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?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage of time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishing</td>
<td>_____ %</td>
</tr>
<tr>
<td>Recreational boating</td>
<td>_____ %</td>
</tr>
<tr>
<td>Swimming/ beach use</td>
<td>_____ %</td>
</tr>
<tr>
<td>Nature appreciation</td>
<td>_____ %</td>
</tr>
<tr>
<td>Picnicking</td>
<td>_____ %</td>
</tr>
<tr>
<td>Snowmobiling or winter activities</td>
<td>_____ %</td>
</tr>
</tbody>
</table>

Please indicate the importance of each of the lake characteristics:

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

(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?**
   - □ High bacteria counts
   - □ Fertilizer / nitrates
   - □ Heavy metals (e.g., lead, arsenic)
   - □ Hardness (e.g., calcium, other minerals)
   - □ Pesticides
   - □ Animal waste
   - □ Septic systems
   - □ Pharmaceuticals (i.e. antibiotics, personal care products)

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)
   - □ Agriculture crop production
   - □ Erosion from roads and/or construction sites
   - □ Wastes from urban areas
   - □ Industry
   - □ Wild animals/pets
   - □ Livestock and/or poultry operations
   - □ Septic systems
   - □ Urban stormwater runoff
   - □ Landfills
   - □ Wastewater treatment plants
   - □ Streambank erosion
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)

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

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

- Storm drain and then straight to the river
- It gets absorbed into the land
- Directly into a nearby creek
- Don’t know
- Roadside ditch and then stream or river

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)

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

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 ______________________

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 protecting water quality in your community? (CIRCLE ONE ANSWER PER GROUP. LEAVE IT BLANK IF YOU “DON’T KNOW.”)

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

Water Quality Education

16. Have you received water quality information from the following sources? (CHECK ALL THAT APPLY)
   - Television
   - Online/smart phone
   - Universities
   - Newspapers
   - Schools (elementary and secondary)
   - Radio
   - Agricultural trade/commodity groups
   - Extension service
   - Environmental agencies (government)
   - Iowa Learning Farms
   - Environmental groups (citizen groups)
   - 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)
   - Agricultural water management on row crop acreages
   - Water conservation
   - Animal manure and waste management
   - Water policy and economics
   - Drinking water and human health
   - Watershed management
   - Environmental restoration
   - Private well and septic system management
   - Nutrients and pesticide management
   - Small acreage water and land management
   - Pollution assessment and prevention
   - Home and garden landscaping for water quality
   - Other ___________________________

18. Have you ever changed your mind about an environmental issue as a result of: (CHECK ALL THAT APPLY)
   - News coverage (TV, newspapers, Internet, etc.)
   - Classes or presentations
   - Field days
   - Speech by an elected representative
   - Conversations with other people
   - Firsthand observation
   - Attending public meetings or participating in volunteer activities
   - Financial considerations
   - 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
- Town conservation commissions
- Volunteer water quality monitoring
- Other water or environmental protection groups
- Lake or river 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?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>Sometimes</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequent local shops and restaurants</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Attend local sporting events</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Active member of local church</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Participate in local social clubs</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Participate in environmental/garden club</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Attend school events</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

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?


