

Winnebago County Water Quality Program Valuation Study

Executive Summary

The goal of this study was to estimate the economic values that those living in Winnebago County place on the maintenance and improvement of water quality in the county. Surface and ground water in Winnebago County have historically suffered from water quality problems, but recent pressure from development has heightened concerns over water quality. Using the method of “contingent valuation” we surveyed 500 urban and 500 rural households totaling 1,000 households in Winnebago County. Based on the 269 returned surveys we are able to estimate that *the typical property owner in Winnebago County is willing to pay \$16.62 per year in new and additional taxes for the establishment of a water quality program in Winnebago County.* If calculated by the estimated total number of parcels in the county, 70,388 X \$21.08 per year per parcel, the total amount generated would be about \$1,169,848.50 annually. Survey results also suggest that the majority of respondents feel that surface water and ground water pollution are a problem in the county and the majority, 69.8% of the respondents, believe that the county should invest local tax payer dollars into its own program to address water quality needs. The study demonstrates that a significant monetary value is placed on the integrity and quality of the surface and ground water in Winnebago County.

Overview

The goal of the study was to estimate the economic value that residents in Winnebago County were willing to pay in new and additional taxes for the creation of a county water quality program. With drastic changes to the landscape that began over 150 years ago, water quality in Winnebago County has suffered. Higher water levels and other effects of dams; erosion from logging, farming, construction, wave action and ice heaves; and the influx of nutrients (phosphorus and nitrates) and sediments (soils and other solids) entering the water from agricultural and urban land uses have all contributed to the deterioration of water quality. New sediments continue to enter the waters of the county and previously deposited sediments are resuspended in shallow water bodies by waves from wind and boats.

As a result, surface waters appear brown and cloudy. Excessive nutrients which can cause unwanted algae sometimes make the surface water even more murky, increasing water treatment costs, decreasing aesthetic value, producing a foul odor, and reducing the enjoyment of swimming, boating, water skiing, fishing, and shore recreation. Desirable bottom-rooted aquatic plants have been lost where they used to provide habitats for fish and wildlife, help stabilize sediments, and tie-up nutrients. Though game and pan fish are still present, shrinking habitats have caused desirable species to decline on average, while undesirable species such as sheepshead have increased. Populations of some birds, especially diving ducks, have declined due to loss of habitats.

Steps have been taken over the years to address these problems. Shorelines have been stabilized in many areas. Breakwaters have been and are continuing to be installed, to protect shallow areas from wave action and the scouring effects of ice heaves so that rooted aquatic plants can be reestablished. Improved management practices on the lands within the drainage area have been instituted in efforts to reduce inputs of sediments and nutrients. Other efforts to improve water quality have included research and monitoring; control of erosion at construction sites; urban storm water management; modification of dams; the proper abandonment and capping of abandon wells; dredging; and closing of habitats to boats at ecologically critical times. Still, much remains to be done if the trend toward degradation is to be counterbalanced and reversed.

This study sought to quantify the financial willingness of citizens living in Winnebago County to pay new and additional taxes for the purpose of creating a county water quality program. The “contingent valuation method” was used for this study. Contingent valuation employs surveys to ask people about the values they place on changes in environmental quality or other publicly provided amenities. In this study it was used to ask people to place a value on the creation of a county program that might/would improve water quality. This method has been widely applied both in the U.S. and elsewhere.

Contingent valuation was used because it allows the estimation of “total values” for changes in environmental quality. More conventional economic approaches could have been used to estimate part of the values in question, such as those associated with recreational fishing or those that might be capitalized into property values. However, not only would available alternatives to contingent valuation have come with their own problems and issues, but they would likely have missed important values that contingent valuation attempts to capture. Environmental economists argue that the values of improvements in environmental amenities transcend the values of enhanced recreation or enjoyment of residential property to include so-called nonuse or passive use values. Examples of such values include bequest values that a cleaner environment exists, apart from one’s personal desire to use that environment. Of the major methods of estimating environmental values in use today, only contingent valuation can estimate total values, including the nonuse values that more conventional methods neglect.

This study focused on the property owners in Winnebago County. 500 urban property owners, in incorporated areas, and 500 rural property owners, in unincorporated areas, were randomly chosen to participate in the study. Analysis of the percentage of the total population that each municipality represented in the county was conducted so that instruments could be randomly distributed to each municipality in accordance to the percentage of total population which they represent (Appendix A). An approximate 70,388 parcels were located in the study area at the time of the study. The contingent valuation results showed that these property owners would be willing to pay an additional \$16.62 dollars in new and additional taxes per year for the purpose of creating a county water quality improvement program. Beginning in the next section, the rest of this report is devoted to explaining the procedures for arriving at this number and other results. The final section will consider how this result might prove useful in considering future possible actions that would help protect water quality in Winnebago County.

Details of Study Design and Execution

This study was conducted jointly by the Winnebago Land and Water Conservation Department and the Winnebago County University of Wisconsin-Extension office. Financial support for survey supplies, printing and mailing came from both the Winnebago County UW-Extension office and the Winnebago County Land and Water Conservation Department. Additional support for this study was provided by Winnebago County Geographic Information Systems (GIS) staff.

UW-Extension designed a preliminary version of the survey. A total of 1,000 names and addresses, 500 urban and 500 rural, within the county were chosen randomly through the county’s GIS database. The

preliminary survey was reviewed by both the Winnebago County Land and Water Conservation Department staff and the Winnebago County Land and Water Conservation Committee. The revised survey consisted of a cover letter, answers to common questions about surveys, background information, and a two-page, front and back survey (Appendix B).

The survey mailing was on April 14, 1997. A return deadline of April 25, 1997 was given, and the actual cutoff date for returns was April 28, 1997. Of the 1,000 names and addresses on the original mailing list, all 1,000 were deliverable. A total of 269 surveys were returned with usable data for an overall response rate of 26.9%. The data was entered by Winnebago County Land and Water Conservation Department support staff and analysis was conducted on the SAS statistical analysis software.

About the Respondents

About 39% of our response came from the urban areas and the remaining 61% came from the rural areas of the county. A break out of the number of surveys sent, the percentage of the population represented, and the actual 1996 official, Wisconsin Department of Administration, projected population that each municipality represents can be found in map #'s 1, 2 & 3. A depiction of the distribution of the returned surveys by municipality can be seen in map #'s 4, 5, & 6.

A strong argument for the ability of this study to extrapolate its findings to the broader population of Winnebago County can be made by noting that the return distribution parallels the percentage of population that each municipality represents, as can be observed in table #1 below.

Entity	1/1/96 Population	% of Total Towns Population	% of Returned Surveys
Town of Algoma	4,463	10.2%	8.9%
Town of Black Wolf	2,145	4.9%	5.1%
Town of Clayton	2,495	5.7%	5.7%
Town of Menasha	15,094	34.4%	30.0%
Town of Neenah	2,884	6.6%	5.4%
Town of Nekimi	1,469	3.3%	2.5%
Town of Nepeuskun	663	1.5%	1.9%
Town of Omro	1,663	3.8%	4.5%
Town of Oshkosh	3,469	7.9%	9.5%
Town of Poygan	877	2.0%	1.9%
Town of Rushford	1,374	3.1%	2.5%
Town of Utica	1,066	2.4%	1.2%
Town of Vinland	1,727	3.9%	5.7%
Town of Winchester	1,599	3.6%	2.5%
Town of Winneconne	1,805	4.1%	4.5%
Town of Wolf River	1,090	2.5%	4.5%
Total	43,883	100%	100%

Entity	1/1/96 Population	% of Total Towns Population	% of Returned Surveys
Village of Winneconne	2,235	2.1%	5.0%
City of Appleton	615	0.6%	0.0%
City of Menasha	15,519	14.6%	12.0%
City of Neenah	24,316	22.9%	19.0%
City of Omro	3,086	2.9%	6.0%
City of Oshkosh	60,240	56.8%	58.0%
Total	106,011	100%	100%

* Percents may not add to 100% due to rounding

The survey began by asking respondents to answer twelve opinion questions, on a lichert scale, in order to asses their attitudes towards the current conditions of the ground and surface water in Winnebago County. The result of these questions can be found below in table #2.

Question	Strongly Agree				Strongly Disagree
Surface water pollution is not a problem in Winnebago County.	7.3%	8.0%	22.1%	32.1%	30.5%
Ground water pollution is not a problem in Winnebago County.	4.2%	9.6%	26.2%	33.1%	26.9%
Taxpayers should help private landowners pay for management practices that reduce pollution.	10.3%	17.9%	31.7%	13.7%	26.3%
Murkinness of the water does not effect my enjoyment or use of the Lake Winnebago System.	5.8%	13.1%	13.9%	26.3%	40.9%
It is important to maintain and/or restore wetlands.	63.9%	20.9%	7.6%	4.6%	3.0%
The quality of the surface water in Winnebago County effects the quality of my drinking water.	49.6%	21.4%	14.1%	8.0%	6.9%
Runoff of manure from barnyards is the largest contributor to surface water quality problems in the county.	11.1%	19.5%	39.7%	16.8%	13.0%
Runoff of sediment from farm fields and construction sites is the largest contributor to surface water quality problems in the county.	13.7%	27.8%	35.7%	14.4%	8.4%
The restoration of wetlands will have the most dramatic impact on the improvement of surface water quality in the county.	18.7%	34.0%	29.8%	13.0%	4.6%
The restoration of shorelines and streambanks will have the most dramatic impact on the improvement of surface water quality in the county.	13.0%	33.3%	36.8%	14.6%	2.3%
The implementation of ground water protection practices will improve the quality of my drinking water.	35.2%	36.7%	20.1%	4.5%	3.4%
It is important to maintain/improve habitats for fish and wildlife that live in the waters in Winnebago County.	59.2%	29.4%	8.3%	1.9%	1.1%

Participants were then asked a series of questions regarding how they perceived the quality of water affected and interacted with the local economy. They were again asked to respond on a lichert scale and the responses can be seen below in table #3.

Question	Strongly Agree				Strongly Disagree
Economic security and well-being should be considered first; then we can worry about the environment.	4.2%	6.1%	30.3%	26.9%	32.6%
It is possible to protect our environment and natural resources and still maintain a healthy economy.	56.5%	27.1%	12.2%	2.3%	1.9%
If business and industry are forced to spend a lot of money on environmental protection, they will no longer be able to compete in the marketplace.	7.6%	16.4%	21.4%	28.2%	26.3%
I would be willing to pay somewhat higher prices (5-10%) for products that would cause less pollution or environmental damage.	22.0%	33.7%	24.6%	9.8%	9.8%
Some land in the United States should be set aside from human use so it can remain completely untouched, regardless of its economic value.	47.7%	19.7%	15.9%	8.3%	8.3%
The quality of surface water affects the treatment costs of my drinking water and the size of my water bill.	37.1%	25.8%	21.5%	6.6%	9.0%
The quality of surface water impacts the number of tourists that visit the county and is reflected in their expenditures.	26.2%	36.9%	23.2%	8.4%	5.3%

Lastly, for this section, we asked participants if they could rank on a scale of one to ten, with one = excellent and ten = poor, their perception of the current quality of ground and surface water in Winnebago County. The distribution of the results of the responses can be seen below in table #4.

Question	1	2	3	4	5	6	7	8	9	10
Please rate your perception of the current surface water quality in Winnebago County.	1.9%	1.1%	9.2%	14.6%	21.5%	14.2%	13.8%	16.1%	5.7%	1.9%
Please rate your current perception of ground water quality in Winnebago County.	2.3%	3.1%	17.4%	15.1%	24.3%	14.3%	8.5%	10.8%	2.3%	1.9%

Economic Analysis

The survey introduced the topic of valuation by pointing out that funding to continue efforts to improve water quality may not be adequate in the future. No documentation of impact that a county water quality program would make was offered. With this as a baseline, respondents were first asked, “In light of the current and projected state water quality program funding shortages, do you believe that the county should invest local tax payer dollars into its own program to address water quality needs?” The majority (69.8%) answered yes, the county should invest local taxpayer dollars into its own program to address water quality needs. Respondents were then asked, “Would you support the measures to improve water quality in Winnebago County, as described above, if there was **no cost** to your household?” A majority (98.1%) of the respondents stated that they would, and the remaining minority (1.9%) answered that they would not.

A second aspect that was also emphasized was that if a county water quality program were to become a reality, taxpayers would have to pay additional taxes.

The valuation question took the following form:

In order to fund a water quality program in Winnebago County, taxpayers would have to pay additional taxes for the program to become a reality. What additional amount of taxes would you be willing to pay on an annual basis if you knew that those dollars would be going directly and only towards a water quality improvement program? (please circle the amount that you would be willing to pay)

\$0.00 \$1.00 \$2.00 \$3.00 \$4.00 \$5.00 \$6.00 \$7.00 \$8.00 \$9.00 \$10.00 \$11.00
\$12.00 \$13.00 \$14.00 \$15.00 \$16.00 \$17.00 \$18.00 \$19.00 \$20.00 \$21.00 \$22.00 \$23.00
\$24.00 \$25.00 Other _____

You will notice that a range of \$0.00 to \$25.00 was given to the study participants. These figures, or amounts, are referred to technically as the “offer amounts.” Choosing offer amounts is always a tricky business. One tries to get a fairly broad range of values centered on the average. Set the offer amounts too high, and observations are wasted on amounts to which nearly everyone responds “No.” Get the amounts too low, and the willingness of respondents to pay larger dollar amounts will not be well understood. The distribution of values used in this application was sufficient to yield a reasonably good estimate of value, but we did get the offer amounts a bit too low.

With a broad range of offer amounts returned, a mean or average was calculated to determine an individual’s willingness to pay new and additional taxes for the creation of a Winnebago County Water Quality program and water quality improvement measures. The mean arrived at was \$21.08. As a secondary measure of an individuals willingness to pay new and additional taxes for the creation of a Winnebago County Water Quality program, analysis was preformed on the data which separated those who responded “No” (30.2%) from those who responded “Yes” (69.8%) to the question of “In light of the current and projected state water quality program funding shortages, do you believe that the county should invest local

tax payer dollars into its own program to address water quality needs?" By recalculating an individual's willingness to pay using strictly those respondents who said they would not support water quality improvement measures, a mean average of \$12.16 was obtained. Using a "T" test as a measure of statistical significance, a score of 5.17 was obtained, demonstrating that the responses between the two groups were indeed different.

If all of the estimated 70,388 parcels in Winnebago County were to pay \$21.08 in new and additional taxes, the total would be about \$1,483,779 per year. This is probably an over-estimate because of nonresponse to our survey. People who respond to mail surveys tend to be somewhat more interested in the subject than nonrespondents and presumably would have somewhat higher values. Assuming that nonrespondents are willing to pay only \$12.16 would be an extreme in the other direction. Many nonrespondents would have expressed positive values had they responded. Also, because of our sample selection method, many recreational homeowners who may place high values on water quality, are not considered in this study. Thus a conservative estimate would be \$16.62. This in turn yields a value estimate of \$1,169,848.50.

Study participants were given the following definition as an additional baseline. "The greatest volume of nutrient-rich sediment and organic matter washed into lakes, rivers, and streams in Winnebago County each year comes from cultivated crop fields, feedlots, (barnyards), shorelines, and streambanks. The most effective means of keeping those pollutants from entering our surface waters is by the installation or adaptation of various conservation measures called '*Best Management Practices*' or 'BMP's'. Typically, these BMP's are very expensive and landowners are hard-pressed to afford the cost to install them on their own. On the other hand, BMP's do benefit the public by way of protected water resources and improved water quality." They were then asked about how they would like to see a county program administered if created.

Three options were given from which they could choose: 1. a cost sharing program should be established to minimize the cost to local land owners, (a process by which a percentage of the total project cost is paid for by the fund administering authority); 2. a low-interest revolving loan fund should be established to which local landowners could apply, (a loan, just like one from a commercial lender, that is made to a party and then paid back to the lender with interest so that original dollars can be recycled and re-invested); and 3. a combination of the two above methods should be established to implement the program. The majority of respondents (63.1%) said that a combination of the two methods should be used in operating the program.

Lastly, when asked "If moneys were available through such a program, which practices might you as a taxpayer be interested in seeing funded? (please circle all that you feel apply)." The following responses were obtained as being in favor.

Manure runoff control	Sediment runoff control	Wetland restoration	Shoreline/stream bank protection	Ground water protection practices
63.9%	61.2%	67.8%	55.7%	63.1%

Conclusions

The results of this study may be useful in a number of ways. Most of the money spent on water quality improvements has come from government agencies, particularly the State of Wisconsin. Private groups like Ducks Unlimited, Walleyes for Tomorrow, and Sturgeon for Tomorrow have been involved as well. Governmental and private budgets are extremely scarce and are likely to become even more scarce, and need to be allocated wisely among many competing demands. This study demonstrates considerable support among Winnebago County citizens for the creation of a Winnebago County Water Quality program and the allocation of funds towards water quality improvements. Stated differently, to the extent that future proposals must be justified by comparisons of benefits and costs, this study shows that measures to improve water quality in Winnebago County will have substantial economic and social benefits.

Our results should be interpreted as rather strong support for continuing efforts to improve water quality, and support was expressed by a willingness of respondents to bear substantial costs. The study results suggest that people place a significant monetary value on the integrity of water quality in Winnebago County. The trick for public policy makers will be to tap into that pool of financial support in a time of strong distrust for government and disdain for increased taxes.



WINNEBAGO COUNTY LAND CONSERVATION COMMITTEE and UW-EXTENSION

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April 14, 1997

Dear Winnebago County Citizen,

Many people like the idea of protecting the environment for present and future generations. Many also like the idea of lower taxes. Sometimes tradeoffs between these goals mean we have to make tough choices. You are invited to participate in a county-based research effort, designed to help citizen groups and local government officials better understand what citizens in Winnebago County think about these issues. We need to know how **you** view these tradeoffs.

Did you know that . . . Winnebago County contains more than 83,000 acres in lakes, rivers and streams - more surface water than any other county in Wisconsin?; . . . Winnebago County has more than 225 miles of shoreline and streambanks?; . . . over 100,000 residents in Winnebago County alone receive their drinking water from Lake Winnebago? Did you also know that the quality of water has been deteriorating in the "Winnebago System" - this unique rivers/lakes resource of ours that includes Lakes Winnebago, Butte des Morts, Winneconne, and Poygan, along with the Upper Fox and Lower Wolf rivers?

In recent years, a lot of progress has been made toward improving water quality in our lakes and rivers. This includes: 1) development of the *Winnebago Comprehensive Management Plan* which is targeting habitat improvement and protection needs in the Winnebago System and; 2) implementation of the *Arrowhead River/Rat River/Daggets Creek Priority Watershed Project* which is working to help landowners keep livestock waste and cropland runoff from being washed into adjacent waters of the Winnebago System. Much more needs to be done however.

Enclosed you will find a survey that asks for your views on steps that could be taken to improve water quality. Some people may feel the project is important to them, while others may not. Either way, we want to know what **you** think.

Authorized by the Winnebago County Land Conservation Committee, this survey is being carried out by the County Land & Water Conservation Dept., in cooperation with the County UW-Extension office. Both agencies want to thank you in advance for completing the survey. Simply return it in the enclosed postage-paid envelope by **April 30th**. The results will be published and distributed to interested citizens and public officials who are involved in helping to decide the future of the surface water resources in Winnebago County.

Please rest assured that all responses will remain completely confidential. Respondent names will not be given nor sold to any other persons, agencies, or businesses.

The answers to some commonly asked questions are on the back of this letter. We will gladly answer any other questions you may have.

Thanks for your help!

Sincerely,

Winnebago County Land Conservation Committee
Joseph N. Maehl, Chair

Bradley P. Bauer, Community Development Educator
Winnebago County UW-Extension

Peter Van Airsdale, Director
Winnebago County Land & Water Conservation

QUESTIONS YOU MAY HAVE ABOUT THIS STUDY

Q. What is the purpose of this study?

- A. The purpose of this study is to learn how the residents of Winnebago County feel about a project affecting both the economy and the environment in Winnebago County. Our interest is in understanding how residents feel about water quality in Winnebago County. Your responses to this survey will provide us with important information on how you feel about water quality in Winnebago System lakes and rivers.
-

Q. How was my name chosen?

- A. Your name was randomly chosen from a list of residents in Winnebago County.
-

Q. Will my name be used?

- A. **ABSOLUTELY NOT!! Your name and responses will remain STRICTLY CONFIDENTIAL. We will NOT release your name to anyone, nor will your responses be, in any way, tied directly to you.**
-

Q. Who should complete the survey?

- A. The person to whom the survey was addressed should complete the survey. (If this person is not available, another adult member of the household should complete it.)
-

Q. Who is conducting this survey?

- A. This study is being conducted by the Winnebago County Land & Water Conservation Department in cooperation with the Winnebago County UW-Extension office.
-

Q. How will the results of the study be used?

- A. The results of this study will help us understand how the residents of Winnebago County feel about measures that affect both the economy and the environment. We will provide the results to local citizen groups and local officials within Winnebago County.

IMPORTANT BACKGROUND INFORMATION

PLEASE READ BEFORE COMPLETING SURVEY.

ABOUT THIS STUDY

- This study is concerning water quality in Winnebago County and more specifically in the Winnebago System, including Lake Winnebago, Lake Butte des Morts, Lake Winneconne, and Lake Poygan, together with their tributaries, the Upper Fox and Lower Wolf Rivers. The Winnebago System watershed covers 6,400 square miles.
- Citizen groups and public officials want to know more about how residents feel about water quality, as well as fish, wildlife, and other resources that depend on water quality.

WATER QUALITY CONDITIONS IN WINNEBAGO COUNTY

- Water quality in Winnebago County has deteriorated over the last hundred years as the region has developed.
- Quality of water has deteriorated due in part to higher water levels and other effects of dams; erosion from logging, farming, and construction; and increased nutrients entering the water from agricultural and urban areas.
- The water of Lake Winnebago comes from the Upper Fox and Lower Wolf Rivers. Lakes and some parts of rivers are high in sediment which makes water appear brown and cloudy.
- Waves from wind and boats erode shores and stir up sediments from lake bottoms which releases nutrients from sediments and makes water murky.
- Increased nutrients (mostly phosphorous) have encouraged unwanted algae that make water even more murky, increase water treatment costs, produce a foul odor, and reduces the enjoyment of swimming, boating, water skiing, fishing, and shore recreation.
- Higher water levels and murky water have crowded out desirable bottom-rooted aquatic plants that provide habitats for fish and wildlife, help stabilize sediments, and tie-up nutrients.
- Though desired game fish such as perch and other pan fish, bass, walleye, and northern pike are still present and have occasional “good” years, shrinking habitats have caused these species to decline on average, while less desirable species like sheepshead have increased.
- Populations of some birds, especially diving ducks, have declined due to loss of habitat.

WATER QUALITY AND THE LOCAL ECONOMY

- Approximately 100,000 people in Winnebago County rely on surface waters for their drinking water, and countless others rely on the groundwater for theirs. As quality deteriorates, costs of treating water increase. As water bills and/or the price of technologies for treatment reflect these increased costs, residents are left with less discretionary income for the purchase of other goods and services.
- Numerous businesses and industry (e.g. paper companies) rely on surface water in the process of the creation of their product, the maintenance and or cooling of their machinery, and for other various needs in their day-to-day operations.

- As a conservative estimate, the tourism sector of Winnebago County's economy is a one and one half billion dollar-a-year industry.

STEPS HAVE BEEN TAKEN TO ADDRESS THESE PROBLEMS

- Extensive shoreline stabilization has been accomplished in many locations throughout the system using rock rip-rap where wave action was causing erosion.
- Breakwaters have been installed at several locations. One breakwater that has been recently completed protects a shallow area from wave action so that rooted aquatic plants can grow. These plants provide fish and wildlife habitats and help nutrient-laden bottom sediments remain settled.
- Improved management practices have been instituted on some farms in state-designated priority watersheds in the Fox and Wolf Rivers' drainages to reduce runoff of soil and phosphorous that would otherwise enter the system.
- Miscellaneous other efforts have included monitoring of water quality and fish and wildlife populations; the control of erosion at construction sites; research projects to better understand the system and how to clean it up; modification of water flows below the Eureka Dam to improve the survival of young walleyes; dredging to assist boat traffic; and closing of some habitat areas at critical times.

BUT MUCH REMAINS TO BE DONE AND FUNDING IN THE FUTURE MAY BE LIMITED

- So far many of the steps that have been taken, some of which are described above, have depended primarily on funding from the state of Wisconsin. Money has also come from state taxes, fishing and hunting license fees, and marine fuels tax.
- Other funding has come from federal sources, local governments, and private groups like Ducks Unlimited, Walleyes for Tomorrow, and Sturgeons for Tomorrow, as well as many other groups of actively concerned citizens.
- Government agencies at all levels are looking hard for ways to cut spending.
- Funding to continue efforts to improve water quality in Winnebago County may not be adequate in the future.

WHAT DO YOU THINK ABOUT THE FUTURE FUNDING FOR WATER QUALITY IMPROVEMENTS IN WINNEBAGO COUNTY?

- You may not be interested in water quality in Winnebago County or feel that we just can't afford to clean up the system right now.
- You may feel that continuing efforts to clean up the system are important.
- Whatever your views are, they are important to those who are seeking input on what to do.
- To better understand how you feel about continuing to improve water quality in Winnebago County, this survey will ask you how you feel about future funding.

PLEASE RETURN ONLY THE SURVEY BY APRIL 30, 1997

(please print)

First Name	M.I.	Last Name	
Street Address	City	State	Zip Code

Below are some statements people might make about water quality in Winnebago County. We would like to understand how you feel about these issues. For each one, indicate how strongly you agree or disagree on a scale of 1-5, where 1 means strongly agree and 5 means strongly disagree. (Circle exactly one number for each statement or your answer will be invalid.)

		Strongly Agree				Strongly Disagree
1.						e
Surface water pollution is not a problem in Winnebago County.	1	2	3	4	5	
Groundwater pollution is not a problem in Winnebago County.	1	2	3	4	5	
Taxpayers should help private landowners pay for management practices that reduce pollution.	1	2	3	4	5	
Murkiness of the water does not affect my enjoyment or use of the Lake Winnebago System.	1	2	3	4	5	
It is important to maintain and/or restore wetlands.	1	2	3	4	5	
The quality of surface water in Winnebago County effects the quality of my drinking water.	1	2	3	4	5	
Runoff of manure from barnyards is the largest contributor to surface water quality problems in the county.	1	2	3	4	5	
Runoff of sediment from farm fields and construction sites is the largest contributor to surface water quality problems in the county.	1	2	3	4	5	
The restoration of wetlands will have the most dramatic impact on the improvement of surface water quality in the county.	1	2	3	4	5	
The restoration of shorelines and streambanks will have the most dramatic impact on the improvement of surface water quality in the county.	1	2	3	4	5	
The implementation of groundwater protection practices will improve the quality of my drinking water.	1	2	3	4	5	
It is important to maintain/improve habitats for fish and	1	2	3	4	5	

wildlife that live in the waters in Winnebago County.

The following statements discuss economic and environmental issues. We would like to understand how you feel about these issues. On a scale of 1-5, where 1 means strongly agree and 5 means strongly disagree, please tell us how you feel about each statement written below. (Circle exactly one number for each statement or your answer will be invalid.)

2.	Strongly Agree					Strongly Disagree
Economic security and well-being should be considered first; then we can worry about the environment.	1	2	3	4	5	
It is possible to protect our environment and natural resources and still maintain a healthy economy.	1	2	3	4	5	
If business and industry are forced to spend a lot of money on environmental protection, they will no longer be able to compete in the marketplace.	1	2	3	4	5	
I would be willing to pay somewhat higher prices (5-10%) for products that would cause less pollution or environmental damage.	1	2	3	4	5	
Some land in the United States should be set aside from human use so it can remain completely untouched, regardless of its economic value.	1	2	3	4	5	
The quality of surface water affects the treatment costs of my drinking water and the size of my water bill.	1	2	3	4	5	
The quality of surface water impacts the number of tourists that visit the county and is reflected in their expenditures.	1	2	3	4	5	

3. On a scale of 1 to 10 with 1 being excellent and 10 being poor please rate your perception of the current surface water quality in Winnebago County. (Please circle *exactly one* number as your response.)

1 2 3 4 5 6 7 8 9 10

4. On a scale of 1 to 10 with 1 being excellent and 10 being poor please rate your perception of the current groundwater quality in Winnebago County. (Please circle *exactly one* number as your response.)

1 2 3 4 5 6 7 8 9 10

5. In light of the current and projected state water quality program funding shortages, do you believe that the county should invest local tax payer dollars into its own program to address water quality needs? (Please circle either yes or no as your response.)

Yes No

The greatest volume of nutrient rich sediment and organic matter washed into lakes, rivers, and streams in Winnebago County each year comes from cultivated crop fields, feedlots, (barnyards), shorelines, and streambanks. The most effective means of keeping those pollutants from entering our surface waters is by the installation or adaptation of various conservation measures called “*Best Management Practices*” or “BMP’s”. Typically, these BMP’s are very expensive and landowners are hard pressed to afford the cost to install them on their own. On the other hand, BMP’s do benefit the public by way of protected water resources and improved water quality.

6. If a county-based program to protect and improve the water quality of the area were created, how do you feel funds should be administered? (Please circle *exactly one* response or your answer will be invalid.)

A cost sharing program should be established to minimize the cost to local land owners. (A process by which a percentage of the total project cost is paid for by the fund administrating authority)

A low interest revolving loan fund should be established to which local land owners could apply. (A loan, just like one from a commercial lender, that is made to a party and then paid back to the lender with interest so that original dollars can be recycled and re-invested)

A combination of the two above methods should be established to implement the program.

7. If moneys were available through such a program which practices might you as a taxpayer be interested in seeing funded? (Please circle all that you feel apply.)

Manure runoff control	Sediment runoff control	Wetland restoration
Shoreline/stream bank protection	Groundwater protection practices	

8. Would you support the measures to improve water quality in Winnebago County, as described above, if there was **no cost** to your household? (Please circle your response.)

Yes, I would support the water quality improvement measures.
 No, I would not support the water quality improvement measures.

9. In order to fund a water quality program in Winnebago County, taxpayers would have to pay additional taxes for the program to become a reality. What additional amount of taxes would you be willing to pay on an annual basis if you knew that those dollars would be going directly and only towards a water quality improvement program? (Please circle the amount that you would be willing to pay.)

\$0.00	\$1.00	\$2.00	\$3.00	\$4.00	\$5.00	\$6.00	\$7.00	\$8.00	\$9.00
\$10.00	\$11.00	\$12.00	\$13.00	\$14.00	\$15.00	\$16.00	\$17.00	\$18.00	\$19.00
\$20.00	\$21.00	\$22.00	\$23.00	\$24.00	\$25.00	Other	_____		

10. Do you reside at this mailing address? Yes No

If no, where is your full-time place of residence? _____

11. Do you own property within the county in addition to the property at this mailing address?

Yes No If yes, Where? What is it used for? _____

Thank you!

Please return *the survey only* in the enclosed postage-paid envelope.