

## Appendix A: Survey

### Water Quality in the Upper Sangamon River Survey

This survey will collect information for research being conducted at the University of Illinois. The research will study how people value changes to water quality in a nearby watershed resulting from changes in agriculture practices. You will not be asked to provide your name or address and your participation and answers to this survey will be completely anonymous.

### Participation is voluntary and will take approximately 10 minutes

You should only complete this survey if you are over 18 years old. Please complete the survey to the best of your ability. You may choose not to answer specific questions or discontinue the survey at any time.

Your participation in this survey is very important. You might not benefit directly from participation, but the information from this survey will help policy makers, economists, and watershed managers choose how and how much to improve water quality in your area. We will be happy to provide you with a copy of the final report at your request.

### Please keep this information for your records

You should keep this information for your future reference. If you have any questions about this survey research or its results please contact: [watersurvey@illinois.edu](mailto:watersurvey@illinois.edu)

If you have any questions about your rights as a research subject, including questions, concerns, complaints, or to offer input, you may call the Office for the Protection of Research Subjects (OPRS) at 217-333-2670 or e-mail OPRS at [irb@illinois.edu](mailto:irb@illinois.edu).

### Instructions

This survey measures what people think about changes in local water quality due to local changes in agriculture practices. We are interested in how much you care about features such as: fish species and populations, local problems from water pollution like algal blooms, and the likelihood of reaching targets that have been set to reduce serious water quality problems in the Gulf of Mexico.

The survey has two sections:

1. **In section one** of the survey, you will be asked six questions. In each of those questions, we will ask you to choose between two possible future scenarios and the current situation (“No Change”).
2. **In section two** of the survey, there will be some short questions about you so that we can understand what factors affect the way people feel about local water quality.

Remember that all your answers will be completely anonymous.

## Background Information

Rivers, streams, and lakes in the U.S. Midwest have been changed by things like farming. The soil and climate in the region provide a great environment for growing crops. However, rain runs off fields and carries bits of soil (sediment) and chemicals from fertilizer and plants (nutrients) into local waters. Runoff of nutrients and sediment causes local problems, reduced fish numbers and sudden growths of green algae that smell bad and can be toxic. Nutrient pollution also creates a big area that is starved of oxygen (the hypoxic zone) in the Gulf of Mexico.



## Upper Sangamon River Basin



Locally, proposed changes that reduce nutrient runoff can improve rivers and lakes by providing clearer water and better habitat for fish. Improved water conditions can increase both the number of different **kinds** of fish (species) and **how many** fish there are (population). Some of these fish are game fish that are often fished for by recreational anglers, including bass, creel, and trout. Other types of fish are not directly interesting to people fishing, but they help support healthy homes in rivers and lakes for birds and other wild animals.


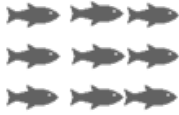


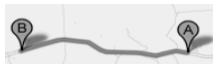

## Hypoxia in the Gulf of Mexico

The nutrients and sediment that run off lands throughout the U.S. Midwest drain into the Gulf of Mexico. Once in the Gulf, these nutrients create a “dead zone” stretching thousands of square miles around the mouth of the Mississippi River. There are 12 states, including the state of Illinois, who have pledged to reduce the dead zone in the Gulf. Those states have agreed with the U.S. EPA to reduce nutrient flows from their lands by 45% by the year 2040.



## Features of Water Quality Improvements

Depending on how it is done, changes in water quality can have different results. The features described below are of interest in this survey. Please read this carefully in order to answer the questions in the survey.

<p>Species of Game Fish</p> 	<p>The number of different game fish species found in a typical 100 yards of river in the highlighted section of the river (100 yards is the length of a football field).</p> <p>A high number means you can expect to see many different kinds of game fish.</p>
<p>Population of All Fish</p> 	<p>The number of individual fish (from all species, game and non-game) found in a typical 100 yards of river in the highlighted section of the river.</p> <p>A high number means you can expect to see many individual fish. They may be all the same type, or they may be several different types.</p>
<p>Algal Blooms</p>  <p>Reduced</p>	<p>The percent reduction in the frequency of algal blooms in the highlighted section of the river. These are typically seen in the ponds and lakes connected to the river.</p> <p>A higher number means you will see fewer algal blooms. For example:          100 means 100 percent reduction so there are no algal blooms,          0 means the number of algal blooms stays exactly the same as it is now.</p>
<p>Nutrient Targets</p> 	<p>The likelihood that the Upper Sangamon River area succeeds in reaching its goal of reducing nearly half of the nutrients running down to the Gulf of Mexico by 2040.</p> <p>A higher number means the target is more likely to be reached. For example:          100 means the target is definitely reached;          0 means the target is definitely not reached.</p>
<p>Distance</p> 	<p>The distance in miles from you to the cleaned up section of the river.</p> <p>This feature depends on which section of river is cleaned up and where you live.</p>
<p>Annual Cost</p> 	<p>The amount of money that your household will have to pay every year to improve the water quality in the Upper Sangamon River.</p> <p>The money will be paid through an increase in annual county fees. If you are a renter, this will be passed on through rent charged by the landlord.</p>

## Current Experience

Before you answer the next questions, help us understand your current experience.

How often have you seen algal blooms in the rivers near you?

- a) Never
- b) Rarely, once every couple of years
- c) Not often, once per year
- d) Sometimes, several times a year
- e) Very often

How many times in the last year have you gone fishing in the Upper Sangamon River?

- a) 0
- b) 1
- c) 2
- d) 3
- e) 4
- f) 5
- g) more than 5

How many times in the last year have you participated in other recreation activities in the Upper Sangamon River Basin? (Boat, swim, bike, walk the trails, etc.)

- a) 0
- b) 1
- c) 2
- d) 3
- e) 4
- f) 5
- g) more than 5

**Question Number 1**

**Example Card**

1) There are three scenarios.

2) Choose the one you like most.

3) The third option will always be “No Change.” This means everything will stay the way it currently is.

	<p><b>Scenario A</b></p> <p>“You are Here” 1 mile area near your house</p>	<p><b>Scenario B</b></p>	<p><b>No Change</b></p>
<b>Game Fish Species</b>	Species: 3	Species: 1	Average number of species every 100 yards of river: Species: 1
<b>Fish Population</b>	Population: 30	Population: 75	Average number of fish every 100 yards of river: Population: 30
<b>Algal Blooms Reduced</b>	25%	0%	Reduction in algal blooms: 0%
<b>Nutrient Target Met</b>	100%	Likelihood of reaching nutrient target: 75%	0%
<b>Distance from Home</b>	28 miles	1 miles	Distance from your house to the section of river: -
<b>Annual Cost</b>	\$25	Annual fee required to make improvements: \$125	\$0

If Scenarios A and B are the ONLY options besides No Change. Which would you choose?

## Things to Remember











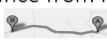

For the purposes of this survey you should assume that every possible future scenario:

- will ONLY affect the highlighted area of the river
- will NOT result in additional changes such as fishing or visiting regulations
- will NOT result in a change in agricultural acreage or profits
- WILL be paid for by an annual increase in county fees

Experience from previous similar surveys is that people often say they would be willing to pay more money for something than they actually would. For example, in one study, 80% of people said they would buy a product, but when a store actually stocked the product, only 43% of people actually bought the new product. It is important that you make each of your upcoming selections like you would if you were **actually** facing these exact choices in reality. Note that paying for environmental improvement means you would have less money available for other purchases.

## Ready, set, choose.

Remember, each of the six questions is separate and independent from the previous questions. For every question, Scenarios A and B are the ONLY options besides the “No Change.” Which would you choose?

If scenarios A and B were the only options besides No Change, which would you choose?			
	Scenario A	Scenario B	No Change
Game Fish Species 	2	5	1
Fish Population 	75	50	30
Algal Blooms Reduced 	25% 	0% 	0% 
Nutrient Target Met 	75% 	50% 	0% 
Distance from Home 	23 miles	39 miles	-
Annual Cost 	\$5	\$15	\$0
If you are unsure about scenarios A or B, or would not actually spend the money, please choose No Change.			

## Almost Finished

Now we are going to ask a few quick questions about you, and then you will be finished.

1. Do you consider where you live to be rural?
  - a. Yes
  - b. No
2. Think about your household's total income each year. What category does it fall into?
  - a. Less than \$25,000 per year
  - b. \$25,000 - \$34,999 per year
  - c. \$35,000 - \$49,999 per year
  - d. \$50,000 - \$74,999 per year
  - e. \$75,000 - \$99,999 per year
  - f. \$100,000 - \$149,999 per year
  - g. \$150,000 - \$199,999 per year
  - h. More than \$200,000 per year
3. Do you own your home?
  - a. Yes
  - b. No
4. Do you or your family farm or do work related to agriculture?
  - a. Yes
  - b. No
5. What is your age group?
  - a. 18-29 years old
  - b. 30-44 years old
  - c. 45-64 years old
  - d. Over 65 years old
6. What is your gender?
  - a. Female
  - b. Male
  - c. Other
7. What is your race?
  - a. White
  - b. African American
  - c. Hispanic or Latino
  - d. American Indian, or Alaska Native
  - e. Other
8. What is your highest level of education?
  - a. Less than high school
  - b. High school / GED
  - c. Some college
  - d. Two-year college degree
  - e. Four-year college degree
  - f. Graduate degree
9. How many years have you lived in central Illinois?
  - a. 0 to 5 years
  - b. 5 to 10 years
  - c. 10 to 20 years
  - d. 20 to 30 years
  - e. More than 30 years
10. How familiar are you with the water quality issues discussed in this survey?
  - a. 0 – not familiar at all
  - b. 1 – somewhat familiar
  - c. 2 – familiar
  - d. 3 – very familiar
  - e. 4 – very familiar and involved
11. Do you ever go fishing in the Sangamon River?
  - a. 0 - No, never
  - b. 1 - Sometimes, once per year
  - c. 2 - Yes, several times per year
12. Do you ever go hiking or recreating near the Sangamon River?
  - a. 0 - No, never
  - b. 1 - Sometimes, once per year
  - c. 2 - Yes, several times per year
13. Please add any comments, questions, or concerns that you would like us to know about