

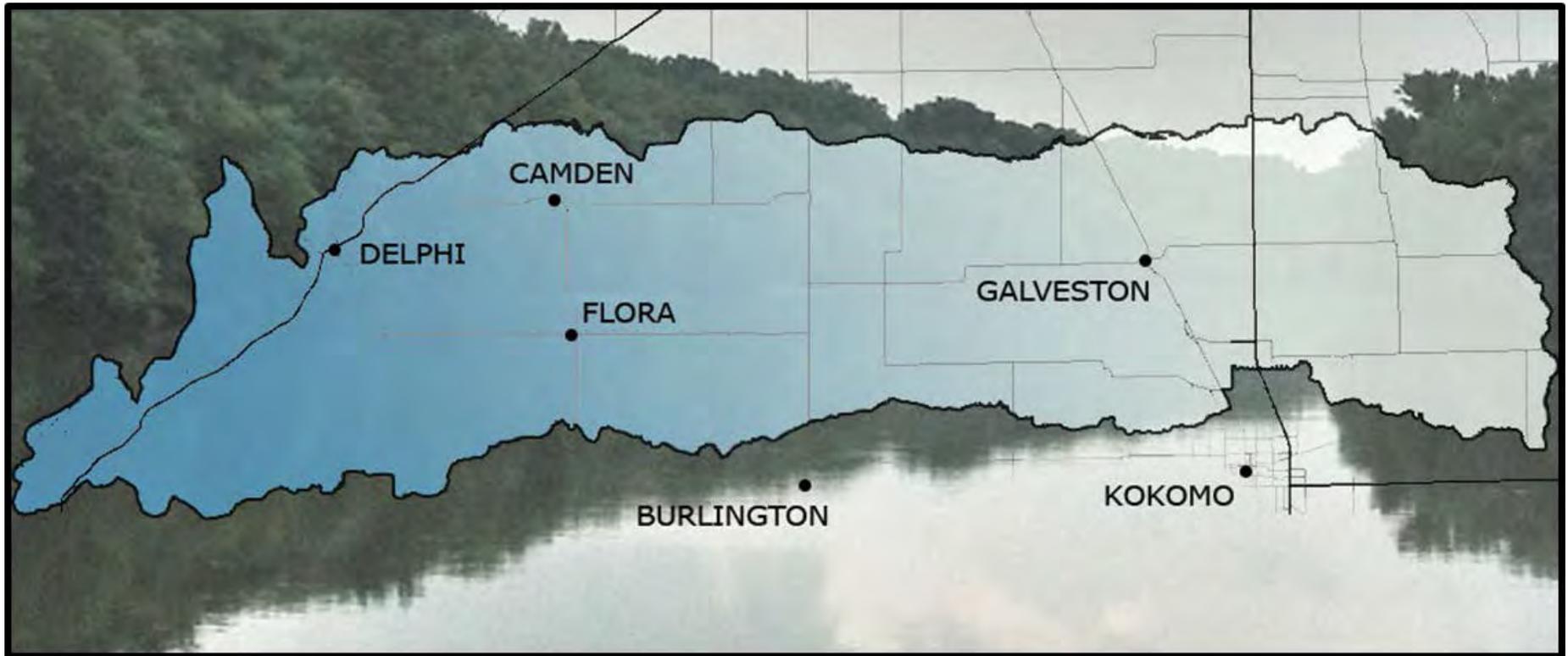
# Appendix B: Social Indicator Survey Full Report

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## *Deer Creek-Sugar Creek Watershed*

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## Human Dimensions of Water Quality in the Deer Creek-Sugar Creek Watersheds

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# Deer Creek-Sugar Creek Watershed

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## I. **Methods**

*Mail Survey*

612 Surveys distributed

43 Bad addresses

269 Completed (47% response rate after accounting for bad addresses)

## II. Your Water Resources

### 1. Of these activities, which is the most important to you? (select one) (n=219)

- 7.3% Canoeing / kayaking / other boating
- 20.1% Fishing
- 1.4% Swimming
- 16.0% Picnicking and family activities
- 55.3% Enjoying scenic beauty

### 2. Do you know where the rain water goes when it runs off of your property? (Yes or No) (n=244)

- 89.3% Yes
- 10.7% No

### 3. If you answered 'Yes' above, where does your rain water drain to?

See Appendix B-1

# Deer Creek-Sugar Creek Watershed

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## III. Your Opinions

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

		Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)	Mean (n)
a.	The way that I care for my lawn and yard can influence water quality in local streams.	4.0%	8.5%	18.8%	54.5%	14.3%	3.67 (224)
b.	Using recommended management practices on farms improves water quality.	0.4%	0.8%	6.8%	69.7%	22.3%	4.13 (251)
c.	It is my personal responsibility to help protect water quality.	0.4%	0.8%	6.4%	69.5%	22.9%	4.14 (249)
d.	It is important to protect water quality even if it slows economic development.	0.8%	3.2%	23.0%	57.3%	15.7%	3.84 (248)
e.	My actions have an impact on water quality.	1.2%	4.8%	13.3%	65.1%	15.7%	3.89 (249)
f.	I would be willing to pay more to improve water quality (for example: through local taxes or fees).	15.4%	24.3%	38.5%	20.2%	1.6%	2.68 (247)
g.	I would be willing to change the way I care for my lawn and yard to improve water quality.	5.7%	10.2%	35.2%	42.6%	6.1%	3.33 (244)
h.	I would be willing to change management practices to improve water quality.	3.7%	9.4%	31.1%	50.4%	5.3%	3.44 (244)
i.	The quality of life in my community depends on good water quality in local rivers and streams.	1.6%	5.2%	18.1%	62.7%	12.4%	3.79 (249)

## *Deer Creek-Sugar Creek Watershed*

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# Deer Creek-Sugar Creek Watershed

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## IV. 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 (1)	Slight Problem (2)	Moderate Problem (3)	Severe Problem (4)	Don't Know	Mean (n)
a. Sedimentation (dirt and soil) in the water	15.7%	30.2%	32.3%	6.9%	14.9%	2.36 (211)
b. Nitrogen	23.9%	23.9%	17.5%	4.8%	29.9%	2.05 (176)
c. Phosphorus	23.9%	24.3%	17.9%	3.2%	30.7%	2.01 (174)
d. Bacteria and viruses in the water (such as E. coli / coliform)	21.6%	22.0%	17.6%	6.0%	32.8%	2.12 (168)
e. Trash or debris in the water	16.0%	31.6%	31.2%	9.6%	11.6%	2.39 (221)
f. Pesticides	22.4%	26.4%	15.6%	6.0%	29.6%	2.07 (176)

## *Deer Creek-Sugar Creek Watershed*

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### V. 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 (1)	Slight Problem (2)	Moderate Problem (3)	Severe Problem (4)	Don't Know	Mean (n)
a. Contaminated fish	29.9%	24.7%	15.9%	6.8%	22.7%	1.99 (194)
b. Reduced beauty of streams	33.5%	30.7%	19.9%	5.6%	10.4%	1.97 (225)
c. Reduced opportunities for water recreation	40.6%	25.3%	12.0%	5.2%	16.9%	1.78 (207)
d. Reduced quality of water recreation activities	38.2%	27.3%	13.7%	4.4%	16.5%	1.81 (208)
e. Excessive aquatic plants or algae	29.8%	29.4%	12.1%	5.2%	23.4%	1.91 (190)
f. Fish kills	47.6%	20.4%	8.4%	3.2%	20.4%	1.59 (199)
g. Lower property values	53.0%	15.1%	6.4%	3.2%	22.3%	1.48 (195)

## *Deer Creek-Sugar Creek Watershed*

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### **VI. 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 (1)	Slight Problem (2)	Moderate Problem (3)	Severe Problem (4)	Don't Know (3)	Mean (n)
a. Discharges from industry into streams	32.2%	28.6%	14.5%	4.3%	20.4%	1.89 (203)
b. Discharges from sewage treatment plants	29.3%	21.9%	19.5%	7.0%	22.3%	2.06 (199)
c. Soil erosion from farm fields	14.6%	44.7%	25.7%	5.9%	9.1%	2.25 (230)
d. Soil erosion from streambanks	15.4%	38.2%	25.6%	8.7%	12.2%	2.31 (223)
e. Improperly maintained septic systems	24.3%	29.8%	14.9%	4.7%	26.3%	2.00 (188)
f. Manure from farm animals	42.9%	27.0%	13.5%	4.4%	12.3%	1.76 (221)
g. Littering/illegal dumping of trash	15.2%	37.9%	30.1%	5.1%	11.7%	2.28 (226)
h. Excessive use of fertilizers for crop production	38.8%	26.7%	13.3%	3.9%	17.3%	1.79 (211)
i. Pasture grazing	64.6%	15.4%	4.7%	1.2%	14.2%	1.33 (218)
j. Animal feeding operations	45.1%	23.5%	10.6%	3.5%	17.3%	1.67 (211)
k. Construction of highways, roads, and bridges	35.0%	27.6%	14.2%	7.5%	15.7%	1.93 (214)
l. Urban stormwater runoff	27.8%	23.8%	20.6%	9.5%	18.3%	2.15 (206)

# Deer Creek-Sugar Creek Watershed

## VII. 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 (0)	Somewhat familiar with it (1)	Know how to use it; not using it (2)	Currently Use It (3)	Mean (n)
a. Regular servicing of septic system	16.3%	9.5%	20.6%	6.3%	47.2%	3.09 (211)
b. Using regular soil tests for pH, phosphorous, nitrogen, and potassium to determine nutrient application rates	10.0%	2.8%	8.0%	6.0%	73.1%	3.66 (224)
c. Using manure in accordance with its nutrient content	48.0%	1.2%	8.4%	4.4%	38.0%	3.52 (130)
d. Following university recommendations for fertilization rates	13.8%	4.9%	14.6%	5.7%	61.1%	3.43 (213)
e. Using variable rate application technology for more precise crop production	16.2%	3.2%	8.1%	10.1%	62.3%	3.57 (207)
f. Considering location and soil characteristics to minimize leaching or runoff	14.7%	2.4%	18.4%	4.9%	59.6%	3.43 (209)
g. Constructing a facility for composting dead animals	71.6%	2.4%	5.2%	8.8%	12.0%	3.07 (71)
h. Retaining crop residue on soil surface to reduce erosion	12.4%	1.2%	10.4%	5.6%	70.3%	3.66 (218)
i. Following an approved grazing plan to maintain grass quality and reduce erosion	68.1%	2.4%	5.9%	7.9%	15.7%	3.16 (81)
j. Using a grassed waterway to reduce erosion and soil loss	19.3%	1.2%	7.5%	4.3%	67.7%	3.72 (205)
k. Using fences to exclude livestock from streams and ditches	73.6%	0.8%	2.8%	7.9%	15.0%	3.40 (67)
l. Using conservation tillage, including no-till, strip-till and ridge till	21.5%	0.8%	11.6%	18.7%	47.4%	3.44 (197)

# Deer Creek-Sugar Creek Watershed

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## VIII. Constraints for Specific Practices

### A. Feedlot Runoff Diversion

Use of a built diversion structure, filter strips, or grassed waterways to prevent surface water from flowing through feedlots.

#### 1. How familiar are you with this practice? (n=241)

- 72.6% Not relevant for my operation
- 2.5% Never heard of it
- 8.3% Somewhat familiar with it
- 3.7% Know how to use it; not using it
- 12.9% Currently use it

#### 2. If the practice is not relevant, please explain why.

See Appendix B-2

#### 3. Are you willing to try this practice? (n=109)

- 32.1% Yes or already do
- 27.5% Maybe
- 40.4% No

<i>How much do the following factors limit your ability to implement this practice?</i>	Not at all (1)	A little (2)	Some (3)	A lot (4)	Don't Know	Mean (n)
a. Don't know how to do it	39.7%	14.0%	12.4%	2.5%	31.4%	1.67 (83)
b. Time required	26.7%	15.8%	17.5%	6.7%	33.3%	2.06 (80)
c. Cost	21.7%	12.5%	23.3%	9.2%	33.3%	2.30 (80)
d. The features of my property make it difficult	32.8%	13.4%	11.8%	8.4%	33.6%	1.94 (79)
e. Insufficient proof of water quality benefit	28.6%	19.3%	11.8%	4.2%	36.1%	1.87 (76)
f. Desire to keep things the way they are	33.1%	15.3%	12.9%	9.7%	29.0%	1.99 (88)
g. Hard to use with my farming system	36.7%	11.7%	13.3%	5.8%	32.5%	1.83 (81)
h. Lack of equipment	34.5%	16.0%	12.6%	5.9%	31.1%	1.85 (82)

# Deer Creek-Sugar Creek Watershed

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## B. Cover Crops

Planting cover crops for erosion protection and soil improvement.

### 1. How familiar are you with this practice? (n=243)

- 15.2% Not relevant for my operation
- 1.6% Never heard of it
- 25.9% Somewhat familiar with it
- 26.7% Know how to use it; not using it
- 30.5% Currently use it

### 2. If the practice is not relevant, please explain why.

See Appendix B-3

### 3. Are you willing to try this practice? (n=190)

- 31.1% Yes or already do
- 50.5% Maybe
- 18.4% No

<i>How much do the following factors limit your ability to implement this practice?</i>	<b>Not at all (1)</b>	<b>A little (2)</b>	<b>Some (3)</b>	<b>A lot (4)</b>	<b>Don't Know</b>	<b>Mean (n)</b>
a. Don't know how to do it	48.6%	13.7%	19.1%	1.1%	17.5%	1.67 (151)
b. Time required	22.8%	17.9%	30.4%	10.9%	17.9%	2.36 (151)
c. Cost	20.5%	13.5%	28.6%	16.8%	20.5%	2.52 (147)
d. The features of my property make it difficult	44.6%	15.1%	15.6%	3.8%	21.0%	1.73 (147)
e. Insufficient proof of water quality benefit	35.2%	15.9%	20.3%	3.3%	25.3%	1.89 (136)
f. Desire to keep things the way they are	37.6%	17.2%	14.5%	14.0%	16.7%	2.06 (155)
g. Hard to use with my farming system	29.9%	16.3%	20.1%	13.6%	20.1%	2.22 (147)
h. Lack of equipment	29.7%	19.2%	22.0%	11.0%	18.1%	2.17 (149)

# Deer Creek-Sugar Creek Watershed

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## C. 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? (n=242)

- 23.1% Not relevant for my operation
- 38.0% Never heard of it
- 20.2% Somewhat familiar with it
- 10.7% Know how to use it; not using it
- 7.9% Currently use it

### 2. If the practice is not relevant, please explain why.

See Appendix B-4

### 3. Are you willing to try this practice? (n=172)

- 12.2% Yes or already do
- 58.7% Maybe
- 29.1% No

<i>How much do the following factors limit your ability to implement this practice?</i>	<b>Not at all (1)</b>	<b>A little (2)</b>	<b>Some (3)</b>	<b>A lot (4)</b>	<b>Don't Know</b>	<b>Mean (n)</b>
a. Don't know how to do it	24.6%	8.8%	22.8%	11.1%	32.7%	2.30 (115)
b. Time required	18.2%	10.6%	22.4%	13.5%	35.3%	2.48 (110)
c. Cost	12.8%	9.3%	19.8%	24.4%	33.7%	2.84 (114)
d. The features of my property make it difficult	20.8%	12.5%	17.3%	10.1%	39.3%	2.27 (102)
e. Insufficient proof of water quality benefit	26.3%	14.4%	18.6%	5.4%	35.3%	2.05 (108)
f. Desire to keep things the way they are	32.6%	13.1%	14.9%	10.3%	29.1%	2.04 (124)
g. Hard to use with my farming system	27.4%	13.1%	13.7%	8.9%	36.9%	2.07 (106)
h. Lack of equipment	22.5%	8.9%	17.2%	13.0%	38.5%	2.34 (104)

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# Deer Creek-Sugar Creek Watershed

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## D. Vegetated Riparian Buffer

Establishing vegetation to function as a buffer to ponds, wetlands, rivers, streams, and creeks.

### 1. How familiar are you with this practice? (n=242)

- 21.5% Not relevant for my operation
- 18.6% Never heard of it
- 20.2% Somewhat familiar with it
- 5.0% Know how to use it; not using it
- 34.7% Currently use it

### 2. If the practice is not relevant, please explain why.

See Appendix B-5

### 3. Are you willing to try this practice? (n=163)

- 39.9% Yes or already do
- 35.6% Maybe
- 24.5% No

<i>How much do the following factors limit your ability to implement this practice?</i>	<b>Not at all (1)</b>	<b>A little (2)</b>	<b>Some (3)</b>	<b>A lot (4)</b>	<b>Don't Know</b>	<b>Mean (n)</b>
a. Don't know how to do it	40.5%	10.1%	14.6%	5.1%	29.7%	1.77 (111)
b. Time required	31.2%	17.2%	14.6%	9.6%	27.4%	2.04 (114)
c. Cost	27.0%	13.2%	16.4%	15.1%	28.3%	2.27 (114)
d. The features of my property make it difficult	39.9%	11.4%	14.6%	4.4%	29.7%	1.77 (111)
e. Insufficient proof of water quality benefit	41.4%	10.8%	15.3%	2.5%	29.9%	1.70 (110)
f. Desire to keep things the way they are	40.6%	15.0%	13.8%	6.3%	24.4%	1.81 (121)
g. Hard to use with my farming system	40.8%	10.2%	13.4%	7.6%	28.0%	1.83 (113)
h. Lack of equipment	37.6%	10.8%	16.6%	6.4%	28.7%	1.88 (112)

# Deer Creek-Sugar Creek Watershed

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## IX. Making Decisions for My Property

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

	Not at All (1)	A little (2)	Some (3)	A lot (4)	Don't Know	Mean (n)
a. Personal out-of-pocket expense	11.2%	13.8%	33.2%	31.0%	10.8%	2.94 (207)
b. Lack of government funds for cost share	15.7%	14.0%	33.2%	21.4%	15.7%	2.72 (193)
c. My own physical abilities	32.9%	17.3%	26.8%	13.4%	9.5%	2.23 (209)
d. Not having access to the equipment I need	21.7%	18.6%	27.9%	19.9%	11.9%	2.52 (199)
e. Lack of available information about a practice	23.5%	22.6%	25.2%	11.9%	16.8%	2.31 (188)
f. No one else I know is implementing the practice	31.1%	19.7%	15.8%	7.9%	25.4%	2.01 (170)
g. Concerns about reduced yields	26.3%	21.5%	20.2%	18.9%	13.2%	2.36 (198)
h. Approval of my neighbors	51.5%	14.1%	14.5%	5.3%	14.5%	1.69 (194)
i. Don't want to participate in government programs	40.0%	13.5%	20.4%	12.2%	13.9%	2.06 (198)
j. Requirements or restrictions of government programs	20.2%	17.1%	21.1%	24.6%	17.1%	2.60 (189)
k. Possible interference with my flexibility to change land use practices as conditions warrant	17.5%	14.0%	31.1%	18.9%	18.4%	2.63 (186)
l. Don't know where to get information and/or assistance for new practices	42.9%	22.3%	13.4%	4.5%	17.0%	1.75 (186)
m. Environmental damage caused by practice	41.2%	17.5%	13.2%	5.7%	22.4%	1.79 (177)

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n. Legal restrictions on my property	34.8%	16.3%	16.3%	10.6%	22.0%	2.03 (177)
o. I do not own the property	63.9%	5.1%	12.5%	8.8%	9.7%	1.63 (195)
p. Concerns about resale value	50.9%	13.2%	14.0%	6.6%	15.4%	1.72 (193)
q. Not being able to see a demonstration of the practice before I decide	34.8%	19.8%	17.2%	9.7%	18.5%	2.02 (185)
r. The need to learn new skills or techniques	35.0%	20.4%	20.8%	6.2%	17.7%	1.98 (186)

# Deer Creek-Sugar Creek Watershed

## X. About Your Farm Operation

### 1. Please select the option that best describes who generally makes management decisions for your operation. (n=248)

- 31.9% Me alone or with my spouse
- 35.5% Me with my family partners (siblings, parents, children)
- 3.6% Me with the landowner
- 16.5% Me with my tenant
- 5.6% Me and my business partners
- 4.8% Someone else makes the decisions for the operation
- 2.0% Other: \_\_\_\_\_
  - “All the answers but the last one”
  - “me and my son”
  - “N/A”
  - “Tenants”

### 2. Please estimate the total crop and pasture acreage (owned and/or rented) of your farming operation this year. (n=242)

Range: 0 – 6500  
Mean: 571

### 3. This year, how many acres of pasture do you manage? If none, please enter a zero. (n=250)

Range: 0 - 3000  
Mean: 25

### 4. How many years have you been farming? (n=235)

Range: 0 – 80  
Mean: 33

### 5. Did any family member own and operate this farm before you did? (n=245)

28.2% No  
71.8% Yes

### 6. If you answered ‘yes’ to the previous question, how many years has the farm been in the family? (n=180)

Range: 15 – 180  
Mean: 77

### 7. How likely is it that any family member will continue farm operations when you retire or quit farming? (n=247)

- 9.3% Definitely will not happen
- 19.0% Probably will not happen
- 43.3% Probably will happen
- 28.3% Definitely will happen

### 8. Does the property you manage touch a stream, river, or wetland? (n=250)

- 62.0% Yes
- 38.0% No

### 9. Do you have a nutrient management plan for your farm operation? (n=237)

- 67.9% Yes
- 32.1% No

### 10. If you do have a nutrient management plan, does your nutrient management plan meet the NRCS technical standard 590? (n=157)

- 70.7% I don't know
- 0.0% No
- 29.3% Yes

### 11. Who developed your current nutrient management plan? (n=156)

- 10.9% My soil and water conservation district, University Extension, or NRCS office
- 61.5% A private-sector agronomist or crop consultant
- 13.5% I created my own plan
- 9.0% I don't know
- 5.1% Other: \_\_\_\_\_
  - “Cash Renter”
  - “Co-op”
  - “My tenant”
  - “Tenant”
  - “Tenant”
  - “Tenant”
  - “Tenant manages”

# Deer Creek-Sugar Creek Watershed

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## XI. About You

### 1. Do you make the home and lawn care decisions in your household? (n=248)

92.3% Yes  
7.7% No

### 2. What is your gender? (n=250)

86.8% Male  
13.2% Female

### 3. What is your age? (n=241)

Range: 24 -101  
Mean: 64

### 4. What is the highest grade in school you have completed? (n=248)

6.9% Some formal schooling  
39.1% High school diploma / GED  
21.4% Some college  
8.1% 2 year college degree  
16.9% 4 year college degree  
7.7% Post-graduate degree

### 5. What is the approximate size of your residential lot? (n=244)

3.3% ¼ acre or less  
13.5% More than ¼ acre but less than 1 acre  
67.6% 1 acre to less than 5 acres  
15.6% 5 acres or more

### 6. Do you own or rent your home? (n=249)

96.0% Own  
4.0% Rent

### 7. How long have you lived at your current residence (years)? (n=246)

Range: 1 - 90  
Mean: 32

### 8. Which of the following best describes where you live? (n=251)

3.6% In a town, village, or city  
82.5% On a farm  
8.0% In an isolated, rural, non-farm residence  
6.0% Rural subdivision or development

### 9. Do you use a professional lawn care service? (n=251)

0.4% Yes, just for mowing  
0.8% Yes, for mowing and fertilizing  
6.4% Yes, just for fertilizing and pest control  
0.4% Yes, for mowing, fertilizing, and pest control  
92.0% No

### 10. Where are you likely to seek information about soil and water conservation issues?

#### (check all that apply) (n=267)

46.1% Newsletters / brochures / fact sheets  
24.7% Internet  
3.7% Radio  
28.8% Workshops / demonstrations / meetings  
37.1% Conversations with others  
27.7% Trade publications / magazines  
15.4% None of the above

### 11. Where are you likely to seek information about water quality issues?

#### (check all that apply) (n=267)

44.9% Newsletters / brochures / fact sheets  
26.6% Internet  
4.1% Radio  
28.1% Newspapers / magazines  
26.2% Workshops / demonstrations / meetings  
33.7% Conversations with others  
12.4% None of the above

## Deer Creek-Sugar Creek Watershed

### XII. 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 (1)	Slightly (2)	Moderately (3)	Very much (4)	Am not familiar	Mean (n)
a. Soil and Water Conservation District	2.9%	4.9%	29.2%	58.8%	4.1%	3.50 (233)
b. Natural Resources Conservation Service	3.8%	10.0%	30.8%	47.1%	8.3%	3.32 (220)
c. Purdue Extension	2.9%	11.3%	29.2%	52.5%	4.2%	3.37 (230)
d. Indiana State Department of Agriculture	6.6%	15.4%	34.9%	36.1%	7.1%	3.08 (224)
e. Indiana Department of Environmental Management	14.6%	21.3%	32.1%	22.9%	9.2%	2.70 (218)
f. Indiana Department of Natural Resources	7.1%	18.4%	35.6%	31.4%	7.5%	2.99 (221)
g. Fertilizer representatives	13.0%	20.2%	34.9%	26.1%	5.9%	2.79 (224)
h. Crop consultants	8.8%	16.4%	35.7%	31.5%	7.6%	2.97 (220)
i. Wabash River Enhancement Corporation	15.9%	13.8%	17.2%	10.9%	42.3%	2.40 (138)
j. NICHES Land Trust	18.8%	9.2%	9.6%	4.2%	58.2%	1.98 (100)
k. Other landowners / friends	8.0%	24.4%	44.5%	18.1%	5.0%	2.77 (226)
l. Hoosier Environmental Council	19.8%	15.2%	5.5%	5.5%	54.0%	1.93

## *Deer Creek-Sugar Creek Watershed*

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						(109)	
m.	U.S. Environmental Protection Agency	30.8%	24.9%	16.0%	8.4%	19.8%	2.03 (190)
n.	Local government	18.1%	34.9%	28.2%	8.8%	10.1%	2.31 (214)
o.	Farm Bureau	11.2%	23.2%	36.9%	18.7%	10.0%	2.70 (217)
p.	Farm Service Agency	5.4%	14.5%	38.6%	36.1%	5.4%	3.11 (228)

# Deer Creek-Sugar Creek Watershed

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## XIII. Your Septic System

### 1. Do you have a septic system? (n=257)

- 7.0% No – (Thank you, survey complete. Please enter any comments below.)
- 1.6% Don't know
- 91.4% Yes

### 2. If you answered 'yes' to the previous question, in what year was it installed? (n=156)

Range: 1910 - 2013

Mean: 1982

### 3. Within the last five years, have you had any of the following problems? (check all that apply) (n=235)

- 6.8% Slow drains
- 1.7% Sewage backup in house
- 0.4% Bad smells near tank or drain field
- 0.9% Sewage on the surface
- 0.0% Sewage flowing to ditch
- 0.0% Frozen septic
- 1.3% Other: \_\_\_\_\_
  - "It's alright"
  - "None"
  - "Septic tank full"
- 84.7% None
- 3.0% Don't know

### 4. Does your septic system have an absorption field (finger system)? (n=229)

- 76.0% Yes
- 12.2% No
- 11.8% Don't know

### 5. How would you know if your septic system was NOT working properly? (check all that apply) (n=235)

- 67.2% Slow drains
- 58.7% Sewage backup in house
- 43.8% Bad smells
- 66.0% Toilet backs up
- 46.8% Wet spots in lawn
- 29.4% Pumping tank monthly or more

## Deer Creek-Sugar Creek Watershed

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7.7% Straight pipe to ditch

8.9% Frozen septic

7.7% Don't know

5.5% Other: \_\_\_\_\_

- "Alert system"
- "All"
- "Any of the above. We have no problem!"
- "Color of grass over fingers"
- "Don't have problems"
- "Have not had a problem"
- "I have it checked and maintained every other year"
- "If it don't work"
- "Inspections every 3-5 years + pumping tank"
- "Never had a problem"
- "No problem"
- "None"

# Deer Creek-Sugar Creek Watershed

## Appendix B-1

### 3. If you answered "Yes" above, where does your rain water drain to?

		Frequency
		50
	Most of are water goes to the Dehaven ditch then goes N to the Deer Creek	1
	A Branch of the Bachelor Run Ditch, eventually drains to Deer Creek & Wabash River	1
	A COUNTY DRAIN LINE AND IT EMPTIES INTO DEER CREEK	1
	an open ditch	1
	Bachelor River	1
	Bachelor Run	3
	BACHELOR RUN	1
	bachelor run creek	1
	Bachelor Run Ditch	1
Valid	Bachelor Run then Big Deer Creek	1
	Bachelor Run to Deer Creek	1
	BACHLOR RUN C	1
	Back ditch that flows into Deer Creek	1
	Batchlor Run Creek	1
	Bear Creek, Pipe Creek & Wabash River	1
	BECHELOR RUN	1
	Bracher Run	1
	BRIDGE CREEK	1
	BRIDGE CREEK, DEER CREEK, ROBINSON RUN	1
	Brown's Ditch	1

# Deer Creek-Sugar Creek Watershed

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Buck Creek	1
Buck Creek Ditch then to the Wabash River	1
COUNTY DITCH	2
county drainage ditch	1
COUNTY DRAINS	1
creek	2
Creek	2
CREEK	4
CREEKS AND RIVERS	1
Creeks and streams	1
Deer	1
deer creek	1
Deer creek	1
Deer Creek	18
DEER CREEK	21
Deer Creek and Paint Creek	1
DEER CREEK WATERSHED	1
DEER CREEK-SUGAR CREEK WATERSHED	1
deer creek-wabash	1
Deer Creek-Wild Cat	1
Deer creek, big and little	1
derr creek	1
DIRECTLY TO WABASH RIVER VIA BRIDGE CREEK	1
ditch	4
DITCH	1

# Deer Creek-Sugar Creek Watershed

ditch just north of our property	1
DITCHES AND THEN ?	1
down hill or street sewer	1
DOWN IN THE GROUND	1
drainage ditch	1
Drainage ditch	1
Drainage ditch south 3/4 mile	1
DRAINAGE TILE	1
Drains in the ground and out in towel	1
drains into ditches then into rivers	1
FIELD	1
field tile	1
Field tile	1
FIELD TILE	1
field tile and open ditch	1
field tile to Deer Creek	1
Fields	1
FIELDS AND DITCH-THOMPSON DRAIN	1
Filter Strips to Open ditch	1
Finger System/Field	1
Gilbert Ditch	1
GROUND	1
Gulf of Mexico	1
Hyman ditch through drain tile	1
If not absorbed, it goes to tile ditches which drain into Deer Creek or Bachelor Run (depending on the direction)	1

# Deer Creek-Sugar Creek Watershed

IN AN OPEN DITCH	1
In little Deer Creek	1
in the bachelor run	1
IN THE SOIL OR IN THE DITCH	1
INTO A FIELD TILE AND INTO AN OPEN DITCH	1
into an open ditch	1
into deer creek	1
Into Deer Creek	1
INTO DEER CREEK	1
into deer creek then into the wabash	1
Into drainage tile, tile empties into open ditches, open ditches empties into creeks and streams, then to rivers, and into the gulf of Mexico	1
Into our local creeks , then to our rivers then to the Gulf of Mexico	1
Into the ground	1
IT DRAINS INTO CREEKS AND OPEN DITCHES	1
Johns Ditch	1
KOKOMO RESORVOIR	1
Little Deer Creek	1
LITTLE DEER CREEK	1
LITTLE DEER CREEK OR IN THE GROUND	1
McKay dredge and eventually the Wabash	1
McKay Dredge Ditch	1
MISSISNAWA RESIVOIR	1
Mississippi River	1
MOST OF IT DRAINS INTO THE MCKAY DITCH	1
Munson ditch-Deer Creek-Wabash	1

# Deer Creek-Sugar Creek Watershed

NEAR BY STREAM	1
NORTH TO MIAMI COUNTY, THEN WEST TO THE WABASH RIVER. INTO OUR CREEK THEN	1
Oceans	1
Open ditch	1
OPEN DITCH	1
OPEN DITCH THAT FEEDS INTO DEER CREEK	1
open ditch then to bachelor run to deer creek-etc	1
open ditches field tile then to small rivers	1
OPEN DITCHES, THEN CREEK, POINT CREEK OR DEER CREEK	1
Paint Creek	2
Paint Creek to Deer Creek	1
Paint Creek/Deer Creek	1
Pond on property and the Wildcat Creek	1
Ponds-creek	1
Really two places, down into the earth and to a drainage ditch on west side of property...	1
Rice Bell Drain	1
Ridenour Ditch & Deer Creek	1
Ridenour Ditch & to Little Deer Creek & then to Big Deer Creek	1
rivers	1
Rock Creek	1
ROCK CREEK	2
Si FK Deer Creek	1
SMALL CREEK ON FARM	1
Small ditches that end up in time in the Wildcat creek	1
small streams that eventually drains into Deer Creek	1

# Deer Creek-Sugar Creek Watershed

soil, field tile, creek.	1
SOME IN SUGAR CREEK, OTHER IN OTHER OPEN DITCHES	1
STORM SEWER	1
Sugar Creek	2
SUGAR CREEK	2
Sugar Creek + Wabash River	1
SUGAR CREEK AND OPEN DITCH THAT RUNS TO SUGAR CREEK	1
Sugar Creek and to the Wildcat Creek	1
SUGAR CREEK DEER CREEK	1
SUGAR CREEK THEN TO WABASH RIVER	1
suger creek	1
THE CREEK!	1
the Gulf of Mexico	1
THE OPEN DITCH THAT RUNS THROUGH THE FARM	1
the Wabash	1
the Wabash River	1
THE WATER DRAINS INTO A NEARBY DITCH	1
Tiles-open ditches-wildcat-wabash	1
tiles, creeks, rivers	1
Tippecanoe, Wabash, Deer Creek	1
TO BATCHELOR RUN THEN TO LITTLE DEER CREEK	1
to deer creek	1
TO DEER CREEK	1
to open ditch	1
TO THE CREEK	1

# Deer Creek-Sugar Creek Watershed

TO THE DEER CREEK WATERSHED BY OPEN DITCH AND SUBSTRATE TILE	1
to the ditch, Deer Creek, Wildcat, Wabash, Miss, Cal	1
to the river	1
turley ditch on state road 18	1
underground ditches	1
Wabash	1
WABASH	1
Wabash River	1
WABASH RIVER	2
walbash river	1
water runs toward the creek within one mile of property	1
WATERWAY	1
WE HAVE INVESTED IN WATERWAYS THRU SOIL CONSERVATION SERVICES	1
Wild Cat Creek	1
wildcat	1
Wildcat + Rockcreek	1
WILDCAT CREEK	2
WILDCAT CREEK, WABASH RIVER GULF OF MEXICO	1
Total	267

# Deer Creek-Sugar Creek Watershed

## Appendix B-2

2. If the practice is not relevant, please explain why:

		Frequency
		111
	no livestock	1
	4 acre pasture with 2 horses	1
	ANIMALS ARE ALL IN A BUILDING	1
	another person does my farming for me	1
	CAFO	1
	confined buildings around us	1
	DO NOT FEED CATTLE OR HOSS	1
	do not have a feedlot	1
	do not have a food operation	1
Valid	Do not have any animals.	1
	do not have feed lot	1
	DO NOT HAVE FEED LOTS	1
	DO NOT HAVE FEEDLOT	1
	DO NOT HAVE FEEDLOTS	1
	Do not have feedlots, all water off of buildings flow thru filter strip	1
	DO NOT HAVE LIVESTOCK	1
	do not raise livestock	1
	DO NOT RAISE LIVESTOCK	1
	does not apply to my situation	1
	don't have	1
	don't have a feed lot	1

# Deer Creek-Sugar Creek Watershed

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Don't have a feed lot	1
DON'T HAVE A FEEDLOT	1
Don't have a feelot	1
don't have any feedlots close	1
DON'T HAVE ANY LIVESTOCK OR FARMLAND	1
Don't have cattle or feedlot	1
DON'T HAVE FEED LOTS	1
Don't have feedlots	1
don't have livestock	1
DON'T HAVE LIVESTOCK STRUCTURES	1
don't have that much livestock	1
DON'T HAVE THAT MUCH LIVESTOCK	1
Don't know	1
Don't raise livestock	1
DON'T RAISE LIVESTOCK	1
dont have feed lot	1
FEED LOTS UNDER ROOF	1
half acre, homeowner	1
have ditch area, etc	1
have no cattle	1
HAVE NO FEED LOTS	1
have no feedlots	1
HAVE NO FEEDLOTS	1
have no livestock	1
HAVE NO LIVESTOCK	1

# Deer Creek-Sugar Creek Watershed

I do not have a feedlot	1
I DO NOT HAVE LIVESTOCK	1
I DON'T HAVE A FEEDLOT	1
I don't have any livestock	1
I don't own farmland in Carroll County	1
I have no animals on my ground except for wild animals	1
I HAVE NO LIVESTOCK	1
I live in a rural residential home, no livestock	1
JUST GRAIN FARM NOT LIVESTOCK	1
maybe	1
MY WATER DOESN'T GO IN A STREAM	1
no animals	3
No animals	1
No Animals	1
NO ANIMALS	2
NO CATTLE, NO FEEDLOT!!	1
no feed lot	1
NO FEED LOT	2
NO FEED LOT OR ANIMALS	1
NO FEED LOT, NO ANIMALS	1
no feed lots	2
No feed lots	1
No Feed lots	1
NO FEED LOTS	3
no feedlot	3

# Deer Creek-Sugar Creek Watershed

No Feedlot	2
NO Feedlot	1
NO FEEDLOT	5
no feedlot on property	1
No feedlot present	1
no feedlots	3
No feedlots	1
No Feedlots	2
NO FEEDLOTS	5
no feedlots have or running of [illegible]	1
NO FEEDLOTS ON PROPERTY	1
NO FEEDLOTS OR LIVESTOCK	1
No feedlots.	1
no livestock	9
No livestock	3
No Livestock	2
NO LIVESTOCK	12
No livestock - no feelots	1
No livestock and tillable acreage is fallow	1
NO LIVESTOCK ON LAND	1
NO LIVESTOCK ON PROPERTY	1
NO LIVESTOCK ON PROPERTY; NOT RELEVANT	1
NO LIVESTOCK OR LIVESTOCK FACILITIES	1
No livestock outside	1
No open feedlot on my property	1

## Deer Creek-Sugar Creek Watershed

no outside feed lots	1
NO STEILSE	1
not a farmer	1
NOT FEEDING ANYTHING IN A FEDLOT	1
OUR CATTLE DO NOT HAVE ACCESS TO A STREAM	1
PROPERTY 1 ACRE LOT	1
property planted CRP program	1
RAISE CORN AND SOYBEANS ONLY	1
Surface water does not flow through feedlot	1
THERE ARE NO ANIMALS ON PROPERTY	1
THERE ARE NO FEEDLOTS IN THIS AREA	1
WE DO NOT HAVE FEEDLOTS	1
we don't have any cattle and we don't have a feed lot	1
WE DON'T HAVE LIVESTOCK	1
WE HAVE FLAT SOIL	1
we have no feed lot	1
WE HAVE NO FEEDLOTS	1
Total	267

# Deer Creek-Sugar Creek Watershed

## Appendix B-3

2. If the practice is not relevant, please explain why:

	Frequency
	228
0-2% SCOPES	1
0-2% SLOPE/	1
1 ACRE LOT	1
All tillable acreage is fallow/CRP	1
already using minimum tillage	1
another person does my farming for me	1
CRP program field planted w/ cold weather grasses	1
Don't know	1
DON'T NEED	1
Valid Don't own farmland in Carroll County	1
dont farm with cover crop	1
flat ground	1
FLAT LAND	1
half acre homeowner	1
I DO NOT FARM	1
I DO NOT FARM MY GROUND	1
I do not farm our land but the tenant does rotate and does nice job of workong the land and plants winter wheat	1
I do not farm.	1
I DON'T HAVE ANY EROSION PROBLEMS	1
I live in a rural residential home, Only have a garden	1

# Deer Creek-Sugar Creek Watershed

I LIVE IN TOWN	1
I rent out the farm ground	1
I rent out the farm land. He uses rotation.	1
JUST NOT USING IT RIGHT NOW	1
NO ALL TILLAGE	1
NO COVER CROPS	1
No crop land	1
NO EROSION	1
NO EROSION!!	1
No Farm land, 3 acre of CRP	1
no flat land	1
no till	1
not farming	1
NOT NEEDED	1
NOT RB0PANG	1
rotation	1
tenant does not practise it	1
time and cost	1
USED WHERE NEEDED	1
Total	267

# Deer Creek-Sugar Creek Watershed

## Appendix B-4

2. If the practice is not relevant, please explain why:

		Frequency
		228
	?	1
	all field tile	1
	CATTLE DO NOT HAVE ACCESS TO A STREAM	1
	CRP Program	1
	DO NOT NEED	1
	DON'T HAVE	1
	don't have any open ditching	1
	DON'T KNOW	1
	Don't own farmland in Carroll County	1
Valid	FLAT GROUND	1
	half acre homeowner	1
	HAS FLAT SOIL	1
	I do not farm the land but we have very few ditches	1
	I GUESS OUR COUNTY ELECTED NOT TO USE IT WHEN CLEANING OUR DITCH THIS SUMMER	1
	I have no ditches	1
	I live in a rural residential home, not farming	1
	IN SIRTURUT	1
	Just have the main ditch running through the property.	1
	LIVE IN TOWN	1
	NEVER TRIED IT	1

# Deer Creek-Sugar Creek Watershed

no ditch	1
no ditching	1
NO OPEN DITCH	1
NO OPEN DITCHES	1
no small main channel	1
NO SMALL MAIN CHANNEL	1
no stream	1
NO STREAMS AROUND PROPERTY	1
No two stage ditch	1
takes more space	1
that is a county practice. they maintain regulated drains	1
The land is not that steep	1
The Land is not that steep	1
THERE IS NO DITCH ON THIS PROPERTY	1
THIS WAS VOTED AGAINST, IF I REMEMBER	1
Too small operation	1
water drains through woods and CRP ground	1
we don't have an open ditch on our property	1
we have no open ditches going thru any ground we farms	1
Total	267

# Deer Creek-Sugar Creek Watershed

## Appendix B-5

2. If the practice is not relevant, please explain why:

	Frequency
	240
95% OF MY DITCH BANK SLOPE TOWARD THE FIELD	1
am not located near any of the above	1
DO NOT FARM NEAR MAJOR STREAMS-CREEKS	1
DON'T KNOW ABOUT IT	1
Don't own farmland in Carroll County	1
FLAT GROUND	1
half acre homeowner	1
have woods for buffers	1
i do not farm the land we do have a wet land that we do not farm	1
Valid I live in a rural residential home, I don't have property on a water body in this watershed	1
LIVE IN TOWN	1
no ditch or streams run by farms we farms	1
NO PONDS	1
no ponds on property	1
no ponds R.S.C.	1
No ponds, streams, etc.	1
no water	1
none of above	1
Not a farmer	1
not close to any	1

## Deer Creek-Sugar Creek Watershed

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not farming	1
NOT NEEDED	1
security in case of accident	1
SEE ABOVE	1
water runs in tiles	1
we don't have any ponds and streams on our property	1
WE HAVE FLAT GROUND	1
Total	267