

Water Quality and Water Usage Surveys

This appendix contains copies of the Water Quality Survey and the Lake Usage Survey that we used to complete the watershed-based community assessments. We have included the surveys here so that a watershed group could easily reproduce and distribute the surveys to their citizens.

The water quality survey was adapted from Heartland Regional Water Coordination Initiative survey. We refer to this survey in Section B of this publication. The original survey was used as part of a four-state study in the USEPA Region 7 (Iowa, Kansas, Missouri and Nebraska) to assess citizens understanding of water quality issues.

We recommend that watershed groups incorporate these questions into their own study because they have been proven successful and will allow watershed groups to compare their findings with other watersheds in the state.

Lake Usage Survey

1. How often do you visit the lake? _____
2. Which seasons do you visit lake: Winter? Spring? Fall? Summer?
3. How many years have you been coming to the lake? _____
4. Where do you live (closest town) _____
5. How many miles do you drive to come to the lake? _____

Please indicate the types of activities you do while you are visiting Hickory Grove Lake?
 What percentage of the time you do that activity?

Activity	Percentage of time
Fishing	_____ %
Recreational boating	_____ %
Swimming/ beach use	_____ %
Nature appreciation	_____ %
Picnicking	_____ %
Snowmobiling or winter activities	_____ %

Please indicate the importance of each of the lake characteristics:

Lake characteristic	No opinion	Not important	Somewhat Important	Important	Very Important
Water clarity					
Hard, clean, sandy lake bottom in swimming area					
Lack of water odor					
Diversity of wildlife					
Diversity of fish species					
Quantity of fish caught					
Safety from bacteria contamination/health advisories					

(circle the correct one) Male Female Age: _____

Number of people in your group at lake _____ adults _____ children (14 & under)

WATER ISSUES IN IOWA

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

- A structure that stores water
- An area of land that drains to a common body of water
- A basin to hold extra water to prevent flooding
- An underground water supply

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

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

- Private well (individual well or well that serves fewer than 15 residences)
- Rural water system
- City water system
- Purchase bottled water
- I don't know

3. Do you feel that your home drinking water is safe to drink? Yes No

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

- Good Fair Poor Don't know

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

- Good Fair Poor Don't know

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

	Know	Suspect	Not a Problem	Don't know
High bacteria counts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fertilizer/nitrates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy metals (e.g., lead, arsenic)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hardness (e.g., calcium, other minerals)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pesticides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Animal waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Septic systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pharmaceuticals (i.e. antibiotics, personal care products)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

- | | |
|-----------------------------------------------------------------------|------------------------------------------------------|
| <input type="checkbox"/> Agriculture crop production | <input type="checkbox"/> Septic systems |
| <input type="checkbox"/> Erosion from roads and/or construction sites | <input type="checkbox"/> Urban stormwater runoff |
| <input type="checkbox"/> Wastes from urban areas | <input type="checkbox"/> Landfills |
| <input type="checkbox"/> Industry | <input type="checkbox"/> Wastewater treatment plants |
| <input type="checkbox"/> Wild animals/pets | <input type="checkbox"/> Streambank erosion |
| <input type="checkbox"/> Livestock and/or poultry operations | |

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

- | | |
|-----------------------------------------------------------------------|------------------------------------------------------|
| <input type="checkbox"/> Agriculture crop production | <input type="checkbox"/> Septic systems |
| <input type="checkbox"/> Erosion from roads and/or construction sites | <input type="checkbox"/> Urban stormwater runoff |
| <input type="checkbox"/> Wastes from urban areas | <input type="checkbox"/> Landfills |
| <input type="checkbox"/> Industry | <input type="checkbox"/> Wastewater treatment plants |
| <input type="checkbox"/> Wild animals/pets | <input type="checkbox"/> Streambank erosion |
| <input type="checkbox"/> Livestock and/or poultry operations | |

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

- | | |
|---------------------------------------------------------------------|---------------------------------------------------------|
| <input type="checkbox"/> Storm drain and then straight to the river | <input type="checkbox"/> It gets absorbed into the land |
| <input type="checkbox"/> Directly into a nearby creek | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> Roadside ditch and then stream or river | |

Soil Erosion Issues

10. Do you have any soil erosion on your property?

- None A little Moderate A lot Don't know

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

- | | |
|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <input type="checkbox"/> Continuous no-till or strip-till | <input type="checkbox"/> Placing mulch on all exposed soil on land |
| <input type="checkbox"/> Leaving vegetation on the ground in garden | <input type="checkbox"/> Use of native plantings to protect stream banks |
| <input type="checkbox"/> Following the natural contours of the land (either farmland or in landscaping) | <input type="checkbox"/> Cover crops |
| <input type="checkbox"/> Planted windbreaks | <input type="checkbox"/> We don't do anything |
| <input type="checkbox"/> Grassed waterway or grass strip around garden | <input type="checkbox"/> Not applicable |

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

- Changed the way your yard is landscaped
- Reduced your water consumption (i.e. stopped watering lawn)
- Reduced your use of pesticides, fertilizers, or other chemicals
- Increased residue on row crop acres
- Addressed erosion on your land
- Installed a new septic system
- Tested your drinking water
- Other _____

Governance

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

- Not enough emphasis* is placed on environmental protection
- Environmental protection receives about the *right amount of emphasis*
- Too much emphasis* is placed on environmental protection
- Don't know

14. In your opinion, who should be most responsible for protecting water quality in your community?

(SELECT ONE)

- Environmental Protection Agency (EPA)
- Natural Resources Conservation Service (NRCS)
- Iowa Department of Agriculture and Land Stewardship (IDALS)
- Iowa Department of Natural Resources (IDNR)
- Local Soil and Water Conservation District (SWCD)
- Your county, city, or town
- Individual citizens without land
- Landowners
- Don't know
- Other _____

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

	<i>Very Well</i>		<i>Okay</i>		<i>Very Poorly</i>
a. Federal government (EPA, NRCS)	5	4	3	2	1
b. State government (DNR, IDALS)	5	4	3	2	1
c. Your county, city, or town govt.	5	4	3	2	1
d. Soil and water conservation district (SWCD)	5	4	3	2	1
e. Your community	5	4	3	2	1
f. The landowners	5	4	3	2	1
g. Individual citizens	5	4	3	2	1

Water Quality Education

16. Have you received water quality information from the following sources? (CHECK ALL THAT APPLY)

- | | |
|----------------------------------------------|-----------------------------------------------------------------------|
| <input type="checkbox"/> Television | <input type="checkbox"/> Universities |
| <input type="checkbox"/> Online/smart phone | <input type="checkbox"/> Schools (elementary and secondary) |
| <input type="checkbox"/> Newspapers | <input type="checkbox"/> Agricultural trade/commodity groups |
| <input type="checkbox"/> Radio | <input type="checkbox"/> Environmental agencies (government) |
| <input type="checkbox"/> Extension service | <input type="checkbox"/> Environmental groups (citizen groups) |
| <input type="checkbox"/> Iowa Learning Farms | <input type="checkbox"/> Soil and Water Conservation Districts (SWCD) |

17. Would you like to learn more about any of the following water quality issue areas?

(CHECK ALL THAT INTEREST YOU)

- | | |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------|
| <input type="checkbox"/> Agricultural water management on row crop acreages | <input type="checkbox"/> Water conservation |
| <input type="checkbox"/> Animal manure and waste management | <input type="checkbox"/> Water policy and economics |
| <input type="checkbox"/> Drinking water and human health | <input type="checkbox"/> Watershed management |
| <input type="checkbox"/> Environmental restoration | <input type="checkbox"/> Private well and septic system management |
| <input type="checkbox"/> Nutrients and pesticide management | <input type="checkbox"/> Small acreage water and land management |
| <input type="checkbox"/> Pollution assessment and prevention | <input type="checkbox"/> Home and garden landscaping for water quality |
| | <input type="checkbox"/> Other _____ |

18. Have you ever changed your mind about an environmental issue as a result of:

(CHECK ALL THAT APPLY)

- | | |
|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <input type="checkbox"/> News coverage (TV, newspapers, Internet, etc.) | <input type="checkbox"/> Classes or presentations |
| <input type="checkbox"/> Field days | <input type="checkbox"/> Speech by an elected representative |
| <input type="checkbox"/> Conversations with other people | <input type="checkbox"/> Firsthand observation |
| <input type="checkbox"/> Attending public meetings or participating in volunteer activities | <input type="checkbox"/> Financial considerations |
| | <input type="checkbox"/> Concern about the future for your children/grandchildren |

19. Of the following kinds of learning opportunities available, which would you be most likely to take advantage of for water quality issues? (CHECK UP TO 3 ITEMS)
- Read printed fact sheets, bulletins, or brochures
 - Visit a website for information and tips
 - Attend a short course (weekend, evening)
 - Look at a demonstration or display
 - Read a newspaper article or series or watch TV coverage
 - Watch a video
 - Take part in a one-time volunteer activity to learn or do something (e.g. water monitoring, stream-side restoration or education)
 - Take a course for certification or credit
 - Get trained for a regular volunteer position (e.g. as a watershed steward or a water quality monitor)
 - Ask for a home, farm, or workplace water practices assessment
 - Attend a fair or festival
20. Are you now participating or have you participated in any of the following activities in the last five years? (CHECK ALL THAT APPLY)
- Master Gardener program
 - Volunteer water quality monitoring
 - Lake or river protection groups
 - Town conservation commissions
 - Other water or environmental protection groups

Please answer the following as they pertain to you

22. Where do you live?

- Inside city limits, not engaged in farming
- Inside city limits, currently engaged in farming
- Outside city limits, not engaged in farming
- Outside city limits, currently engaged in farming
- On the lake, not engaged in farming
- On the lake, currently engaged in farming

23. Approximately what is the population of your community?

24. How long have you lived in your area?

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

	<i>Never</i>	<i>Sometimes</i>	<i>Always</i>
Frequent local shops and restaurants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attend local sporting events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Active member of local church	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participate in local social clubs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participate in environmental/ garden club	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attend school events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

26. What is your gender?

- Male
- Female

27. What is your age?

_____ years old

28. How many people live in your household?

_____ individuals 18 and older
 _____ under 18

29. What level of education you have completed?

- Less than high school or some high school
- High school graduate
- Some college or vocational training
- College graduate
- Advanced college degree

30. What is your current occupation?
