

# **Watershed Survey 2006**

**Prepared for:  
Institute of Applied Sciences  
University of North Texas**

By:

D'Arlene Ver Duin  
Paul Ruggiere  
James Glass

Survey Research Center  
University of North Texas

July 27, 2006

# TABLE OF CONTENTS

---

TABLE OF CONTENTS.....	I
LIST OF FIGURES.....	II
LIST OF TABLES.....	III
I. INTRODUCTION.....	1
II. METHODOLOGY.....	2
SAMPLE.....	2
INSTRUMENT.....	2
DATA COLLECTION.....	2
ANALYSIS BY DEMOGRAPHIC GROUPS.....	3
REPORT FORMAT.....	3
III. SAMPLE CHARACTERISTICS.....	4
IV. FINDINGS.....	7
ENVIRONMENTAL ISSUES.....	8
WATER ISSUES.....	16
WATER QUALITY.....	22
WATER SOURCE.....	27
WATER POLLUTION.....	34
WASTEWATER.....	51
PRIORITIES AND FUNDING.....	62
NEWS/INFORMATION SOURCES.....	66
V. CONCLUSIONS.....	79
APPENDIX A: SURVEY INSTRUMENT.....	81
APPENDIX B: OPENENDS.....	89

## LIST OF FIGURES

---

Figure 1	Water Quality of Area Streams, Rivers and Reservoirs .....	22
Figure 2	Water Quality Has Improved Over Past 5 Years .....	23
Figure 3	Source of Drinking Water .....	27
Figure 4	Live in a Watershed.....	31
Figure 5	Water Pollution is Problematic .....	34
Figure 6	Use Fertilizers/Pesticides on Yard, Garden, Farm or Ranch .....	36
Figure 7	Apply Fertilizers/Pesticides Before Rainstorm .....	39
Figure 8	Know Where Wastewater Goes When It Leaves Your House .....	51
Figure 9	Where Wastewater Goes .....	53
Figure 10	Know Where Water Goes After Treatment by Sewage Treatment Plant .....	54
Figure 11	Know What Storm Water Runoff Is .....	56
Figure 12	Local Wastewater Treatment Plant Treats Storm Water .....	58
Figure 13	Priority on Protecting Regional Water Resources .....	62
Figure 14	Importance of Funding Water Quality Protection Through Local Funding Efforts .....	63
Figure 15	Support Funding Water Quality Protection.....	65

## LIST OF TABLES

---

Table 1	Demographics.....	4
Table 2	Water in Your Community.....	7
Table 3	Concern about Environmental Issues.....	8
Table 4	Poor Air Quality By Selected Demographics .....	8
Table 5	Concern about Drinking Water Quality By Selected Demographics .....	9
Table 6	Concern about Water Pollution By Selected Demographics.....	10
Table 7	Concern about Trash or Litter By Selected Demographics.....	11
Table 8	Concern about Environmental Issues.....	12
Table 9	Concern about Loss of Trees By Selected Demographics .....	12
Table 10	Concern about Loss of Agricultural Land to Developments By Selected Demographics.....	13
Table 11	Concern about Urban Sprawl By Selected Demographics .....	14
Table 12	Concern about Loss of Wildlife Habitat By Selected Demographics .....	14
Table 13	Concern about Water Issues .....	16
Table 14	Adequacy of Water Supplies to Meet Future Needs By Selected Demographics.....	17
Table 15	Chemical Contaminants in Water By Selected Demographics .....	18
Table 16	Clean Water for Fish and Wildlife Habitat By Selected Demographics.....	19
Table 17	Ability to Fish and Swim in Clean Water By Selected Demographics.....	19
Table 18	Personal Health Concerns about Clean Water By Selected Demographics.....	20
Table 19	Water Quality Has Improved Over Past 5 Years By Selected Demographics.....	24
Table 20	Responsibility for Maintaining Water Quality .....	25
Table 21	Most Responsibility for Maintaining Water Quality By Selected Demographics.....	25
Table 22	Least Responsibility for Maintaining Water Quality By Selected Demographics.....	26
Table 23	Source of Drinking Water By Selected Demographics .....	28
Table 24	Source of Water.....	29
Table 25	Specific Lake or River is Source of Water .....	30
Table 26	Live in a Watershed By Selected Demographics.....	32
Table 27	Name of Watershed.....	33
Table 28	Water Pollution is Problematic By Selected Demographics.....	35

Table 29	Use Fertilizers/Pesticides on Yard, Garden, Farm or Ranch By Selected Demographics.....	37	
Table 30	Disposal of Excess Chemicals and Containers .....	38	
Table 31	Apply Fertilizers/Chemicals Before a Rainstorm By Selected Demographics.....	39	
Table 32	Contributing Factors to Local Water Pollution .....	40	
Table 33	Industrial Waste Contributes to Local Water Pollution By Selected Demographics.....	41	
Table 34	Agricultural Use of Pesticides/Fertilizers By Selected Demographics .....	41	
Table 35	Sanitary Sewer Overflows By Selected Demographics .....	42	
Table 36	Soil Erosion from Construction Sites By Selected Demographics.....	43	
Table 37	Storm Water Runoff from City Streets and Parking Lots By Selected Demographics.....	43	
Table 38	Soil Erosion off Farm Lands By Selected Demographics .....	44	
Table 39	Contributing Factors to Local Water Pollution .....	45	
Table 40	Improper Disposal of Household Hazardous Waste By Selected Demographics.....	46	
Table 41	Improper Disposal of Automobile Oil and Antifreeze By Selected Demographics.....	47	
Table 42	Litter and Trash By Selected Demographics .....	48	
Table 43	Use of Fertilizers or Pesticides for Residence Lawns By Selected Demographics.....	49	
Table 44	Not Picking Up after Pets By Selected Demographics .....	50	
Table 45	Know Where Wastewater Goes Next When It Leaves Your House Selected Demographics.....	52	By
Table 46	Know Where Water Goes Sewage Treatment Plant By Selected Demographics.....	55	
Table 47	Know What Storm Water Runoff Is By Selected Demographics.....	57	
Table 48	Local Wastewater Treatment Plant Treats Storm Water By Selected Demographics.....	59	
Table 49	Type of Land Likely to Cause Runoff Resulting in Flooding .....	60	
Table 50	Type of Land Most Likely to Cause Runoff Resulting in Flooding Selected Demographics.....	60	By
Table 51	Type of Land Least Likely to Cause Runoff Resulting in Flooding Selected Demographics.....	61	By
Table 52	Importance of Funding Water Quality Protection By Selected Demographics.....	64	
Table 53	Support Funding Water Quality Protection By Selected Demographics .....	65	
Table 54	Frequently Used News/Information Sources .....	66	

Table 55	Most Frequently Used News/Information Source By Selected Demographics.....	67
Table 56	Ranked News/Information Sources .....	68
Table 57	Frequency of Watching TV News .....	69
Table 58	TV Nightly News Broadcast Watched Most Frequently .....	70
Table 59	TV Nightly News Broadcast Watched Most Frequently By Selected Demographics.....	70
Table 60	Trustworthiness of News/Information Sources .....	71
Table 61	Trust News Features on Television By Selected Demographics .....	71
Table 62	Trust Advertising on Television By Selected Demographics .....	72
Table 63	Trust Advertising in Local Newspapers By Selected Demographics .....	73
Table 64	Trust News Features on Radio By Selected Demographics.....	74
Table 65	Trust Advertising on Radio By Selected Demographics .....	75
Table 66	Trust County Extension Agents By Selected Demographics .....	76
Table 67	Trust Government Publications By Selected Demographics .....	77
Table 68	Trust Government Websites By Selected Demographics.....	77
Table 69	Trust Billboards By Selected Demographics.....	78

## I. INTRODUCTION

---

During the months of May and June, 2006, a water issues survey was administered to residents of the Upper Trinity River Basin located in Montague, Cooke, Grayson, Jack, Wise, Denton, Collin, Parker, Tarrant, Dallas, Rockwall, Johnson, Ellis and Kaufman counties in the North Texas region. The survey measured citizen perceptions, knowledge and understanding regarding several areas of interest:

- Environmental issues;
- Water issues;
- Water quality;
- Water supply;
- Water pollution;
- Wastewater;
- Priorities and funding; and
- News/information sources.

The Survey Research Center at the University of North Texas conducted the survey for the Institute of Applied Sciences at the University of North Texas.

## II. METHODOLOGY

---

### Sample

The conceptual population for the survey was all residents of the Upper Trinity River Basin who were 18 years of age or older and who reside in households with telephone numbers. Random digit dialing (RDD) was used as the method of sample generation because it offers the best coverage of active telephone numbers, and it reduces sample bias. The RDD method ensures that:

- the conceptual frame and sampling frame match;
- unlisted telephone numbers will be included, and;
- the sampling frame will be as current as possible, thus maximizing the probability that new residents will be included.

A total of 1,000 usable interviews were conducted and analyzed. In a random sample, 1,000 interviews yields a margin of error of  $\pm 3.1$  percent. This means, for example, that if 40 percent of the respondents answered “yes” to a question, we can be 95 percent confident that the actual proportion of residents in the population who would answer “yes” to the same question is 3.1 percentage points higher or lower than 40 percent (36.9 percent to 43.1 percent).

### Instrument

The survey instrument was provided to SRC by the research team at the Institute of Applied Sciences. SRC worked with the research team after they drafted the initial survey instrument. A process of revision continued until a final survey instrument was agreed upon by all parties. The final instrument is available in Appendix A.

### Data Collection

Trained telephone interviewers who had previous experience in telephone surveys were used to conduct the survey. Each interviewer completed an intensive general training session. The purposes of general training were to ensure that interviewers understood and practiced all of the basic skills needed to conduct interviews and that they were knowledgeable about standard interviewing conventions. The interviewers also attended a specific training session for the project. The project training session provided information on the background and goals of the study. Interviewers practiced administering the questionnaire to become familiar with the questions.

All interviewing was conducted from a centralized telephone bank in Denton, Texas. An experienced telephone supervisor was on duty at all times to supervise the administration of the sample, monitor for quality control, and handle any other problems. Data for the survey were collected from May 5 to June 30, 2006.

## Analysis by Demographic Groups

Each question in the survey was cross-tabulated with the following 9 demographic categories:

Years of education	Years lived in North Texas region
Race or ethnicity	County of residence
Age of respondent	Income
Gender of respondent	Urban or rural
Language spoken most often in the household	

Whenever the responses to a single question are divided by demographic groups, the percentage distribution of responses within one group will rarely exactly match the percentage distribution of another group; there will often be some variation between groups.

The most important consideration in interpreting these differences is to determine if the differences in the sample are representative of differences between the same groups within the general population. This consideration can be fulfilled with a test of statistical significance. The Survey Research Center only reports those differences between groups that are found to be statistically significant. Differences are marked with one to three asterisks depending on the level of significance (\* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ ).

## Report Format

The remainder of the report is arranged in four sections beginning with Section III. This section, "Sample Characteristics," presents the findings for all respondents except where it is otherwise noted. Section IV, "Findings," presents findings for environmental issues, water issues, water quality, water source, water pollution, wastewater, priorities and funding, and news/information sources. Section V is the report Summary.

### III. SAMPLE CHARACTERISTICS

---

**Table 1**  
**Demographics**  
**(n=1,000)**

Demographics	Percentage responding
Age of respondent	
18 to 25	7.8
26 to 35	14.6
36 to 45	20.4
46 to 60	30.7
61 or older	26.5
Race/ethnicity	
White	77.4
Black	10.3
Hispanic/Latino	6.5
Asian	2.2
Native American	1.4
Other	2.1
Gender of respondent	
Female	62.1
Male	37.9
Language spoken most in home	
English	96.1
Spanish	1.5
Both equally	1.0
Other	1.4

- As seen in Table 1, 57.2 percent of the respondents were age 46 or older.
- The majority (77.4 percent) of respondents were white. Asian, Native American, and respondents of other ethnic groups were combined (Other ethnic group respondents) to run the cross-tabulations.
- Sixty-two percent of the respondents in the sample were female.
- English was the language spoken most in the home for nearly all respondents (96.1 percent). Other languages included Swahili, Italian, Urdu, Hindi, Japanese, Arabic, Vietnamese, Swedish, Dutch and Chinese.

Demographics	Percentage responding
Education	
Primary or middle school	2.0
High school	20.4
Some college	24.4
College	31.8
Advanced degree	21.5
Income	
Under \$50,000	35.3
\$50,000 to \$100,000	36.6
Over \$100,000	28.1

- Over half (53.3 percent) of the respondents had a college (31.8 percent) or advanced degree (21.5 percent). The first two categories were collapsed into one (high school or less) to run the cross-tabulations.
- Thirty-five percent of the respondents reported an annual household income of under \$50,000, while 28.1 percent had an income of over \$100,000 annually.

Demographics	Percentage responding
Years lived in North Texas region	
5 years or less	13.7
6 to 10 years	11.5
11 to 20 years	18.3
21 to 35 years	27.3
More than 35 years	29.2
Rural or urban	
Rural	23.4
Urban	76.6
Live on farm or ranch (n=261)	
Farm	7.7
Ranch	8.8
Neither	83.5
County of residence	
Collin	12.9
Cooke	0.2
Dallas	31.9
Denton	11.2
Ellis	2.7
Grayson	2.0
Jack	0.1
Johnson	3.4
Kaufman	1.0
Montague	0.6
Parker	2.4
Rockwall	0.8
Tarrant	27.5
Wise	0.5
Other counties	2.8

- Fifty-seven percent of the respondents had lived in the North Texas region for more than 20 years.
- Seventy-seven percent lived in an urban area.
- Eight percent lived on a farm and 8.8 percent lived on a ranch.
- Nearly one-third (31.9 percent) of the respondents lived in Dallas County. Twenty-eight percent lived in Tarrant County, 12.9 percent in Collin County, and 11.2 percent in Denton County. Respondents living in Cooke, Ellis, Grayson, Jack, Johnson, Kaufman, Montague, Parker, Rockwall, Wise and other counties were combined and re-coded as "Other counties" to run the cross-tabulations.

## IV. FINDINGS

---

**Table 2**  
**Water in Your Community**  
**(n=945)**

	Percentage responding
Need clean water supply	21.9
Lack of water	12.8
Water for drinking (bottled or tap)	10.8
Specific bodies of water (lakes/rivers)	5.8
Taste (good or bad)	4.8
Water pollution	4.7
Necessary for life/living	3.9
Cost	3.4
Watering yard/plants	3.0
Availability/abundance of water	2.9
Conservation of water	2.9
Supplier/city/service	2.5
Well water	2.3
Need rain/drought	2.0
Bathing	1.1
Misuse of water	1.0
Hard or soft water	0.6
Chemicals in the water	0.5
Odors (good or bad)	0.5
Government programs	0.3
Recreation	0.2
Wildlife/fishing	0.2
Clean supply and lack of water	0.0
Sewer systems	0.0
Too much water/flooding	0.0
Other	3.8

- Respondents were asked the first thing that came to their mind when they thought of water in their community or rural area. As shown in Table 2, 21.9 percent of the respondents answered “need clean water supply.” Smaller percentages of the respondents mentioned lack of water (12.8 percent), and water for drinking (10.8 percent). Six percent of respondents mentioned specific bodies of water. The open-ended comments can be found in Appendix B.

## Environmental Issues

**Table 3**  
**Concern about Environmental Issues**

	Average Score (1-10)	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
Poor air quality (n=997)	7.24	12.1	31.1	56.8
Drinking water quality (n=990)	7.16	16.4	26.1	57.6
Water pollution (n=996)	6.59	16.3	40.2	43.6
Trash or litter in your region (n=998)	6.33	21.6	36.6	41.8

- Respondents were read a list of 8 environmental issues and asked to rank using a scale of 1 to 10, with 1 being no concern and 10 being extremely concerned, their level of concern about each as it pertains to the region where they live. An average score was computed using the 1 to 10 scale. The categories were then collapsed to compute percentages: no concern (1-3), (4-7), and extremely concerned (8-10). The first four issues are presented in Table 3 and the next four are presented in Table 8.

### Poor air quality

- Fifty-seven percent of the respondents were extremely concerned about the air quality in the region where they live (see Table 3). The average score was 7.24.
- As shown in Table 4, the percentage of the respondents who reported being extremely concerned about the air quality in the region where they live varied by county of residence.
- Female respondents were more likely than male respondents to report extreme concern about the air quality .
- Fifty-nine percent of urban respondents and 50.7 percent of rural respondents were extremely concerned about the air quality in the region where they live.

**Table 4**  
**Poor Air Quality**  
**By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
County of residence***			
Collin	11.6	39.5	48.8
Dallas	9.3	29.9	60.9
Denton	9.9	28.8	61.3
Tarrant	8.2	29.2	62.6
Other counties	28.3	29.7	42.1

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
Gender of respondent***			
Female	10.0	27.2	62.8
Male	15.6	37.5	47.0
Rural or urban***			
Rural	19.6	29.8	50.7
Urban	9.9	30.8	59.2

### Drinking water quality

- The quality of drinking water was of extreme concern to 57.6 percent of the respondents. The average score was 7.16.
- The percentage of the respondents who were extremely concerned about the quality of their drinking water varied with years lived in the North Texas region (see Table 5).
- Black respondents were more likely to be extremely concerned about the quality of their drinking water than Other respondents, Hispanic/Latino respondents and White respondents.
- Female respondents were more likely to report being extremely concerned about drinking water quality than male respondents.

**Table 5  
Concern about Drinking Water Quality  
By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
Years lived in N Texas*			
5 years or less	15.4	23.5	61.0
6 to 10 years	14.2	19.5	66.4
11 to 20 years	21.7	30.6	47.8
21 to 35 years	16.7	30.1	53.2
More than 35 years	14.2	23.3	62.5
Ethnicity**			
White	17.1	28.7	54.2
Black	8.1	19.2	72.7
Hispanic/Latino	20.7	17.2	62.1
Other	16.4	16.4	67.2
Gender of respondent**			
Female	14.4	23.8	61.8
Male	19.6	29.7	50.7

### Water pollution

- Forty-four percent of the respondents (6.59 average score) were extremely concerned about water pollution in the region where they live.
- The percentage of the respondents who were extremely concerned about water pollution varied with ethnicity (see Table 6).
- Female respondents were more likely to report being extremely concerned about water pollution than male respondents.
- Respondents with an annual income of less than \$50,000 were more likely than those with a higher annual income to report being extremely concerned about water pollution.

**Table 6**  
**Concern about Water Pollution**  
**By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
Ethnicity***			
White	17.7	44.1	38.2
Black	10.2	29.6	60.2
Hispanic/Latino	15.3	25.4	59.3
Other	10.3	27.9	61.8
Gender of respondent*			
Female	14.7	38.3	46.9
Male	18.8	43.1	38.1
Income***			
Under \$50,000	16.4	30.9	52.7
\$50,000 to \$100,000	14.5	44.3	41.2
Over \$100,000	20.0	48.4	31.6

### Trash or litter in your region

- Trash or litter was of extreme concern to 41.8 percent of the respondents (6.33 average score).
- As shown in Table 7, White respondents were less likely to report being extremely concerned about trash or litter in their region than Hispanic/Latino, Black or Other respondents.
- Forty-six percent of female respondents and 35.0 percent of male respondents were extremely concerned about trash or litter in their region.
- The percentage of respondents who were extremely concerned about trash or litter in their region decreased as education and income increased.

**Table 7**  
**Concern about Trash or Litter**  
**By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
<b>Ethnicity**</b>			
White	23.2	38.7	38.1
Black	14.0	32.0	54.0
Hispanic/Latino	20.3	28.8	50.8
Other	16.2	27.9	55.9
<b>Gender of respondent**</b>			
Female	19.0	35.1	45.9
Male	26.0	39.0	35.0
<b>Education**</b>			
High school or less	17.5	31.8	50.7
Some college	17.8	38.6	43.6
College	27.4	35.6	36.9
Advanced degree	22.0	41.1	36.9
<b>Income***</b>			
Under \$50,000	21.0	29.9	49.0
\$50,000 to \$100,000	18.9	38.1	43.0
Over \$100,000	28.4	40.4	31.2

**Table 8**  
**Concern about Environmental Issues**

	Average Score (1-10)	No concern (1-3)	(4-7)	Extremely concerned (8-10)
Loss of trees (n=995)	7.24	13.5	30.9	55.7
Loss of agricultural land to developments (n=984)	6.66	17.8	35.9	46.3
Urban sprawl (n=903)	6.37	17.3	43.2	39.5
Loss of wildlife habitat (n=983)	6.34	19.7	38.0	42.2

- Respondents were read a list of 8 environmental issues and asked to rank their level of concern about each as it pertains to the region where they live using a scale of 1 to 10, with 1 being no concern and 10 being extremely concerned. An average score was computed using the 1 to 10 scale. The categories were then collapsed to compute percentages: no concern (1-3), (4-7), and extremely concerned (8-10). The first four issues were presented in Table 3 and the next four are presented in Table 8 above.

Loss of trees

- Fifty-six percent of the respondents were extremely concerned about the loss of trees in the region where they live. The average score was 7.24.
- The percentage of the respondents who were extremely concerned about the loss of trees in the region where they lived generally increased as the age of the respondent increased (see Table 9).
- A greater percentage of the female respondents (60.6 percent) were extremely concerned about the loss of trees in the region where they lived compared to male respondents (47.6 percent).

**Table 9**  
**Concern about Loss of Trees**  
**By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
Age of respondent**			
18 to 25	16.7	46.2	37.2
26 to 35	16.7	31.3	52.1
36 to 45	10.8	35.5	53.7
46 to 60	10.8	27.9	61.3
61 or older	15.6	26.0	58.4
Gender of respondent***			
Female	11.7	27.7	60.6
Male	16.4	36.0	47.6

Loss of agricultural land to developments

- Forty-six percent of the respondents reported that loss of agricultural land to developments was of extreme concern in the region where they live. The average score was 6.66.
- As shown in Table 10, the percentages of the respondents who were extremely concerned about the loss of agricultural land to developments varied with years lived in North Texas and the age of the respondent, and decreased as education and income increased.
- Female respondents were more likely to express extreme concern about the loss of agricultural land to developments than male respondents.

**Table 10  
Concern about Loss of Agricultural Land to Developments  
By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
Years lived in N Texas*			
5 years or less	14.9	41.8	43.3
6 to 10 years	20.2	34.2	45.6
11 to 20 years	22.3	40.2	37.4
21 to 35 years	18.0	37.2	44.7
More than 35 years	15.0	30.0	55.1
Age of respondent***			
18 to 25	29.5	44.9	25.6
26 to 35	20.1	36.1	43.8
36 to 45	12.4	43.6	44.1
46 to 60	16.8	29.9	53.3
61 or older	18.2	33.6	48.2
Gender of respondent***			
Female	12.7	32.1	55.2
Male	26.0	41.9	32.1
Education***			
High school or less	17.2	26.5	56.3
Some college	13.3	32.9	53.8
College	17.9	43.1	39.0
Advanced degree	23.5	38.0	38.5
Income***			
Under \$50,000	17.5	27.9	54.5
\$50,000 to \$100,000	15.8	39.1	45.0
Over \$100,000	23.9	40.5	35.6

Urban sprawl

- Forty percent of the respondents were extremely concerned about urban sprawl in the region where they live. The average score was 6.37.

- The percentage of the respondents concerned about urban sprawl generally increased as the age of the respondent increased and was greater among female respondents compared to male respondents (see Table 11).

**Table 11  
Concern about Urban Sprawl  
By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
Age of respondent***			
18 to 25	32.4	48.5	19.1
26 to 35	20.3	44.5	35.2
36 to 45	14.6	51.4	34.1
46 to 60	15.0	37.8	47.2
61 or older	15.8	41.0	43.2
Gender of respondent***			
Female	13.8	41.0	45.2
Male	22.6	46.6	30.8

Loss of wildlife habitat

- Loss of wildlife habitat was of extreme concern to 42.2 percent of the respondents. The average score was 6.34.
- The percentage of the respondents who were extremely concerned about the loss of wildlife habitat increased as the age of the respondent increased and decreased as income increased (see Table 12).
- Female respondents (47.0 percent) were more likely than male respondents (34.6 percent) to report being extremely concerned about the loss of wildlife habitat.

**Table 12  
Concern about Loss of Wildlife Habitat  
By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
Age of respondent*			
18 to 25	27.6	42.1	30.3
26 to 35	23.8	39.2	37.1
36 to 45	16.7	43.3	39.9
46 to 60	16.1	34.5	49.3
61 or older	21.3	36.2	42.5
Gender of respondent***			
Female	18.9	34.1	47.0
Male	21.1	44.3	34.6

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
Income**			
Under \$50,000	21.9	30.4	47.7
\$50,000 to \$100,000	16.2	41.1	42.7
Over \$100,000	20.9	45.0	34.1

## Water Issues

**Table 13**  
**Concern about Water Issues**

	Average Score (1-10)	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
Adequacy of water supplies to meet future needs of the region (n=995)	7.79	9.3	25.3	65.3
Clean water for fish and wildlife habitat (n=996)	7.51	10.5	28.6	60.8
Chemical contaminants in water (n=996)	7.25	18.1	24.0	57.9
Ability to fish and swim in clean water (n=990)	7.17	14.7	28.6	56.7
Personal health concerns about clean water (n=1,000)	6.92	21.3	24.1	54.6

- Respondents were read a list of five water issues and asked to rank their level of concern about each as it pertains to the region where they live using a scale of 1 to 10, with 1 being not concerned and 10 being extremely concerned (see Table 13). An average score was computed using the 1 to 10 scale. The categories were then collapsed to compute percentages: no concern (1-3), (4-7), and extremely concerned (8-10).

### Adequacy of water supplies to meet future needs

- Sixty-five percent of the respondents (7.79 average score) were extremely concerned about the adequacy of water supplies to meet the future needs of the region.
- As shown in Table 14, the percentage of the respondents that reported being extremely concerned about the adequacy of water supplies to meet the future needs of the region varied with the years lived in North Texas and ethnicity, and increased as the age of the respondent increased.
- Seventy percent of female respondents and 58.6 percent of male respondents were extremely concerned about the adequacy of water supplies to meet the future needs of the region.

**Table 14**  
**Adequacy of Water Supplies to Meet Future Needs**  
**By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
Years lived in N Texas*			
5 years or less	8.1	30.1	61.8
6 to 10 years	6.2	26.5	67.3
11 to 20 years	9.9	34.1	56.0
21 to 35 years	8.9	22.5	68.6
More than 35 years	11.4	20.1	68.5
Age of respondent*			
18 to 25	9.0	41.0	50.0
26 to 35	9.6	30.1	60.3
36 to 45	9.4	26.7	63.9
46 to 60	7.9	21.0	71.1
61 or older	11.1	21.8	67.0
Ethnicity*			
White	10.4	26.6	63.0
Black	5.0	14.0	81.0
Hispanic/Latino	6.9	24.1	69.0
Other	5.9	29.4	64.7
Gender of respondent**			
Female	7.8	22.7	69.5
Male	11.9	29.6	58.6

Chemical contaminants in water

- Over 60 percent of the respondents (60.8 percent) reported they were extremely concerned about chemical contaminants in water in the region where they live. The average score was 7.51.
- The percentage of the respondents who indicated they were extremely concerned about chemical contaminants in water in the region where they live varied with county of residence, years lived in North Texas, and ethnicity, and decreased as education and income increased (see Table 15).
- A greater percentage of female respondents (62.2 percent) than male respondents (50.9 percent) were extremely concerned about chemical contaminants in water.

**Table 15**  
**Chemical Contaminants in Water**  
**By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
County of residence*			
Collin	24.8	26.4	48.8
Dallas	16.7	22.9	60.4
Denton	12.6	24.3	63.1
Tarrant	15.2	23.3	61.5
Other counties	26.6	23.1	50.3
Years lived in N Texas*			
5 years or less	13.3	28.9	57.8
6 to 10 years	10.4	20.9	68.7
11 to 20 years	24.2	25.8	50.0
21 to 35 years	18.8	25.4	55.9
More than 35 years	19.1	20.5	60.4
Ethnicity***			
White	21.2	26.3	52.4
Black	7.1	9.1	83.8
Hispanic/Latino	10.2	15.3	74.6
Other	7.4	27.9	64.7
Gender of respondent***			
Female	17.2	20.6	62.2
Male	19.5	29.6	50.9
Education*			
High school or less	15.0	20.0	65.0
Some college	15.7	21.9	62.4
College	22.4	24.0	53.6
Advanced degree	17.8	30.4	51.9
Income*			
Under \$50,000	17.3	18.9	63.8
\$50,000 to \$100,000	16.6	25.5	57.8
Over \$100,000	22.8	27.6	49.6

Clean water for fish and wildlife habitat

- Fifty-eight percent of the respondents (7.25 average score) were extremely concerned about clean water for fish and wildlife habitat in the region where they lived.
- As shown in Table 16, extreme concern about clean water for fish and wildlife habitat in their region was higher among Black respondents (75.0 percent) and female respondents (64.1 percent).
- The percentage of the respondents who reported extreme concern about clean water for fish and wildlife habitat decreased as income increased.

**Table 16**  
**Clean Water for Fish and Wildlife Habitat**  
**By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
<b>Ethnicity**</b>			
White	10.5	31.5	58.0
Black	12.0	13.0	75.0
Hispanic/Latino	10.5	22.8	66.7
Other	8.8	25.0	66.2
<b>Gender of respondent*</b>			
Female	9.2	26.7	64.1
Male	12.7	31.7	55.6
<b>Income**</b>			
Under \$50,000	11.9	21.9	66.1
\$50,000 to \$100,000	8.0	32.3	59.7
Over \$100,000	12.8	33.2	54.0

Ability to fish and swim in clean water

- Fifty-seven percent of the respondents (7.17 average score) were extremely concerned about the reliability of water service in the region where they live.
- As shown in Table 17, the percentage of the respondents who were extremely concerned about the ability to fish and swim in clean water varied with ethnicity, and decreased as education and income increased.
- A greater percentage of female respondents (60.5 percent) than male respondents (50.4 percent) expressed extreme concern about the ability to fish and swim in clean water.

**Table 17**  
**Ability to Fish and Swim in Clean Water**  
**By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
<b>Ethnicity***</b>			
White	16.4	31.4	52.2
Black	9.1	12.1	78.8
Hispanic/Latino	5.1	27.1	67.8
Other	13.2	25.0	61.8
<b>Gender of respondent**</b>			
Female	13.7	25.9	60.5
Male	16.5	33.1	50.4

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
<b>Education***</b>			
High school or less	9.5	24.0	66.5
Some college	12.8	20.7	66.5
College	18.6	33.0	48.4
Advanced degree	17.0	35.8	47.2
<b>Income**</b>			
Under \$50,000	14.8	22.3	62.9
\$50,000 to \$100,000	13.1	31.8	55.1
Over \$100,000	18.5	33.7	47.8

Personal health concerns about clean water

- Personal safety from water-carried diseases was of extreme concern to 54.6 percent of the respondents. The average score was 6.92.
- As shown in Table 18, the percentage of the respondents who were extremely concerned about their personal safety from water-carried diseases varied with years lived in North Texas and ethnicity, and decreased as education increased.
- Sixty percent of female respondents and 45.9 percent of male respondents were extremely concerned about their personal safety from water-carried diseases.

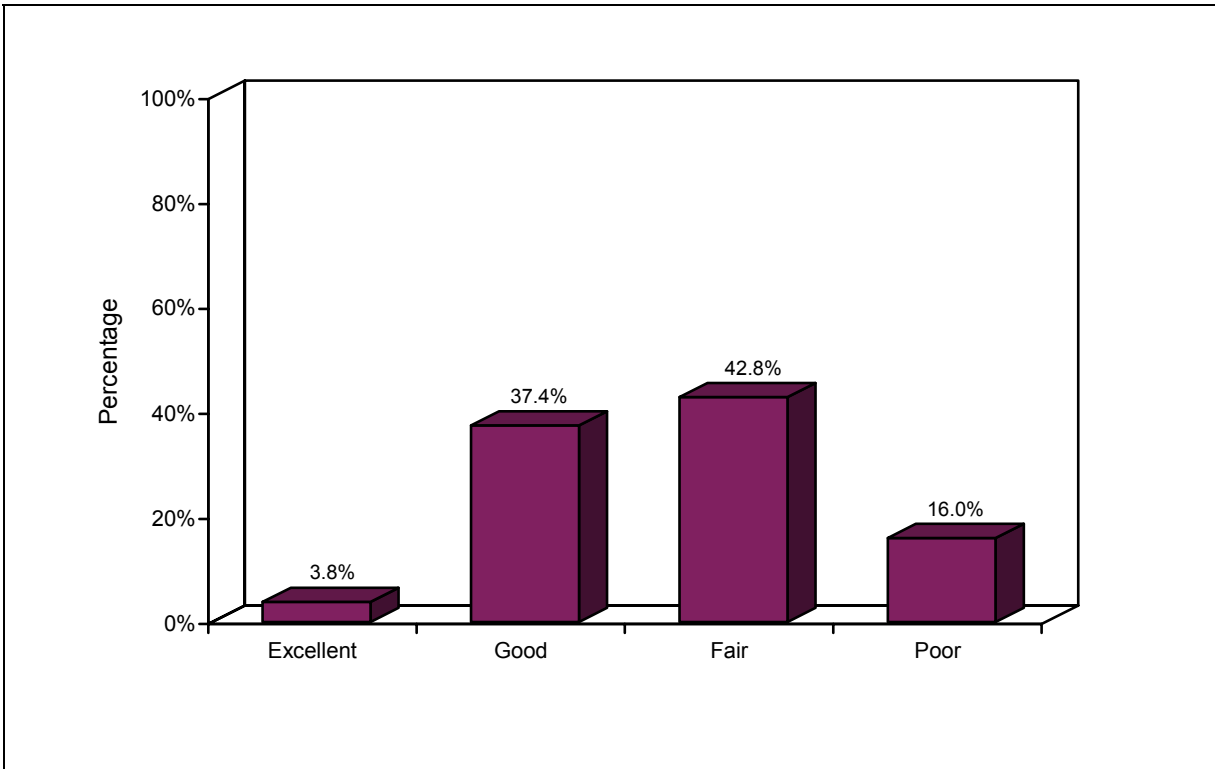
**Table 18**  
**Personal Health Concerns about Clean Water**  
**By Selected Demographics**

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
<b>Years lived in N Texas*</b>			
5 years or less	16.9	27.2	55.9
6 to 10 years	16.5	19.1	64.3
11 to 20 years	27.5	27.5	45.1
21 to 35 years	20.2	26.8	52.9
More than 35 years	22.7	19.9	57.4
<b>Ethnicity***</b>			
White	24.8	26.0	49.2
Black	9.0	12.0	79.0
Hispanic/Latino	15.3	11.9	72.9
Other	7.4	29.4	63.2
<b>Gender of respondent***</b>			
Female	20.1	20.0	59.9
Male	23.2	30.9	45.9

	Percentage responding		
	Not concerned (1-3)	(4-7)	Extremely concerned (8-10)
Education*			
High school or less	18.4	21.1	60.5
Some college	20.2	21.4	58.4
College	25.9	24.6	49.5
Advanced degree	19.2	29.4	51.4

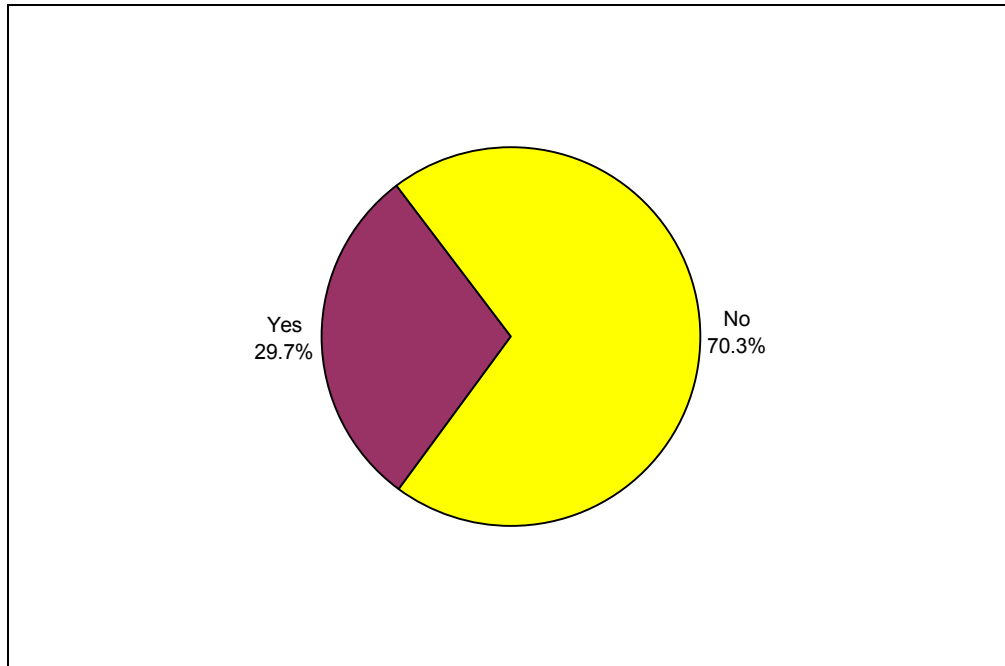
## Water Quality

**Figure 1**  
**Water Quality of Area Streams, Rivers and Reservoirs**  
**(n=990)**



- Respondents were asked to rate the water quality in the streams, rivers and reservoirs in their area. As shown in Figure 1, 41.2 percent of the respondents rated the water quality as either excellent (3.8 percent) or good (37.4 percent). Fifty-nine percent rated the water quality either fair (42.8 percent) or poor (16.0 percent).

**Figure 2**  
**Water Quality Has Improved Over Past 5 Years**  
**(n=861)**



- Respondents were asked if the quality of the water in their area had improved over the past five years. As shown in Figure 2, 29.7 percent of the respondents answered “yes.”
- The percentage of the respondents who reported that the quality of water in their area had improved over the past five years varied with ethnicity, and increased as education and income increased (see Table 19).

**Table 19**  
**Water Quality Has Improved Over Past 5 Years**  
**By Selected Demographics**

	Percentage responding	
	Yes	No
<b>Ethnicity***</b>		
White	26.9	73.1
Black	33.7	66.3
Hispanic/Latino	57.1	42.9
Other	35.6	64.4
<b>Education***</b>		
High school or less	40.8	59.2
Some college	30.1	69.9
College	23.6	76.4
Advanced degree	26.1	73.9
<b>Income***</b>		
Under \$50,000	37.6	62.4
\$50,000 to \$100,000	28.5	71.5
Over \$100,000	22.2	77.8

**Table 20**  
**Responsibility for Maintaining Water Quality**

	Percentage responding	
	Most responsible (n=982)	Least responsible (n=918)
Federal government	8.2	40.8
State government	18.9	5.7
County and City governments	39.8	4.9
Business and industry	6.8	7.2
Farmers and ranchers	1.2	18.6
Individual citizens	25.1	22.8

- Respondents were asked who has the most, second most, and least responsibility for maintaining the water quality in our area streams and reservoirs.

Most responsibility

- County and city governments were reported to have the most responsibility for maintaining the water quality in area streams and reservoirs by 39.8 percent of the respondents.
- As shown in Table 21, the percentage of the respondents who indicated that county and city governments have the most responsibility for maintaining the water quality in area streams and reservoirs was higher among Other respondents (42.6 percent) and lower among Hispanic/Latino respondents (33.3 percent).

**Table 21**  
**Most Responsibility for Maintaining Water Quality**  
**By Selected Demographics**

	Percentage responding					
	Federal govt.	State govt.	County and city govts.	Business and industry	Farmers and ranchers	Individual citizens
Ethnicity**						
White	6.5	19.9	40.1	7.3	1.3	24.8
Black	18.4	20.4	38.8	5.1	0.0	17.3
Hispanic/Latino	10.5	15.8	33.3	1.8	3.5	35.1
Other	8.8	10.3	42.6	7.4	0.0	30.9

Least responsibility

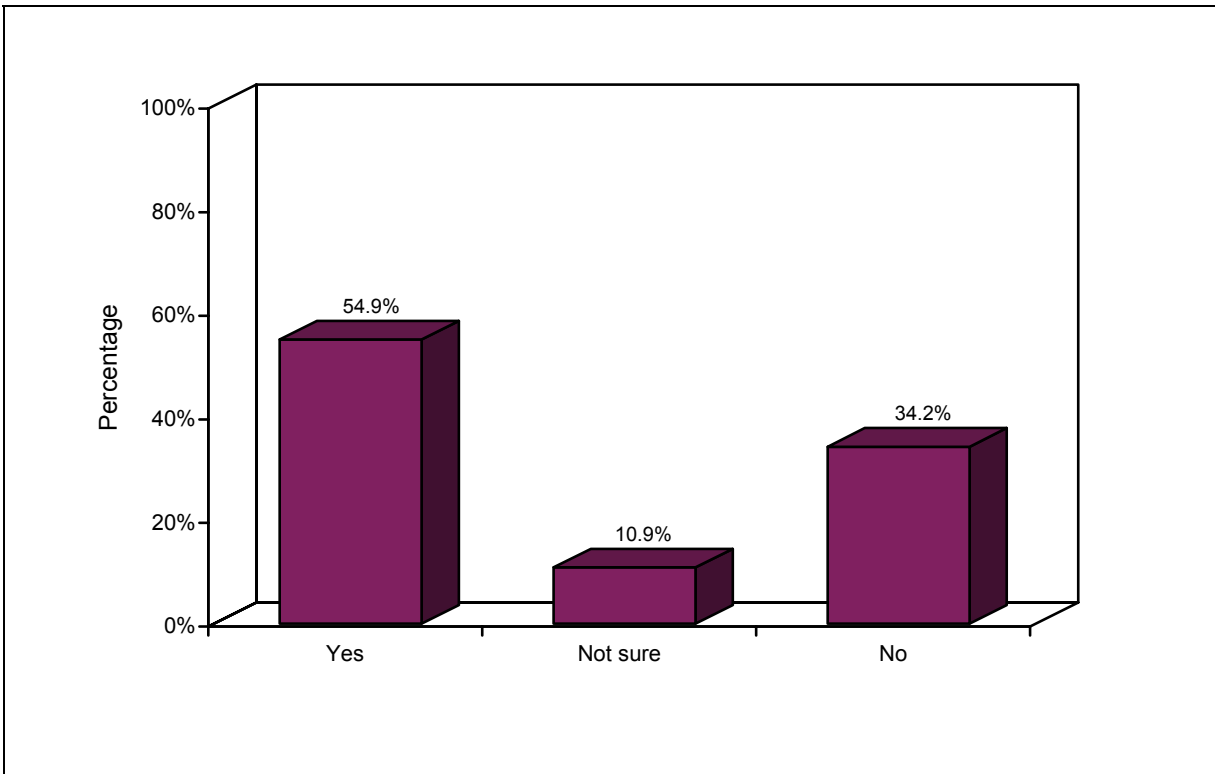
- The Federal governments was reported by 40.8 percent of the respondents to have the least responsibility for maintaining the water quality in area streams and reservoirs.
- The percentage of the respondents who reported that the federal government had the least responsibility for maintaining the water quality in area streams and reservoirs varied with years lived in North Texas (see Table 22).

**Table 22**  
**Least Responsibility for Maintaining Water Quality**  
**By Selected Demographics**

	Percentage responding					
	Federal govt.	State govt.	County and city govts.	Business and industry	Farmers and ranchers	Individual citizens
Years lived in N Texas**						
5 years or less	45.6	4.8	5.6	8.0	12.0	24.0
6 to 10 years	25.0	4.8	9.6	6.7	28.8	25.0
11 to 20 years	36.8	7.0	1.8	8.2	18.7	27.5
21 to 35 years	47.8	6.3	3.1	7.1	19.2	16.5
More than 35 years	40.8	5.0	6.5	6.2	16.9	24.6

## Water Source

**Figure 3**  
**Source of Drinking Water**  
**(n=994)**



- Respondents were asked if they knew the source of the drinking water that is supplied to their home or apartment. Fifty-five percent of the respondents answered “yes” (see Figure 3). Forty-five percent of the respondents answered either “not sure” (10.9 percent) or “no” (34.2 percent).
- As shown in Table 23, the percentage of the respondents who indicated they knew the source of their drinking water varied by county of residence, and ethnicity. Percentages also increased as years lived in North Texas, age of the respondent, education and income increased.
- Knowledge about the source of their drinking water was greater among male respondents (67.7 percent) and rural respondents (63.4 percent).

**Table 23**  
**Source of Drinking Water**  
**By Selected Demographics**

	Percentage responding		
	Yes	Not sure	No
County of residence***			
Collin	62.0	10.1	27.9
Dallas	48.0	11.1	40.8
Denton	60.0	13.6	26.4
Tarrant	48.1	10.9	41.1
Other counties	74.3	9.0	16.7
Years lived in N Texas*			
5 years or less	42.2	11.9	45.9
6 to 10 years	47.0	12.2	40.9
11 to 20 years	53.6	11.2	35.2
21 to 35 years	60.7	8.9	30.4
More than 35 years	59.5	11.3	29.2
Age of respondent***			
18 to 25	23.1	11.5	65.4
26 to 35	43.8	9.0	47.2
36 to 45	51.2	12.8	36.0
46 to 60	66.4	10.2	23.4
61 or older	59.5	11.1	29.4
Ethnicity***			
White	60.6	11.5	27.8
Black	28.3	5.1	66.7
Hispanic/Latino	25.9	15.5	58.6
Other	52.9	7.4	39.7
Gender of respondent***			
Female	47.1	12.2	40.7
Male	67.7	8.7	23.5
Education***			
High school or less	40.5	12.2	47.3
Some college	57.3	11.6	31.1
College	57.3	10.2	32.5
Advanced degree	64.0	9.8	26.2
Income***			
Under \$50,000	42.5	13.7	43.8
\$50,000 to \$100,000	56.0	9.9	34.1
Over \$100,000	69.4	8.9	21.8
Rural or urban*			
Rural	63.4	9.8	26.8
Urban	52.3	11.2	36.5

**Table 24**  
**Source of Water**  
**(n=534)**

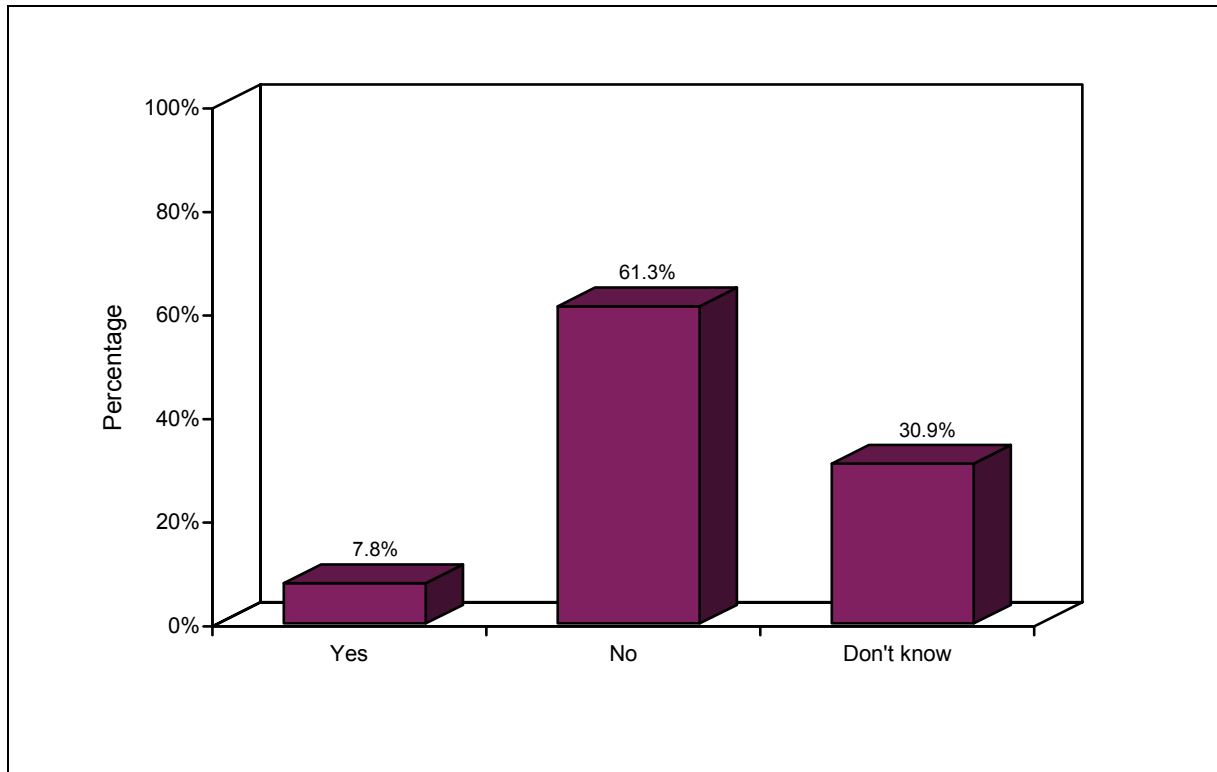
	Percentage responding
Specific lake/river named	41.8
Specific city/county named	13.9
Unnamed lake/river	13.5
Well	11.4
Unnamed city/county water	10.7
Reservoir	3.6
Specific company named	1.7
Aquifer	0.7
Other	2.8

- Respondents who said they knew the source of their drinking water were asked to name the source. As shown in Table 24, 41.8 percent of those respondents named a specific lake or river (see Table 25 for the specific lakes and rivers), and 13.9 percent named a specific city or county. A generic, unnamed lake or river was mentioned by 13.5 percent of the respondents, and 11.4 percent said their drinking water came from a well. A complete list of responses can be found in Appendix B.
- Thirty-nine percent of the respondents who mentioned a specific lake or river reported their drinking water came from Lake Lavon (see Table 25). Sixteen percent mentioned Lake Lewisville.

**Table 25**  
**Specific Lake or River is Source of Water**  
**(n=223)**

	Percentage responding
Lake Lavon	29.6
Lake Lewisville	15.7
Lake Ray Hubbard	8.1
Trinity River	5.4
Benbrook Lake	4.9
Joe Pool Lake	4.5
Lake Arlington	4.5
Lake Texoma	3.1
Lake Worth	3.1
Eagle Mountain Lake	2.7
Lake Grapevine	2.7
Cedar Creek Lake	2.2
Lake Bridgeport	1.3
Lake Pat Cleburne	1.3
Lake Tawakani	1.3
Richland Chambers Lake	1.3
Lake Dallas	0.9
Lake Randell	0.9
Lake Ray Roberts	0.9
Lake Waxahachie	0.9
Lake Weatherford	0.9
Amon Carter Lake	0.4
Corsicana Lake	0.4
East Texas Lake	0.4
Lake Bardwell	0.4
Lake Granbury	0.4
Lake Olney	0.4
Lake Rockwall	0.4
Lake Tipper	0.4

**Figure 4**  
**Live in a Watershed**  
**(n=1,000)**



- Respondents were asked if they lived in a watershed. Only 7.8 percent knew that they lived in a watershed (see Figure 4). Most of the respondents either believed that they did not live in a watershed (61.3 percent) or did not know (30.9 percent).
- As shown in Table 26, the percentages of the respondents who said they lived in a watershed varied with county of residence, ethnicity, and income, and increased as the years lived in North Texas and the age of the respondent increased.
- Male respondents were more likely than female respondents to report they lived in a watershed.
- A greater percentage of rural respondents (16.0 percent) indicated they lived in a watershed compared to urban respondents (9.7 percent).

**Table 26**  
**Live in a Watershed**  
**By Selected Demographics**

	Percentage responding		
	Yes	No	Don't know
County of residence**			
Collin	4.7	60.5	34.9
Dallas	4.8	66.7	28.6
Denton	9.8	58.0	32.1
Tarrant	8.1	58.1	33.7
Other counties	15.9	57.2	26.9
Years lived in N Texas**			
5 years or less	4.4	59.6	36.0
6 to 10 years	3.5	65.2	31.3
11 to 20 years	4.9	65.4	29.7
21 to 35 years	8.8	64.7	26.5
More than 35 years	12.0	55.0	33.0
Age of respondent***			
18 to 25	3.8	74.4	21.8
26 to 35	4.1	67.8	28.1
36 to 45	2.0	65.5	32.5
46 to 60	11.8	59.2	29.1
61 or older	10.6	53.4	36.0
Ethnicity***			
White	9.4	57.0	33.6
Black	1.0	78.0	21.0
Hispanic/Latino	0.0	74.6	25.4
Other	5.9	72.1	22.1
Gender of respondent***			
Female	5.2	60.4	34.5
Male	12.1	62.8	25.1
Income*			
Under \$50,000	4.1	63.7	32.2
\$50,000 to \$100,000	10.5	60.0	29.5
Over \$100,000	9.2	61.6	29.2

**Table 27**  
**Name of Watershed\***  
**(n=50)**

	Percentage responding
Trinity or Trinity River	42.0
Mentioned specific lake	24.0
Mentioned other specific river/creek	20.0
Woodbine	2.0
Other	12.0

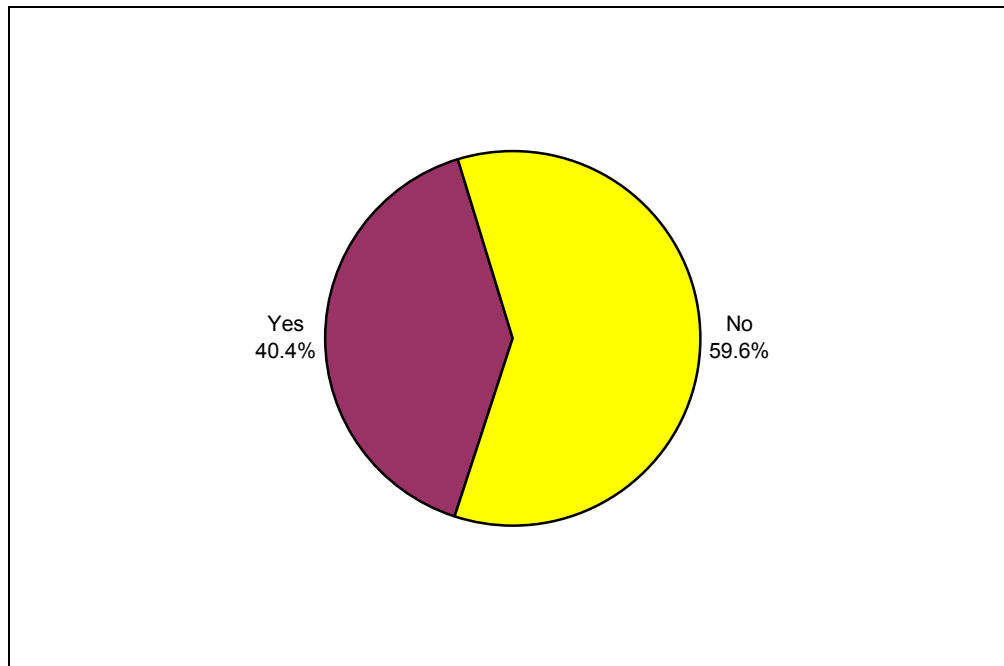
- Respondents who knew they lived in a watershed were asked to name the watershed. As shown in Table 27, 42.0 percent of the respondents reported living in the Trinity River watershed. Twenty-four percent mentioned a specific lake, such as Eagle Mountain Lake or Lake Lewisville. Twenty percent mentioned a specific river or creek. A complete list of responses can be found in Appendix B.

---

\* Twenty-three respondents answered 'don't know' to this question.

## Water Pollution

**Figure 5**  
**Water Pollution is Problematic**  
**(n=962)**

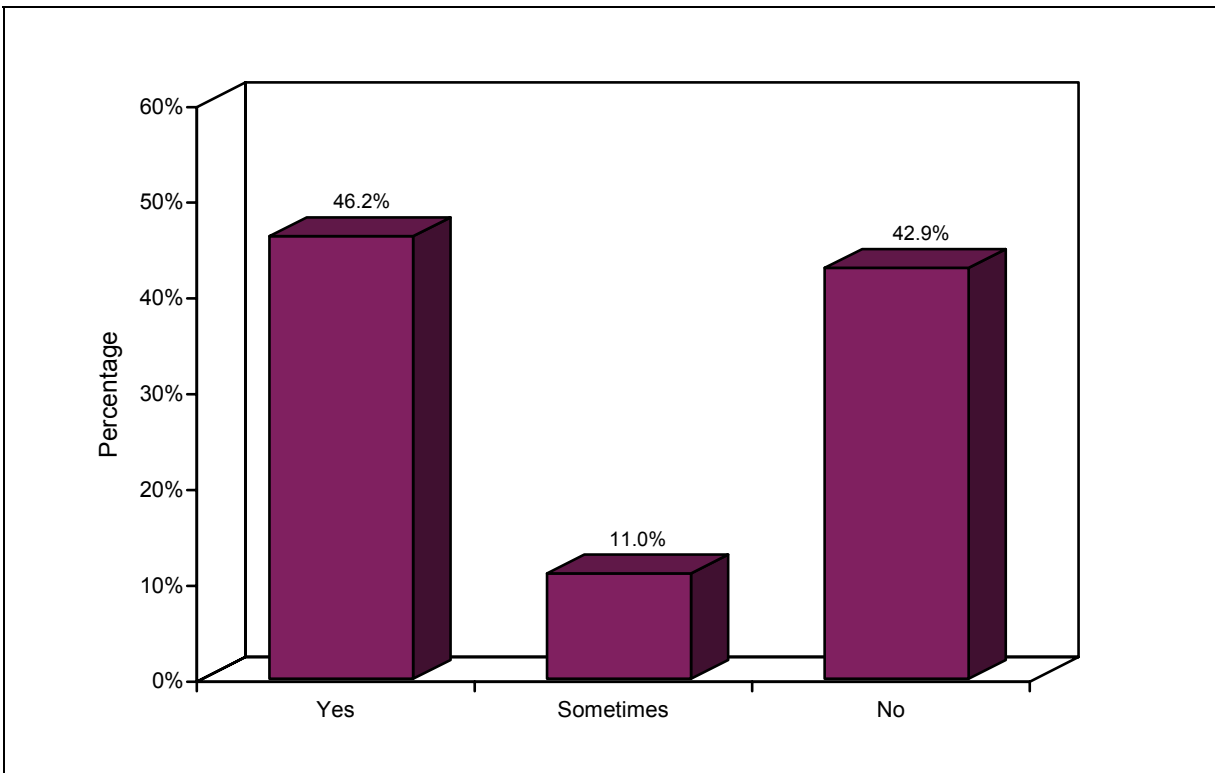


- Respondents were asked if they thought water pollution was a problem in their community or area. Forty percent of the respondents said they thought water pollution was problematic (see Figure 5).
- As shown in Table 28, the percentage of the respondents who thought water pollution was a problem in their community or area was greater in Dallas County, varied with the age of the respondent and education, and decreased as income increased.

**Table 28**  
**Water Pollution is Problematic**  
**By Selected Demographics**

	Percentage responding	
	Yes	No
County of residence***		
Collin	25.8	74.2
Dallas	46.9	53.1
Denton	37.1	62.9
Tarrant	43.8	56.2
Other counties	36.6	63.4
Age of respondent**		
18 to 25	44.0	56.0
26 to 35	38.4	61.6
36 to 45	33.3	66.7
46 to 60	48.5	51.5
61 or older	36.8	63.2
Education*		
High school or less	37.3	62.7
Some college	47.4	52.6
College	35.3	64.7
Advanced degree	43.2	56.8
Income*		
Under \$50,000	45.3	54.7
\$50,000 to \$100,000	42.1	57.9
Over \$100,000	33.1	66.9

**Figure 6**  
**Use Fertilizers/Pesticides on Yard, Garden, Farm or Ranch**  
**(n=994)**



- Respondents were asked if they used fertilizers and/or pesticides on their yard, garden, farm or ranch. As shown in Figure 6, 57.2 percent of the respondents answered “yes” (46.2 percent) or “sometimes” (11.0 percent).
- The percentage of the respondents who reported using fertilizers and/or pesticides on their yard, garden, farm or ranch varied with the age of the respondent and ethnicity, and increased as education and income increased (see Table 29).
- Fifty-one percent of male respondents and 43.0 percent of female respondents said they used fertilizers and/or pesticides on their yard, garden, farm or ranch.

**Table 29**  
**Use Fertilizers/Pesticides on Yard, Garden, Farm or Ranch**  
**By Selected Demographics**

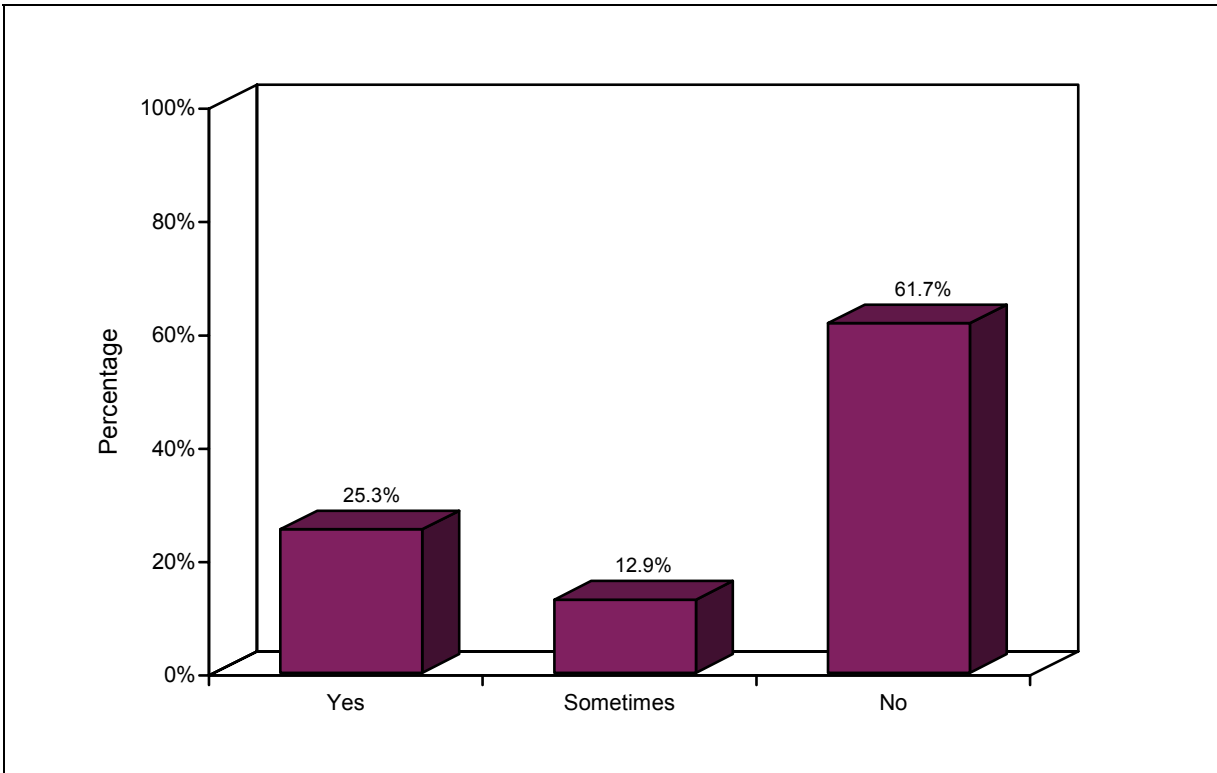
	Percentage responding		
	Yes	Sometimes	No
Age of respondent***			
18 to 25	28.2	5.1	66.7
26 to 35	46.6	4.8	48.6
36 to 45	54.2	11.9	33.8
46 to 60	44.6	13.1	42.3
61 or older	46.4	13.0	40.6
Ethnicity**			
White	48.4	12.1	39.5
Black	40.0	5.0	55.0
Hispanic/Latino	44.1	13.6	42.4
Other	33.3	6.1	60.6
Gender of respondent*			
Female	43.0	10.7	46.3
Male	51.3	11.4	37.2
Education**			
High school or less	35.0	10.8	54.3
Some college	44.4	11.1	44.4
College	52.7	10.5	36.8
Advanced degree	50.0	11.9	38.1
Income***			
Under \$50,000	27.2	9.6	63.1
\$50,000 to \$100,000	50.5	9.9	39.6
Over \$100,000	62.2	12.4	25.3

**Table 30**  
**Disposal of Excess Chemicals and Containers**  
**(n=518)**

	Percentage responding
Bring to organized hazardous waste collection locations	35.2
Throw away in the trash can	33.5
Store in garage	11.5
Uses lawn service	6.6
No excess left to dispose of	4.5
Recycle	3.3
Pour outside (ex. Driveway, storm water drain, curb, etc.)	1.2
City collects hazardous chemicals	1.2
Use organic fertilizers	1.0
Pour into the toilet or sink	0.8
Follow disposal directions on container	0.4
Other, specify	1.0

- Respondents who reported using fertilizers and/or pesticides were asked how they disposed of the excess chemicals and their containers. As shown in Table 30, 35.2 percent of the respondents reported bringing their excess chemicals and containers to organized hazardous waste collection locations. One-third (33.5 percent) indicated they threw the chemicals and containers in the trash can.

**Figure 7**  
**Apply Fertilizers/Pesticides Before Rainstorm**  
**(n=549)**



- Respondents who used fertilizers and/or pesticides on their yard, garden, farm or ranch were asked if they ever applied the chemicals before a rainstorm. As shown in Figure 7, 38.2 percent answered “yes” (25.3 percent) or “sometimes” (12.9 percent).
- The percent of the respondents who indicated they had applied fertilizers and/or pesticides before a rainstorm varied by county of residence (see Table 31).

**Table 31**  
**Apply Fertilizers/Chemicals Before a Rainstorm**  
**By Selected Demographics**

	Percentage responding		
	Yes	Sometimes	No
County of residence*			
Collin	15.0	17.5	67.5
Dallas	27.5	8.2	64.3
Denton	24.6	8.2	67.2
Tarrant	22.7	16.3	61.0
Other counties	35.6	13.8	50.6

**Table 32**  
**Contributing Factors to Local Water Pollution**

Factor	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
Industrial waste (n=990)	71.9	17.3	8.4	2.4
Agricultural use of pesticides and fertilizers (n=978)	49.2	33.9	14.0	2.9
Sanitary sewer overflows (n=968)	51.4	26.7	18.2	3.7
Soil erosion from construction sites (n=979)	36.7	38.8	20.7	3.8
Storm water runoff from city streets and parking lots (n=987)	33.3	40.8	22.5	3.3
Soil erosion from farm lands (n=963)	24.4	40.3	28.6	6.7

- Respondents were asked if any of the factors listed in Tables 32 and 39 contributed to local water pollution. Factors related to business and local government are shown in descending order of percentage (major plus moderate) for the respondents.

Industrial waste

- Eighty-nine percent of the respondents reported that industrial waste was either a major (71.9 percent) or moderate contributor (17.3 percent) to local water pollution.
- As shown in Table 33, the percentage of the respondents who reported that industrial waste was either a major or moderate contributor to local water pollution was greater for respondents living in Tarrant County (92.6 percent) and lower for respondents living in other counties (78.5 percent).
- The percentage of the respondents who reported that industrial waste was either a major or moderate contributor to local water pollution decreased as years lived in North Texas increased and varied with education.
- Urban respondents (91.6 percent) were more likely than rural respondents (81.3 percent) to report that industrial waste was either a major or moderate contributor to local water pollution.

**Table 33**  
**Industrial Waste Contributes to Local Water Pollution**  
**By Selected Demographics**

	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
County of residence***				
Collin	66.7	23.8	7.9	1.6
Dallas	74.5	15.6	9.0	0.9
Denton	70.5	19.6	7.1	2.7
Tarrant	75.3	17.3	6.3	1.2
Other counties	63.2	15.3	13.2	8.3
Years lived in N Texas*				
5 years or less	75.0	19.1	2.9	2.9
6 to 10 years	76.1	15.0	8.8	0.0
11 to 20 years	63.7	23.5	10.6	2.2
21 to 35 years	68.3	19.9	9.2	2.6
More than 35 years	77.0	11.1	8.7	3.1
Education*				
High school or less	71.1	14.7	9.2	5.0
Some college	78.1	13.2	7.0	1.7
College	69.8	21.0	7.9	1.3
Advanced degree	68.4	19.3	9.9	2.4
Rural or urban***				
Rural	67.0	14.3	11.6	7.1
Urban	73.4	18.2	7.4	1.0

Agricultural use of pesticides and fertilizers

- Agricultural use of pesticides and fertilizers was reported to be either a major (49.2 percent) or moderate contributor (33.9 percent) to local water pollution by 83.1 percent of respondents.
- As shown in Table 34, the percentage of the respondents who reported that agricultural use of pesticides and fertilizers was a major or moderate contributor to local water pollution varied by income and was greater among female respondents.

**Table 34**  
**Agricultural Use of Pesticides/Fertilizers**  
**By Selected Demographics**

	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
Gender of respondent***				
Female	54.1	31.9	11.5	2.5
Male	41.4	37.1	18.0	3.4
Income*				
Under \$50,000	53.7	28.5	13.8	4.0
\$50,000 to \$100,000	50.6	37.0	10.8	1.5
Over \$100,000	44.1	36.4	16.6	2.8

Sanitary sewer overflows

- Sanitary sewer overflows were reported to be either a major (51.4 percent) or moderate contributor (26.7 percent) to local water pollution by 78.1 percent of the respondents.
- The percentage of the respondents who reported that sanitary sewer overflows were either a major or moderate contributor to local water pollution was higher among Black and Hispanic/Latino respondents than other ethnic group respondents or White respondents (see Table 35).
- The percentage of the respondents that indicated that sanitary sewer overflows were either a major or moderate contributor to local water pollution decreased as education and income increased.

**Table 35  
Sanitary Sewer Overflows  
By Selected Demographics**

	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
<b>Ethnicity**</b>				
White	47.6	28.0	20.4	4.0
Black	70.4	19.4	7.1	3.1
Hispanic/Latino	64.9	21.1	12.3	1.8
Other	54.7	26.6	15.6	3.1
<b>Education***</b>				
High school or less	58.1	23.3	14.9	3.7
Some college	61.5	24.7	10.8	3.0
College	49.5	27.2	19.7	3.6
Advanced degree	35.7	31.9	27.6	4.8
<b>Income***</b>				
Under \$50,000	60.1	20.8	13.9	5.3
\$50,000 to \$100,000	47.0	30.2	20.0	2.9
Over \$100,000	42.9	31.8	21.6	3.7

Soil erosion from construction sites

- Seventy-six percent of the respondents indicated that construction site runoff was either a major (36.7 percent) or moderate contributor (38.8 percent) to local water pollution.
- The percentage of the respondents who reported that soil erosion from construction sites was either a major or moderate contributor to local water pollution was higher among Hispanic/Latino respondents when compared to Black, Other, and White respondents (see Table 36).
- Female respondents (79.4 percent) were more likely than male respondents (69.2 percent) to indicate that soil erosion from construction sites was either a major or moderate contributor to local water pollution.

**Table 36**  
**Soil Erosion from Construction Sites**  
**By Selected Demographics**

	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
Ethnicity*				
White	33.4	40.5	21.8	4.3
Black	47.4	30.9	18.6	3.1
Hispanic/Latino	55.2	31.0	12.1	1.7
Other	40.9	36.4	21.2	1.5
Gender of respondent***				
Female	41.9	37.5	17.3	3.3
Male	28.4	40.8	26.3	4.5

Storm water runoff from city streets and parking lots

- Seventy-four percent of the respondents indicated that storm water runoff from city streets and parking lots was either a major (33.3 percent) or moderate contributor (40.8 percent) to local water pollution.
- As shown in Table 37, the percentage of the respondents reporting that storm water runoff from city streets and parking lots was either a major or moderate contributor to local water pollution was greater among respondents living in Dallas County (79.2 percent), followed by Denton County (77.4 percent), Collin County (73.5 percent), Tarrant County (71.1 percent) and other counties (67.9 percent).
- The percentage varied with ethnicity and was greater among urban respondents when compared to rural respondents.

**Table 37**  
**Storm Water Runoff from City Streets and Parking Lots**  
**By Selected Demographics**

	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
County of residence*				
Collin	26.6	46.9	26.6	0.0
Dallas	37.0	42.2	19.3	1.5
Denton	35.1	42.3	18.9	3.6
Tarrant	31.6	39.5	24.6	4.3
Other counties	30.0	37.9	25.0	7.1
Ethnicity***				
White	30.3	42.3	23.6	3.8
Black	54.5	23.2	21.2	1.0
Hispanic/Latino	30.5	49.2	16.9	3.4
Other	37.3	43.3	17.9	1.5
Rural or urban*				
Rural	33.9	36.2	24.0	5.9
Urban	33.0	42.7	22.1	2.2

### Soil erosion from farm lands

- Less than two-thirds (64.7 percent) of the respondents reported that soil erosion from farm lands was either a major (24.4 percent) or moderate contributor (40.3 percent) to local water pollution.
- As shown in Table 38, the percentage of the respondents who indicated that soil erosion from farm lands was either a major or moderate contributor to local water pollution varied with years lived in North Texas, generally increased as the age of the respondent increased, and decreased as income increased.
- Sixty-eight percent of female respondents and 59.3 percent of male respondents reported that soil erosion from farm lands was either a major or moderate contributor to local water pollution.

**Table 38**  
**Soil Erosion off Farm Lands**  
**By Selected Demographics**

	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
Years lived in N Texas*				
5 years or less	29.1	43.3	23.1	4.5
6 to 10 years	23.0	42.5	32.7	1.8
11 to 20 years	18.6	36.0	36.0	9.3
21 to 35 years	22.1	38.2	30.5	9.2
More than 35 years	27.7	42.8	23.4	6.1
Age of respondent**				
18 to 25	19.5	41.6	35.1	3.9
26 to 35	22.5	37.3	31.7	8.5
36 to 45	19.3	40.6	35.0	5.1
46 to 60	21.6	43.2	27.7	7.4
61 or older	34.3	37.5	21.0	7.3
Gender of respondent*				
Female	27.0	41.1	25.8	6.1
Male	20.3	39.0	32.9	7.8
Income*				
Under \$50,000	29.9	38.6	23.5	8.1
\$50,000 to \$100,000	19.7	44.4	29.5	6.3
Over \$100,000	21.6	39.6	32.2	6.5

**Table 39**  
**Contributing Factors to Local Water Pollution**

Factor	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
Improper disposal of household hazardous waste (n=992)	54.1	30.4	12.2	3.2
Improper disposal of automobile oil and antifreeze (n=987)	58.7	25.3	12.5	3.5
Litter and trash (n=995)	48.6	33.6	15.5	2.3
Use of fertilizers and pesticides for lawns in residences (n=983)	44.3	36.9	15.5	3.4
Not picking up after pets (n=986)	26.7	28.6	35.7	9.0

- Respondents were asked if any of the factors listed in Tables 32 and 39 contributed to local water pollution. Factors related to individual citizen activities are shown in descending order of percentage (major plus moderate contribution) for the respondents.

Improper disposal of household hazardous waste

- Eighty-five percent of the respondents reported that improper disposal of household hazardous waste was either a major (54.1 percent) or moderate contributor (30.4 percent) to local water pollution.
- As shown in Table 40, the percentage of the respondents reporting that improper disposal of household hazardous waste was either a major or minor contributor to local water pollution varied with county of residence and was higher in Dallas County (88.0 percent) and Collin County (87.5 percent).
- Percentages varied with the age of the respondent and were higher among respondents age 46 to 60 (88.8 percent).
- Black respondents (89.8 percent) were more likely than Other ethnic group respondents (86.6 percent), Hispanic/Latino (respondents (86.4 percent) or White respondents (83.5 percent) to report that improper disposal of household hazardous waste was either a major or moderate contributor to local water pollution.
- The percentages generally increased as education and income decreased.

**Table 40**  
**Improper Disposal of Household Hazardous Waste**  
**By Selected Demographics**

	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
County of residence**				
Collin	50.0	37.5	11.7	0.8
Dallas	60.7	27.3	10.2	1.8
Denton	59.5	24.3	10.8	5.4
Tarrant	54.7	29.7	11.7	3.9
Other counties	40.3	35.4	18.8	5.6
Age of respondent*				
18 to 25	60.3	25.6	10.3	3.8
26 to 35	53.1	29.0	14.5	3.4
36 to 45	53.5	32.7	12.9	1.0
46 to 60	52.3	36.5	9.2	2.0
61 or older	55.0	24.2	14.6	6.2
Ethnicity**				
White	50.1	33.4	13.1	3.4
Black	71.4	18.4	7.1	3.1
Hispanic/Latino	66.1	20.3	10.2	3.4
Other	62.7	23.9	11.9	1.5
Gender of respondent*				
Female	57.9	27.8	11.1	3.3
Male	48.0	34.7	14.1	3.2
Education*				
High school or less	57.3	22.9	13.8	6.0
Some college	62.8	25.2	8.3	3.7
College	52.5	31.6	14.2	1.6
Advanced degree	43.2	42.3	12.2	2.3
Income*				
Under \$50,000	57.0	23.9	14.9	4.2
\$50,000 to \$100,000	55.7	30.8	10.8	2.8
Over \$100,000	48.2	38.6	10.0	3.2

Improper disposal of automobile oil and antifreeze

- Improper disposal of automobile oil and antifreeze was reported to be either a major (58.7 percent) or moderate contributor (25.3 percent) to local water pollution by 84.0 percent of the respondents.
- As shown in Table 41, the percentage of the respondents who indicated that improper disposal of automobile oil and antifreeze was either a major or moderate contributor to local water pollution varied with county of residency, ranging from 87.1 percent of Tarrant County respondents to 74.3 percent of respondents living in other counties.
- Other ethnic group respondents (94.0 percent) were more likely to report that improper disposal of automobile oil and antifreeze was a major or moderate contributor to local water pollution than Black respondents (88.8 percent), Hispanic respondents (86.5 percent) or White respondents (82.3 percent).

- The percentages generally decreased as education increased.
- The percentages decreased as income increased for respondents answering "major contributor."
- Urban respondents (86.1 percent) were more likely than rural respondents (78.1 percent) to indicate that improper disposal of automobile oil and antifreeze was either a major or moderate contributor to local water pollution.

**Table 41**  
**Improper Disposal of Automobile Oil and Antifreeze**  
**By Selected Demographics**

	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
County of residence**				
Collin	57.5	30.7	11.0	0.8
Dallas	62.7	23.9	10.6	2.7
Denton	51.8	25.0	17.9	5.4
Tarrant	62.4	24.7	9.4	3.5
Other counties	46.5	27.8	20.8	4.9
Ethnicity***				
White	53.8	28.5	13.8	4.0
Black	74.7	14.1	8.1	3.0
Hispanic/Latino	76.3	10.2	11.9	1.7
Other	74.6	19.4	6.0	0.0
Education***				
High school or less	62.8	17.9	13.3	6.0
Some college	69.4	20.2	7.0	3.3
College	55.9	29.4	12.5	2.2
Advanced degree	46.0	32.7	18.0	3.3
Income***				
Under \$50,000	64.1	18.8	12.0	5.2
\$50,000 to \$100,000	57.9	26.3	13.9	1.9
Over \$100,000	49.4	34.8	12.1	3.6
Rural or urban*				
Rural	52.2	25.9	17.9	4.0
Urban	60.8	25.3	10.9	3.0

Litter and trash

- Eighty-two percent of the respondents indicated that litter and trash was either a major (48.6 percent) or moderate contributor (33.6 percent) to local water pollution.
- As shown in Table 42, the percentage of the respondents who reported that litter and trash was either a major or moderate contributor to local water pollution varied with ethnicity, ranging from 92.5 percent of Other ethnic group respondents to 79.8 percent of Black respondents.
- Female respondents (84.3 percent) were more likely than male respondents (78.9 percent) to report that litter and trash was either a major or moderate contributor to local water pollution.

- The percentage of the respondents reporting that litter and trash was either a major or moderate contributor to local water pollution generally decreased as education increased and varied with income.
- A greater percentage of urban respondents (84.2 percent) than rural respondents (77.3 percent) reported that litter and trash was either a major or moderate contributor to local water pollution.

**Table 42**  
**Litter and Trash**  
**By Selected Demographics**

	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
<b>Ethnicity**</b>				
White	45.6	35.6	16.1	2.6
Black	62.6	17.2	19.2	1.0
Hispanic/Latino	61.0	23.7	11.9	3.4
Other	52.2	40.3	7.5	0.0
<b>Gender of respondent**</b>				
Female	53.2	31.1	13.5	2.3
Male	41.3	37.6	18.8	2.4
<b>Education***</b>				
High school or less	62.1	19.6	15.5	2.7
Some college	53.5	35.0	9.1	2.5
College	42.9	38.8	16.1	2.2
Advanced degree	37.1	39.0	22.1	1.9
<b>Income***</b>				
Under \$50,000	57.2	24.8	14.8	3.2
\$50,000 to \$100,000	46.8	37.2	13.5	2.5
Over \$100,000	37.8	40.2	20.5	1.6
<b>Rural or urban*</b>				
Rural	49.3	28.0	18.7	4.0
Urban	48.8	35.4	14.3	1.6

Use of fertilizers and pesticides for lawns in residences

- Eighty-one percent of the respondents reported that use of fertilizers and pesticides for residence lawns in cities was either a major (44.3 percent) or moderate contributor (36.9 percent) to local water pollution (see Table 37).
- As shown in Table 43, the percentage of the respondents who indicated that use of fertilizers and pesticides for residence lawns in cities was either a major or moderate contributor to local water pollution varied with county of residence, ranging from 83.6 percent of Dallas County respondents to 75.4 percent of respondents from Other counties.
- The percentage of the respondents who indicated that use of fertilizers and pesticides for residence lawns in cities was either a major or moderate contributor increased as the age of the respondent increased.

**Table 43**  
**Use of Fertilizers or Pesticides for Residence Lawns**  
**By Selected Demographics**

	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
County of residence*				
Collin	42.5	40.2	16.5	0.8
Dallas	49.5	34.1	14.5	1.8
Denton	51.4	29.7	14.4	4.5
Tarrant	41.7	38.6	15.4	4.3
Other counties	32.4	43.0	18.3	6.3
Age of respondent*				
18 to 25	37.2	32.1	23.1	7.7
26 to 35	41.8	36.3	18.5	3.4
36 to 45	40.3	42.8	15.9	1.0
46 to 60	48.4	38.2	10.9	2.6
61 or older	45.4	33.1	16.7	4.8

Not picking up after pets

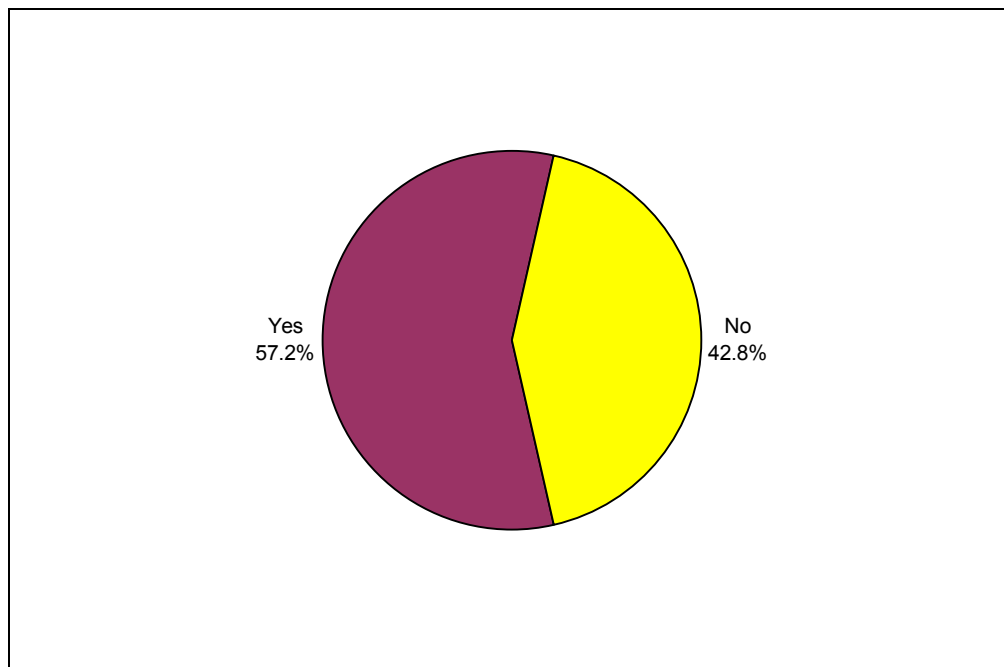
- Pet wastes were reported to be either a major (26.7 percent) or moderate contributor (28.6 percent) to local water pollution by 55.3 percent of the respondents.
- As shown in Table 44, 60.8 percent of Dallas County respondents reported that not picking up after pets was either a major or moderate contributor to local water pollution compared to smaller percentages of Denton County, Tarrant County, Other county, and Collin County respondents.
- The percentage of the respondents who indicated that not picking up after pets was either a major or moderate contributor to local water pollution increased as the age of the respondent increased and decreased as education and income increased.
- Sixty-three percent of female respondents and 43.4 percent of male respondents city homeowners reported that not picking up after pets was either a major or moderate contributor to local water pollution.
- Urban respondents (57.0 percent) were more likely than rural respondents (49.1 percent) to report that not picking up after pets was either a major or moderate contributor to local water pollution.

**Table 44**  
**Not Picking Up after Pets**  
**By Selected Demographics**

	Percentage responding			
	Major contributor	Moderate contributor	Minor contributor	Not at all a contributor
County of residence***				
Collin	14.8	28.1	46.9	10.2
Dallas	32.8	28.0	32.8	6.3
Denton	31.5	27.0	31.5	9.9
Tarrant	26.6	31.3	34.9	7.1
Other counties	16.7	27.8	37.5	18.1
Age of respondent***				
18 to 25	21.8	28.2	37.2	12.8
26 to 35	24.8	24.1	38.6	12.4
36 to 45	22.8	29.2	41.6	6.4
46 to 60	22.9	29.9	39.5	7.6
61 or older	36.6	29.2	24.5	9.7
Ethnicity***				
White	22.6	29.2	38.3	9.9
Black	50.0	17.7	30.2	2.1
Hispanic/Latino	32.2	33.9	25.4	8.5
Other	34.3	31.3	23.9	10.4
Gender of respondent***				
Female	33.4	29.1	31.3	6.2
Male	15.7	27.7	42.9	13.6
Education***				
High school or less	39.9	26.3	23.9	9.9
Some college	29.9	32.0	29.5	8.7
College	22.2	28.8	40.8	8.2
Advanced degree	16.4	27.2	46.5	9.9
Income***				
Under \$50,000	36.7	27.5	27.5	8.2
\$50,000 to \$100,000	21.9	33.0	37.3	7.7
Over \$100,000	16.1	23.0	48.0	12.9
Rural or urban*				
Rural	23.7	25.4	37.5	13.4
Urban	27.2	29.8	35.4	7.6

## Wastewater

**Figure 8**  
**Know Where Wastewater Goes When It Leaves Your House**  
**(n=978)**

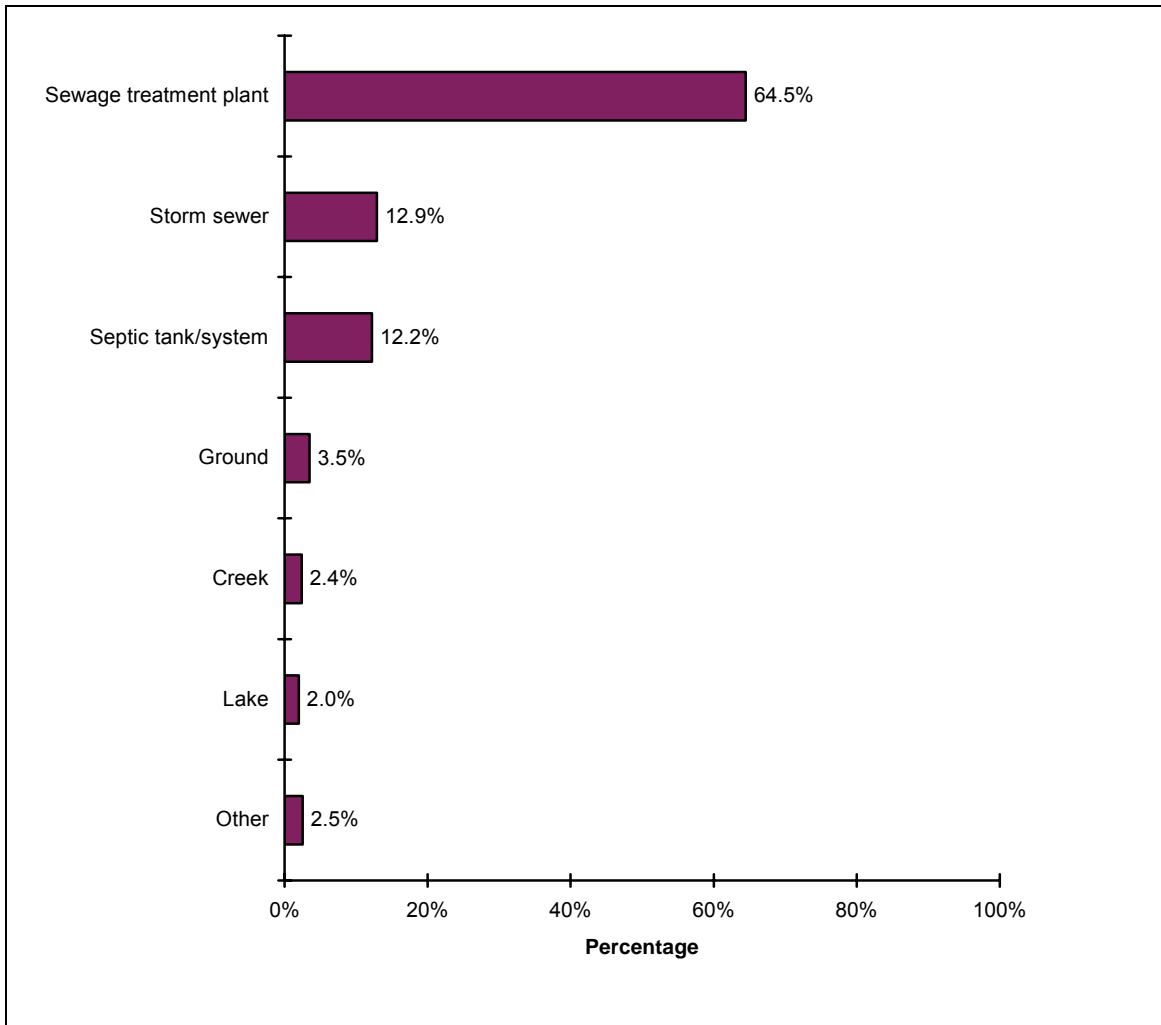


- Respondents were asked if they knew where wastewater went next after it left their house via the sewer. As shown in Figure 8, 57.2 percent of the respondents indicated they knew where the wastewater went after it left their house.
- The percentage of the respondents indicating they knew where wastewater went after it left their house varied by county of residence, ranging from 69.4 percent for respondents living in Other counties to 52.5 percent of Tarrant County respondents (see Table 45).
- The percentage of the respondents who knew where wastewater went after it left their house increased as the years lived in North Texas, the age of the respondent, education, and income increased.
- Male respondents (69.9 percent) were more likely to say they knew where wastewater went after it left their house than female respondents (49.3 percent).
- Two-thirds (66.7 percent) of rural respondents and 54.4 percent of urban respondents reported knowing where wastewater went after it left their house.

**Table 45**  
**Know Where Wastewater Goes Next When It Leaves Your House**  
**By Selected Demographics**

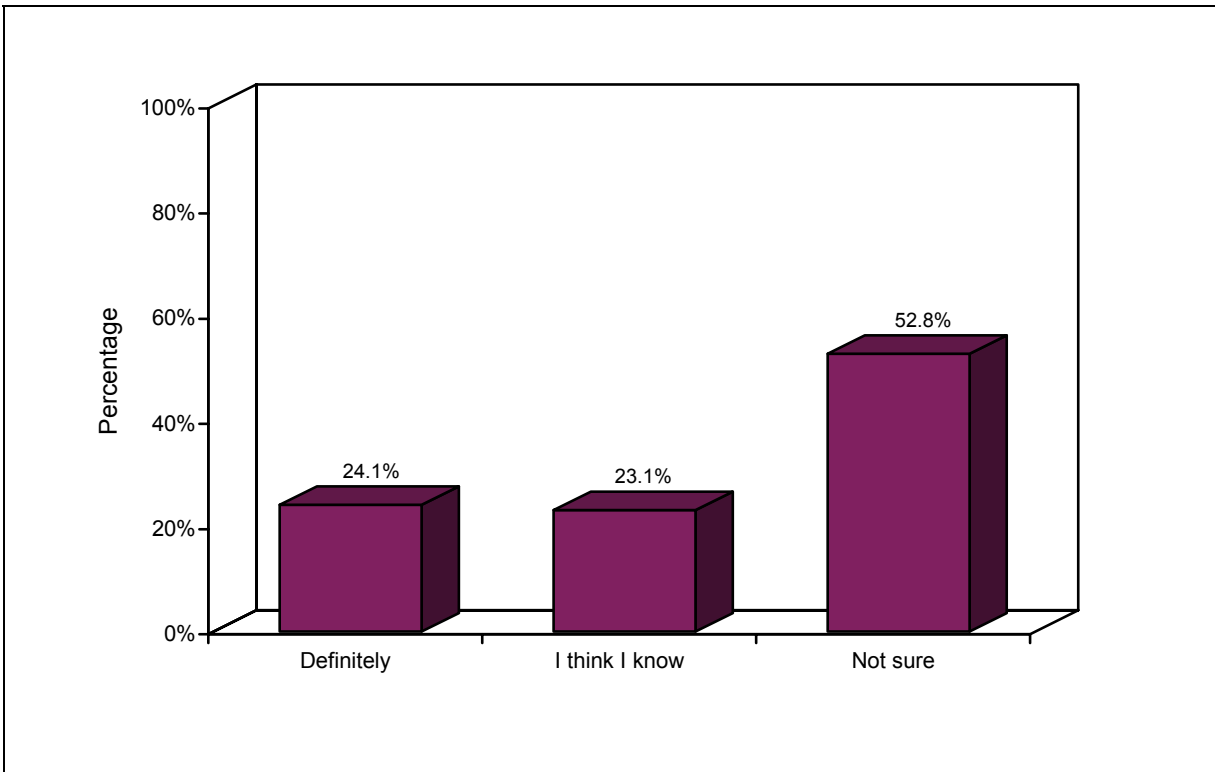
	Percentage responding	
	Yes	No
County of residence**		
Collin	62.1	37.9
Dallas	53.8	46.2
Denton	57.4	42.6
Tarrant	52.5	47.5
Other counties	69.4	30.6
Years lived in N Texas***		
5 years or less	41.7	58.3
6 to 10 years	52.7	47.3
11 to 20 years	50.3	49.7
21 to 35 years	62.5	37.5
More than 35 years	65.0	35.0
Age of respondent***		
18 to 25	31.6	68.4
26 to 35	39.4	60.6
36 to 45	53.1	46.9
46 to 60	71.3	28.7
61 or older	60.8	39.2
Ethnicity***		
White	61.7	38.3
Black	34.7	65.3
Hispanic/Latino	39.7	60.3
Other	50.8	49.2
Gender of respondent***		
Female	49.3	50.7
Male	69.9	30.1
Education***		
High school or less	45.9	54.1
Some college	58.3	41.7
College	60.0	40.0
Advanced degree	63.5	36.5
Income***		
Under \$50,000	47.6	52.4
\$50,000 to \$100,000	58.2	41.8
Over \$100,000	66.5	33.5
Rural or urban***		
Rural	66.7	33.3
Urban	54.4	45.6

**Figure 9**  
**Where Wastewater Goes**  
**(n=549)**



- Respondents who said they knew where the wastewater went after it left their house were asked where it went. As shown in Figure 9, a majority of the respondents (60.5 percent) reported that the wastewater went to the sewage treatment plant after it left their house.

**Figure 10**  
**Know Where Water Goes After Sewage Treatment Plant**  
**(n=917)**

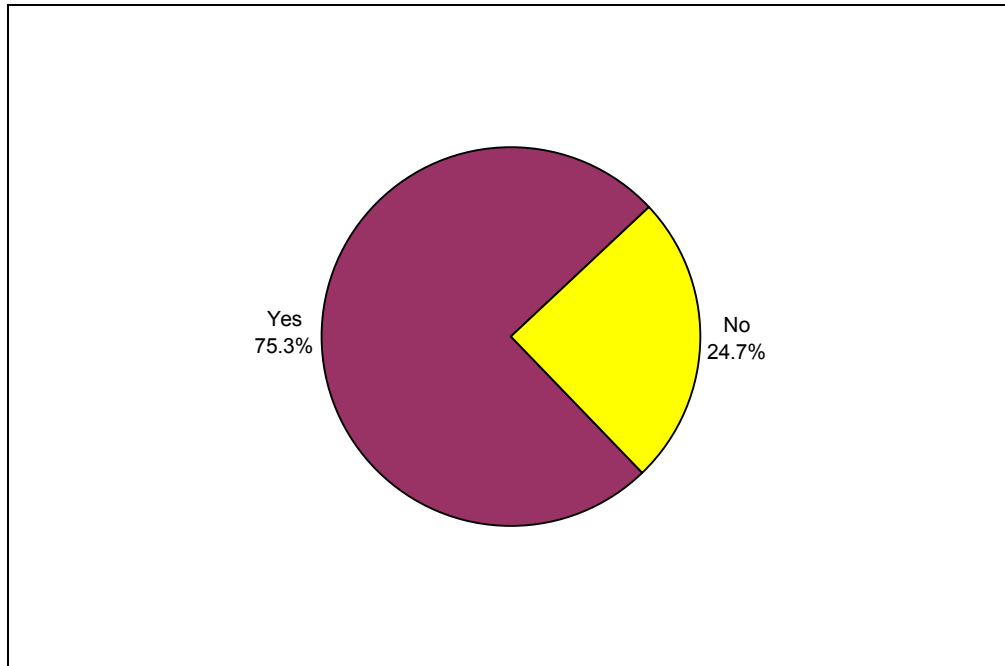


- Respondents were asked if they knew where the water goes after it has been treated by the sewage treatment plant. As shown in Figure 10, over half (52.8 percent) of the respondents were not sure where the wastewater went after it has been treated by the sewage treatment plant.
- As shown in Table 46, the percentage of the respondents who definitely knew or thought they knew where wastewater goes after it has been treated by the sewage treatment plant decreased as the age of the respondent increased.
- Male respondents (57.7 percent) were more likely than female respondents (40.6 percent) to report they definitely knew or thought they knew where wastewater goes after it has been treated by the sewage treatment plant.
- The percentage of the respondents who indicated they definitely knew or thought they knew where wastewater goes after it has been treated by the sewage treatment plant increased as income increased.

**Table 46**  
**Know Where Water Goes After Sewage Treatment Plant**  
**By Selected Demographics**

	Percentage responding		
	Definitely	I think I know	Not sure
Age of respondent***			
18 to 25	12.5	19.4	68.1
26 to 35	17.2	20.3	62.5
36 to 45	22.6	23.7	53.8
46 to 60	32.2	26.2	41.6
61 or older	22.6	21.8	55.6
Gender of respondent***			
Female	16.3	24.3	59.4
Male	36.5	21.2	42.2
Income***			
Under \$50,000	17.5	20.0	62.5
\$50,000 to \$100,000	27.5	22.1	50.3
Over \$100,000	26.3	28.0	45.7

**Figure 11**  
**Know What Storm Water Runoff Is**  
**(n=992)**

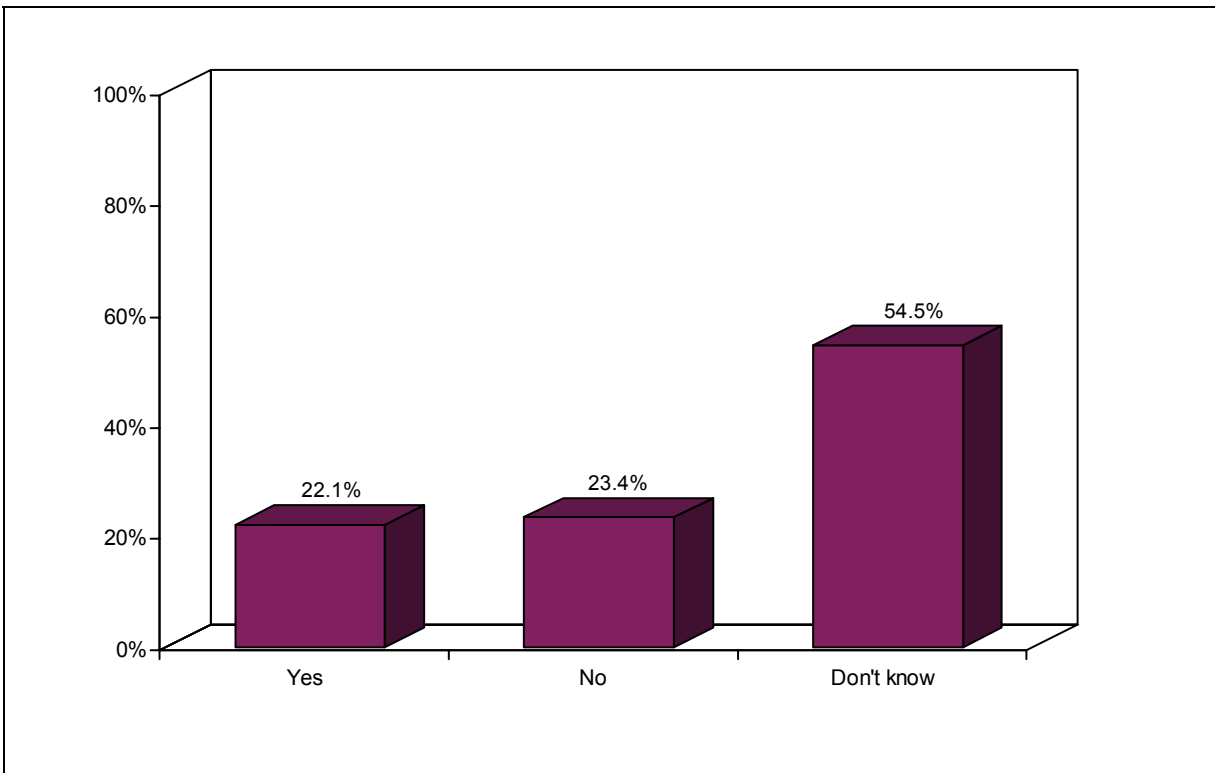


- Respondents were asked if they knew what storm water runoff is. Over three-quarters (75.3 percent) answered “yes” (see Figure 11).
- As shown in Table 47, respondents living in Collin County (82.9 percent) were more likely than respondents living in Tarrant, Denton, Dallas, or other counties to say they knew what storm water runoff is.
- The percentage of the respondents that knew what storm water runoff is increased as the age of the respondent, education, and income increased and varied with ethnicity.
- Eighty-five percent of male respondents and 69.3 percent of female respondents reported knowing what storm water runoff is.

**Table 47  
Know What Storm Water Runoff Is  
By Selected Demographics**

	Percentage responding	
	Yes	No
County of residence*		
Collin	82.9	17.1
Dallas	69.1	30.9
Denton	76.6	23.4
Tarrant	77.7	22.3
Other counties	78.5	21.5
Age of respondent***		
18 to 25	50.0	50.0
26 to 35	59.0	41.0
36 to 45	76.1	23.9
46 to 60	84.3	15.7
61 or older	80.8	19.2
Ethnicity***		
White	82.1	17.9
Black	44.0	56.0
Hispanic/Latino	47.5	52.5
Other	68.2	31.8
Gender of respondent***		
Female	69.3	30.7
Male	85.1	14.9
Education***		
High school or less	60.6	39.4
Some college	76.9	23.1
College	79.3	20.7
Advanced degree	83.5	16.5
Income***		
Under \$50,000	63.9	36.1
\$50,000 to \$100,000	78.0	22.0
Over \$100,000	85.5	14.5

**Figure 12**  
**Local Wastewater Treatment Plant Treats Storm Water**  
**(n=747)**



- Respondents were asked if their local wastewater treatment plant treats storm water. For purposes of this survey, storm water was defined as runoff from streets, parking lots and lawns. As shown in Figure 12, 22.1 percent of the respondents reported that their local wastewater treatment plant does treat storm water. Fifty-five percent of the respondents indicated they did not know.
- The percentage of the respondents who did not know if their local wastewater treatment plant treats storm water varied by ethnicity and was higher among respondents of other ethnicity (see Table 48).
- Female respondents were more likely than male respondents to report they did not know if their local wastewater treatment plant treats storm water.
- The percentage of the respondents who did not know if their local wastewater treatment plant treats storm water varied with income..

**Table 48**  
**Local Wastewater Treatment Plant Treats Storm Water**  
**By Selected Demographics**

	Percentage responding		
	Yes	No	Don't know
Ethnicity***			
White	19.9	24.4	55.8
Black	47.7	11.4	40.9
Hispanic/Latino	42.9	21.4	35.7
Other	13.3	24.4	62.2
Gender of respondent***			
Female	24.4	11.0	64.6
Male	19.0	39.9	41.1
Income***			
Under \$50,000	25.8	12.6	61.6
\$50,000 to \$100,000	27.8	25.4	46.8
Over \$100,000	11.7	31.9	56.3

**Table 49**  
**Type of Land Likely to Cause Runoff Resulting in Flooding**

	Percentage responding	
	Most Likely (n=928)	Least Likely (n=953)
Commercial	50.8	6.3
Residential	32.4	10.5
Cropland	8.7	11.2
Grasslands	6.3	18.2
Forests	1.8	53.8

- Respondents were asked which type of land they believed was most likely and least likely to cause runoff resulting in flooding. As shown in Table 49, about half (50.8 percent) of the respondents reported that commercial land was the most likely to cause runoff resulting in flooding. Forests were reported to be the least likely to cause runoff resulting in flooding by 53.8 percent of the respondents.

Most likely

- The percentage of the respondents who reported that commercial land was more likely than other types of land to cause runoff resulting in flooding increased as the age of the respondent increased and varied with income (see Table 50).

**Table 50**  
**Type of Land Most Likely to Cause Runoff Resulting in Flooding**  
**By Selected Demographics**

	Percentage responding				
	Forests	Grasslands	Cropland	Residential	Commercial
Age of respondent**					
18 to 25	5.3	10.5	13.2	32.9	38.2
26 to 35	3.7	8.1	6.6	43.4	38.2
36 to 45	1.6	5.3	10.1	31.9	51.1
46 to 60	0.7	3.5	8.0	31.0	56.8
61 or older	1.3	7.6	8.4	27.7	55.0
Income**					
Under \$50,000	3.9	8.4	10.9	35.4	41.4
\$50,000 to \$100,000	1.0	4.3	7.9	29.8	57.0
Over \$100,000	0.8	5.0	7.5	34.6	52.1

Least likely

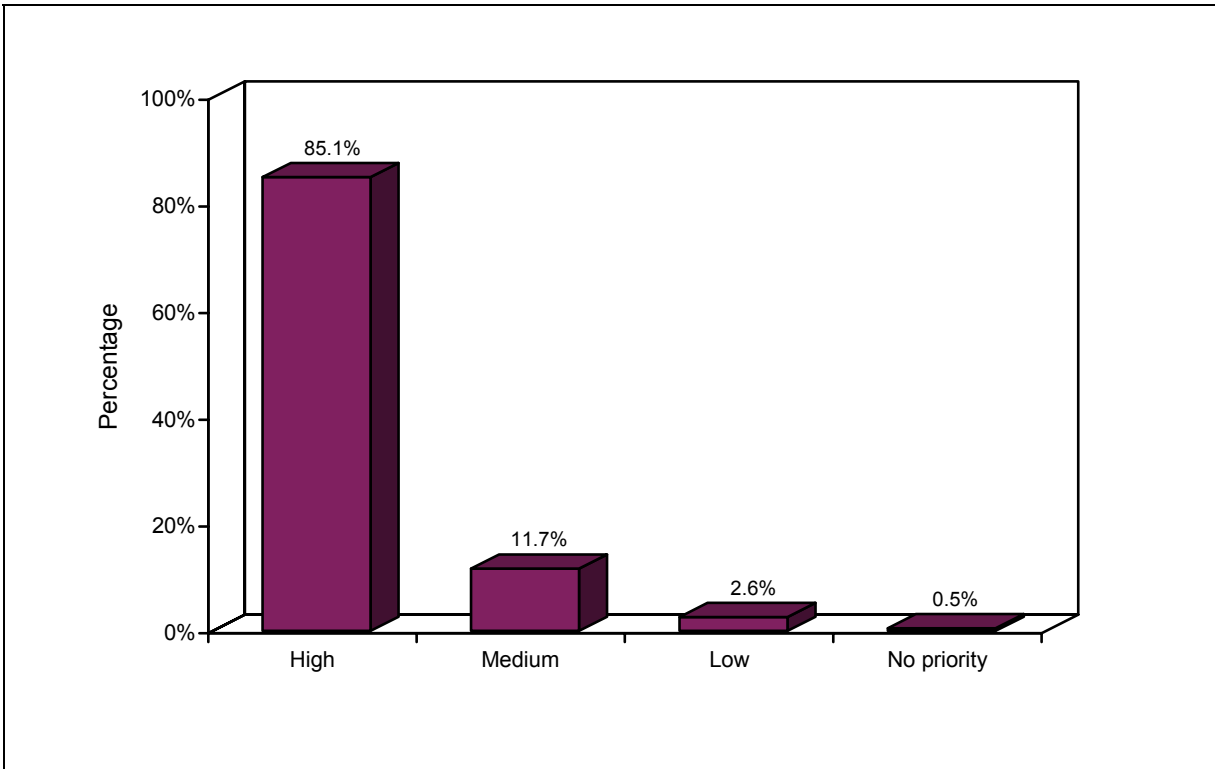
- As shown in Table 51, a greater percentage of respondents living in Denton County (63.9 percent) reported that forests were least likely to cause runoff resulting in flooding compared to respondents living in other counties.
- The percentage of the respondents who indicated that forests were least likely to cause runoff resulting in flooding increased as the age of the respondent, education, and income increased, and varied with ethnicity.
- Fifty-five percent of urban respondents and 47.4 percent of rural respondents indicated that forests were least likely to cause runoff resulting in flooding.

**Table 51**  
**Type of Land Least Likely to Cause Runoff Resulting in Flooding**  
**By Selected Demographics**

	Percentage responding				
	Forests	Grasslands	Cropland	Residential	Commercial
County of residence**					
Collin	59.2	13.6	12.8	7.2	7.2
Dallas	47.0	20.4	11.0	15.0	6.6
Denton	63.9	16.7	8.3	4.6	6.5
Tarrant	59.7	12.5	12.5	9.3	6.0
Other counties	49.3	26.5	10.3	9.6	4.4
Age of respondent*					
18 to 25	45.5	20.8	10.4	15.6	7.8
26 to 35	51.8	13.1	17.5	8.8	8.8
36 to 45	56.4	12.8	10.3	12.3	8.2
46 to 60	57.9	21.9	8.6	7.2	4.5
61 or older	50.6	19.7	12.0	12.4	5.2
Ethnicity***					
White	58.2	18.5	11.1	8.8	3.4
Black	34.1	16.5	15.4	15.4	18.7
Hispanic/Latino	27.8	27.8	11.1	13.0	20.4
Other	54.5	9.1	4.5	21.2	10.6
Education*					
High school or less	43.0	20.3	15.9	12.1	8.7
Some college	52.6	16.8	12.5	12.9	5.2
College	57.7	17.9	8.1	9.4	6.8
Advanced degree	60.0	18.0	9.8	7.8	4.4
Income*					
Under \$50,000	48.8	16.5	12.0	13.4	9.3
\$50,000 to \$100,000	57.5	15.9	12.1	10.2	4.4
Over \$100,000	57.3	20.3	9.5	7.1	5.8
Rural or urban*					
Rural	47.4	20.0	15.8	7.9	8.8
Urban	55.4	17.9	10.1	11.2	5.4

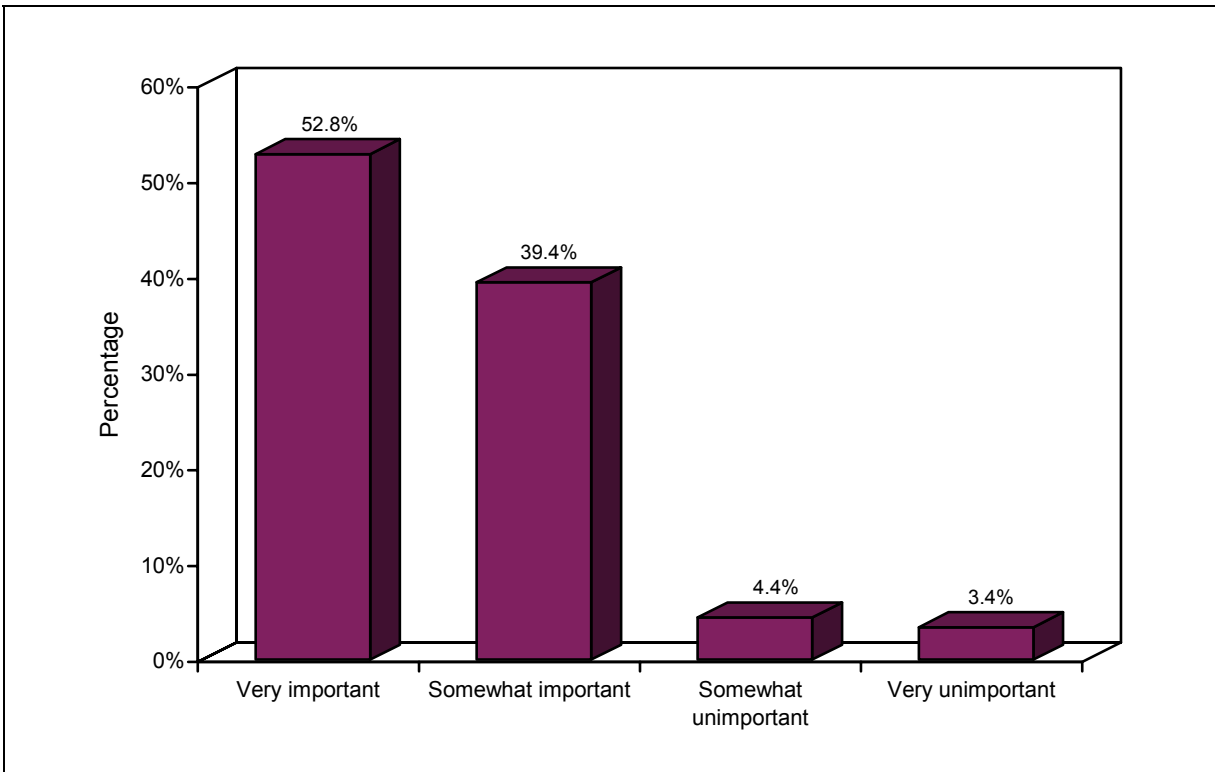
## Priorities and Funding

**Figure 13**  
**Priority on Protecting Regional Water Resources**  
**(n=983)**



- Respondents were asked if their local and county governments should place a high, medium, low or no priority on protecting their regional water resources. As shown in Figure 13, 85.1 percent of the respondents indicated that their local government should place a high priority on protecting their regional water resources.

**Figure 14**  
**Importance of Funding Water Quality Protection**  
**(n=965)**

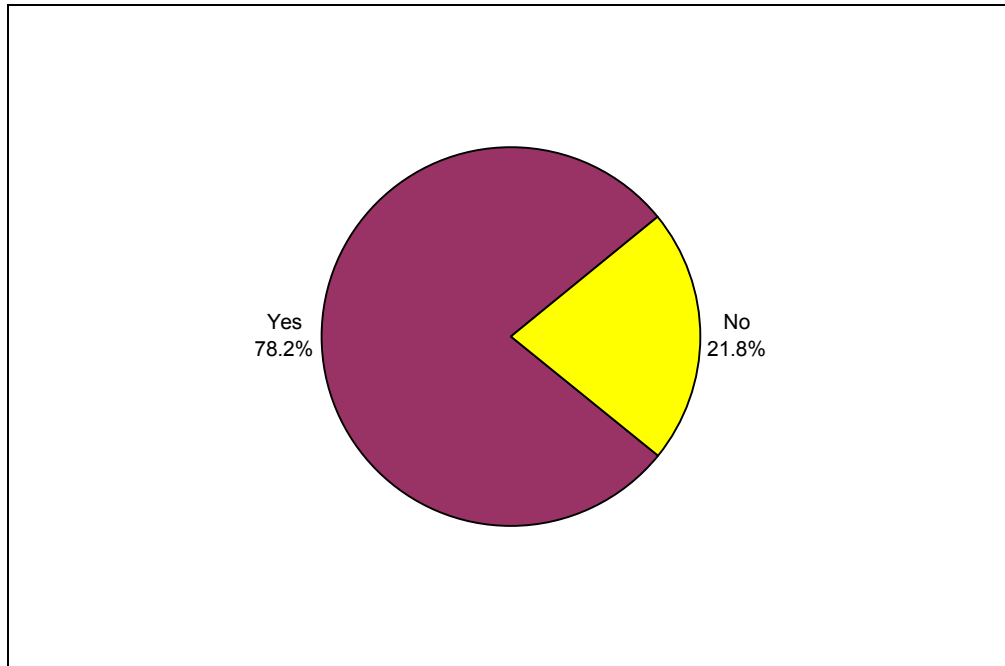


- Respondents were asked if they felt it was important to help fund water quality protection through local funding efforts such as tax increases and impact fees. As shown in Figure 14, 52.8 percent of the respondents reported that it was very important to help fund water quality protection through local funding efforts. When respondents who answered “somewhat important” were included, a very large majority of the respondents (92.2 percent) reported it was important to fund water quality protection through local funding efforts such as tax increases and impact fees.
- The percentage of the respondents who reported that it was either very important or somewhat important to help fund water quality protection through local funding efforts was greater among respondents living in Denton County and respondents age 18 to 25 (see Table 52).
- Fifty-six percent of female respondents and 47.7 percent of male respondents felt it was very important to help fund water quality protection through local funding efforts.

**Table 52**  
**Importance of Funding Water Quality Protection**  
**By Selected Demographics**

	Percentage responding			
	Very important	Somewhat important	Somewhat unimportant	Very unimportant
County of residence*				
Collin	50.0	38.3	6.3	5.5
Dallas	59.5	34.7	3.4	2.5
Denton	53.7	43.5	0.9	1.9
Tarrant	51.0	41.3	4.0	3.6
Other counties	42.4	45.3	7.9	4.3
Age of respondent*				
18 to 25	45.5	50.6	1.3	2.6
26 to 35	51.0	42.0	4.9	2.1
36 to 45	45.0	49.0	4.0	2.0
46 to 60	56.0	33.9	5.7	4.4
61 or older	59.0	33.6	3.3	4.1
Gender of respondent*				
Female	56.0	37.6	3.3	3.0
Male	47.7	42.2	6.0	4.1

**Figure 15**  
**Support Funding Water Quality Protection**  
**(n=866)**



- Respondents were asked if they would support funding water quality protection through local efforts such as tax increases and impact fees. As shown in Figure 15, 78.2 percent answered “yes.”
- The percentage of the respondents who reported they would support funding water quality protection through local efforts such as tax increases and impact fees increased as income increased (see Table 53).

**Table 53**  
**Support Funding Water Quality Protection**  
**By Selected Demographics**

	Percentage responding	
	Yes	No
Income*		
Under \$50,000	73.9	26.1
\$50,000 to \$100,000	80.3	19.7
Over \$100,000	84.4	15.6

## News/Information Sources

**Table 54**  
**Frequently Used News/Information Sources**  
**(n=995)**

	Most frequently used	Top 3 most frequently used
Television	41.0	26.9
Internet	20.0	17.4
Newspaper	18.9	20.2
Local govt cable TV, bill inserts, etc.	7.0	6.7
Radio	6.6	12.3
Friends, neighbors and family	4.6	11.1
Magazines	1.8	5.3

- Respondents were asked to rank their most frequently used news and information sources. The findings are presented in descending order of the most frequently used source. As shown in Table 54, television (41.0 percent) was the first choice for news and information followed by the Internet (20.0 percent) and newspapers (18.9 percent).
- When the top three choices were combined, the findings were: television (26.9 percent), newspapers (20.2 percent), and the Internet (17.4 percent).
- The percentage of the respondents who were more likely to turn to television or newspapers for news and information generally increased as years lived in North Texas increased (see Table 55). The opposite was true for the Internet; the percentages decreased as years lived in North Texas increased.
- The percentage of the respondents who were more likely to turn to television or newspapers for news and information varied with the age of the respondent. Respondents who were more likely to get their news and information from the Internet decreased as the age of the respondent increased.
- Female respondents were more likely to get their news and information from television whereas male respondents looked to the Internet or newspapers.
- The percentage of the respondents who were more likely to turn to television for news and information decreased as education increased. Respondents who were more likely to get their news and information from the Internet or newspapers increased as education increased.
- The percentage of the respondents who were more likely to turn to television for news and information decreased as income increased. The percentages of respondents who got their news and information from the Internet increased as income increased. Respondents who got their news and information from newspapers varied with income.

**Table 55**  
**Most Frequently Used News/Information Source**  
**By Selected Demographics**

	Percentage responding						
	Television	Internet	Radio	Newspaper	Magazines	Friends, neighbors or family	Local govt cable TV, bill inserts, etc.
<b>Years lived in N Texas***</b>							
5 years or less	37.5	26.5	4.4	12.5	3.7	8.8	6.6
6 to 10 years	32.2	33.9	4.3	14.8	0.9	7.0	7.0
11 to 20 years	38.7	21.0	5.5	19.9	2.2	5.5	7.2
21 to 35 years	41.3	21.4	10.0	14.0	1.8	2.2	9.2
More than 35 years	47.8	9.7	6.2	26.6	1.0	3.5	5.2
<b>Age of respondent***</b>							
18 to 25	34.6	32.1	3.8	12.8	2.6	7.7	6.4
26 to 35	44.1	29.7	5.5	5.5	2.1	8.3	4.8
36 to 45	40.1	27.2	4.0	10.4	2.0	6.4	9.9
46 to 60	40.1	18.4	9.9	18.8	2.0	2.0	8.2
61 or older	43.0	7.2	6.5	34.6	1.1	2.7	4.9
<b>Gender of respondent*</b>							
Female	44.9	18.1	5.8	17.6	1.9	4.8	6.8
Male	34.6	23.1	8.0	21.0	1.6	4.3	7.4
<b>Education***</b>							
High school or less	60.6	9.0	4.5	14.9	0.9	5.0	5.0
Some college	40.8	22.1	7.1	17.1	2.1	4.6	6.3
College	37.9	20.8	8.5	20.2	0.9	3.8	7.9
Advanced degree	25.7	28.0	5.6	23.4	3.3	5.1	8.9
<b>Income***</b>							
Under \$50,000	51.8	13.7	5.8	17.6	1.3	5.4	4.5
\$50,000 to \$100,000	36.3	20.9	7.7	20.9	2.5	3.4	8.3
Over \$100,000	31.9	28.2	6.9	18.5	1.6	5.2	7.7

**Table 56**  
**Ranked News/Information Sources**

	Percentage responding	
	Ranked 1 <sup>st</sup> (n=995)	Ranked 1 <sup>st</sup> , 2 <sup>nd</sup> or 3 <sup>rd</sup> , (n=995)
Television	41.0	26.9
Internet	20.0	17.4
Radio	6.6	12.3
Newspaper	18.9	20.2
Magazines	1.8	5.3
Friends, neighbors and family	4.6	11.1
Local govt cable TV, bill inserts, etc.	7.0	6.7

- Respondents were asked to rank their news and information sources according to which they used most frequently. The sources were rotated each time the survey was conducted. As shown in Table 56, television was ranked first by 41.0 percent of the respondents. The Internet (20.0 percent) and newspapers (18.9 percent) ranked second and third, respectively.
- When the top three choices were combined, television (26.9 percent) remained the first choice for news and information. Newspapers (20.2 percent) and the Internet (17.4 percent) were ranked second and third, respectively.

**Table 57**  
**Frequency of Watching TV News**  
**(n=999)**

	Percentage responding
Daily	73.5
Several times a week	15.1
Once a week	3.6
Once a month	1.7
Rarely	4.2
Never	1.9

- Respondents were asked how often they watched the news on television. As shown in Table 57, nearly three-quarters (73.5 percent) watched TV news on a daily basis.

**Table 58**  
**TV Nightly News Broadcast Watched Most Frequently**

Channel	Percentage responding	
	Most watched (n=936)	Top 3 most watched (n=936)
WFAA Channel 8 ABC (local)	23.3	22.3
KDFW Channel 4 Fox (local)	21.4	17.4
KXAS Channel 5 NBC (local)	20.1	19.2
KTVT Channel 11 CBS (local)	13.7	15.1
CNN News (Cable/Satellite)	8.5	10.7
Fox News (Cable/Satellite)	5.2	5.2
CNBC (Cable/Satellite)	1.3	1.6
ESPN News (Cable/Satellite)	0.9	1.4
Other Channels	5.7	7.1

- Respondents were asked which TV nightly news broadcast they watched most frequently. Over 20 percent of the respondents watched either WFAA Channel 8 (23.3 percent), KDFW Channel 4 (21.4 percent) or KXAS Channel 5 (20.1 percent) most frequently (see Table 58).
- When the top 3 choices were combined, the results were: WFAA Channel 8 (22.3 percent), KXAS Channel 5 (19.2 percent) and KDFW Channel 4 (17.4 percent).
- Other channels included: PBS, Univision, TXCN, BBC, MSNBC, WB, KCBI, CNN Headline News, Bloomberg Channel, Discovery Channel, C-SPAN, UPN, The Weather Channel, and Black Entertainment Television. Various numbered channels were mentioned but there was no way to identify the market or cable provider to know exactly to which network it they belonged.
- As shown in Table 59, WFAA Channel 8 had the nightly news broadcast of choice for respondents living in Collin, and Dallas Counties. Denton County respondents were pretty evenly split between KDFW Channel 4, WFAA Channel 8, and KXAS Channel 5. A greater percentage of respondents living in Tarrant County and other counties watched the nightly news broadcast on KXAS Channel 5.

**Table 59**  
**TV Nightly News Broadcast Watched Most Frequently**  
**By Selected Demographics**

	Percentage responding								
	KDFW Ch 4	KXAS Ch 5	WFAA Ch 8	KTVT Ch 11	CNN	CNBC	FOX News	ESPN News	Other
County of residence*									
Collin	17.1	13.7	26.5	15.4	11.1	2.6	7.7	0.9	5.1
Dallas	20.9	12.7	26.6	14.2	10.1	1.9	6.0	0.6	7.0
Denton	23.1	21.2	22.1	16.3	8.7	1.0	5.8	0.0	1.9
Tarrant	23.6	28.9	20.2	11.2	6.6	0.0	3.7	1.2	4.5
Other counties	21.7	24.6	21.0	15.2	4.3	0.7	4.3	1.4	6.5

**Table 60**  
**Trustworthiness of News/Information Sources**

	Average Score (1-5)	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
Television				
News features on TV (n=993)	3.32	22.4	32.1	45.5
Advertising on TV (n=988)	2.53	51.2	25.8	23.0
Newspapers				
News articles in local newspapers (n=975)	3.43	17.6	31.8	50.6
Advertising in local newspapers (n=979)	2.74	43.3	28.5	28.2
Radio				
News features on radio (n=961)	3.26	22.9	33.3	43.8
Advertising on radio (n=963)	2.61	47.4	28.3	24.3
Government				
Info in water/sewer/utility bills (n=956)	3.60	20.4	19.8	59.8
County extension agents (n=909)	3.59	18.9	23.2	57.9
Government publications (n=963)	3.26	24.8	28.7	46.5
Government websites (n=878)	3.22	28.8	24.5	46.7
Local government (n=986)	3.18	26.9	30.9	42.2
Other				
Billboards (n=959)	2.38	56.4	22.8	20.8

- Respondents were asked to rate on a scale of 1 (untrustworthy) to 5 (trustworthy) the trustworthiness of the sources listed in Table 60 to deliver information on environmental issues. An average score was calculated.

Television news features

- Forty-six percent of the respondents rated news features on TV as a trustworthy source of information on environmental issues (see Table 60). The average score was 3.32.
- Hispanic/Latino respondents were more likely than Other ethnic group respondents, Black respondents, or White respondents to rate news features on television as a trustworthy source of information on environmental issues (see Table 61).
- The percentage of the respondents who ranked news features on television as trustworthy decreased as education and income increased.

**Table 61**  
**Trust News Features on Television**  
**By Selected Demographics**

	Percentage responding		
	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
Ethnicity***			
White	21.2	35.4	43.4
Black	35.4	13.1	51.5
Hispanic/Latino	22.0	22.0	55.9
Other	14.7	32.4	52.9

	Percentage responding		
	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
Education***			
High school or less	28.6	19.1	52.3
Some college	21.2	33.2	45.6
College	21.8	35.8	42.4
Advanced degree	17.4	39.4	43.2
Income*			
Under \$50,000	23.9	25.9	50.2
\$50,000 to \$100,000	19.8	37.7	42.6
Over \$100,000	21.6	36.0	42.4

### Television advertising

- Fifty-one percent rated advertising on TV as an untrustworthy source of environmental information. The average score was 2.53.
- As shown in Table 62, the percentage of the respondents who rated television advertising as an untrustworthy source of environmental information increased as the age of the respondent and education increased.
- Respondents of Other ethnic groups (54.4 percent) and White respondents (53.8 percent) were more likely than Black respondents (37.4 percent) and Hispanic/Latino respondents (35.6 percent) to rate television advertising as an untrustworthy source of information about environmental issues.
- Fifty-six percent of male respondents and 48.1 percent of female respondents ranked television advertising as an untrustworthy source of environmental information.

**Table 62**  
**Trust Advertising on Television**  
**By Selected Demographics**

	Percentage responding		
	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
Age of respondent**			
18 to 25	37.2	26.9	35.9
26 to 35	45.5	24.8	29.7
36 to 45	49.3	29.1	21.7
46 to 60	58.6	23.7	17.8
61 or older	51.8	25.9	22.4
Ethnicity***			
White	53.8	26.4	19.9
Black	37.4	22.2	40.4
Hispanic/Latino	35.6	27.1	37.3
Other	54.4	23.5	22.1
Gender of respondent**			
Female	48.1	25.9	26.0
Male	56.2	25.7	18.0

	Percentage responding		
	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
Education***			
High school or less	38.5	22.9	38.5
Some college	46.0	30.1	23.8
College	54.8	27.4	17.8
Advanced degree	65.0	21.0	14.0

#### Local newspaper news articles

- Half of the respondents rated news articles in local newspapers as a trustworthy source of information on environmental issues. The average score was 3.43.

#### Local newspaper advertising

- Forty-three percent rated advertising in local newspapers as an untrustworthy source of environmental information. The average score was 2.74.
- As shown in Table 63, the percentage of the respondents who rated local newspaper advertising as an untrustworthy source of environmental information increased as the age of the respondent, education, and income increased.
- White respondents (45.6 percent) and respondents of Other ethnic groups (43.3 percent) were more likely than Black respondents (35.1 percent) and Hispanic/Latino respondents (25.4 percent) to rate local newspaper advertising as an untrustworthy source of information about environmental issues.
- Fifty percent of male respondents and 39.3 percent of female respondents ranked local newspaper advertising as an untrustworthy source of environmental information.

**Table 63**  
**Trust Advertising in Local Newspapers**  
**By Selected Demographics**

	Percentage responding		
	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
Age of respondent***			
18 to 25	33.3	25.6	41.0
26 to 35	31.5	31.5	37.1
36 to 45	39.3	30.3	30.3
46 to 60	50.0	28.1	21.9
61 or older	48.4	26.6	25.0
Ethnicity***			
White	45.6	29.2	25.2
Black	35.1	23.7	41.2
Hispanic/Latino	25.4	25.4	49.2
Other	43.3	32.8	23.9
Gender of respondent**			
Female	39.3	29.8	30.9
Male	49.7	26.5	23.8

	Percentage responding		
	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
Education***			
High school or less	31.6	25.6	42.8
Some college	38.7	30.3	31.1
College	46.8	29.0	24.2
Advanced degree	54.9	29.1	16.0
Income*			
Under \$50,000	41.2	25.6	33.2
\$50,000 to \$100,000	40.8	30.8	28.3
Over \$100,000	47.8	32.1	20.1

### Radio news features

- Forty-four percent of the respondents rated news features on radio as a trustworthy source of information on environmental issues. The average score was 3.26.
- As shown in Table 64, the percentage of the respondents who rated news features on radio as a trustworthy source of environmental information generally decreased as the age of the respondent increased.
- Forty-six percent of female respondents and 39.8 percent of male respondents rated news features on radio a trustworthy source of environmental information.

**Table 64**  
**Trust News Features on Radio**  
**By Selected Demographics**

	Percentage responding		
	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
Age of respondent*			
18 to 25	22.1	28.6	49.4
26 to 35	18.1	29.9	52.1
36 to 45	18.9	30.8	50.2
46 to 60	24.6	38.2	37.2
61 or older	27.2	32.8	40.0
Gender of respondent*			
Female	23.4	30.2	46.3
Male	22.0	38.2	39.8

### Radio advertising

- Forty-seven percent rated advertising on radio as an untrustworthy source of environmental information. The average score was 2.61.
- Respondents living in Collin County were more likely to rate radio advertising as an untrustworthy source of information about environmental issues than respondents living in other counties (see Table 65).

- The percentage of the respondents who rated radio advertising as an untrustworthy source of environmental information increased as the age of the respondent and education increased, and varied with ethnicity.
- A greater percentage of male respondents (53.1 percent) than female respondents (43.7 percent) rated advertising on radio as an untrustworthy source of information about environmental issues.

**Table 65**  
**Trust Advertising on Radio**  
**By Selected Demographics**

	Percentage responding		
	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
County of residence*			
Collin	52.0	29.1	18.9
Dallas	45.8	28.5	25.7
Denton	47.7	37.4	15.0
Tarrant	47.4	21.9	30.7
Other counties	47.1	31.2	21.7
Age of respondent***			
18 to 25	42.1	21.1	36.8
26 to 35	34.7	31.3	34.0
36 to 45	46.8	28.9	24.4
46 to 60	52.0	30.8	17.2
61 or older	51.1	25.7	23.2
Ethnicity***			
White	49.5	29.2	21.4
Black	40.8	19.4	39.8
Hispanic/Latino	32.8	29.3	37.9
Other	46.3	31.3	22.4
Gender of respondent*			
Female	43.7	31.0	25.3
Male	53.1	24.1	22.8
Education***			
High school or less	41.3	24.3	34.5
Some college	42.3	33.5	24.3
College	48.9	28.5	22.6
Advanced degree	57.1	26.2	16.7

Information in water/sewer/utility bills

- Sixty percent of the respondents rated information in water/sewer/utility bills as a trustworthy source of information on environmental issues. The average score was 3.60.

County extension agents

- Fifty-eight percent rated county extension agents as a trustworthy source of environmental information. The average score was 3.59.

- As shown in Table 66, the percentage of the respondents who rated county extension agents as a trustworthy source of environmental information increased as the age of the respondent, education, and income increased.
- White respondents (60.1 percent) were more likely than Other ethnic group respondents (56.5 percent), Black respondents (54.4 percent) or Hispanic/Latino respondents (37.3 percent) to rate county extension agents as a trustworthy source of environmental information.

**Table 66**  
**Trust County Extension Agents**  
**By Selected Demographics**

	Percentage responding		
	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
Age of respondent			
18 to 25	22.7	37.3	40.0
26 to 35	18.6	28.7	52.7
36 to 45	13.7	29.5	56.8
46 to 60	17.1	20.9	62.0
61 or older	24.8	13.3	61.9
Ethnicity***			
White	18.8	21.1	60.1
Black	24.4	21.1	54.4
Hispanic/Latino	19.6	43.1	37.3
Other	9.7	33.9	56.5
Education***			
High school or less	27.3	25.8	46.9
Some college	19.2	23.7	57.1
College	20.3	19.9	59.8
Advanced degree	8.6	25.4	66.0
Income**			
Under \$50,000	24.4	22.2	53.4
\$50,000 to \$100,000	17.4	24.7	57.9
Over \$100,000	12.3	19.6	68.1

Government publications

- Government publications were rated a trustworthy source of information about environmental issues by 46.5 percent of the respondents. The average score was 3.26.
- As shown in Table 67, the percentage of the respondents who rated government publications as a trustworthy source of environmental information generally decreased as years lived in North Texas increased, and increased as education and income increased.

**Table 67**  
**Trust Government Publications**  
**By Selected Demographics**

	Percentage responding		
	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
Years lived in N Texas*			
5 years or less	19.3	25.2	55.6
6 to 10 years	28.9	27.2	43.9
11 to 20 years	26.3	31.8	41.9
21 to 35 years	24.0	22.8	53.2
More than 35 years	25.4	34.3	40.3
Education*			
High school or less	33.3	25.7	41.0
Some college	25.2	31.6	43.2
College	23.3	29.2	47.5
Advanced degree	18.0	28.0	54.0
Income**			
Under \$50,000	31.4	29.4	39.2
\$50,000 to \$100,000	20.2	30.6	49.2
Over \$100,000	19.9	28.0	52.0

Government websites

- Government websites were rated a trustworthy source of environmental information by 46.7 percent of the respondents. The average score was 3.22.
- As shown in Table 68, the percentage of the respondents who rated government websites as a trustworthy source of environmental information decreased as years lived in North Texas and the age of the respondent increased, and increased as education and income increased.

**Table 68**  
**Trust Government Websites**  
**By Selected Demographics**

	Percentage responding		
	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
Years lived in N Texas*			
5 years or less	21.1	21.9	57.0
6 to 10 years	27.6	21.0	51.4
11 to 20 years	28.1	25.7	46.1
21 to 35 years	27.9	22.3	49.8
More than 35 years	34.9	28.8	36.2
Age of respondent***			
18 to 25	24.7	22.1	53.2
26 to 35	21.7	19.6	58.7
36 to 45	25.5	21.9	52.6
46 to 60	28.6	29.7	41.7
61 or older	40.6	23.9	35.6

Education*			
High school or less	38.7	22.6	38.7
Some college	25.3	28.6	46.1
College	28.0	23.9	48.1
Advanced degree	25.4	22.8	51.8
Income*			
Under \$50,000	33.5	24.4	42.1
\$50,000 to \$100,000	27.6	25.9	46.6
Over \$100,000	21.8	22.6	55.6

### Local governments

- Forty-two percent of the respondents rated local governments as a trustworthy source of information on environmental issues. The average score was 3.18.

### Billboards

- Fifty-six percent of the respondents rated billboards as an untrustworthy source of information on environmental issues. The average score was 2.38.
- The percentage of the respondents who rated billboards as an untrustworthy source of environmental information increased as the age of the respondent and education increased, and varied with ethnicity (see Table 69).
- Sixty-three percent of male respondents and 52.1 percent of female respondents rated billboards as untrustworthy source of environmental information.

**Table 69**  
**Trust Billboards**  
**By Selected Demographics**

	Percentage responding		
	Untrustworthy (1-2)	(3)	Trustworthy (4-5)
Age of respondent***			
18 to 25	39.7	24.4	35.9
26 to 35	50.4	24.8	24.8
36 to 45	52.0	26.8	21.2
46 to 60	60.9	23.7	15.4
61 or older	63.3	17.1	19.6
Ethnicity***			
White	58.5	23.7	17.8
Black	53.1	13.5	33.3
Hispanic/Latino	33.3	22.8	43.9
Other	57.6	27.3	15.2
Gender of respondent***			
Female	52.1	26.7	21.2
Male	63.2	16.8	20.0
Education***			
High school or less	46.8	22.0	31.2
Some college	51.7	28.4	19.8
College	58.4	22.1	19.5
Advanced degree	67.8	19.0	13.3

## V. CONCLUSIONS

---

The Watershed Survey 2006 conducted by the Survey Research Center at the University of North Texas interviewed 1,000 respondents who lived in 14 counties constituting the Upper Trinity River Watershed in North Texas about water issues and concerns in the North Texas area. The findings reveal that respondents were fairly knowledgeable about the various water issues and concerned about the current environmental conditions pertaining to water quality and availability.

Environmental Issues: Respondents were extremely concerned about poor air quality (average score on a scale of 1 "not concerned" to 10 "extremely concerned" of 7.24), loss of trees (7.24), and drinking water quality (7.16). Female respondents were more likely to express extreme concern about these issues compared to male respondents.

Water Issues: Twenty-two percent of the respondents reported that the need for a clean water supply was the first thing that came to their mind when they thought of water in their community or rural area. Respondents were extremely concerned about the adequacy of water supplies to meet the future needs of the region (average score on a scale of 1 "not concerned" to 10 "extremely concerned" of 7.79), clean water for fish and wildlife habitat (7.51) and chemical contaminants in the water (7.25).

Water quality: Forty-one percent of the respondents rated the water quality in the streams, rivers and reservoirs in their area as either excellent (3.8 percent) or good (37.4 percent). Fifty-nine percent rated the water quality as fair (42.8 percent) or poor (16.0 percent). Thirty percent of the respondents indicated that the water quality in their area had improved over the past five years. County and city governments were said to have the most responsibility for maintaining the water quality, while the Federal government and individual citizens were said to have the least responsibility.

Water supply: Over half (54.9 percent) of the respondents said they knew the source of their home drinking water. Eleven percent reported living in a watershed. When asked to name the watershed, 42.0 percent of those respondents said "Trinity" or "Trinity River."

Water pollution: Water pollution was said to be a problem in their community or area by 40.4 percent of the respondents. The percentage of the respondents who thought water pollution was problematic in their area was greater in Dallas County, varied with the age of the respondent and education, and decreased as income increased. Fifty-seven percent of the respondents reported using fertilizers and/or pesticides on their yard, garden, farm or ranch. Thirty-eight percent of those respondents said they had used those chemicals before a rainstorm at least sometimes. About one-third said they brought the excess chemicals and their containers to an organized hazardous waste collection location for disposal. Another third indicated they threw the chemicals and containers in the trash can.

Industrial waste (89.2 percent), improper disposal of household hazardous waste (84.5 percent), improper disposal of automobile oil and antifreeze (84.0 percent) agricultural use of pesticides and fertilizers (83.1 percent), and litter and trash (82.2 percent) were most frequently reported to be either major or moderate contributors to local water pollution.

Wastewater: When asked if they knew where the wastewater went after it left their house via the sewer, 57.2 percent indicated they knew. Of those respondents, 60.5 percent reported it went to the sewage treatment plant. Over half of those respondents were not sure where the

water went after that. Seventy-five percent of all respondents said they knew what storm water runoff is. Fifty-six percent of the respondents did not know if their local wastewater treatment plant treated storm water. Respondents reported that commercial (50.8 percent) land was most likely to cause runoff resulting in flooding and forests (53.8 percent) was least likely to cause this.

Priorities and funding: Eighty-five percent of the respondents indicated that their local government should place a high priority on protecting their regional water resources. A large majority (92.2 percent) indicated it was either very important (52.8 percent) or somewhat important (39.4 percent) to fund water quality protection through local funding efforts such as tax increases and impact fees. Over three-quarters (78.2 percent) said they would support such local efforts.

News/information sources: The top three most frequently used news and information sources were television (26.9 percent), newspapers (20.2 percent), and the Internet (17.4 percent). Nearly three-quarters (73.5 percent) of the respondents watched television news on a daily basis. The top three most frequently watched nightly news broadcasts were WFAA Channel 8 (22.3 percent), KXAS Channel 5 (19.2 percent), and KDFW Channel 4 (17.4 percent). When asked about the trustworthiness of news and information sources to deliver information on environmental issues, respondents ranked information in utility bills (average score 3.60 on a scale of 1 "untrustworthy" to 5 "trustworthy"), information from county extension agents (3.59), news articles in local news papers (3.43), and news features on television (3.32) as the most trustworthy. Billboards were judged to be the least trustworthy (2.38).

## **APPENDIX A: SURVEY INSTRUMENT**

---

## Watershed Survey 2006

Hello, my name is \_\_\_\_\_ from the University of North Texas Survey Research Center. I am not selling anything; we are conducting a survey on water issues and I need to speak to someone over the age of 18.

We are trying to learn what people know about water quality issues, and understand where people are most likely to get information about water quality. Your participation is voluntary. Your responses to our questions will be reported only as percentages so your individual answers will remain confidential. The survey will take about 15 minutes to complete. This project has been approved by the UNT Institutional Review Board. If you have any questions you may call 800-687-7055.

1. When you think of water in your community or rural area, what is the first thing that comes to your mind?

(DO NOT READ RESPONSES)

1. Need clean water supply
2. Water pollution
3. Specific bodies of water (lakes/streams)
4. Lack of water
5. Government programs
6. Other, specify \_\_\_\_\_

2. Using a scale from 1 to 10 with 1 being no concern and 10 being extremely concerned, what level of concern would you say have about each of the following environmental issues **in the region where you live?**

1. Water pollution
2. Drinking water quality
3. Poor air quality
4. Trash/litter in your region
5. Loss of wildlife habitat
6. Loss of agriculture land to developments
7. Urban sprawl
8. Loss of Trees
9. DK/NR

3. Do you live in a watershed?

- Yes-----1 [ASK Q4]  
No -----2 [SKIP TO Q5]  
Don't Know-----9 [SKIP TO Q5]

4. If yes, can you name your watershed? **[RECORD VERBATIM]**

5. Do you think that water pollution is a problem in your community or area?

- Yes-----1  
No -----2  
**[DON'T READ]** DK/NA/Refused -----9

**I would like to ask you a few questions about water and things that affect water.**

6. Do you use fertilizers and/or pesticides on your yard, garden, farm or ranch
1. Yes
  2. Sometimes
  3. No - SKIP TO Q9
  9. DK/NR

7. How do you get rid of excess lawn or garden or farm chemicals and their containers?
1. STORE IN THE GARAGE
  2. THROW AWAY IN THE TRASH CAN
  3. POUR INTO THE TOILET OR SINK
  4. POUR OUTSIDE (EX: DRIVEWAY, STORM WATER DRAIN, CURB ETC.)
  5. BRING TO ORGANIZED HAZARDOUS WASTE COLLECTION LOCATIONS
  6. OTHER [SPECIFY]

8. Do you ever apply fertilizers and chemicals before a rainstorm?
1. Yes
  2. Sometimes
  3. No - SKIP TO Q9
  9. DK/NR

9. What news or information source are you most likely to use to get important information? I'm going to read seven sources to you. Please rank them from 1 to 7 where 1 is **most frequently used, and 7 is least used**. The sources are. . . Which would you rank as most frequently used?

**[READ AND ROTATE]**

**Record Number (1-7)**

- |  |       |
|--|-------|
| a. Television-----   | _____ |
| b. Internet-----   | _____ |
| c. Radio-----  | _____ |
| d. Newspaper-----  | _____ |
| e. Magazines-----  | _____ |
| f. From Friends neighbors or family-----                       | _____ |
| g. Local government cable TV, info inserts in bills, etc.----- | _____ |

10. How often do you watch the news on TV?

- |   |          |                       |
|---|----------|-----------------------|
| Daily -----                             | 1        |                       |
| Several times a week -----              | 2        |                       |
| Once a week -----                       | 3        |                       |
| Once a month -----                      | 4        |                       |
| Rarely -----                            | 5        |                       |
| Never -----                             | 6        | <b>[SKIP TO Q 12]</b> |
| <b>[DON'T READ] DK/NA/Refused -----</b> | <b>9</b> | <b>[SKIP TO Q12]</b>  |

11. What TV nightly news broadcast do you most frequently watch? Any others?

- KDFW Channel 4 Fox
- KXAS Channel 5 NBC
- WFAA Channel 8 ABC
- KTVT Channel 11 CBS
- Other Channels
- [DON'T READ]** DK/NA/Refuse

12. Consider your level of trust in the following sources of information. On a scale of 1 to 5 where one is trustworthy and 5 is untrustworthy, how would you rate the following **SOURCES** to deliver information on environmental issues?

**[READ AND ROTATE]**

- a. News articles in local newspapers
- b. News features on radio
- c. News features on TV
- d. Advertising on TV
- e. Advertising on radio
- f. Advertising in local newspapers
- g. Government websites
- h. Government publications
- i. Billboards
- j. Your local government
- k. Information in your water, sewer and utility bills
- l. County extension agents (Explanation: Do not read unless asked) Each county has a team of educators to assist citizens learn agricultural practices, horticultural techniques and ways to protect the environment run by the TA&M Extension Service.

13. Using a scale from 1 to 10 with 1 being no concern and 10 being extremely concerned, what level of concern would you say you have about the following water concerns and issues **in the region where you live?**

- 1. Personal health concerns about clean water
- 2. Chemical contaminants in water
- 3. Water supplies to meet future needs of the region
- 4. Ability to fish and swim in clean water
- 5. Clean water for fish and wildlife habitat

14. For the following please tell me how much you feel each is a contributing factor to local water pollution. Would you say ..... is a major contributor, a moderate contributor, a minor contributor or is not at all a contributor to local water pollution? (ROTATE LIST)

- 1. Industrial waste
- 2. Improper disposal of automobile oil and antifreeze
- 3. Agricultural use of pesticides and fertilizers
- 4. Use of fertilizers and pesticides for lawns in residences
- 5. Improper disposal of household hazardous waste (paints, cleaners, etc.)
- 6. Litter and trash
- 7. Not picking up after pets
- 8. Sanitary sewer overflows
- 9. Storm water runoff from city streets and parking lots
- 10. Soil erosion from construction sites

11. Soil erosion off farm lands

15. In general, do you think that the water quality the streams, rivers and reservoirs in your area is: **[READ LIST]**

- Excellent-----1
- Good-----2
- Fair-----3
- Poor-----4
- [DON'T READ]** DK/NA/Refused -----9

16. Over the past five years, do you think the quality of water in your area has improved?

- Yes-----1
- No-----2
- [DON'T READ]** DK/NA/Refused -----9

17. Of the following which would you say has the **MOST** responsibility for maintaining the water quality in our area streams, rivers and reservoirs.

- 1. Federal government
- 2. State government
- 3. County and City governments
- 4. Business and industry
- 5. Farmers and ranchers
- 6. Individuals
- 9. DK/NR

18. Now, of the list I just read which would you say has the **SECOND MOST** responsibility for maintaining the water quality in our area streams and reservoirs.

- 1. Federal government
- 2. State government
- 3. County and City governments
- 4. Business and industry
- 5. Farmers and ranchers
- 6. individuals
- 7. NO ONE ELSE (DO NOT READ AS AN OPTION)
- 9. DK/NR

19. Of the following which would you say has the **LEAST** responsibility for maintaining the water quality in our area streams and reservoirs?

- 1. Federal government
- 2. State government
- 3. County and City governments
- 4. Business and industry
- 5. Farmers and ranchers
- 6. individuals
- 9. DK/NR

20. When wastewater leaves your house via the plumbing system, do you know where it goes next?

1. Yes; Where ? INTERVIEWER: TYPE EXACTLY WHAT THEY SAY \_\_\_\_\_
2. No
9. Don't know

21. Do you know what happens to the water after it has been treated by the sewage treatment plant?

1. Definitely
2. I think I know
3. Not sure
9. DK/NR

22. What is the source of the drinking water that is supplied to your home or apartment?

1. Yes
2. Not Sure
3. No
9. DK/NR

23. Do you know what storm water runoff is?

1. Yes - Go to Q24
2. No - Skip to Q25
3. DK/NR - Skip to Q25

24. Does your local wastewater treatment plant treat storm water?

1. Yes
2. No
3. DK/NR

25. Of the following, which type of land use do you believe is **MOST** likely to cause runoff resulting in flooding?

1. Forests
2. Grasslands/pastures
3. Cropland
4. Residential
5. Commercial
9. NR/DK

26. Of the following, which use of land do you believe is **LEAST** likely to cause runoff resulting in flooding?

1. Forests
2. Grasslands/pastures
3. Cropland
4. Residential
5. Commercial
9. NR/DK

27. Should our local and county governments place a high, medium, low or no priority on protecting our regional watersheds?

1. High
2. Medium
3. Low
4. No priority
9. DK/NR

28. Do you feel it is very important, somewhat important, somewhat unimportant, or very unimportant to help fund water quality protection through local funding efforts such as tax increases and impact fees?

1. Very important
2. Somewhat important
3. Somewhat unimportant
4. Very unimportant - SKIP Q30
9. DK/NR - SKIP Q30

29. Would you support funding water quality protection through local efforts such as tax increases and impact fees?

1. Yes
2. No
9. DK/NR

**Now for the last few questions I would like to ask you several things about yourself.**

30. Into which of the following age groups do you fall?

1. 18-25
2. 26-35
3. 36-45
4. 46-60
5. 61 and over
9. NR/DK

31. Do you consider yourself to be White, Black, Hispanic/Latino/Latino, Asian, American Indian or something else?

1. White
2. Black
3. Hispanic/Latino/Latino
4. Asian
5. American Indian
6. Other, specify:
9. NR/DK

32. What language is spoken **MOST** often in your home?

1. English
2. Spanish
3. Two languages spoken equally
4. Other (Specify)
9. NR/DK

33. What is the highest level of education you have completed?

1. Primary or middle school
2. High school
3. Some College or Technical School
4. College
5. Advanced degree
9. NR/DK

34. Please tell me into which of the following ranges your total annual household income falls?

1. Under \$50,000
2. \$50,000 - \$100,000
3. Over \$100,000
9. NR/DK

35. Do you live in a rural or urban area?

1. Rural
2. Urban - SKIP Q37
3. Don't know
9. Refused

36. Do you live on a farm or a ranch?

1. Farm
2. Ranch
3. Neither
9. DK/NR

36. What is your zip code? \_\_\_\_\_

37. How long have you lived in the North Texas Region?

**RECORD # of YEARS**----- \_\_\_\_\_

**INTERVIEWER: RECORD GENDER OF RESPONDENT**

Gender                    1. Male  
                                  2. Female

**That is all. Thank you very much for your time in answering our questions.**

## **APPENDIX B: OPENENDS**

---

**Respondents were asked the first thing that came to their mind when they thought of water in their community or rural area.**

*Need clean water supply*

Clean to me.  
Clean water.  
Clean water.  
Clean water.  
Clean water.  
Clean water.  
Clean.  
Clean.  
Clean.  
Clean.  
Clean.  
Clean.  
Clean.  
Clean.  
Cleanliness of the water.  
Cleanliness.  
Clear water.  
Cooking water.  
Fresh water.  
He always filters his water because he gets sore throats when he drinks the regular tap water.  
Hope the water is clean and purified.  
How bad it is. We get water assessment papers and people with cancer can't drink water. What does that tell you?  
I don't think it is good enough to drink.  
It better be clean water.  
It is clear and good.  
It's good.  
Junk in it - residue.  
Not good not sanitary, no filter system, only buy purified water.  
Not real clean.  
Purified clean water.  
Purifying water.  
Purifying.  
Purity of water.  
Purity of water.  
Purity.  
Sanitation.  
That I hope it's clean.  
That my water is clean.  
To be pure, clean and plenty of it.  
Unclean water.  
Very clean water.  
Water is clean and state approved.  
Water should be free of germs and it is wasted too much.  
Whether it's clean or not.  
Whether the water is clean.  
You are suppose to be able to drink it.

### Water pollution

Amoebas.  
Bad water ratings saying babies and elderly shouldn't drink it.  
Dirt.  
Dirty.  
Dirty.  
Dirty.  
Dirty because we have to buy ours in bottles.  
Dirty water.  
Dirty, stinky, and smelly.  
It's toxic.  
No contamination.  
Toxic.  
Unclean.

### Specific bodies of water

Doesn't compare with Richardson's water.  
Johnson Creek.  
Lake.  
Lake Arlington.  
Lake Lewisville.  
Lake Lewisville.  
Lake Tipper where it comes from.  
Lake water.  
Lake water.  
Lakes.  
Mediocre because it comes from the Trinity, used to use if for usage.  
Not a big fan of Denton water.  
Our area lakes.  
The lakes.  
The ocean.  
Trinity River.  
Trinity River.  
White Rock Lake.

### Lack of water

It's a limited resource.

### Cost

Bill.  
Charge too much for it.  
Cost.  
Cost.  
Cost of water.  
Cost of water.  
Expensive.  
Expensive.

Expensive.  
Expensive.  
Expensive (very).  
High bill.  
High costs of water.  
How much it costs.  
It's a waste, it's terrible. Around \$100 month for 2 people. Can't do anything about it. Small town with little water.  
Money.  
Money.  
My water bill.  
Over-priced water.  
Paid the water bill.  
Paying my water bill to the city.  
Price.  
Prices.  
The cost is too high.  
The price.  
The water bill in the summertime. I love water.  
The water bill.  
Water bill.  
Water bill.  
Water bill.  
Water bill.  
Water bill.  
Why do I have pay for water in the stores?

*Taste (good or bad)*

Bad taste to it.  
Bad taste.  
Bad taste.  
Bad taste.  
Bad water.  
Doesn't taste good.  
Doesn't taste good.  
Doesn't taste that great.  
Don't like taste.  
Drinking water is nasty.  
Good taste.  
How it tastes.  
It tastes good.  
It tastes pretty good.  
It's dirty and tastes nasty.  
It's good tasting.  
It's not good water, faucet tastes gross.  
Nasty.  
Poor taste.  
Quality taste.  
Salty.  
She does not want to drink the water in her community.

Taste bad.  
Taste of it.  
Taste of the water.  
Taste of water.  
Taste of water.  
Taste, only drink bottled water.  
Taste.  
Taste.  
Taste.  
Taste.  
Taste.  
Taste.  
Taste.  
Taste.  
Taste.  
Taste.  
Taste.  
Taste.  
Taste.  
Tastes awful.  
Tastes awful.  
Tastes bad.  
Tastes terrible.  
The taste isn't too bad.  
The taste of water, doesn't taste good.  
The taste of water.  
The taste, really.  
The taste.  
The taste.  
The taste.  
We have good tasting water.

### Availability of water

Accessibility  
Availability.  
Availability.  
Availability.  
Availability.  
Availability- drought conditions.  
Availability.  
Available.  
Availability.  
Big flowing well with an endless supply.  
Do we have any.  
Enough water in community.  
Everybody being able to have drinking water or household water.  
Generally available.  
Having water.  
How much water does each community allow.  
It better always be there/accessibility.  
It is there.  
Just water.

Just water.  
Just water.  
No problem to get it.  
Plentiful.  
Running out.  
That we have plenty.  
The availability of water.  
The fact that there is a lot of it.  
The use of it I guess.  
The uses of water.  
Water that people use.

Necessary for life/living

Being able to clean dishes, take care of plants, and take care of hygiene issues.  
Drinking water and survival, you've got to have water to live, right?  
Everyday use.  
Fulfillment of all of our needs.  
Health.  
Health.  
Health issues.  
I am very thankful for it.  
I need it to live.  
I'm glad we have water.  
It is a big necessity use for laundry, bath, doing dishes, and drinking.  
It is a necessity.  
It's good and we need it we need it in our homes. In my neighborhood water is good. Can't live without it.  
It's important.  
Life.  
Life.  
Life.  
Life.  
Life giving.  
Life in general.  
Lots of it.  
Minerals.  
Minerals in water.  
Necessity.  
Necessity of use.  
Need of it.  
Nutrition.  
Something that she needs.  
Survival because you cannot live without water.  
Thank God you have water.  
Thank God that it's there.  
That if you don't have it you will starve to death.  
The fact that it is a basic need.  
The importance of it being there.  
The water we use for cooking and showering.  
Thirst.





Tap water.  
Tap water.  
Tap water, water in the home.  
The kitchen sink faucet.  
To buy a bottle of water.  
To drink.  
To drink it.  
Want drink it.  
Water filters.  
Water out of faucet.  
Water out of my tap.  
Water out of the tap.  
Water that comes out of the tap, then lakes.  
Wet.  
Wet.  
Wet.  
Wet.  
What comes out of the tap.  
What comes out of the tap.  
What I need when I am thirsty.

### Bathing

Bath.  
Bath.  
Hot water for the shower.  
It's good water, and I use tap water.  
Showering, drinking, etc.  
Showers.  
Taking a bath.  
The shower.  
Using water, like taking a bath.  
Water usage...to bathe and wash with.

### Conservation of water/restrictions

Conservation.  
Conservation.  
Conservation.  
Conservation.  
Conservation.  
Conservation.  
Conservation.  
Conservation.  
Conservation.  
Conservation.  
Conservation.  
Conservation.  
Conservation of water.  
How much you use.  
Need for conservation in our area.  
Preservation.

Proper use.  
Quantity of water that we've using.  
Rationing.  
Restrictions and expenses.  
Restrictions on water.  
Saving water.  
Shouldn't waste so much.  
Under water restrictions.  
Water conservation.  
Water rationing.  
Water restriction.  
Water restrictions.  
Whether or not it is safe and ways of conserving it.

### Watering yard/plants

Consumption of water on lawns.  
Garden water and light.  
Gardening.  
Grass and lawn.  
Grass.  
Grass.  
Green grass.  
I think that I need rain for my yard.  
If I can water my lawn when I want to.  
It is a source for plant growth.  
Lawns.  
My lawn.  
My yard.  
My yard.  
People watering their lawns.  
Specific uses of water, i.e. watering the grass.  
Sprinkler systems.  
Sprinklers.  
Sprinklers.  
Sprinklers.  
That lawns aren't watered enough.  
Wasting water for lawn, cars, etc.  
Water runoff from yards.  
Watering lawns.  
Watering my plants.  
Watering my yard.  
Watering my yard.  
Watering our yard.  
Watering the lawn.  
Watering the lawn.  
Watering the yard.

### Quality of water

Approved water.

Average water.  
Crap.  
Good.  
Good.  
Good drinking water.  
Good quality.  
Good quality and rational about water.  
Good quality water.  
Good quality water.  
Good water.  
Good water.  
Good water.  
Good water conditions.  
Good water quality.  
How clean is the water.  
How clean it is.  
How clean it is.  
How good it is.  
How safe is it.  
I trust its quality. I know its clean.  
I want to know if its safe.  
If it is clean enough.  
If it is safe to drink it.  
If it's good water or bad water.  
Is it clean?  
Is it clean?  
Is it safe for drinking?  
Is it safe to drink?  
It is not very good.  
It is pure.  
It's clean.  
It's clean.  
It's good.  
It's good.  
It's nasty.  
It's not very good in Denison.  
Its quality.  
Poor quality.  
Poor quality.  
Pretty bad water.  
Pure water.  
Purity.  
Purity.  
Purity.  
Quality.  
Quality.  
Quality.  
Quality and quantity.  
Quality and quantity.  
Quality and the cleanliness.  
Quality is the main thing about any water.

Quality of drinking water.  
Quality of drinking water.  
Quality of the water.  
Quality of the water.  
Quality of water.  
Quality of water.  
Quality of water and what is actually in the water.  
Safe.  
Safe.  
Safe.  
Safe and available.....use to think over-priced.  
Safe to drink.  
Safety.  
Safety.  
Safety.  
Signs around the city that claim it has superior water quality.  
Signs including water quality rating (superior).  
That it is good water.  
That's a good quality.  
They could let the public know more about the quality of the water and who we could contact to find out.  
The quality is healthy and there is a sufficient supply.  
The quality of water in Lake Arlington when it turns over and water pressure.  
The quality of water is okay but it costs too much.  
They show the signs that we have high quality water but it makes you wonder if it is really tested correctly.  
Thinks that Texas is bad and doesn't even give it to her dog...bottled water only.  
Water pressure.  
Water purity.  
Water purity.  
Water purity.  
Water purity.  
Water quality.  
We have good water supply.

Supplier/city/service

Basic water service.  
City of Dallas.  
City water.  
City water towers.  
City water.  
Comes from the city.  
Doesn't use city water.  
I guess I think of water towers and ground water.  
Poor water pressure.  
Public utilities.  
Resource.  
Source.  
The city water.  
Water tower.

Water tower.  
Water towers.  
Water towers.  
Water towers and employees of the water industry.  
Water treatment plants.  
Water utility.  
What is its source?  
Where does it come from?  
Where it comes from.  
Where it comes from.  
Where we get it.  
Whose supplying my water.  
Would like to get on city water instead of well water.

### Chemicals in the water

Chlorine.  
Chlorine.  
I am glad the water has fluoride.  
Lead, mercury.  
Nasty water in town that tastes like chlorine.  
What kind of chemicals they are treating it with.

### Wildlife/fishing

Fishing.  
Fishing.

### Need rain/drought

Drought.  
Drought.  
Drought.  
Lack of rain.  
Lack of rain.  
More rain.  
Not enough rain.  
Rain.  
Rain.  
Rain.  
Rain for the trees and flowers.  
Rain water.  
She remembers the drought from the 1950s said it was pretty bad and retrieved water from a well.  
Shortage.  
Shortage.  
Shortage.  
Shortage of water.  
Shortage this summer.  
That it doesn't rain enough.  
Water shortage.

### Hard or soft water

Hard water.  
Hard water, makes my skin dry.  
If the water is hard or soft.  
Moderately soft water.  
Soft water issues.  
The water in our community is hard.

### Well water

Don't worry about it, just my personal water well.  
Hope my well doesn't run dry.  
It's good, we have a well.  
Nothing comes to mind, we have a water well.  
There are too many wells being drilled in our community.  
There is a purifier in refrigerator.  
Water wells.  
We have deep well sodium water.  
We have our own well.  
Well.  
Well in backyard.  
Well water.  
Well water.  
Well water.  
Well water.  
Well water.  
Well water.  
Well water.  
Well water.  
Well water.  
Wells.  
Wells.  
Wells.

### Recreation

Pool.  
Public swimming pools.  
Responsibility for keeping pool water clean.  
Swimming pools.  
Swimming pools.

### Misuse of water

Construction, and its affects on his water lines.  
How water is misused.  
I just don't like seeing people wasting it.  
I think about household usage of water.  
It is important and we do not need to waste it and use the water properly.  
People who realize that side walks don't grow. People's sprinkler systems running into the street.  
That we waste a lot.

Waste.  
Wasteful.  
Wastefulness of water and how much we take it for granted.

Odors (good or bad)

Bad odor of water.  
Odor.  
That it should be clean and not smell like fish. I guess the purity.  
That it smells.  
The smell.  
What it smells like.

Other

Childhood.  
Cold.  
Decent.  
Doesn't like to drink water.  
Easily accessible.  
Fine.  
Fire department.  
Food, that's all you have left.  
House.  
Household use.  
Husband is water treatment specialist.  
I don't think about it.  
I like it and use lots of it.  
It is just right out of the hydrant.  
Katrina.  
My house.  
Never really thought about it.  
Not that bad.  
Not very much comes to mind.  
Ozarka.  
Problematic.  
That it's good.  
The coolness.  
The first time it thunders.  
To use in the house.  
Water.  
Water.  
Water.  
Water-born taint.  
Water comp.  
Water is fine.  
Water is very good.  
Water table.  
Water used at home.  
Water.  
Water.

What comes through the pipes.

**Do you know the source of the drinking water that is supplied to your home or apartment? If yes, name the source.**

Specific lake/river mentioned

A well from the Trinity River  
Amon Carter Lake  
Around the Randell Lake, and Texoma if low.  
Benbrook Lake  
Benbrook Lake  
Benbrook Lake  
Benbrook Lake  
Benbrook Lake  
Benbrook Lake  
Benbrook Lake  
Benbrook Water  
Benbrook Water Authority  
Benbrook Water Department  
Bridgeport Lake  
Bridgeport Lake  
Cedar Creek Lake  
Cedar Creek Lake, area wells, Joe Poole Lake  
Cedar Creek Reservoir  
City water, Plano, Lake Dallas, Lake Lavon  
Corsicana Lake  
Dallas Lake  
Eagle Lake  
Eagle Mountain Lake  
Eagle Mountain Lake  
Eagle Mountain Lake  
Eagle Mountain Lake  
East Texas Lake  
Fort Worth comes from lakes in Eagle Mountain  
I believe it is Lake Weatherford  
I think it's the Trinity River  
It comes from Lake Ray Hubbard  
It's from Bridgeport Lake, Cedar Creek, and into Fort Worth.  
Joe Pool Lake  
Joe Pool Lake  
Joe Pool Lake  
Joe Pool Lake  
Joe Pool Lake  
Joe Pool Lake  
Joe Pool Lake  
Joe Pool Lake  
Joe Pool Lake --- Cedar Hill  
Lake Arlington  
Lake Arlington  
Lake Arlington





Lake Lewisville and Lake Grapevine  
Lake Lewisville and Ray Roberts  
Lake Lewisville, Lake Lavon  
Lake Lewisville, Lake Tawakoni  
Lake Lewisville, Ray Roberts  
Lake Lewisville  
Lake Lewisville  
Lake Lewisville  
Lake Olney  
Lake Pat Cleburne  
Lake Pat Cleburne  
Lake Pat Cleburne  
Lake Randell  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Hubbard  
Lake Ray Roberts  
Lake Rockwall  
Lake Tawakani, Collin County  
Lake Tawakani, Lake Lewisville  
Lake Texoma  
Lake Texoma  
Lake Texoma  
Lake Texoma  
Lake Texoma  
Lake Texoma  
Lake Tipper and Lake Lavon  
Lake Waxahachie  
Lake Weatherford  
Lake Worth  
Lake Worth  
Lake Worth  
Lake Worth  
Lake Worth  
Lake Worth/Lake Benbrook/Lake Arlington  
Lavon  
Lavon Lake  
Lavon Lake  
Lavon line or wells

Lewisville Lake  
Lewisville Lake maybe?  
Mine is from the Trinity Basin  
North Lake, Lake Lewisville and Lake Grapevine  
Part is from Pat Lake, part from wells  
Ray Hubbard  
Ray Roberts and Lake Lewisville  
Richland Chambers  
Richland Lake  
Richmond Chambers  
Should be coming from Lake Lewisville  
Straight out of the Trinity River, own water treatment  
Surrounding Lakes - Lake Worth  
Tawakani  
Texoma  
The Lake in Arlington  
Trinity  
Trinity  
Trinity  
Trinity River  
Trinity River  
Trinity River  
Trinity River  
Trinity River  
Trinity River and a Lake Lewisville  
Waxahachie Lake  
White Rock Lake and Ray Hubbard Lake

Specific city or county mentioned

A water tower over Cedar Hill  
Allen City Utilities  
Argyle water system  
Argyle water wells in North Texas upper Trinity (Lake Dallas)  
Arlington Water Department  
City Municipal Water-Lake Lewisville and Lake Lavon  
City of Arlington  
City of Dallas  
City of Dallas  
City of Dallas, that's where my bill comes from  
City of Dallas Water Supply  
City of Dallas Water System  
City of Dallas Water that's been treated.  
City of Denton  
City of Denton Municipal Water  
City of Fort Worth  
City of Fort Worth Municipal Water Supply  
City of Fort Worth Water Department  
City of Frisco Water  
City of Garland  
City of Lewisville

City of North Richland Water District  
City of North Richland Hills, Fort Worth  
City of Richardson  
City of Sanger  
Cleburne  
Comes from the city of Fort Worth  
Community water supply-- Northwest Tarrant County  
Dallas City Water  
Dallas County  
Dallas County Water District  
Dallas Texas  
Dallas Water System  
Fort Worth filtration system  
Fort Worth Water Department  
Fort Worth Water, said changed from Lake Worth to Fort Worth  
Fort Worth, they get it from the lake near Fort Worth  
From Dallas, not sure of name  
Grand Prairie buys it from Dallas and Fort Worth  
In Arlington  
Johnson County  
Johnson County Special Utility District  
Lake Cities  
Lake City Municipal Authority  
Lake Dallas  
Lake Dallas  
Lake Dallas  
Lake Dallas  
Lake Dallas  
Lake Dallas  
Lake Dallas  
Lewisville  
Luella Water System  
Mansfield Water System  
Mansfield Water Supply  
My town buys water from the City of Dallas  
North Texas Municipal  
North Texas Municipal Water District  
North Texas Municipal Water District  
North Texas Water Company  
North Texas Water District - Lake Lavon  
North Texas Water Municipal District  
North Texas Water Supply District  
Richland Hills  
Tarrant County Water Supply  
Tarrant County Water System and from well water  
Tarrant County Plant  
The City of Dallas from the lakes around Dallas  
The City of Dallas which come from several lakes  
The City of Lake Worth  
The City of Lewisville  
The City of Plano; it comes out of Lake Lavon  
The North Texas Water Commission

Weatherford  
Wylie Municipal Plant

Unnamed lake or river

A lake.  
A lake near Oklahoma.  
A lake nearby.  
Area lake.  
Area lake.  
Area lakes.  
Area lakes.  
Area lakes.  
Combination of area lakes.  
Combination of local water wells and sewage plants.  
Comes from the retribution lake or stream, recycled.  
From the lakes then it has been purified and pumped.  
Ground that comes from creek.  
I know where the lakes are that it comes from.  
It comes from a lake.  
It is from lakes and wells.  
It is like a pond with pumps around it.  
It is the same that Dallas has.  
It's a lake but not sure.  
Lake.  
Lake.  
Lake.  
Lake.  
Lake.  
Lake.  
Lake.  
Lake.  
Lake.  
Lake.  
Lake.  
Lake.  
Lake.  
Lake.  
Lake and plumbing.  
Lake beside house.  
Lake from North Texas.  
Lake in Dallas.  
Lake in North Texas.  
Lake system in the greater D/FW area.  
Lake systems.  
Lake water and well water.  
Lakes.  
Lakes.  
Lakes.  
Lakes.  
Lakes (3 definite).  
Lakes and reservoirs.  
Local lake.

Local lake.  
Local lake, not sure exact name.  
Local lakes.  
Local lakes.  
Local lakes.  
Local lakes, not sure which in particular.  
Local lakes, several of them, I can't name them.  
Local rivers.  
Man-made lake.  
Man-made lakes.  
One of the local lakes.  
Our lake, I don't know the name.  
River.  
River.  
Several different lakes in my region.  
Several lakes.  
Storage tower nearby that draws from near lakes.  
The city which gets its water from a lake.  
The lake.  
The lake.  
The lake.  
The lakes.  
The lakes around Dallas, he doesn't know specifically.  
The lakes around there.  
There are various lakes.  
Through three different lakes.

### Well

A deep well.  
Backyard well.  
City wells.  
Comes from a well.  
Comes out of my well.  
Community well.  
Deep well 1300 ft deep.  
Deep well water.  
Don't recall name but a near lake.  
From my private well.  
Half from well, and half from Trinity Cleaning Plant.  
Her well.  
His well.  
His well.  
It is a well.  
It's a well.  
Local wells.  
My well.  
My well.  
Our well.  
Owns a private well to get drinking water from.  
Pretty much I'm on a water well.

Private well.  
Private well.  
The well.  
Underground well.  
Water well.  
Water well.  
We have a well.  
We have well water.  
Well.  
Well.  
Well.  
Well.  
Well.  
Well.  
Well.  
Well.  
Well.  
Well.  
Well.  
Well.  
Well.  
Well source.  
Well system not too far from my house.  
Well water.  
Well water.  
Well water.  
Well water.  
Well water.  
Well water.  
Well water.  
Well water.  
Well water.  
Well water.  
Well water if it is a lot of rain.  
Well water.  
Wells.  
Wells.  
Wells.  
Wells and Trinity River.  
Wells in Hudson Oaks.  
Wells in Pantego.

Specific company mentioned

Abrx Coop  
Bethesda Water Supply Corporation/well water  
Blackland Water Supply  
Doug Whale Water System  
Hopeville Water Company  
I use to work at Ozarka and I knew what they did.  
Rocket Water Company  
Rocket Water Supply  
Wal-Mart

### Reservoir

Area reservoirs.  
Bardwell reservoir.  
Carrollton Reservoir.  
City reservoir.  
City reservoir.  
City water reservoir.  
From the reservoir.  
Goes from reservoir to filtration system to city.  
Lake reservoirs.  
Local reservoir-not sure of name.  
Reservoir.  
Reservoir.  
Reservoirs that are collected in watersheds, northwest of NT.  
Reservoir.  
Reservoir at Lake Weatherford.  
Reservoirs.  
Reservoir.  
Reservoir.  
Reservoir.  
You know it doesn't come from a well but from a reservoir.

### Aquifer

Aquifer.  
Aquifer.  
Aquifer.  
Water source is from underground.

### City or county - unnamed

City.  
City has a number of wells.  
City water.  
City water - from city lakes.  
City water company.  
City water supply.  
City water treatment plant.  
City, rain, whatever is cleaned out and recycled.  
Directly from the treatment plants.  
Drawn from water purification plant to citizens.  
Facility on Keller Springs Road.  
From City, but do not know where it is coming.  
From the city.  
From the city.  
From the city.  
From the water department.  
From the treatment center plant.  
From treatment plant, some from reservoir and lakes.

It comes from a water treatment plant.  
It comes from the city.  
Local sewer treatment plant.  
Local water storage facility - water tower.  
Local water treatment plant.  
On city.  
Probably from the treatment plant.  
Regular tap water from city I live in.  
Sewage treatment plant.  
Sewer treatment plant.  
Sewer treatment plant.  
The city.  
The city.  
The city.  
The city.  
The city.  
The city sewage works.  
The tanks.  
There is a big water tank about 2 1/2 blocks away.  
Tower water supply.  
Wastewater.  
Water to home comes from water towers, is recycled.  
Water Co-op.  
Water department.  
Water filter.  
Water plant.  
Water plant.  
Water tank.  
Water tower.  
Water tower.  
Water tower.  
Water tower.  
Water towers that are fed from the lakes.  
Water treatment plant.  
Water treatment plant.  
Water treatment plant.  
Water treatment plant.  
Water treatment plant - Weatherford Lake.  
Water utility.

### Other

At least 200 miles out of Dallas.  
Bottled water.  
Buy.  
Buys the water, by reverse osmosis.  
I buy it.  
I buy it at the store.  
It's a mixture of reprocessed water.  
Knows where it comes from but not the name.  
Natural water.

North Texas.  
Not sure of the name of the company.  
Rain water, collect people use and retreat.  
Re-used.  
Store bought.  
Two-way water.

### **What is the name of the watershed?**

#### Trinity or Trinity River

Clear Fork Trinity  
East Fork Trinity  
Fort Worth, Tarrant Trinity?  
I think it's the East Fork of the Trinity River.  
Maybe Trinity.  
Part of the Trinity if I'm not mistaken.  
The woodbine and the Trinity.  
Trinity.  
Trinity River.  
Trinity River.  
Trinity River.  
Trinity River.  
Trinity River.  
Trinity River.  
Trinity River.  
Trinity River.  
Trinity River area.  
Trinity River Basin  
Trinity River Water Basin.  
Trinity Watershed.  
Trinity River.  
White Rock Creek and/or Trinity.

#### Mentioned specific lake

3 lakes: Bridgeport, Eagle Mountain, Lake Worth.  
Benbrook Lake  
Eagle Mountain  
Eagle Mountain  
Lake Arlington  
Lake Dallas, Lake Lavon, Lake Whitney, Texoma  
Lake Lewisville area (older part of the lake)  
Lewisville Lake area  
Mesquite  
Northwest part of Weatherford Lake  
Retention pond  
Ray Roberts Lake  
White Rock Lake

Mentioned other specific river/creek

Brazos River Watershed  
Cottonwood Creek  
Crosstimbers or part of Elm Fork, not sure  
Denton Creek which follow into... Upper Elm? Grapevine which is part of the Trinity River  
Duck Creek  
Hickory Creek  
Johnson Creek  
The Hickory Creek  
Upper Elm  
Walker Creek

Woodbine

The Woodbine

Other

Chalk Tower  
In Parker County  
North Texas something or other  
The whole area we live in.  
Two-way water  
Where in Montague County Watershed County Texas