

## Appendix C – Social Indicator Surveys

A total of five participant surveys were conducted throughout the project at workshops, field days, and public meetings. The Social Indicators Data Management and Analysis Tool (SIDMA) was used to develop the surveys. Following the events, the participant's answers were entered into SIDMA and indicator scores were generated to provide a mean value of the participant's responses.

The SIDMA awareness indicator used to assess the increased knowledge of nonpoint pollution issues was the "awareness of types of pollutants impairing waterways" and the "awareness of sources of pollutants impairing waterways". The attitude indicator for "willingness to take action to improve water quality" was used to assess the stakeholder's likelihood to act. The SIDMA awareness indicator values have a range of 1-2; with 1 being less aware and 2 being more aware of the types of pollutants and sources. The SIDMA attitude indicator also has a value range of 1-2; 1 being less positive and 2 being a more positive response to act on the part of the participant.

The surveys were conducted at: 1) the Septic System Workshop; 2) the Manure Management Workshop; 3) the WMP Update Meeting; 4) the Wetland, Buffer and 2-Stage Ditch Field Day; and 5) the Nutrient Management Workshop.

### 1) Septic System Workshop – October 21, 2013

Surveys were distributed to 24 participants, and 15 were returned with a completion rate of 63%. The survey was designed to measure the participant's knowledge about septic system functions and maintenance before and after the workshop. Nine questions on the pre-post survey generated an agreeable answer, and six questions generated a disagreeable answer. The survey results indicate that approximately 37% of the answers changed from agreeing to strongly agreeing; and from disagreeing to strongly disagreeing based on the particular questions. The SIDMA indicator scores for awareness of pollution issues could not be calculated based on the questions; but the willingness to take action to improve water quality generated a mean value of 1.86 showing the participants are more likely to take action.



### UPPER WABASH RIVER BASIN COMMISSION

A cooperation of local government established in 2001 under IC-14-30-4.  
Huntington, Wells, Adams, and Jay Counties

#### Septic Workshop Survey

#### RESULTS – 15 SURVEYS RETURNED (63%) out of a possible 24 surveys

The Upper Wabash River Basin Commission is conducting this survey in order to evaluate the effectiveness of our outreach efforts to improve water quality in the Wabash River Basin. Your participation in this survey is voluntary. Your answers will be kept confidential and will be released only as summaries where individual answers cannot be identified.

Unless otherwise instructed, please check the circle that corresponds to the answer category that best describes you and your situation or opinion. Please read each question carefully.

	NOW, at the end of the workshop				BEFORE the workshop			
	Strongly Disagree	Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I understand how a septic system works.			9	6		1	13	1
2. I would know if my septic system was not working properly.	1		9	5	2		12	1
3. A septic system is a septic tank connected to a drain tile.	7	5	2		5	6	3	
4. A septic tank needs additives to work properly.	8	6		1	4	6	4	1
5. A septic system can be installed anywhere on a residential lot.	11	4			7	7	1	
6. A septic system drains directly to a local stream.	10	5			5	8	1	
7. Septic systems do not require maintenance.	9	6			6	8		
8. Grease and solids will clog the absorption field.			8	6		1	8	4
9. Sump pumps should be connected to a septic tank.	10	4			3	10		
10. Trees and shrubs can damage the septic absorption field.			6	9			11	3
11. Surface water should be diverted away from the absorption field.			8	7			13	1
12. Do not drive over or place out buildings over the absorption field.	1		5	9			10	4
13. I understand how to maintain my septic system.			10	5		1	12	1
14. Septic systems should be inspected annually.	1	2	8	4		3	11	
15. Septic systems should be cleaned every 3-5 years.			10	5	1		13	

**Septic Systems**

**A. Do you have a septic system?**  
 Yes **5**  
 No **8**  
 I don't know

**B. If you answered 'Yes' to the previous question, in what year was it installed?**  
?/1950/?70's/1978/2005/2006/?

**C. Does your septic system have an absorption field (finger system)?**  
 Yes **4**  
 No **6**  
 I don't know **1**

**D. Do you have a garbage disposal?**  
 Yes, I use it daily **1**  
 Yes, I use it occasionally **5**  
 Yes, but I don't use it  
 No **6**

**E. Within the last five years, have you had any of the following problems? (Check all that apply)**  
 Slow drains **3**  
 Sewage backup in the house  
 Bad smells near tank or drain field  
 Sewage flowing to ditch  
 Frozen septic  
 Other  
 None **8**  
 I don't know

**F. Is your septic system designed to treat sewage or get rid of waste?**  
 Treat sewage **1**  
 Get rid of waste **5**  
 Both **3**  
 Neither **1**  
 I don't know

**Regular Septic System Maintenance**

Septic system maintenance includes having your septic system thoroughly cleaned every 3-5 years to remove all the sludge, effluent and scum from the tank.

**A. How familiar are you with septic system maintenance?**  
 Not relevant  
 Never heard of it  
 Somewhat familiar with it **9**  
 Currently have maintenance performed every 3-5 years **3**

**B. Are you willing to do regular septic system maintenance?**  
 Yes, already do regular maintenance **7**  
 Yes, I need information on maintenance contractors **1**  
 Maybe **3**  
 No

**C. How much do the following factors limit your ability to perform septic system maintenance?**

	Not at all	A little	Some	A lot	Don't know
a. Don't know where septic tank is.	8		1	1	
b. Don't know who to contact to do maintenance.	7	2		1	
c. Time required to do maintenance.	5	2	3		
d. Cost to do maintenance.	4	2	1	3	
e. Insufficient proof of water quality benefit.	4	2	3		
f. Desire to keep things the way they are.	3	2	4		

**About You**

<p><b>E. What is your gender?</b></p> <p><input type="radio"/> Male <b>9</b></p> <p><input type="radio"/> Female <b>4</b></p> <p><b>F. What is your age?</b> <u>30-40/49/50/55/57/61/</u> <u>(2)62/63/64/65/70</u></p> <p><b>G. What is the highest grade in school you have completed?</b></p> <p><input type="radio"/> High school diploma/GED <b>4</b></p> <p><input type="radio"/> Some college <b>3</b></p> <p><input type="radio"/> 2 year college degree <b>2</b></p> <p><input type="radio"/> 4 year college degree <b>3</b></p> <p><input type="radio"/> Post-graduate degree</p> <p><b>H. Which of the following best describes where you live?</b></p> <p><input type="radio"/> In a town, village, or city <b>3</b></p> <p><input type="radio"/> In a rural, non-farm residence <b>6</b></p> <p><input type="radio"/> Rural subdivision or development</p> <p><input type="radio"/> On a farm <b>3</b></p>	<p><b>A. How long have you lived at your current residence (years)?</b> <u>4/7/8/10/+10/19/25/27/34</u> <u>41/42/45</u></p> <p><b>B. What is the approximate size of your residential lot?</b></p> <p><input type="radio"/> ¼ acre or less <b>2</b></p> <p><input type="radio"/> More than ¼ acre but less than 1 acre <b>2</b></p> <p><input type="radio"/> 1 acre to less than 5 acres <b>8</b></p> <p><input type="radio"/> 5 acres or more</p> <p><b>C. Do you own or rent your home?</b></p> <p><input type="radio"/> Own <b>12</b></p> <p><input type="radio"/> Rent <b>1</b></p> <p><b>D. In addition to your residence, which of the following do you own?</b></p> <p><input type="radio"/> An agricultural operation <b>3</b></p> <p><input type="radio"/> Forested land <b>2</b></p> <p><input type="radio"/> Rural recreational property</p> <p><input type="radio"/> None of these <b>8</b></p>
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**Information Sources**

<p><b>A. Where are you likely to seek information about soil and water conservation issues? (Check all that apply)</b></p> <p><input type="radio"/> Newsletters / brochures / fact sheets <b>8</b></p> <p><input type="radio"/> Internet <b>9</b></p> <p><input type="radio"/> Radio <b>4</b></p> <p><input type="radio"/> Workshops / field days / demonstrations / meetings <b>8</b></p> <p><input type="radio"/> Conversations with others <b>8</b></p> <p><input type="radio"/> Trade publications / magazines <b>2</b></p> <p><input type="radio"/> None of the above</p> <p><b>B. Do you regularly read the local news papers?</b></p> <p><input type="radio"/> Yes <b>12</b></p> <p><input type="radio"/> No <b>1</b></p>
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<b>C. People get information about water quality from a number of different sources. To what extent do you trust those listed below as a source of information about soil and water?</b>					
	Not at all	Slightly	Moderately	Very much	Not familiar
1. Soil and Water Conservation District (SWCD)	1		4	5	1
2. Natural Resources Conservation Service (NRCS)	1		4	5	1
3. University Extension		1	3	6	
4. State agricultural agency (i.e.: ISDA)	1	1	3	5	1
5. Environmental groups	3	3	4	1	
6. Crop consultants	1	2	5	2	1
7. Other landowners / friends		2	7	1	
8. State natural resources agency (i.e.: IDNR)	2	1	3	4	
9. County Departments (Health Dept., etc.)	2	1	1	6	

Please use the back of this page for any additional comments about this survey or water resources in your community.

## 2) Manure Management Workshop – December 11, 2013

The Manure Management Workshop survey was distributed to 36 participants with 28 surveys returned for a 78% completion rate. This survey focused on the value, storage, and application of manure, applicator rules, and the importance of a comprehensive nutrient management plan as well as other best management practices to consider when using manure. The before and after survey questions generated a 27% change in agreement. The SIDMA indicator mean value for awareness of pollution types was 1.55; and the awareness of sources of pollution mean value was 1.59 on a scale of 1-2. The SIDMA willingness to take action mean value was 1.81.



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#### *Manure Management Workshop Survey*

#### **RESULTS – 28 SURVEYS RETURNED (78%) out of a possible 36 surveys**

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Unless otherwise instructed, please check the box that corresponds to the answer category that best describes your situation or opinion. **Please read each question carefully!**

	<b>NOW, at the end of the workshop</b>				<b>BEFORE the workshop</b>			
	Strongly Disagree	Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Grid soil sampling is the best method for improving overall crop production.	1	4	18	5	1	4	15	4
2. Field soil sampling should be done fields larger than 20 acres.	6	5	14	3	6	3	13	3
3. Manure storage structures should be cleaned and inspected yearly.	2	5	14	6	1	7	14	4
4. Manure samples are required every year.	1	7	14	6	1	10	11	5
5. There are no restrictions on manure staging.	12	6	5	2	9	8	7	
6. It is important to maintain manure spreading and operating records.	1	2	14	10	1	2	16	8
7. Healthy soil holds more water.		2	12	12	1	1	13	10
8. Soil health practices optimize inputs.		1	13	12		1	14	10
9. Soil health practices protect against drought.	1	1	18	6		2	18	5
10. Soil health practices increase production.			16	11			17	9

#### *Survey of Ag Producers in the Watershed*

##### **Rating of Water Quality**

Overall, how would you rate the quality of water in the major streams or the Wabash River in your area?

	Poor	OK	Good	Don't know
1. For canoeing / kayaking / other boating	6	9	5	8
2. For picnicking and family activities	8	8	5	7
3. For fish habitat	5	11	6	6
4. For scenic beauty	6	12	5	5

ADDITIONAL COMMENTS: SOIL HEALTH – 2; GROWING CORN - 1

##### **Your Water Resources**

- |   |        |      |
|---|--------|------|
| 1. Of the above activities, which is the most important to you? <b>#1 boating = 6; #2 family = 4; #3 fish = 8; #4 beauty = 6; SOIL HEALTH = 2; CORN=1</b> |        |      |
| 2. Do you know which watershed your rain water goes to when it runs off of your property?   | 22 YES | 5 NO |

**Your Opinions**

Please indicate your level of agreement or disagreement with the statements below.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree
1. Using recommended management practices on farms improves water quality.			1	27
2. It is my personal responsibility to help protect water quality.				28
3. My actions have an impact on water quality.			1	26
4. I would be willing to change management practices to improve water quality.			6	22
5. It is important to protect water quality even if it slows economic development.		3	8	17
6. I would be willing to pay more to improve water quality (for example, though local taxes or fees).	2	8	12	6

**Water Impairments**

Below is a list of water pollutants and conditions that are generally present in water bodies to some extent. The pollutants and conditions become a problem when present in excessive amounts. In your opinion, how much of a problem are the following water impairments in your area?

	Not a Problem	Slight Problem	Moderate Problem	Severe Problem	Don't Know
1. Sedimentation (dirt and soil) in the water	4	9	10	4	1
2. Nitrogen	4	11	10	1	2
3. Phosphorus	5	9	9	3	2
4. Pesticides	8	12	5	2	1
5. Bacteria and/or viruses in the water (i.e.: <i>E.coli</i> / coliform)	8	13	2	2	4
6. Trash or debris in the water	7	10	5	5	1
7. Flow Alteration – straightening/log jam removal	7	9	9	2	1
8. Habitat alteration harming local fish	11	10	3	1	3

**Sources of Water Pollution**

The items listed below are sources of water quality pollution across the country. In your opinion, how much of a problem are the following sources in your area?

	Not a Problem	Slight Problem	Moderate Problem	Severe Problem	Don't Know
1. Discharges from industry into streams and lakes.	5	6	10	4	3
2. Discharges from sewage treatment plants.	3	2	12	6	5
3. Soil erosion from construction sites.	8	12	2	2	4
4. Soil erosion from farm fields.	1	15	8	2	
5. Soil erosion from shorelines and/or streambanks.	3	8	12	2	3
6. Inadequate or improperly maintained septic systems.	4	10	7	3	4
7. Manure from farm animals.	12	10	4	2	1
8. Littering/illegal dumping of trash.	4	11	8	4	2
9. Excessive use of fertilizers for crop production.	11	8	8		
10. Runoff from animal feeding facilities.	8	14	5		1
11. Urban stormwater runoff.	5	1	11	7	4
12. Channelization of streams.	7	6	7	1	7
13. Removal of riparian vegetation.	7	6	8	1	6

**Consequences of Poor Water Quality**

Poor water quality can lead to a variety of consequences for communities. In your opinion, how much of a problem are the following issues in your area?

	Not a Problem	Slight Problem	Moderate Problem	Severe Problem	Don't Know
1. Contaminated drinking water.	17	5	3	1	2
2. Contaminated fish.	15	7	4	1	1
3. Loss of desirable fish species.	13	5	3	1	6
4. Reduced beauty of lakes or streams.	12	7	4	3	1
5. Reduced quality of water recreation activities.	14	6	5	2	1
6. Excessive aquatic plants or algae.	12	6	6	3	1
7. Odor.	17	5	4	2	
8. Lower property values.	19	3	2	1	3

**Practices to Improve Water Quality**

Please indicate which statement most accurately describes your level of experience with each practice listed below.

	Not relevant for my property	Never heard of it	Somewhat familiar with it	Know how to use it; not using it	Currently use it
1. Use field records of crops and fertilizer rates to develop fertilizer strategies.	1		4	2	21
2. Use field records of crops, pests and pesticide use to help develop pest control strategies.	1		3	5	19
3. Compost manure prior to land application.	7		6	2	12
4. Use variable rate fertilizer application to minimize fertilizer waste and achieve more precise crop production.	2		4	6	17
5. Manage manure according to an approved nutrient management plan.	7		1	3	17
6. Use conservation tillage (no-till, reduced tillage, strip tillage) to retain crop residue on soil surface to reduce erosion.	2		1	2	22
7. Use cover crops for erosion protection and soil improvement.	3		4	12	9
8. Follow an approved grazing plan to maintain grass quality and reduce erosion.	14		6	2	6
9. Regulate the water level in tile lines.	7	3	11	2	5
10. Restore/enhance wetlands.	12	1	9	1	4
11. Maintain riparian buffer.	10	1	10	1	6
12. Experiment with strip trials on practices to increase soil health/conservation benefits.	7	1	9	7	4

**Specific Constraints of Practices**

For the practices listed above, indicate how much the following factors limit your ability to implement the practice.

LIST THE PRACTICE (or All) NEXT TO EACH CONSTRAINT:	Not at all	A little	Some	A lot	Don't Know
1. Don't know how to do it :	6	5	9	1	5
2. Time required:	3	6	11	3	3
3. Cost:	1	2	13	7	3
4. The features of my property make it difficult:	6	3	11	2	5
5. Insufficient proof of water quality benefit or soil health benefit:	6	3	10	5	3
6. Desire to keep things the way they are:	6	5	10	3	3
7. Hard to use with my farming system:	7	4	11	3	1
8. Lack of equipment:	5	3	10	7	1

	Yes	Maybe	No
Are you willing to try any of the practices? (If yes or maybe, list practices)	13	11	2
<b>Cover Crops = 5</b>			
<b>No-till = 1</b>			

### Making Decisions for my Property

*In general, how much does each issue limit your ability to change your agricultural management practices?*

	Not at all	A little	Some	A lot	Don't Know
1. Personal out-of-pocket expense	3	5	11	10	
2. Lack of government funds for cost share	7	8	8	3	2
3. Not having access to the equipment that I need	6	4	13	3	2
4. Lack of available information about a practice	8	6	9	2	2
5. No one else I know is implementing the practice	8	5	9	4	2
6. Concerns about reduced yields	6	4	7	11	
7. Approval of my neighbors	15	5	3	5	
8. Don't want to participate in government programs or the requirements or restrictions by participating in government programs.	11	5	2	7	3
9. Environmental damage caused by practice	8	7	7	3	3
10. I do not own the property	17	3	3	4	1
11. Not being able to see a demonstration of the practice before I decide	9	6	6	5	2

### About Your Farm Operation

1. Please select the option that best describes who generally makes management decisions for your operation.

**13 Me alone or with my spouse**

**13 Me with my family partners (siblings, parents, children)**

**2 Me with the landowner**

Me with my tenant

**1 Me and my business partners**

Someone else makes the decision for the operation

Other

2. Please estimate the total tillable acreage (owned and/or rented) of your farming operation this year.

**100 – 6300 ac - SEE ATTACHED INFORMATION**

3. How many years have you been farming? (Please enter years).

**5-50 yrs - SEE ATTACHED INFORMATION**

4. How many livestock are a part of your farming operation? If none, please enter a zero.

**0 – 120,000 animals - SEE ATTACHED INFORMATION**

5. Does the property you manage touch a stream, river, lake, or wetland?

**20 Yes**      **7 No**

6. Five years from now, which statement will best describe your farm operation?

**4 It will be about the same as it is today**

**12 It will be larger**

**1 It will be smaller**

**10 I don't know**

7. Do you have a nutrient management plan for your farm operation?

**23 Yes**

**4 No**

8. Who developed your current nutrient management plan?

**2 My Conservation District, Extension, or NRCS office**

**17 A private-sector agronomist or crop consultant**

**5 I created my own plan**

**1 I don't know**

Other

**About You**

<p>1. What is your gender?  <b>24 Male</b>  <input type="radio"/> Female</p> <p>2. What is your age? <b>24 – 74 yrs – SEE ATTACHED INFORMATION</b></p>	<p>3. What is the highest grade in school you have completed?  <b>11 High school diploma/GED</b>  <b>3 Some college</b>  <b>9 2 year college degree</b>  <b>4 4 year college degree</b>          Post-graduate degree</p>
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**Information Sources**

<p>1. Where are you likely to seek information about soil and water conservation issues? (Check all that apply)</p> <p><b>19 Newsletters / brochures / fact sheets</b>  <b>8 Internet</b>  <b>3 Radio</b>  <b>19 Workshops / field days / demonstrations / meetings</b>  <b>6 Conversations with others</b>  <b>9 Trade publications / magazines</b>  <b>1 None of the above</b></p> <p>2. Do you regularly read the local news papers?  <b>19 Yes</b>  <b>8 No</b></p>					
<p>3. People get information about water quality from a number of different sources. To what extent do you trust those listed below as a source of information about soil and water?</p>					
	<b>Not at all</b>	<b>Slightly</b>	<b>Moderately</b>	<b>Very much</b>	<b>Not familiar</b>
a. Soil and Water Conservation District (SWCD)		<b>3</b>	<b>8</b>	<b>16</b>	
b. Natural Resources Conservation Service (NRCS)	<b>1</b>	<b>1</b>	<b>8</b>	<b>17</b>	
c. University Extension	<b>1</b>	<b>4</b>	<b>9</b>	<b>13</b>	
d. State agricultural agency (i.e.: ISDA)	<b>2</b>	<b>2</b>	<b>13</b>	<b>9</b>	
e. Environmental groups	<b>12</b>	<b>9</b>	<b>5</b>	<b>1</b>	
f. Crop consultants	<b>3</b>	<b>3</b>	<b>12</b>	<b>10</b>	
g. Other landowners / friends	<b>1</b>	<b>5</b>	<b>16</b>	<b>5</b>	
h. State natural resources agency (i.e.: IDNR)	<b>3</b>	<b>6</b>	<b>11</b>	<b>7</b>	
i. County Departments (Health Dept., etc.)	<b>6</b>	<b>5</b>	<b>8</b>	<b>7</b>	<b>1</b>

*Additional Comments about this survey or water resources in your community:*

**Question: ABOUT YOUR FARM OPERATION**

2. Please estimate the total tillable acreage (owned and/or rented) of your farming operation this year.

24 responses

Total acreage recorded in survey = 27,195 acres

0 - 500 acres = 10 responses = 41.7%  
 501 - 1,000 acres = 3 responses = 12.5%  
 1,001 - 1,500 acres = 5 responses = 20.8%  
 1,501 - 2,000 acres = 4 responses = 16.7%  
 2,001 - 2,500 acres = 1 response = 4.2%  
 2,501 - 6,500 acres = 1 response = 4.2%

3. How many years have you been farming? (Please enter years).

26 responses

Average / Mean = 28 yrs.

5 - 10 yrs = 2 responses = 7.7%  
 11 - 20 yrs = 6 responses = 23.1%  
 21 - 30 yrs = 9 responses = 34.6%  
 31 - 40 yrs = 6 responses = 23.1%  
 41 - 50 yrs = 3 responses = 11.5%

4. How many livestock are a part of your farming operation? If none, please enter a zero.

24 responses

Total animals reported = 280,759

0 animals = 8 responses = 33.3%  
 1 - 100 animals = 8 responses = 33.3%  
 501 - 5,000 animals = 1 response = 4.2%  
 5,001 - 10,000 animals = 4 responses = 16.7%  
 10,001 - 20,000 animals = 1 response = 4.2%  
 110,001 - 115,000 animals = 1 response = 4.2%  
 115,001 - 120,000 animals = 1 response = 4.2%

**Question: ABOUT YOU**

3. What is your age?

23 responses

Average / Mean age: 48.8 yrs

20 - 30 yrs old = 2 responses = 8.7%  
 31 - 40 yrs old = 5 responses = 21.7%  
 41 - 50 yrs old = 5 responses = 21.7%  
 51 - 60 yrs old = 7 responses = 30.4%  
 61 - 70 yrs old = 3 responses = 13.0%  
 71 - 75 yrs old = 1 response = 4.3%

### 3) Planning Update Meeting – March 19, 2014

The Planning Update Meeting survey was distributed to 10 participants. Nine surveys were returned, but only 8 counted in the scoring for a completion rate of 80%. The before and after survey questions highlighted watershed characteristics, relationship between land use and water quality, and human actions on the overall health of the streams and river; and resulted in a 45% increase in the strongly agree category. The SIDMA awareness mean value for types of pollution was 1.85; and awareness of sources of pollution was 1.69. The willingness to take action mean value was 1.94; which was the highest of all the survey results.



## UPPER WABASH RIVER BASIN COMMISSION

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### Planning Update Meeting Survey

#### 10 people – 9 surveys returned; 8 counted as complete (80%)

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Unless otherwise instructed, please check the box that corresponds to the answer category that best describes your situation or opinion. **Please read each question carefully!**

#### NOT ANSWERED: 2

	NOW, at the end of the workshop				BEFORE the workshop			
	Strongly Disagree	Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I know the characteristics (soils, drainage, land use, etc.) of the watershed area.		1	6		1	2	6	
2. I understand the relationship between land use and water quality in streams and river.			4	3		2	5	2
3. I understand the impact of human actions on the overall health of the streams and river.			6	1		1	7	1
4. I understand the importance of water quality monitoring in the streams and river.			3	4		1	5	2
5. I understand the difference between identifying water quality concerns, problems, causes and sources.			4	3		3	5	1

#### Rating of Water Quality

#### NOT ANSWERED: 1

Overall, how would you rate the quality of water in the major streams or the Wabash River in your area?

	Poor	OK	Good	Don't know
1. For canoeing / kayaking / other boating	1	5	2	
2. For eating locally caught fish	5	3		
3. For swimming	7	1		
4. For picnicking and family activities near water	1	6	1	
5. For fish habitat /fishing	4	3	1	
6. For wildlife habitat/hunting		5	2	
7. For scenic beauty/enjoyment		6	1	1

#### Your Water Resources

#### NOT ANSWERED: 1

1. Of the above activities, which is the most important to you? \_1- ALL; 3 - #4; 1-#2; 1-#6, 1-#1; 1-#7 \_\_\_\_\_
2. Do you know which watershed your rain water goes to when it runs off of your property?  YES -8  NO

**Your Opinions**

NOT ANSWERED: 1

*Please indicate your level of agreement or disagreement with the statements below.*

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree
1. Using recommended management practices on farms improves water quality.			1	7
2. The way I care for my lawn and yard can influence water quality in local streams and rivers.			1	7
3. It is my personal responsibility to help protect water quality.				8
4. My actions do have an impact on water quality.				8
5. I would be willing to change management practices to improve water quality.			2	6
6. It is important to protect water quality even if it slows economic development.			3	5
7. I would be willing to pay more to improve water quality (for example, though local taxes or fees).	1		3	4
8. The quality of life in my community depends on good water quality in local streams and rivers.			2	6

**Water Impairments**

NOT ANSWERED: 1

*Below is a list of water pollutants and conditions that are generally present in water bodies to some extent. The pollutants and conditions become a problem when present in excessive amounts.**In your opinion, how much of a problem are the following water impairments in your area?*

	Not a Problem	Slight Problem	Moderate Problem	Severe Problem	Don't Know
1. Sedimentation (dirt and soil) in the water			6	2	
2. Nitrogen		1	2	2	2
3. Phosphorus		1	2	2	2
4. Pesticides		2	1	2	2
5. Bacteria and/or viruses in the water (i.e.: E. coli / coliform)		1	2	5	
6. Invasive aquatic plants and animals		2	3		2
7. Algae in the water		2	5	1	
8. Not enough oxygen in the water		2	2	2	1
9. Toxic materials in the water	1	2	1	2	1
10. Trash or debris in the water		2	5	1	
11. Flow Alteration – straightening/log jam removal	1		3	2	1
12. Habitat alteration harming local fish		2		4	2

**Sources of Water Pollution**

NOT ANSWERED: 1

*The items listed below are sources of water quality pollution across the country.**In your opinion, how much of a problem are the following sources in your area?*

	Not a Problem	Slight Problem	Moderate Problem	Severe Problem	Don't Know
1. Discharges from industry into streams and lakes.	1	5	2		
2. Discharges from sewage treatment plants.		3	4	1	
3. Discharges from storm sewers.		3	2	3	
4. Urban stormwater runoff (from rooftops, parking lots, etc.).		4	2		1
5. Excessive use of lawn fertilizers and/or pesticides	1	1	5		1
6. Inadequate or improperly maintained septic systems.	1	1	3	3	
7. Soil erosion from construction sites.	3	2	1		
8. Soil erosion from shorelines and/or stream banks.		2	3	1	1
9. Soil erosion from farm fields.		3	2	2	
10. Excessive use of fertilizers for crop production.		3	5		

11. Manure from farm animals.		2	5	1	
12. Runoff from animal feeding facilities.	2	1	4		1
13. Gravel mining (stone quarries)	3	3			2
14. Channelization of streams – flow regulation/modification	1	3	1		2
15. Removal of riparian vegetation.	1	2	3		2
16. Littering/illegal dumping of trash.		2	6		
17. Natural sources.	2	1	1	1	2

**Consequences of Poor Water Quality**

NOT ANSWERED: 1

*Poor water quality can lead to a variety of consequences for communities.**In your opinion, how much of a problem are the following issues in your area?*

	Not a Problem	Slight Problem	Moderate Problem	Severe Problem	Don't Know
1. Contaminated drinking water.	5		2		1
2. Increase in water/sewage rates.	2	3	1	2	
3. Contaminated fish.	1	1	4		2
4. Loss of desirable fish species/fish kills.	2	2	1	2	1
5. Reduced beauty of lakes or streams.	1	2	4	1	
6. Reduced quality of water recreation activities.		2	5	1	
7. Excessive aquatic plants or algae.		2	3	2	1
8. Odor.	3	2	2		1
9. Lower property values.	3	1	2	1	1

**Practices to Improve Water Quality**

NOT ANSWERED: 2, AG &amp; ALL USES NOT ANSWERED: 4

*Please indicate which statement most accurately describes your level of experience with each practice listed.*

	Not relevant for my property	Never heard of it	Somewhat familiar with it	Know how to use it; not using it	Currently use it
<b>RESIDENTIAL /URBAN</b>					
1. Apply fertilizers, pesticides and herbicides at manufacturer's guidelines for your lawn and garden.	2		2		3
2. Manage runoff from roofs, parking lots, etc.	1		2		4
3. Use rain barrels, create a rain garden.	1	2	1	2	2
4. Maintenance on home septic system.	4				3
5. Properly dispose of residential waste (chemicals, batteries, oil, pet waste, etc.)				1	6
<b>AGRICULTURAL / RURAL</b>					
6. Follow a comprehensive nutrient management plan for fertilizer and manure applications.	2		2		1
7. Use field records of crops, pests and pesticide use to help develop pest control strategies.	2		2		1
8. Use variable rate fertilizer application.	2	1	1	2	
9. Use conservation tillage (no-till, reduced tillage, strip tillage) to retain crop residue on soil surface to reduce erosion.	3		1		1
10. Use cover crops for erosion protection and soil improvement.	3		1		1
11. Follow an approved grazing plan to maintain grass quality and reduce erosion.	3		1		1
12. Experiment with strip trials on practices to increase soil health/conservation benefits.	3		1	1	

ALL LAND USES					
13. Restore/enhance wetlands.	3			2	
14. Maintain riparian buffer.	3				2
15. Plant trees/shrubs.	2			1	2
16. Create or manage wildlife habitat.	2			2	1
17. Restore native plant communities.	3			1	1

**Constraints of Practices**

NOT ANSWERED: 7

*For the practices listed above, indicate how much the following factors limit your ability to implement the practices.*

LIST THE PRACTICE # (1 - 17 or All) NEXT TO EACH CONSTRAINT:	Not at all	A little	Some	A lot	Don't Know
1. Don't know how to do it - #	1	1			
2. Time required - #	1		1		
3. Cost - #	1		1		
4. The features of my property make it difficult - #	1				1
5. Insufficient proof of water quality/soil health benefit - #	1		1		
6. Desire to keep things the way they are - #	1		1		
7. Hard to use with my current practices - #	1		1		
8. Lack of equipment - #	1				

	Yes	Maybe	No
Are you willing to try any of the practices? (If yes or maybe, list practices)	1	1	1

**Making Decisions for my Property**

NOT ANSWERED: 4

*In general, how much does each issue limit your ability to change your agricultural management practices?*

	Not at all	A little	Some	A lot	Don't Know
1. Personal out-of-pocket expense		1	4		
2. Lack of government funds for cost share	2	2	1		
3. Not having access to the equipment that I need	2	2		1	
4. Lack of available information about a practice	2	1	2		
5. No one else I know is implementing the practice	3	1		1	
6. Concerns about reduced yields	4			1	
7. Approval of my neighbors	3	1	1		
8. Don't want to participate in government programs or the requirements or restrictions by participating in government programs	2	2	1		
9. Possible interference with my flexibility to change land use practices as conditions warrant.	1		1		2
10. Environmental damage caused by practice	1			1	2
11. I do not own the property	3			1	
12. Not being able to see a demonstration of the practice before I decide	1	1	1	1	

**About You and Your Residential Property**

1. Do you make the home management decisions in your household?

Yes 7

No

2. What is your gender?

Male 5

Female 1

3. What is your age? \_\_\_\_\_

4. What is the highest grade in school you have completed?

High school diploma/GED

Some college 2

2 year college degree 2

4 year college degree 1

Graduate degree 2

5. Do you own or rent your home?

Own 6

Rent 1

6. What is the approximate size of your residential lot?

¼ acre or less 2

More than ¼ acre but less than 1 acre 3

1 acre to less than 5 acres 2

5 acres or more

**NOT ANSWERED: 2**

7. Which of the following best describes where you live?

In a town, village, or city 4

In an isolated, rural, non-farm residence 1

Rural subdivision or development

On a farm 1

8. Which of the following best describes the street/road drainage where you live?

Curb and gutter 4

Ditch and swale 2

Don't know

9. Do you use a professional lawn care service?

For mowing

For fertilizing and pest control 2

No 4

10. Do you have a septic system?

Yes, 2

Maintenance performed regularly 1

No 4

11. In addition to your residence, which of the following do you own or manage (check all that apply)?

An agricultural operation

Forested land

Rural recreational property

None of these 6

**About Your Agricultural Operation****NO SURVEY ANSWERES**

1. Please select the option that best describes who generally makes management decisions for your operation.

Me alone or with my spouse

Me with my family partners (siblings, parents, children)

Me with the landowner

Me with my tenant

Me and my business partners

Someone else makes the decision for the operation

Other

2. Please estimate the total tillable acreage (owned and/or rented) of your farming operation this year.

\_\_\_\_\_

3. How many years have you been farming? (Please enter years).

\_\_\_\_\_

4. How many livestock are a part of your farming operation? If none, please enter a zero.

\_\_\_\_\_

5. Does the property you manage touch a stream, river, lake, or wetland?

Yes  No

6. Five years from now, which statement will best describe your farm operation?

It will be about the same as it is today

It will be larger

It will be smaller

I don't know

7. Do you have a nutrient management plan for your farm operation?

Yes

No

8. Who developed your current nutrient management plan?

My Conservation District, Extension, or NRCS office

A private-sector agronomist or crop consultant

I created my own plan

I don't know

Other

**Information Sources**

NOT ANSWERED: 1

**1. Where are you likely to seek information about soil and water conservation issues? (Check all that apply)**

Newsletters / brochures / fact sheets 5

Internet 3

Radio 1

Workshops / field days / demonstrations / meetings 7

Conversations with others 5

Trade publications / magazines 2

None of the above

**2. Do you regularly read the local news papers?**

Yes 5

No 1

**3. People get information about water quality from a number of different sources. To what extent do you trust those listed below as a source of information about soil and water?**

	Not at all	Slightly	Moderately	Very much	Not familiar
a. Soil and Water Conservation District (SWCD)			2	6	
b. Natural Resources Conservation Service (NRCS)			1	5	2
c. University Extension			1	7	
d. State agricultural agency (i.e.: ISDA)	1		3	4	
e. Farm Bureau	1	3	1	3	
f. Environmental groups		3	3	1	1
g. Crop consultants	2	1	3	1	1
h. Other landowners / friends and neighbors	1	1	3	3	
i. State natural resources agency (i.e.: IDNR)	1	1	2	4	
j. County Departments (Health Dept., etc.)	1	1	1	5	

*Additional Comments about this survey or water resources in your community:*

**9 SURVEYS RETURNED; ONE ONLY SLIGHTLY FILLED OUT. ONLY ONE SURVEY INDICATED OWNING AG LANDS BUT WAS OPERATED BY SOMEONE ELSE.**

#### 4) Wetland, Buffer and 2-Stage Ditch Field Day – June 26, 2014

The Wetland, Buffer and 2-Stage Ditch Field Day survey was distributed to 13 participants, and had the lowest rate of return with only 6 surveys being completed (46%); however, that may be due to the low attendance rate from the general public. The before and after survey questions resulted in only a difference of 11%; or in other words, one participant's answer. The SIDMA awareness of types of pollution generated a mean factor of 1.95; and awareness of sources was 1.79. The willingness to take action indicator mean value was 1.43; the lowest value of all the surveys.



### UPPER WABASH RIVER BASIN COMMISSION

A cooperation of local government established in 2001 under IC-14-30-4.  
Huntington, Wells, Adams, and Jay Counties

#### *Wetland, Buffer & 2-stage Ditch Workshop Survey*

The Upper Wabash River Basin Commission is conducting this survey in order to evaluate the effectiveness of our outreach efforts to improve water quality in the Wabash River Basin. Your participation in this survey is voluntary. Your answers will be kept confidential and will be released only as summaries where individual answers cannot be identified.

Unless otherwise instructed, please check the box that corresponds to the answer category that best describes your situation or opinion. **Please read each question carefully!**

	<b>NOW, at the end of the workshop</b>				<b>BEFORE the workshop</b>			
	Strongly Disagree	Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Wetlands provide habitat for fish and wildlife, improve water quality, reduce flooding, recharge ground water, protect biological diversity, and provide recreational activities.	2		2	2	1		2	3
2. NRCS certified wetland determinations are for determining USDA farm program eligibility and are valid as long as the land is in agricultural use.	1		3	2	1		3	2
3. Conservation buffers are strategically placed in areas along water bodies, fence rows, woodlands or erosive areas	1		3	2	1		3	2
4. 2-stage ditches can improve the function of agricultural drainage ditches.	1		4	1	1	1	4	
5. 2-stage ditches remove sediment, nitrogen and phosphorus from the water, increases holding capacity and is more stable than a conventional shaped ditch.	1		3	2	1	1	3	1

#### **Rating of Water Quality**

Overall, how would you rate the quality of water in the major streams or the Wabash River in your area?

	Poor	OK	Good	Don't know
1. For canoeing / kayaking / other boating	1	4	1	
2. For picnicking and family activities	2	2	2	
3. For fish habitat	3	3		
4. For scenic beauty	1	3	2	

#### **Your Water Resources**

1. Of the above activities, which is the most important to you? _____ #1 - 3; #2 - 1; #3 - 3; #4 - 3		
2. Do you know which watershed your rain water goes to when it runs off of your property?	5 YES	1 NO

**Your Opinions**

Please indicate your level of agreement or disagreement with the statements below.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree
1. Using recommended management practices on farms and in urban areas improves water quality.				6
2. It is my personal responsibility to help protect water quality.				6
3. My actions have an impact on water quality.			3	3
4. I would be willing to change management practices to improve water quality.			4	2
5. It is important to protect water quality even if it slows economic development.			2	4
6. I would be willing to pay more to improve water quality (for example: though local taxes or fees).			2	4
7. The quality of life in my community depends on good water quality in local streams and rivers				6

**Water Impairments**

Below is a list of water pollutants and conditions that are generally present in water bodies to some extent. The pollutants and conditions become a problem when present in excessive amounts. In your opinion, how much of a problem are the following water impairments in your area?

	Not a Problem	Slight Problem	Moderate Problem	Severe Problem	Don't Know
1. Sedimentation (dirt and soil) in the water			1	5	
2. Nitrogen			4	1	1
3. Phosphorus			4	1	1
4. Pesticides		2	2	1	1
5. Bacteria and or viruses in the water (i.e.: <i>E.coli</i> / coliform)			4	1	1
6. Algae in the water			3	3	
7. Invasive aquatic plants and animals			5	1	
8. Trash or debris in the water		1	4	1	
9. Flow Alteration – straightening/log jam removal		1	5		
10. Habitat alteration harming local fish		1	4		1

**Sources of Water Pollution**

The items listed below are sources of water quality pollution across the country. In your opinion, how much of a problem are the following sources in your area?

	Not a Problem	Slight Problem	Moderate Problem	Severe Problem	Don't Know
1. Discharges from industry into streams and lakes.			4	1	1
2. Discharges from sewage treatment plants.			2	2	2
3. Soil erosion from construction sites.		4	2		
4. Soil erosion from farm fields.		1	2	3	
5. Soil erosion from shorelines and/or streambanks.		2	3	1	
6. Inadequate or improperly maintained septic systems.		1	3	2	
7. Manure from farm animals.		2	4		
8. Littering/illegal dumping of trash.		3	1	1	
9. Excessive use of fertilizers for crop production.		4	2	1	
10. Runoff from animal feeding facilities.		5	1		
11. Urban stormwater runoff.		3	2	1	
12. Channelization or dredging of streams.		3	3		
13. Removal of riparian vegetation.		2	2	1	1
14. Draining / filling of wetlands		4	2		

**Consequences of Poor Water Quality**

Poor water quality can lead to a variety of consequences for communities. In your opinion, how much of a problem are the following issues in your area?

	Not a Problem	Slight Problem	Moderate Problem	Severe Problem	Don't Know
1. Contaminated drinking water.	2	2	1	1	
2. Contaminated fish.		3		1	2
3. Loss of desirable fish species.		2	2	1	1
4. Reduced beauty of lakes or streams.		1	2	3	
5. Reduced quality of water recreation activities.		3	1	2	
6. Excessive aquatic plants or algae.		2	2	2	
7. Odor.	1	3	2		
8. Lower property values.	2	2	2		

**Practices to Improve Water Quality**

Please indicate which statement most accurately describes your level of experience with each practice listed below.

	Not relevant for my property	Never heard of it	Somewhat familiar with it	Know how to use it; not using it	Currently use it
1. Use conservation tillage (no-till, reduced tillage, strip tillage) to retain crop residue on soil surface to reduce erosion.	4				1
2. Follow a comprehensive nutrient management plan that includes soil testing, manure nutrient values, legumes in rotation, etc.	4		1		
3. Use field records of crops, pests and pesticide use to help develop pest control strategies.	4			1	
4. Use variable rate application technology for more precise crop production.	4			1	
5. Use cover crops on cropland or establish permanent vegetation on retired agricultural land to reduce soil erosion and improve soil health.	4			1	
6. Use filter strips and field borders to reduce the amount of sediments and nutrients entering a stream or river.	4				1
7. Maintain herbaceous and forested riparian buffer areas.	4				
8. Establish vegetation to stabilize and protect stream banks.	4				1
9. Create wetlands or restore native plant communities to enhance wetlands.	4		1		
10. Construct 2-stage ditches to stabilize ditch channels, reduce sediment movement, and increase nutrient removal from the stream.	4			1	

**Specific Constraints of Practices**

For the practices listed indicate how much the following factors limit your ability to implement the practice.

**Riparian Vegetation: establishing and maintaining vegetative cover in riparian areas.**

- How familiar are you with this practice?
  - ( 2 ) Not relevant
  - ( 1 ) Somewhat familiar with it
  - ( 1 ) Currently use it
  - ( ) Never heard of it
  - ( 1 ) Know how to use it; not using it
- Are you willing to try this practice?
  - ( ) Yes or already do
  - ( 2 ) Maybe
  - ( ) No

3. How much do the following factors limit your ability to implement this practice?

	Not at all	A little	Some	A lot	Don't Know
Don't know how to do it	1		1		
Time required	1		1		
Cost			2		
The features of my property make it difficult			1		1
Insufficient proof of water quality benefit or soil health benefit	2				
Desire to keep things the way they are	2				
Hard to use with my farming system	2				
Lack of equipment	2				

**Riparian Buffer Maintenance: maintaining trees, shrubs, and herbaceous plants that function as buffers located adjacent to water bodies and water courses.**

- How familiar are you with this practice?
  - ( 2 ) Not relevant
  - ( ) Somewhat familiar with it
  - ( 1 ) Currently use it
  - ( 1 ) Never heard of it
  - ( 1 ) Know how to use it; not using it
- Are you willing to try this practice?
  - ( ) Yes or already do
  - ( 2 ) Maybe
  - ( ) No

3. How much do the following factors limit your ability to implement this practice?

	Not at all	A little	Some	A lot	Don't Know
Don't know how to do it	2				
Time required		2			
Cost	1		1		
The features of my property make it difficult			2		
Insufficient proof of water quality benefit or soil health benefit	2				
Desire to keep things the way they are	2				
Hard to use with my farming system	2				
Lack of equipment	2				

**Wetlands Restoration/Enhancement: reestablishing or improving a low-lying area of land that is saturated with moisture especially when regarded as the natural habitat of wildlife.**

- How familiar are you with this practice?
  - ( 3 ) Not relevant
  - ( ) Somewhat familiar with it
  - ( 1 ) Currently use it
  - ( ) Never heard of it
  - ( 1 ) Know how to use it; not using it
- Are you willing to try this practice?
  - ( ) Yes or already do
  - ( 1 ) Maybe
  - ( ) No

3. How much do the following factors limit your ability to implement this practice?

	Not at all	A little	Some	A lot	Don't Know
Don't know how to do it	1				
Time required	1				
Cost			1		
The features of my property make it difficult				1	
Insufficient proof of water quality benefit or soil health benefit	1				
Desire to keep things the way they are	1				
Hard to use with my farming system	1				
Lack of equipment	1				

**Two Stage Ditch: a small main channel with vegetated benches that utilize the stream flow process to create a stable ditch, which requires less maintenance.**

1. How familiar are you with this practice?
  - ( **3** ) Not relevant ( ) Never heard of it
  - ( **1** ) Somewhat familiar with it ( ) Know how to use it; not using it
  - ( ) Currently use it
2. Are you willing to try this practice? ( ) Yes or already do ( **1** ) Maybe ( ) No
3. How much do the following factors limit your ability to implement this practice?

	Not at all	A little	Some	A lot	Don't Know
Don't know how to do it	<b>1</b>				
Time required		<b>1</b>			
Cost			<b>1</b>		
The features of my property make it difficult	<b>1</b>				
Insufficient proof of water quality benefit or soil health benefit	<b>1</b>				
Desire to keep things the way they are	<b>1</b>				
Hard to use with my farming system	<b>1</b>				
Lack of equipment	<b>1</b>				

**Making Decisions for my Property**

*In general, how much does each issue limit your ability to change your agricultural management practices?*

	Not at all	A little	Some	A lot	Don't Know
1. Personal out-of-pocket expense			<b>2</b>		
2. Lack of government funds for cost share			<b>2</b>		
3. Not having access to the equipment that I need	<b>2</b>				
4. Lack of available information about a practice	<b>2</b>				
5. No one else I know is implementing the practice	<b>2</b>				
6. Concerns about reduced yields	<b>1</b>				
7. Approval of my neighbors	<b>1</b>				
8. Don't want to participate in government programs or the requirements or restrictions by participating in government programs.	<b>1</b>				
9. Environmental damage caused by practice	<b>1</b>				
10. I do not own the property	<b>1</b>				

**About Your Farm Operation**

1. Please select the option that best describes who generally makes management decisions for your operation.

- Me alone or with my spouse
- 2**  Me with my family partners
- 1**  Me with the landowner
- Me with my tenant
- Me and my business partners
- Someone else makes the decision for the operation
- Other

2. Please estimate the total tillable acreage (owned and/or rented) of your farming operation this year.

\_\_\_\_\_

3. How many years have you been farming? (Please enter years).

\_\_\_\_\_35; 26\_\_\_\_\_

4. How many livestock is a part of your farming operation? If none, please enter a zero.

\_\_\_\_\_0; 0\_\_\_\_\_

5. Five years from now, which statement will best describe your farm operation?

- 1**  It will be about the same as it is today
- 6**  It will be larger
- It will be smaller
- I don't know

6. Does the property you manage touch a stream, river, lake, or wetland?

**2** Yes                      **1** No

7. Do you have a nutrient management plan for your farm operation?

**1** Yes                      **1** No

**About You**

<p>1. What is your gender?  <b>2</b> Male  <b>2</b> Female</p> <p>2. What is your age? ___<b>58</b>; <b>73</b>; <b>46</b>; <b>51</b>___</p> <p>3. What is the highest grade in school you have completed?  <b>2</b> High school diploma/GED  <input type="radio"/> Some college  <input type="radio"/> 2 year college degree  <b>1</b> 4 year college degree  <b>1</b> Post-graduate degree</p>	<p>4. What is the approximate size of your residential lot?  <b>1</b> ¼ acre or less  <b>1</b> More than ¼ acre but less than 1 acre  <b>2</b> 1 acre to less than 5 acres  <b>5</b> 5 acres or more</p> <p>5. Which of the following best describes where you live?  <b>2</b> In a town, or city  <b>1</b> In an isolated, rural, non-farm residence  <input type="radio"/> Rural subdivision or development  <b>2</b> On a farm</p> <p>6. Do you have a septic system?  <b>2</b> Yes                    <b>3</b> No</p>
<p>7. Where are you likely to seek information about soil and water conservation issues? (Check all that apply)  <b>3</b> Newsletters / brochures / fact sheets  <b>1</b> Internet  <b>1</b> Radio  <b>2</b> Workshops / field days / demonstrations / meetings  <b>3</b> Conversations with others  <b>2</b> Trade publications / magazines  <input type="radio"/> None of the above</p> <p>8. Do you regularly read the local news papers?  <b>5</b> Yes  <input type="radio"/> No</p>	

**Information Sources**

People get information about water quality from a number of different sources. To what extent do you trust those listed below as a source of information about soil and water?

	Not at all	Slightly	Moderately	Very much	Not familiar
a. Soil and Water Conservation District (SWCD)	<b>1</b>			<b>4</b>	
b. Natural Resources Conservation Service (NRCS)	<b>1</b>			<b>4</b>	
c. University Extension			<b>1</b>	<b>4</b>	
d. State agricultural agency (i.e.: ISDA)		<b>1</b>	<b>1</b>	<b>3</b>	
e. Environmental groups	<b>1</b>		<b>4</b>		
f. Crop consultants	<b>1</b>		<b>4</b>		
g. Other landowners / friends	<b>1</b>	<b>2</b>	<b>2</b>		
h. State natural resources agency (i.e.: IDNR)		<b>1</b>	<b>1</b>	<b>3</b>	
i. County Departments (Health Dept., etc.)		<b>1</b>	<b>4</b>		

Additional Comments about this survey or water resources in your community:

## 5) Nutrient Field Day – January 7, 2015

The final survey for the project was the Nutrient Management Workshop survey. It was distributed to 16 participants, with a return of 14 surveys for a completion rate of 88%. The survey before and after questions generated an increase of 38% in the strongly agree answers to indicate an increase in knowledge of the subject matter. The SIDMA awareness of pollutant types mean value was 1.78; and the awareness of pollution sources mean value was 1.72. The willingness to take action mean value was 1.88, indicating a more positive attitude.



### UPPER WABASH RIVER BASIN COMMISSION

A cooperation of local government established in 2001 under IC-14-30-4.  
Huntington, Wells, Adams, and Jay Counties

#### *Nutrient Management Workshop Survey*

*16 surveys distributed; 14 returned: 88% participation.*

The Upper Wabash River Basin Commission is conducting this survey in order to evaluate the effectiveness of our outreach efforts to improve water quality in the Wabash River Basin. Your participation in this survey is voluntary. Your answers will be kept confidential and will be released only as summaries where individual answers cannot be identified.

Unless otherwise instructed, please check the box that corresponds to the answer category that best describes your situation or opinion. **Please read each question carefully!**

	BEFORE the workshop				NOW at the end of the workshop			
	Strongly Disagree	Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Precision agriculture practices (RTK/GPS guidance) can result in savings on input costs while optimizing production.			6	6			3	9
2. The 4Rs of Nutrient Stewardship can help improve agricultural productivity.			10	1			7	5
3. The 4Rs of Nutrient Stewardship can help minimize the impact of nutrients on the environment.		1	8	1		1	5	5
4. Soil sampling is an important part of a Nutrient Stewardship plan.			6	6			3	9
5. Best management practices help build soil quality and/or recycle nutrients optimizing crop inputs.		1	4	7		1	5	6

#### *Survey of Ag Producers in the Watershed*

##### Rating of Water Quality

Overall, how would you rate the quality of water in the major streams or the Wabash River in your area?

	Poor	OK	Good	Don't know
1. For canoeing / kayaking / other boating	3	7	3	1
2. For picnicking and family activities	3	7	4	
3. For fish habitat	1	9	1	3
4. For scenic beauty	5	6	3	

##### Your Water Resources

- |   |  |
|---|--|
| 1. Of the above activities, which is the most important to you? #1-2 responses; #2- 4 responses; #3- 6 responses; #4- 4 responses; None – rivers are for moving water: Drainage |  |
| 2. Do you know which watershed your rain water goes to when it runs off of your property? 11 YES 2 NO   |  |

**Your Opinions**

Please indicate your level of agreement or disagreement with the statements below.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree
1. Using recommended management practices on farms improves water quality.			4	10
2. It is my personal responsibility to help protect water quality.				14
3. My actions have an impact on water quality.				14
4. I would be willing to change management practices to improve water quality.	1		1	12
5. It is important to protect water quality even if it slows economic development.			2	11
6. I would be willing to pay more to improve water quality (for example: though local taxes or fees).	1	2	7	4

**Water Impairments**

Below is a list of water pollutants and conditions that are generally present in water bodies to some extent. The pollutants and conditions become a problem when present in excessive amounts. In your opinion, how much of a problem are the following water impairments in your area?

	Not a Problem	Slight Problem	Moderate Problem	Severe Problem	Don't Know
1. Sedimentation (dirt and soil) in the water	1	1	5	5	1
2. Nitrogen	1		7	3	1
3. Phosphorus	1	2	5	4	1
4. Pesticides	1	5	3	2	2
5. Bacteria and/or viruses in the water (i.e.: E.coli / coliform)	1	2	8	2	
6. Trash or debris in the water		4	8	1	
7. Flow Alteration – straightening/log jam removal	1	4	4	2	2
8. Habitat alteration harming local fish	2	5	4		2

**Sources of Water Pollution**

The items listed below are sources of water quality pollution across the country. In your opinion, how much of a problem are the following sources in your area?

	Not a Problem	Slight Problem	Moderate Problem	Severe Problem	Don't Know
1. Discharges from industry into streams and lakes.	1	3	6		2
2. Discharges from sewage treatment plants.		2	6	1	3
3. Soil erosion from construction sites.	4	3	4		1
4. Soil erosion from farm fields.		3	7	2	
5. Soil erosion from shorelines and/or streambanks.		3	8		1
6. Inadequate or improperly maintained septic systems.	1	2	7	1	1
7. Manure from farm animals.	2	3	4	3	
8. Littering/illegal dumping of trash.		8	4		
9. Excessive use of fertilizers for crop production.	1	3	5	2	1
10. Runoff from animal feeding facilities.	2	4	4	2	
11. Urban stormwater runoff.	1	4	5		1
12. Channelization of streams.	1	4	4		3
13. Soil loss from stream channels.	2	6	2	1	1
14. Removal of riparian vegetation.	2	1	5	1	2
15. Drainage/filling of wetlands.	2	3	4	1	2

**Consequences of Poor Water Quality**

Poor water quality can lead to a variety of consequences for communities. In your opinion, how much of a problem are the following issues in your area?

	Not a Problem	Slight Problem	Moderate Problem	Severe Problem	Don't Know
1. Loss of desirable fish species.	2	3	6		2
2. Reduced beauty of lakes or streams.	3	2	7		1
3. Reduced quality/opportunities for water recreation activities.	1	2	8	1	1
4. Excessive aquatic plants or algae.	1	1	8	2	1
5. Odor.	3	2	6	1	1
6. Lower property values.	4	3	6		

**Practices to Improve Water Quality**

Please indicate which statement most accurately describes your level of experience with each practice listed below.

	Not relevant for my property	Never heard of it	Somewhat familiar with it	Know how to use it; not using it	Currently use it
1. Use a Comprehensive Nutrient Management Plan to guide the use of fertilizer and manure on the farm.	1		5	2	3
2. Apply manure based on its nutrient content.	2		4	3	2
3. Conduct regular soil tests to determine appropriate fertilizer/manure application rates.	1		1	1	9
4. Use field records of crops, pests and pesticide use to help develop pest control strategies.	1		3	3	4
5. Use variable rate fertilizer application to minimize fertilizer loss and achieve more precise crop production.	1		2	4	5
6. Use conservation tillage (no-till, reduced tillage, strip tillage) to retain crop residue and reduce erosion.	1			3	7
7. Use cover crops for erosion protection, soil improvement and nutrient efficiency.	2		1	3	5
8. Use a field borders or filter strips to trap sediment and nutrients.	3			3	5
9. Use controlled tile drainage to regulate the water level in tile lines and reduce nutrient loss.	3	1	2	3	3
10. Plant vegetation in critical erosion areas.	2		1	3	5
11. Maintain riparian buffers.	3	1	1	2	4
12. Experiment with strip trials on practices to increase soil health/conservation benefits.	2		3	3	3

**Specific Constraints of Practices**

For the practices listed above, indicate how much the following factors limit your ability to implement the practice.

LIST THE PRACTICE (or All) NEXT TO EACH CONSTRAINT:	Not at all	A little	Some	A lot	Don't Know
1. Don't know how to do it :	3	2	2		1
2. Time required:	1	2	2	2	1
3. Cost:	1	2	2	2	1
4. The features of my property make it difficult:	5	2			1
5. Insufficient proof of water quality benefit or soil health benefit.	3	3	1		1
6. Desire to keep things the way they are:	5		2		1
7. Hard to use with my farming system:	4	1	2		1
8. Lack of equipment:	4		3	1	

	Yes	Maybe	No
Are you willing to try any of the practices? (If yes or maybe, list practices) <b>No-till; No-till, cover crops, VRT, control traffic; Cover crops; liquid fertilizer as opposed to dry.</b>	7	3	

**Making Decisions for my Property**

*In general, how much does each issue limit your ability to change your agricultural management practices?*

	Not at all	A little	Some	A lot	Don't Know
1. Personal out-of-pocket expense	2	3	4	1	
2. Concerns about reduced yields	4	4	1	1	
3. Not having access to the equipment that I need	1	4	2	2	
4. Lack of available information about a practice	3	5	1		
5. No one else I know is implementing the practice	6	3			
6. Approval of my neighbors	9	1			
7. Lack of government funds for cost share	5	2	3		
8. Possible interference with my flexibility to change land use practices as conditions warrant	5	2	2	1	
9. The requirements or restrictions on my management decisions by participating in government programs	3	3	3	1	
10. Environmental damage caused by practice	5	2	1		1
11. I do not own the property	6		1	2	
12. Not being able to see a demonstration of the practice before I decide	5	3	1		

**About Your Farm Operation**

<p>1. Please select the option that best describes who generally makes management decisions for your operation.</p> <p><b>7 Me alone or with my spouse</b></p> <p><b>1 Me with my family partners (siblings, parents, children)</b></p> <p><b>0 Me with the landowner</b></p> <p><b>1 Me with my tenant</b></p> <p><b>0 Me and my business partners</b></p> <p><b>1 Someone else makes the decision for the operation</b></p> <p><b>1 Other</b></p> <p>2. Please estimate the total tillable acreage (owned and/or rented) of your farming operation this year.</p> <p><b>1000; 250; 85; 505; 6; 10; 32; 850; 1000; 800</b></p> <p>3. How many years have you been farming? (Please enter years).</p> <p><b>10; 18; 15; 15; 20; 8; 55; 40+; 8</b></p> <p>4. How many livestock are a part of your farming operation? If none, please enter a zero.</p> <p><b>0- 8 responses; 5; 37; 40</b></p>	<p>5. Does the property you manage touch a stream, river, lake, or wetland?</p> <p><b>7 Yes                      4 No</b></p> <p>6. Five years from now, which statement will best describe your farm operation?</p> <p><b>7 It will be about the same as it is today</b></p> <p><b>2 It will be larger</b></p> <p><b>0 It will be smaller</b></p> <p><b>3 I don't know</b></p> <p>7. Do you have a nutrient management plan for your farm operation?</p> <p><b>5 Yes</b></p> <p><b>6 No</b></p> <p>8. Who developed your current nutrient management plan?</p> <p><b>1 My Conservation District, Extension, or NRCS office</b></p> <p><b>6 A private-sector agronomist or crop consultant</b></p> <p><b>2 I created my own plan</b></p> <p><b>0 I don't know</b></p> <p><b>0 Other</b></p>
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**About You**

<p>1. What is your gender?  <b>10 Male</b>  <b>3 Female</b></p> <p>4 What is your age? <b>32; 32; 39; 41; 42; 59; 28; 57; 62; 75; 56; 26</b></p>	<p>3. What is the highest grade in school you have completed?  <b>5 High school diploma/GED</b>  <b>4 Some college</b>  <b>0 2 year college degree</b>  <b>3 4 year college degree</b>  <b>1 Post-graduate degree</b></p>
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**Information Sources**

<p>1. <b>Where are you likely to seek information about soil and water conservation issues? (Check all that apply)</b></p> <p><b>7</b> Newsletters / brochures / fact sheets  <b>6</b> Internet  <b>2</b> Radio  <b>10</b> Workshops / field days / demonstrations / meetings  <b>5</b> Conversations with others  <b>6</b> Trade publications / magazines  <b>1</b> None of the above</p> <p>2. <b>Do you regularly read the local news papers?</b>  <b>8</b> Yes  <b>4</b> No</p>																																																																													
<p>3. <b>People get information about water quality from a number of different sources. To what extent do you trust those listed below as a source of information about soil and water?</b></p> <table border="1"> <thead> <tr> <th></th> <th>Not at all</th> <th>Slightly</th> <th>Moderately</th> <th>Very much</th> <th>Not familiar</th> </tr> </thead> <tbody> <tr> <td>a. Soil and Water Conservation District (SWCD)</td> <td></td> <td>1</td> <td>3</td> <td>9</td> <td></td> </tr> <tr> <td>b. Natural Resources Conservation Service (NRCS)</td> <td></td> <td>1</td> <td>4</td> <td>7</td> <td></td> </tr> <tr> <td>c. University Extension</td> <td>1</td> <td>1</td> <td>5</td> <td>5</td> <td></td> </tr> <tr> <td>d. State agricultural agency (i.e.: ISDA)</td> <td></td> <td>2</td> <td>6</td> <td>4</td> <td></td> </tr> <tr> <td>e. Environmental groups</td> <td>1</td> <td>4</td> <td>5</td> <td>2</td> <td></td> </tr> <tr> <td>f. Farm Bureau</td> <td>1</td> <td>2</td> <td>8</td> <td>1</td> <td></td> </tr> <tr> <td>g. Crop consultants</td> <td>1</td> <td></td> <td>5</td> <td>5</td> <td>1</td> </tr> <tr> <td>h. Fertilizer representatives</td> <td>1</td> <td>4</td> <td>6</td> <td>1</td> <td></td> </tr> <tr> <td>i. Other landowners / friends</td> <td></td> <td>4</td> <td>7</td> <td>1</td> <td></td> </tr> <tr> <td>j. State natural resources agency (i.e.: IDNR)</td> <td></td> <td>4</td> <td>5</td> <td>3</td> <td></td> </tr> <tr> <td>k. County Departments (Health Dept., etc.)</td> <td>1</td> <td>3</td> <td>6</td> <td>2</td> <td></td> </tr> </tbody> </table>							Not at all	Slightly	Moderately	Very much	Not familiar	a. Soil and Water Conservation District (SWCD)		1	3	9		b. Natural Resources Conservation Service (NRCS)		1	4	7		c. University Extension	1	1	5	5		d. State agricultural agency (i.e.: ISDA)		2	6	4		e. Environmental groups	1	4	5	2		f. Farm Bureau	1	2	8	1		g. Crop consultants	1		5	5	1	h. Fertilizer representatives	1	4	6	1		i. Other landowners / friends		4	7	1		j. State natural resources agency (i.e.: IDNR)		4	5	3		k. County Departments (Health Dept., etc.)	1	3	6	2	
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**Thank You!** *Additional Comments about this survey or water resources in your community:*

**Landowner: sometimes dependent on tenant farmer, but I try to encourage better practices. I'd like to see local farmers implement more environmentally friendly practices – use of cover crops, no-till, decrease runoff, etc.**