershed residents (particularly in Ossian and Castalia), Winneshiek SWCD Commissioners, Yellow River Headwaters watershed coordinator and team members, it is suggested that Calmar and Postville be included in this campaign, even though these communities are geographically located outside the Yellow River Headwaters watershed. Many Yellow River Headwaters watershed residents travel to Calmar and Postville for various social and athletic activities. South Winneshiek Elementary and Middle School are in Ossian. South Winneshiek High School and Northeast Iowa Community College are located in Calmar. While these communities exist outside of the geographic watershed boundaries, the "humanshed" is indeed larger and certainly includes not only Ossian and Castalia, but also the surrounding communities of Calmar, Postville, and in some aspects, Decorah.

The suggested outreach tools, outlined in the following pages, will function together to communicate the messages of this watershed improvement project. These tools should act as a means to unite and empower the *community* so that they can make change happen as a *watershed community* to restore the water quality in Yellow River.

Watershed Leadership Team

The existing Yellow River Headwaters watershed advisory board guides the watershed improvement project, striving towards its goals of improving water quality and building a culture of conservation. With twenty years of background in watershed project work, the Winneshiek Soil and Water Conservation District brings valuable experience to the table for the Yellow River Headwaters watershed project. Combined with watershed coordinator Corey Meyer's extensive experience and technical expertise, this group has a strong leadership base. The Yellow River Headwaters' November 2011 newsletter states, "Remember we are looking for folks that are interested in being on the advisory board." To make this advisory board as well rounded and representative as possible, it is recommended that new members include at least one non-farmer resident and one female resident. Furthermore, it is strongly recommended to invite the county sanitarian and local or regional economic development personnel to sit on this advisory board. Clean water builds positive economic growth, and these individuals would bring a unique perspective to the watershed advisory board. We also suggest inviting a member of the Winneshiek County Cattlemen to the board since one of the goals is to reduce livestock access to streams. Finally, the Department of Natural Resources Fisheries Biologist, Bill Kalishek, should be a part of the advisory board.

Branding Elements

Core branding elements for the watershed awareness campaign should be created to support this plan. To accomplish this, the following elements will need to be developed and implemented:

- **Logo:** The existing logo for the Yellow River Headwaters project was developed in 2009. The logo is graphically interesting, and ties together many recognizable local features, including the oak savannas, the Yellow River water body and the rolling hills of northeast Iowa.



Several variations based upon the existing logo are proposed. The first logo reflects the many positive aspects of the existing logo, with minor modifications to direct additional emphasis to the water body.



These modified logos – shown in full color and grayscale -- provide options that can be used in different places based upon varying printing capabilities. For instance, a grayscale logo may be most appropriate for a newspaper story or advertisement. Road signage may call for varying sizes of logos – some signs may be better suited to a vertical layout while a horizontal layout may be more appropriate for others. These logos are intended to simply provide the watershed project team with options to fit the needs that may arise in print and publication, and to complement the existing watershed logo that has been in use and is highly recognizable in the area.





- Campaign Slogan: **“Improving water quality now and for the future”** or **“A Healthy River Begins with Us.”**

The slogan can be included on all of the components of the campaign in conjunction with one of the watershed identification logos.

Marketing Materials

Several different marketing media will be utilized in the campaign to align with what survey respondents indicated they would use.

One survey question asked, “Of the learning opportunities available, which would you be most likely to take advantage of for water quality issues?” The highest response was the use of printed fact sheets or brochures (56%, n=51), followed by “looking at a demonstration or display” (32%, n=29) and a website (30%, n=27). The campaign will incorporate all three of these learning opportunities to help educate watershed residents.

Another survey question asked, “Have you ever changed your mind about an environmental issue as a result of...”. The highest responses indicated were “firsthand observation” (52%, n=47), “concern about the future for your children/grandchildren” (41%, n=36) and “conversations with other people” (39%, n=35). This campaign takes these responses into account as well, offering a targeted campaign to educate citizens and promote water quality in ways that will be most effective to local residents.

Support Resources

An informational brochure will be developed to generate interest about the watershed, the project and its goals. The language and images used in the brochure, and all appropriate materials, will emphasize the importance of water quality for residents, and their children and grandchildren—the future. This brochure will be available at Winneshiek Co. and Allamakee Co. SWCD/NRCS and Extension offices, Postville and Decorah Chamber of Commerce offices, and in brochure racks and at local retail sites. Public libraries in Ossian, Calmar and Postville are another great avenue for distributing print materials and promoting the watershed project in general.

Regular press releases will continue to be sent to area newspapers, including the *Ossian Bee*, *Calmar Courier*, *Postville Herald* and *Decorah Journal/Public Opinion*. These press releases will feature the voices of watershed coordinator Corey Meyer, Winneshiek SWCD commissioners, watershed residents and Northeast Iowa RC&D personnel, and will support all of the materials and events surrounding the Yellow River Headwaters watershed project. The press releases will not only contain information about events, activities and resources, but will also have the occasional human-interest story. Ideas for the human-interest stories will include personal stories about the Headwaters usage or a feature concerning a landowner who has changed their practices and are making a difference. The more multi-generational the stories, the more effective they will be in inspiring others to care and change.

Website

A Yellow River Headwaters campaign website should be created which will be easy to edit and update so people involved in the project can make necessary changes to any information, such as water quality testing and findings, as the project advances.

The website will contain general information about the watershed, what can be done to improve water quality, and where residents can find more information. Topics to include on the website: benefits of no-till/strip-tillage crop management, cover crops, streambank erosion mitigation, water quality benefits of fencing area cattle to keep them out of local streams, and how to build a rain barrel or construct a rain garden at home.

The website will also contain a page specifically for kids, where they can access activities such as easy-to-create hands-on experiments to do at home, pages to print and color, and a crossword puzzle about water quality. This will provide an opportunity for the next generation to get involved and be engaged in local water quality issues.

There is an existing page titled “Yellow River Watershed Initiative” on the Northeast Iowa RC&D website (<http://northeastiowarcd.org/yrw/index.html>). This initiative includes the entire Yellow River watershed, which includes the Headwaters watershed. There is nothing on this site that focuses exclusively on the “Yellow River Headwaters.” Although there is good information on the larger watershed, the site has not been updated since 2007. Creation of a specific Headwaters section is recommended, as well as eventually linking to the updated Yellow River Headwaters individual website.

Fact Sheets/Utility Bill Inserts

A series of fact sheets will be created and mailed to the entire watershed every three months as an insert with their utility bill. The Yellow River Headwaters watershed project currently publishes a quarterly newsletter that is four pages long. The newsletter seems to be an effective means of communicating with landowners about opportunities available to them for increasing

conservation on their land. The fact sheets are not meant to replace the newsletter. The fact sheets will be only two pages (front and back) and will be geared toward all residents of the watershed and not just landowners.

The fact sheet inserts should contain information about the project, progress updates and information about project challenges and proposed solutions. The fact sheets will direct community members to the website and offer contact information for an expert who can answer questions or offer insight on utilizing best management practices. The inserts should discuss seasonal trends in water quality and how practices contribute differently during different times of the year. They should also include short profiles of watershed residents making changes to their land for future generations.

Survey respondents indicated that they would be likely to utilize printed fact sheets and/or brochures as a way to learn about water quality issues. By placing the fact sheet in a utility bill, there is more opportunity that it will be read and create a connection between their water bill and water quality. These fact sheets will focus on the community aspect of the Yellow River Headwaters project, featuring a local resident in each issue. In addition, the fact sheets will target the variety of water quality impairments in the Yellow River Headwaters, educating residents about possible causes and solutions, connecting water quality with land management decisions within the watershed.

Suggested topics for the quarterly fact sheets include:

Quarter 1:

- Yellow River Headwaters Watershed Improvement Project involvement opportunities
 - Attend public watershed events
 - Assist in planning the public watershed events/volunteer time to speak about water quality experiences
- Possibilities for conservation practices on residents' land
- Long term goals for the project
- Resident feature/profile

Quarter 2:

- Nutrient Management and Bacteria
 - Nutrient management from urban and rural perspectives
 - Details on bacteria effects on human and animal health
 - Sources of bacteria (urban and rural contributions) within the watershed and proposed solutions
- Watershed project goals
- Resident feature/profile

Quarter 3:

- Managing Soil Erosion
 - Streambank erosion within the watershed and proposed solutions

- Erosion from farmland in the watershed and proposed solutions
- Environmental impacts of sediment in Yellow River Headwaters
- Economic value of soil
- Progress made thus far and watershed project goals
- Resident feature/profile

Quarter 4:

- Urban Storm Water
 - What is the physical pathway of storm water in the watershed? Where do storm sewers lead?
 - Impairments resulting from urban storm water and proposed solutions (large scale)
 - Urban conservation practices and how they can be utilized – reinforce existing rain barrel program and expand on other opportunities
- Resident feature/profile
- Overview of watershed project goals which have been met
- Goals for the future of the Yellow River Headwaters watershed project

Golf Course Scorecards

The Silver Springs Golf Club, located in Ossian, is a popular social spot, particularly for the younger residents of the watershed. As part of the watershed outreach campaign, a special scorecard will be created in place of the traditional scorecards used on the golf course. This new scorecard will be slightly larger to include facts about the watershed project, the challenges that are being addressed, the project logo and the website address for the project.

These scorecards could be made more unique by numbering them and offering a daily drawing for a prize. The player with the corresponding number could win a complimentary beverage or other prize funded by the watershed project. The intent of the raffle is to encourage people to read the information more closely. Additional options for the scorecards could be to include a coupon as part of the scorecard, or to present their completed scorecard to receive a logo'd golf ball or pack of custom golf tees with the project information on it.

Additionally, the golf course should be encouraged to implement some appropriate conservation practices so that it can be recognized as being an environmental leader in the area.

Watershed Signage

Watershed Boundary Signs

In addition to the sequential road signs, additional signage will be placed on roads as people enter and exit the watershed, which read: “Now entering/exiting Yellow River Headwaters Watershed.” These will mark the boundaries as they exist on the landscape. It will offer a different view of the area for those who are familiar with the concept of watersheds and introduce the concept to those who are not, creating conversation pieces for those living in the watershed as well as those visiting. The signs will include the project logo, slogan and website.



Road Signs

Small signs will be placed along highways that travel through the Yellow River Headwaters watershed. (Note: The photographs included in this report are for example only, not actual or recommended locations for signage.) The signs will be reminiscent of the old Burma-Shave advertising road signs placed in groups. The first three or four signs will contain a sequential series of short phrases, with the last containing the logo and slogan for the watershed project. Each set of signs will be different, to engage people and generate curiosity about the project.

Because of the range of impairments in this watershed, signs should contain information about general water quality issues such as bacteria, excess nutrients, and also specific issues to the area, such as the effects on trout fishing.



An example of a sign series could be:

1. Want a nice green lawn?
2. Think of the river...
3. All that Phosphorus
4. Is gonna make the fish quiver!
5. Yellow River Headwaters: Improving water quality now and for the future.

Yard Signs

As community members become aware of and involved with the project, they should be acknowledged for any positive changes that they make in their land management practices. Signs will be created for people to put in their yards so that they can be recognized as good conservationists.

The signs can read:

I installed (conservation practice)
to restore Yellow River.

Improving water quality now and
for the future.

Find out more at *website.com*



These signs will be brief so that the message is transferred as travelers pass by. The goal is to motivate people to practice conservation on their land, and in turn, receive recognition for their good work. In addition to their yard sign, they will be recognized on the website, which will include their contact information (with their permission) so that community members can easily ask questions or exchange information with someone who has installed conservation practices on their own land. This will encourage residents to network with one another and strengthen community awareness of the watershed improvement project.

Watershed Resident Involvement

Commodity or Conservation Groups

Twenty-three percent of survey respondents said they get information from commodity groups. These groups can often provide additional funding that is more flexible than state/federal funds and could fund some of the more unique promotional and outreach activities. Local farmers trust the commodity group leadership who can serve as a great tool for reaching more farmers often times those with larger farming operations. The same is true with the conservation groups. For instance, Pheasants Forever is popular in northeast Iowa and watershed project leaders should explore partnering with the Winneshiek County chapter.

Area Churches and Service Groups

Fifty-two percent of survey respondents indicated that they are very active within their local church. People often use their church for idea exchange and discussion on a variety of topics, religious and nonreligious. Clean water is a human right and discussing within the church community why and how to clean up local waters would be appropriate. Water quality activities could be part of social justice activities on the part of local churches. Watershed project leaders should approach church members who are also farmers/residents in the watershed to see if they would speak to the issue at a church event.

The utility fact sheets will be adapted for inserting into church bulletins in the following area churches: Ossian Lutheran Church, Stavenger Lutheran Church (Ossian), St. Frances De Sales Catholic Church (Calmar), Zion Lutheran Church (Castalia), Calmar Lutheran Church, Trinity Lutheran Church (Calmar), St. Aloysius Catholic Church (Calmar), Calmar United Methodist Church, Calmar Bible Fellowship, St. Paul Lutheran Church (Postville), St. Bridget Catholic Church (Postville), Postville Community Presbyterian Church, Bethlehem Presbyterian Church, and Postville Lubavitch Synagogue/Jewish Resource Center.

Involving youth groups such as Boy Scouts, Girl Scouts or 4-H clubs in the watershed project helps bring awareness to the issues involving the Yellow River Headwaters to new, younger audiences. This will help engage the next generation who will be taking care of the water quality. The groups can participate in service projects that help the watershed such as trash pick up days, painting picnic tables or restrooms in an area park, etc. Furthermore, these service-oriented groups can also help with door-to-door promotion and distribution of print materials within the watershed.

Another opportunity for youth involvement would be possible through a partnership with one or more teachers at South Winneshiek and/or Postville High Schools. Design and creation of the Yellow River Headwaters watershed website could become a class project for high school students, in which the watershed coordinator and/or advisory board would serve as the client and consult with the teacher(s) and student group(s) regularly. In addition to raising students' awareness of local environmental issues, this partnership would be a great learning opportunity

for the students and would benefit the watershed project by utilizing students' computer and design skills.

High School/Community Sporting Events

Seventy-seven percent of survey respondents indicated that they sometimes or always attend local sporting events. The Yellow River Headwaters watershed project could increase its presence in the local community and generate renewed interest in project efforts through sponsorship at local sporting events. This could include booster club sponsorship at South Winneshiek and Postville High Schools, or sponsorship of local youth athletics (e.g. Little League softball/baseball or soccer leagues).

Town Festivals and County Fairs

Annual town festivals (e.g. Castalia Tractor Day, Calmar Farmers Day, Nordic Fest [Decorah], Winneshiek County Fair) provide a unique opportunity for education and promotion of the Yellow River Headwaters watershed project. These town festivals already center around pride in the local community, so expanding that sentiment to include pride in local water bodies would be very appropriate. The Yellow River Headwaters watershed project could participate through numerous means, including event sponsorship and/or setting up a booth to distribute print materials and visit with local residents.

Community Events and Field Day

Survey respondents indicated "firsthand observation" and "conversations with other people" as key motivators to changing their minds about an environmental issue. This campaign will utilize these responses by planning multiple community events to offer opportunities for watershed residents to gather together and discuss the challenges with the area's water quality issues, as well as observe conservation practices in place in their local area.

- A general awareness "kick off" event will be held to publicly launch this new phase of the Yellow River Headwaters watershed awareness campaign and watershed improvement plan. This event will be held at a convenient location within the watershed, and will be hosted by watershed coordinator Corey Meyer and other local community members who are well known and respected by area residents.
- An Iowa Learning Farms field day will be held on a watershed resident's farm who is demonstrating conservation practices that help to reduce erosion and lessen sediment entering into water bodies. The field day can offer simultaneous tracks addressing no-till/strip-till, cover crops, nutrient and manure management, rain barrels, organic gardening, etc. so that there are topics for both urban and rural residents.
- A "closing" event for the campaign should be held to celebrate the progress made within the watershed. This could be a simple ceremony to award certificates of

recognition to those who changed their practices, installed conservation structures, or contributed their time to help with the campaign.

- A community hog roast could help raise awareness of the Yellow River Headwaters project, celebrate project successes and raise funds that could help further project goals. This event could be held in conjunction with any one of the recommended events described above.

All of these events provide opportunities for watershed residents to network, learn from one another and unite as a watershed community.

The Iowa Learning Farms Conservation Station could be included at one or more of the scheduled community events. The Conservation Station is an effective tool for demonstrating how conservation land practices benefit water and soil quality and for bringing people together around conservation issues. The rainfall simulator component of the Conservation Station has an effective visual display, which demonstrates how different land practices (urban and rural) affect surface and subsurface water quality. The Conservation Station also contains a learning lab with various interchangeable lessons, allowing the conservation message to be targeted for each specific event and audience. A specific educational module tailored to the issues and challenges faced in the Yellow River Headwaters watershed could be created and displayed at one or more of these events.

Youth Outdoor Classroom

Iowa Learning Farms will coordinate and host a youth outdoor classroom day for the 4th and 5th grade students of South Winneshiek Elementary and Postville's Cora B. Darling Elementary School and Torah Education Program. A park or nature area within the Yellow River Headwaters watershed would be a good location for such an event. Alternatively, a landowner in the watershed could also host the youth on his/her property. Ideally, the event would be held in a location adjacent to the Yellow River Headwaters, to allow students to see and experience the water body in an up-close setting.

The Conservation Station will be a key component of this youth outdoor classroom day. Through fun, engaging hands-on activities, students will experience educational lessons on topics including watersheds and the impacts of land management choices on soil and water quality. This event will utilize the educational materials developed for Yellow River Headwaters, raising an appreciation for the watershed and local communities, while also raising awareness as to the water quality challenges faced in the watershed.

There would be five or six different learning stations, each with its own presenter or team of presenters. Iowa Learning Farms will work with watershed coordinator Corey Meyer to identify conservation-minded individuals or groups to lead other learning stations/group sessions during the day-long event. Examples of such partners may include Winneshiek and/or Allamakee Co. Conservation Boards, local ISU Extension and Outreach personnel, local DNR/NRCS staff, local

SWCD commissioners and local Farm Bureau personnel. Students would be divided into groups to experience the many different learning stations at the outdoor classroom. Student groups would rotate to each of the different learning stations, spending approximately 40 minutes at each stop and participating in such activities as nature hikes/scavenger hunts, fish species identification, birds and furs, geocaching, and water quality monitoring.

Time frame

First Quarter Activities	<ul style="list-style-type: none"> • Create website • General project information brochure • Utility bill/church bulletin fact sheet #1 • Golf course scorecards designed and printed • Sponsorship of high school/youth athletic events
Spring/Summer Quarter Activities	<ul style="list-style-type: none"> • Kick-off event for residents • Watershed boundary signs • Sequential roadside signs • Golf course scorecards • Town festivals • Utility bill/church bulletin fact sheet
Summer Quarter Activities	<ul style="list-style-type: none"> • Iowa Learning Farms field day • Yard signs • Town festivals • Utility bill/church bulletin fact sheet
Fall/Winter Quarter Activities	<ul style="list-style-type: none"> • Yard signs • Youth Outdoor Classroom (Oct) • Utility bill/church bulletin fact sheet • Closing event for residents

WATER ISSUES IN IOWA

Yellow River Headwaters Watershed Survey Results

Introduction

This document reports the results of a survey conducted for the *Community Assessments: Key Components to Successful Community-based Watershed Improvement Project*. This project is a collaboration between Iowa State University Extension and Outreach and the Yellow River Headwaters watershed group.

Supported by the Yellow River Headwaters watershed planning group and Iowa Department of Natural Resources Section 319 funds, the purpose of this project is to develop and test a community assessment tool. The tool can be used by watershed action teams and coordinators to better understand the community understanding of watersheds. Effective community assessments will allow watershed groups to develop goals, outreach and education regarding water quality challenges based on the values of the people living in the watershed.

The survey was based on a 2007 water issues survey administered to the four states in the Heartland Region (Iowa, Nebraska, Kansas, and Missouri). Using a similar survey, local watershed groups will be able to compare their findings to the statewide findings. Yellow River Headwaters watershed has 327 residents. The watershed coordinator, Corey Meyer, provided a complete rural watershed list to establish a mailing list for the watershed. Beacon, a web based local government GIS database, was used to create the list of Ossian and Castalia residents. All residents within the watershed (327 residents) received the survey.

The survey was conducted using a modified Dillman Tailored Design Method. A three-step process was followed consisting of 1) a first mailing of survey and cover letter explaining the purpose of the survey; 2) a reminder postcard sent two weeks later to non-respondents; and 3) a second mailing of the survey to remaining non-respondents.

Of the 327 surveys that were mailed, 26 were undeliverable, and 91 were completed and returned. As a result, the overall response rate was 30 percent. This response rate is lower than what was hoped for; however, the sample size is large enough to facilitate statistical analyses. Response rates are more important when the purpose of the survey is to measure effects or make generalizations to a larger population. The response rate is less important if the purpose is to gain insight and direction for outreach and education as in the case of the community assessment survey.

This report presents the tabulated results of the surveys. The tables present the questions and response categories as they were presented in the surveys. The number of responses for each question or question item is provided in parentheses.

1. What is the best definition of a watershed? (CHECK ONE BOX) (n=89)

	All
A structure that stores water	7%
An area of land that drains to a common body of water	81%
A basin to hold extra water to prevent flooding	7%
An underground water supply	5%

Water Issues (CHECK THE BEST ANSWER, UNLESS MULTIPLE ANSWERS ARE INDICATED.)

2. Where do you get your drinking water? (CHECK ALL THAT APPLY)

	All
Well (individual well or well that serves fewer than 15 residences) (n=35)	39%
Rural water system (n=2)	2%
River, stream, pond, or lake (individual system) (n=1)	1%
City water system (n=56)	62%
Purchase bottled water (n=11)	12%
Produce own with reverse osmosis (RO) system (n=3)	3%
Don't know	0%

3. Do you feel that your home drinking water is safe to drink? (n=91)

	All
Yes	93%
No	7%

4. In your opinion, what is the *quality of groundwater* (sources of well water) in your area? (n=88)

	All	Non-Farming	Farming
Good	51%	40%	66%
Fair	42%	52%	29%
Poor	1%	2%	0%
Don't know	6%	6%	5%

5. In your opinion, what is the *quality of surface waters* (rivers, streams, lakes) where you live? (n=89)

	All	Non-Farming	Farming
Good	2%	21%	27%
Fair	58%	58%	60%
Poor	11%	15%	5%
Don't know	7%	6%	8%

6. Do you know of or suspect that any of the following conditions are affecting water quality in your area?

	All	Non-Farming	Farming
High bacteria counts (n=82)			
Know	16%	17%	14%
Suspect	33%	26%	41%
Not a Problem	18%	20%	17%
Don't know	33%	37%	28%
Fertilizer/nitrates (n=84)			
Know	13%	17%	8%
Suspect	51%	54%	47%
Not a Problem	14%	9%	21%
Don't know	22%	20%	24%

Heavy Metals (e.g., lead, arsenic) (n=81)	All	Non-Farming	Farming
Know	1%	0%	2%
Suspect	14%	16%	11%
Not a Problem	32%	34%	30%
Don't know	53%	50%	57%
Hardness (e.g., calcium, other minerals) (n=85)			
Know	52%	54%	49%
Suspect	26%	24%	28%
Not a Problem	7%	5%	10%
Don't know	15%	17%	24%
Pesticides (n=85)			
Know	5%	4%	5%
Suspect	53%	64%	40%
Not a Problem	17%	9%	29%
Don't know	25%	23%	26%
Animal waste (n=86)			
Know	17%	21%	10%
Suspect	45%	45%	45%
Not a Problem	23%	17%	32%
Don't know	15%	17%	13%
Septic Systems (n=84)			
Know	7%	7%	8%
Suspect	22%	22%	21%
Not a Problem	33%	26%	42%
Don't know	38%	45%	29%
Pharmaceuticals (i.e. antibiotics, personal care products) (n=82)			
Know	2%	2%	3%
Suspect	15%	18%	11%
Not a Problem	28%	20%	38%
Don't know	55%	60%	48%

7. In your opinion, which of the following are most responsible for the existing pollution problems in rivers and lakes *in Iowa*? (CHECK UP TO 3 ANSWERS)

	All	Non-Farming	Farming
Agriculture crop production (n=50)	55%	65%	41%
Erosion from roads and/or construction sites (n=12)	13%	15%	10%
Wastes from urban areas (n=28)	31%	27%	36%
Industry (n=34)	37%	42%	31%
Wild animals/pets (n=3)	3%	6%	0%
Livestock and/or poultry operations (n=48)	53%	64%	39%
Septic systems (n=15)	17%	15%	18%
Urban stormwater runoff (n=25)	28%	21%	36%
Landfills (n=16)	18%	14%	23%
Wastewater treatment plants (n=6)	7%	8%	5%
Streambank erosion (n=23)	25%	25%	26%

8. In your opinion, which of the following are most responsible for the existing pollution problems in rivers and lakes *in your watershed*? (CHECK UP TO 3 ANSWERS)

	All	Non-Farming	Farming
Agriculture crop production (n=49)	54%	58%	49%
Erosion from roads and/or construction sites (n=7)	8%	8%	8%
Wastes from urban areas (n=17)	19%	17%	21%
Industry (n=15)	17%	21%	10%
Wild animals/pets (n=1)	1%	0%	3%
Livestock and/or poultry operations (n=56)	62%	69%	51%
Septic systems (n=18)	20%	14%	28%
Urban stormwater runoff (n=16)	18%	12%	26%
Landfills (n=16)	18%	15%	21%
Wastewater treatment plants (n=6)	7%	8%	5%
Streambank erosion (n=21)	23%	23%	23%

9. Do you know where water goes that falls onto your land or yard? (CHECK ALL THAT APPLY)

	All
Storm drain and then straight to the river (n=10)	11%
Directly into a nearby creek (n=30)	33%
Roadside ditch and then stream or river (n=27)	30%
It gets absorbed into the land (n=66)	73%
Don't know (n=4)	4%

Soil Erosion Issues

10. Do you have any soil erosion on your property? (n=89)

	All	Non-Farming	Farming
None	46%	66%	21%
A little	46%	28%	70%
Moderate	6%	4%	8%
A lot	2%	0%	0%
Don't know	0%	2%	3%

11. What are some of the ways that you try to prevent or fix soil erosion on your property? (CHECK ALL THAT APPLY)

	All
Continuous no-till or strip-till (n=16)	18%
Leaving vegetation on the ground in garden (n=24)	26%
Following the natural contours of the land (either farmland or in landscaping) (n=42)	46%
Planted windbreaks (n=17)	19%
Grassed waterway or grass strip around garden (n=45)	50%
Placing mulch on all exposed soil on land (n=13)	14%
Use of native plantings to protect streambanks (n=12)	13%
Cover crops (n=18)	20%
We don't do anything (n=8)	9%
Not applicable (n=15)	17%

12. Have you or someone in your household done any of the following as part of an individual or community effort to conserve water or preserve water quality in the last five years?

(CHECK ALL THAT APPLY)

	All
Changed the way your yard is landscaped (n=17)	19%
Reduced your water consumption (i.e. stopped watering lawn) (n=25)	28%
Reduced your use of pesticides, fertilizers or other chemicals (n=32)	35%
Increased residue on row crop acres (n=23)	25%
Addressed erosion on your land (n=31)	34%
Pumped your septic system (n=16)	18%
Tested your drinking water (n=22)	24%
Other _____	

Governance

13. In your opinion, does the environment receive the right amount of emphasis from government and elected officials in your community? (CHECK ONE ANSWER) (n=89)

	All	Non-Farming	Farming
Not enough emphasis is placed on environmental protection	21%	28%	13%
Environmental protection receives about the right amount of emphasis	40%	31%	53%
Too much emphasis is placed on environmental protection	15%	10%	21%
Don't know	24%	31%	13%

14. In your opinion, who should be most responsible for protecting water quality in your community? (SELECT ONE) (n=88)

	All	Non-Farming	Farming
Environmental Protection Agency (EPA)	7%	12%	0%
Natural Resources Conservation Service (NRCS)	4%	2%	6%
Iowa Department of Agriculture and Land Stewardship (IDALS)	3%	2%	6%
Iowa Department of Natural Resources (IDNR)	5%	10%	0%
Local Soil and Water Conservation District (SWCD)	18%	19%	17%
Your county, city, or town	15%	21%	3%
Individual citizens without land	1%	0%	0%
Landowners	40%	25%	67%
Don't know	5%	10%	0%
Other: All of the above	3%	2%	5%
Not IDNR	1%	1%	0%

15. How well do you feel each one of these groups is **fulfilling their responsibility** for protecting water quality in your community? (CIRCLE ONE ANSWER PER GROUP. LEAVE IT BLANK IF YOU “DON’T KNOW.”)

						Responses given in average rating		
						All	Non-Farming	Farming
	<i>Very Well</i>	<i>Well</i>	<i>Okay</i>	<i>Poorly</i>	<i>Very Poorly</i>			
Federal government (EPA, NRCS) (n=70)	5	4	3	2	1	2.90	2.92	3.06
State government (DNR, IDALS) (n=71)	5	4	3	2	1	2.99	2.92	3.06
Your county, city, or town govt. (n=73)	5	4	3	2	1	2.96	2.90	3.03
Soil and water conservation district (SWCD) (n=75)	5	4	3	2	1	3.47	3.26	3.73
Your community (n=75)	5	4	3	2	1	3.09	3.00	3.21
The landowners (n=77)	5	4	3	2	1	3.31	2.86	3.86
Individual citizens (n=74)	5	4	3	2	1	3.04	3.83	3.30

Water Quality Education

16. Have you received water quality information from the following sources?

(CHECK ALL THAT APPLY)

	All	Non-Farming	Farming
Television (n=33)	36%	46%	23%
Internet (n=23)	25%	29%	21%
Newspapers (n=47)	52%	48%	56%
Radio (n=30)	33%	29%	39%
Extension Service (n=35)	39%	25%	56%
Iowa Learning Farms (n=9)	10%	10%	10%
Universities (n=13)	14%	14%	15%
Schools (elementary and secondary) (n=8)	9%	14%	3%
Agricultural trade/commodity groups (n=21)	23%	10%	41%
Environmental agencies (government) (n=27)	30%	17%	46%
Environmental agencies (citizen groups) (n=12)	13%	10%	18%

17. Would you like to learn more about any of the following water quality issue areas?
 (CHECK ALL THAT INTEREST YOU)

	All
Agricultural water management on row crop acreages (n=23)	25%
Animal manure and waste management (n=18)	20%
Drinking water and human health (n=35)	39%
Environmental restoration (n=10)	11%
Nutrients and pesticide management (n=14)	15%
Pollution assessment and prevention (n=11)	12%
Water conservation (n=13)	14%
Water policy and economics (n=5)	6%
Watershed management (n=26)	29%
Private well and septic system management (n=17)	19%
Small acreage water and land management (n=8)	9%
Home and garden landscaping for water quality (n=18)	20%
Other: Making rain barrels	1%
Ethanol plants effect on water	1%
Smell from hog farms	1%

18. Have you ever changed your mind about an environmental issue as a result of:
(CHECK ALL THAT APPLY)

	All	Non-Farming	Farming
News coverage (TV, newspapers, Internet, etc.) (n=20)	22%	29%	13%
Field days (n=14)	15%	6%	28%
Conversations with other people (n=35)	39%	33%	46%
Attending public meetings or participating in volunteer activities (n=6)	7%	2%	13%
Classes or presentations (n=14)	15%	19%	10%
Speech by an elected representative (n=1)	1%	0%	3%
Firsthand observation (n=47)	52%	42%	64%
Financial considerations (n=13)	14%	8%	23%
Concern about the future for your children/grandchildren (n=36)	40%	40%	39%

19. Of the following kinds of learning opportunities available, which would you be most likely to take advantage of for water quality issues? (CHECK UP TO 3 ITEMS)

	All	Non-Farming	Farming
Read printed fact sheets, bulletins, or brochures (n=51)	56%	56%	56%
Visit a website for information and tips (n=27)	30%	33%	26%
Look at a demonstration or display (n=29)	32%	25%	41%
Watch a video (n=20)	22%	19%	26%
Volunteer in a one-time learning activity (e.g. water monitoring, streamside restoration or education) (n=2)	2%	0%	5%
Take a course for certification or credit (n=4)	4%	6%	3%
Get trained for a regular volunteer position (e.g. as a watershed steward or a water quality monitor) (n=3)	3%	2%	5%
Ask for a home, farming, or workplace water practices assessment (n=12)	13%	6%	23%
Attend a fair or festival (n=14)	15%	21%	8%

20. Are you now participating, or have you participated in any of the following activities in the last five years? (CHECK ALL THAT APPLY)

	All
Master Gardener program (n=1)	1%
Volunteer water quality monitoring (n=8)	9%
Lake or river protection groups (n=4)	4%
Town conservation commissions (n=1)	1%
Other water or environmental protection groups (n=8)	9%

Please answer the following as they pertain to you

21. Where do you live? (n=91)

	All
Inside city limits, not engaged in Farming	46%
Outside city limits, not engaged in Farming	11%
Inside city limits, currently engaged in Farming	13%
Outside city limits, currently engaged in Farming	30%

22. Approximately what is the population of your community? (n=73)

Average 700

23. How long have you lived in in your area? (n=88)

Average 40 years

24. To what extent are you currently active in your local community?

	All
Frequent local shops and restaurants (n=78)	
<i>Never</i>	8%
<i>Sometimes</i>	46%
<i>Always</i>	46%
Attend local sporting events (n=78)	
<i>Never</i>	23%
<i>Sometimes</i>	62%
<i>Always</i>	15%
Active member of local church (n=86)	
<i>Never</i>	8%
<i>Sometimes</i>	40%
<i>Always</i>	52%
Participate in local social clubs (n=71)	
<i>Never</i>	30%
<i>Sometimes</i>	55%
<i>Always</i>	15%
Participate in environmental/garden club (n=64)	
<i>Never</i>	70%
<i>Sometimes</i>	30%
<i>Always</i>	0%
Attend school events (n=77)	
<i>Never</i>	18%
<i>Sometimes</i>	61%
<i>Always</i>	21%

25. What is your gender? (n=90)

	All
Male	78%
Female	22%

26. What is your age? (n=90)

Average of 58 years old (range of 25-86)

27. How many people live in your household? (n=91)

# of individuals	Individuals 18 and over	Individuals under 18
0	---	77%
1	15%	11%
2	67%	7%
3	13%	3%
4	3%	2%
5	1%	---

28. What level of education you have completed? (n=90)

	All
Less than high school or some high school	8%
High school graduate	41%
Some college or vocational training	29%
College graduate	19%
Advanced college degree	3%

29. What is your current occupation? (n=87)

	All
Farming	22%
Manufacturing/Contracting/Transportation	18%
Education	3%
Management/Retail	7%
Government	1%
Student	2%
Retired	25%
Professional (Lawyer/Doctor/Insurance)	3%
Self-employed	5%
Other	14%