

## **INTRODUCTION**

This survey was commissioned by the Upper White River Basin Foundation to assess opinions and perceptions on water quality issues in area lakes and rivers. Although the survey polled individuals throughout the upper White River basin region, special areas of focus included the northwest Arkansas communities of Fayetteville, Springdale, and Rogers as well as the southwest Missouri communities of Springfield, Branson, Nixa, Ozark, and Republic. The survey was designed, administered, and analyzed by Opinion Research Specialists, LLC of Springfield, Missouri.

## **SURVEY DESIGN AND METHODOLOGY**

Survey results are based on 802 completed telephone interviews which included 301 residents from northwest Arkansas (Fayetteville, Springdale, and Rogers), 301 residents from southwest Missouri (Springfield, Branson, Nixa, Ozark, and Republic), and 200 residents from other counties within the upper White River basin region. Residents were randomly selected on the basis of ZIP code information and population size.

Up to four attempts were made to contact survey respondents during the calling period of September 2 through September 12, 2008. Telephone interviews averaged five minutes in duration.

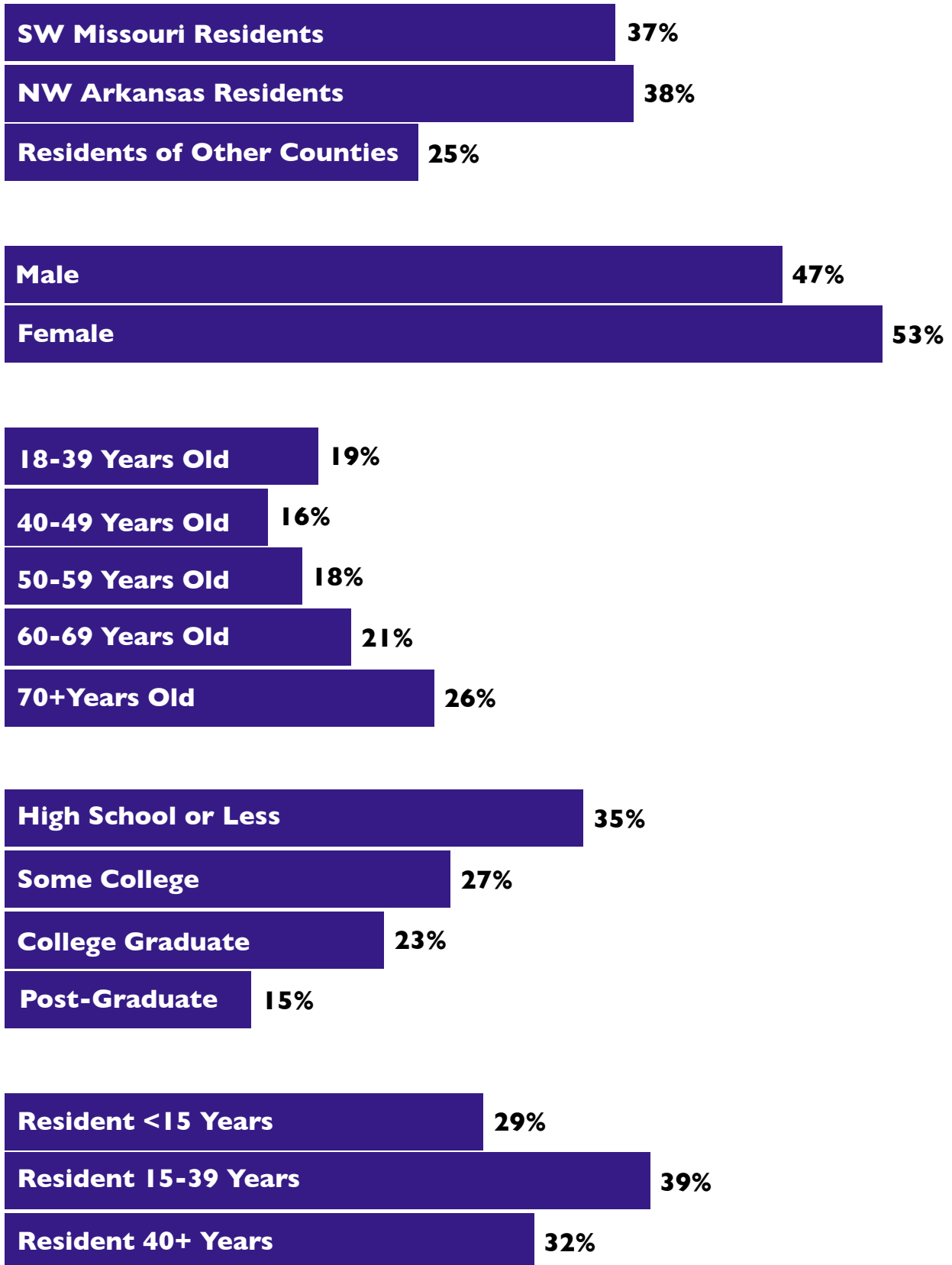
## **INTERPRETATION OF DATA**

Overall survey results, based on 802 completed telephone interviews, have a margin of error of +/- 3.5% at the 95% confidence interval. Regional results, based on 301 telephone interviews, have a margin of error of +/- 5.75% at the 95% confidence interval. County-level results, based on 200 interviews, have a margin of error of +/- 7% at the 95% confidence interval.

Some percentages in the report may not add to exactly 100% due to rounding.

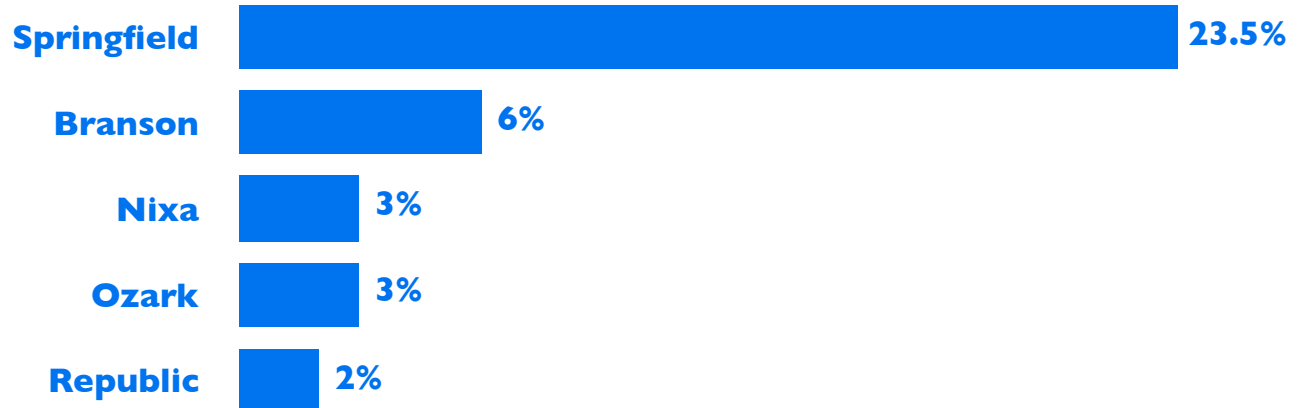
**DEMOGRAPHIC  
AND GEOGRAPHIC  
PROFILE OF  
RESPONDENTS**

## DEMOGRAPHIC PROFILE OF SURVEY RESPONDENTS— OVERALL



# SURVEY RESPONDENTS BY COMMUNITY OR COUNTY

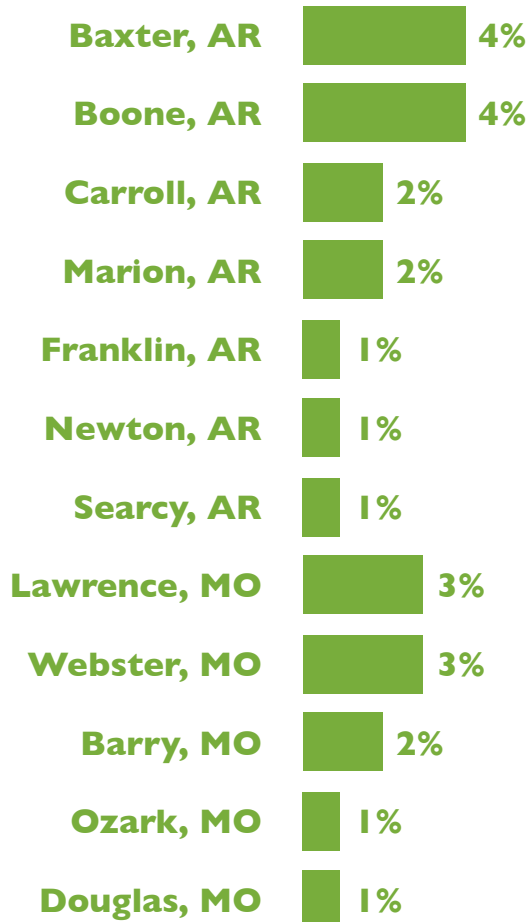
## SOUTHWEST MISSOURI COMMUNITIES (37.5%)



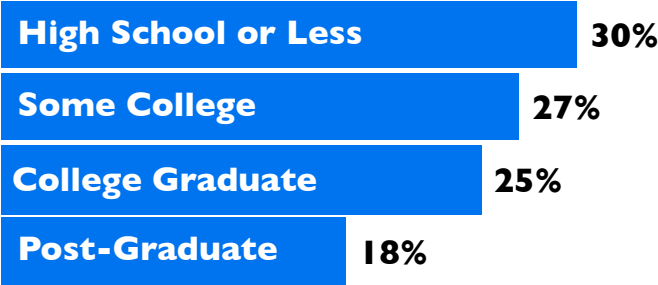
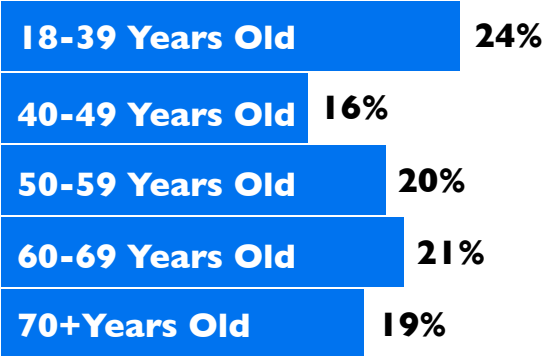
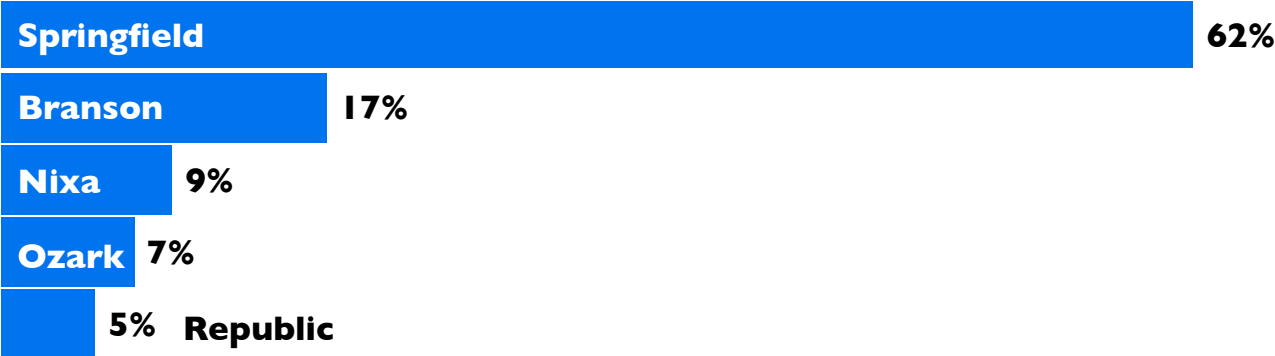
## NORTHWEST ARKANSAS COMMUNITIES (37.5%)



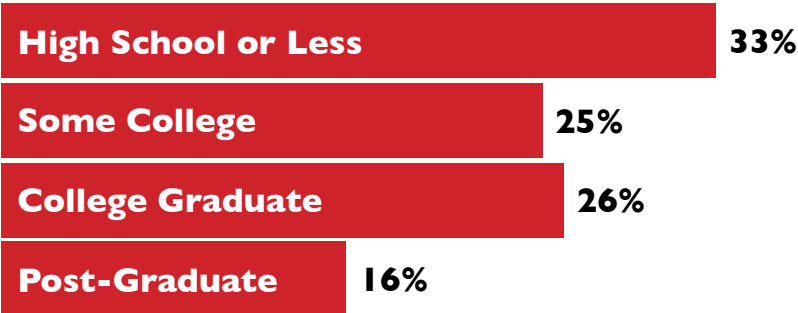
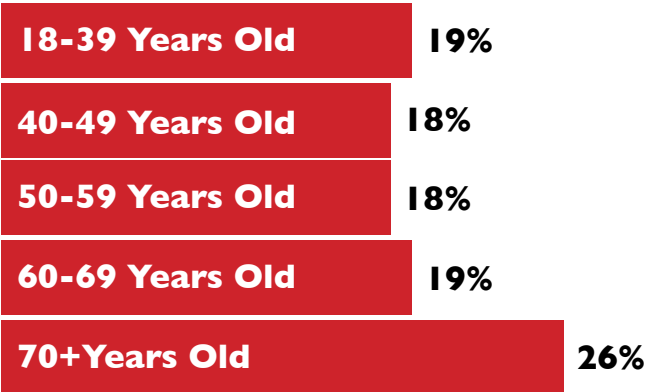
## "OTHER" COUNTIES IN THE UPPER WHITE RIVER BASIN (25%)



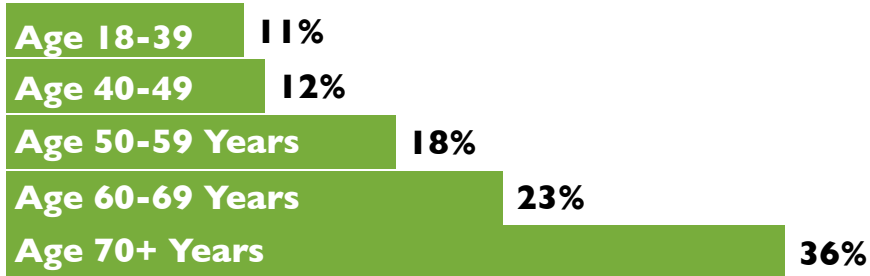
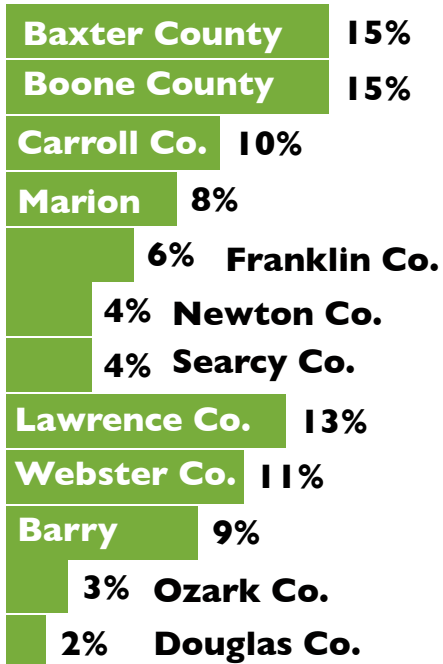
# DEMOGRAPHIC PROFILE OF SURVEY RESPONDENTS IN SOUTHWEST MISSOURI



# DEMOGRAPHIC PROFILE OF SURVEY RESPONDENTS IN NORTHWEST ARKANSAS



## DEMOGRAPHIC PROFILE OF SURVEY RESPONDENTS IN OTHER COUNTIES WITHIN UPPER WHITE RIVER BASIN



# **SURVEY RESULTS**

**Overall results are based on a total of 802 survey respondents from the upper White River basin which consists of 19 counties in Northwest Arkansas and Southwest Missouri.**

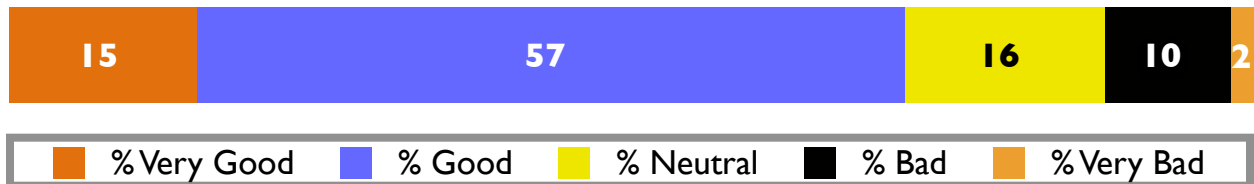
## **Survey results by geographic region:**

**Southwest Missouri = 301 respondents (37.5%);  
Northwest Arkansas = 301 respondents (37.5%);  
Other Counties = 200 respondents (25%).**

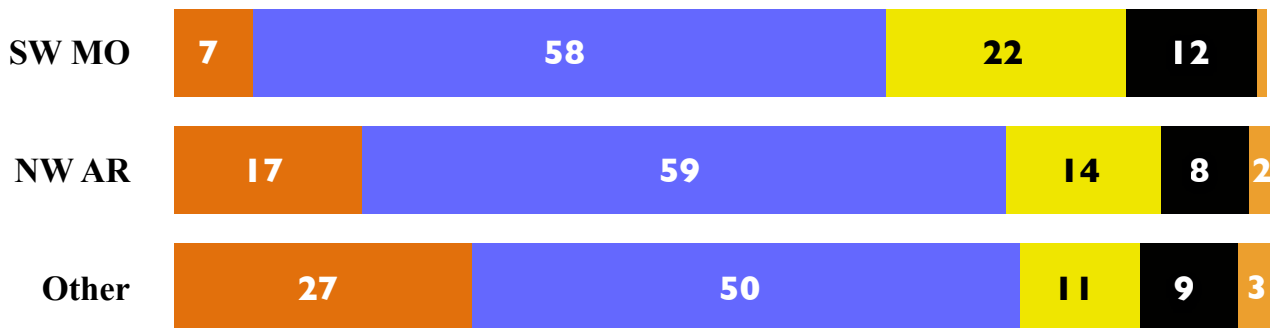
## Overall Water Quality of Area Lakes and Rivers

Overall, 72% of respondents described the water quality of lakes and rivers in their area as either “very good” (15%) or “good” (57%), while 12% characterized the water quality as either “bad” (10%) or “very bad” (2%).

### Overall Results



### Results by Geographic Area



Southwest Missouri residents were less positive in their outlook regarding the water quality of area lakes and rivers compared to residents from northwest Arkansas and “other” counties within the upper White River basin region.

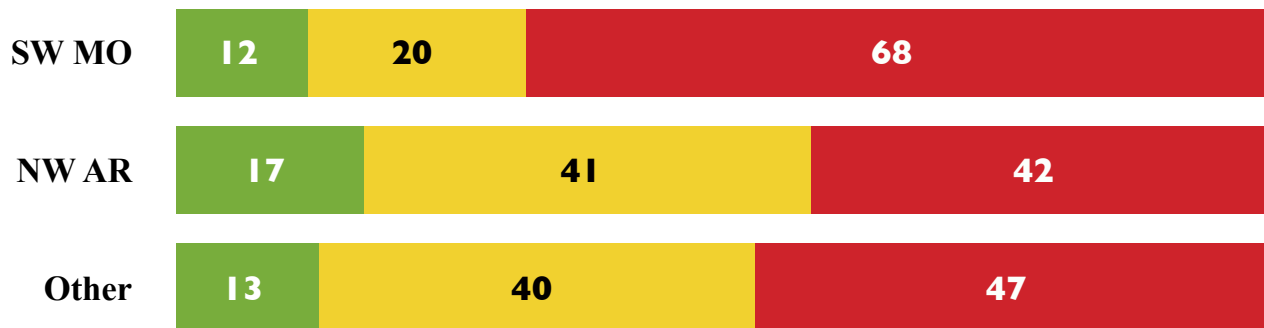
## Water Quality of Area Lakes and Rivers Compared to 25 Years Ago

A majority of respondents (54%) believed the water quality of area lakes and rivers had become worse over the past 25 years, while 32% said it had stayed about the same and 14% thought it had improved.

### Overall Results



### Results by Geographic Area

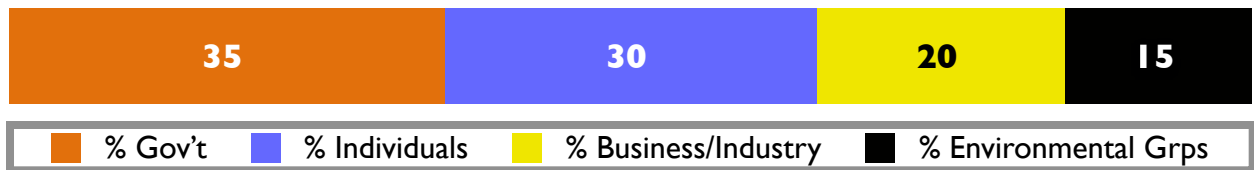


Perceptions of how water quality in area lakes and rivers has changed over the past 25 years differed significantly by geographic area. Specifically, 68% of southwest Missouri respondents said the water quality had become worse, compared to 42% of northwest Arkansas respondents and 47% of those from “other” counties.

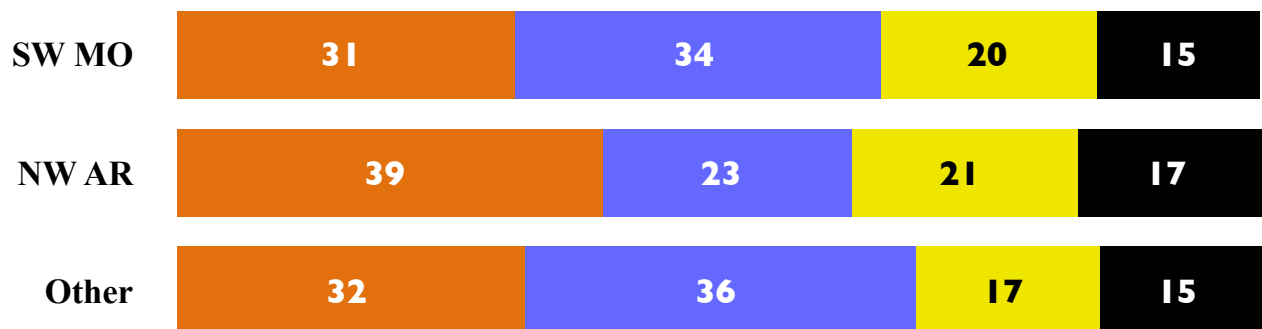
## Group Most Responsible for Promoting Clean Water

When asked which group should be most responsible for promoting clean water in lakes and rivers, 35% identified government, followed by individuals (30%), business and industry (20%), and environmental groups (15%).

### Overall Results



### Results by Geographic Area



A plurality of northwest Arkansas residents (39%) believed government should be most responsible for promoting clean water, while a plurality of residents in southwest Missouri (34%) and “other” counties (36%) felt it was up to each individual to take the lead role.

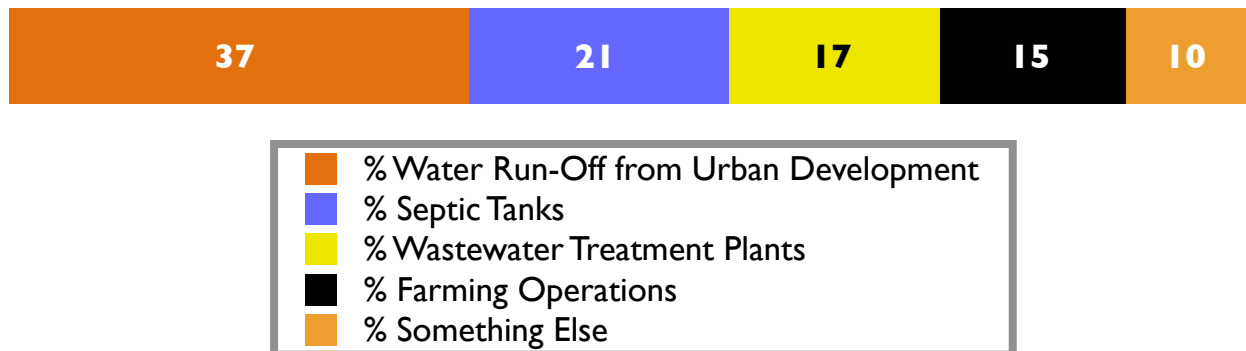
### *Key Demographic Findings (see page 28):*

- Overall, younger respondents (18-39 years old) were more inclined to view government (45%) as the group most responsible for promoting clean water in lakes and rivers than any other demographic group. This was especially true among younger respondents residing in northwest Arkansas (54%).
- Those most likely to believe individual citizens should bear the primary responsibility on this issue were 60-69 years old (37%), less formally educated (36%), and long-time area residents (36%).
- Business and industry were most frequently identified by respondents 50-59 years old (26%) and college graduates (25%).
- Environmental groups were most commonly cited by older respondents (70+ years old) and those less formally educated (20% each).

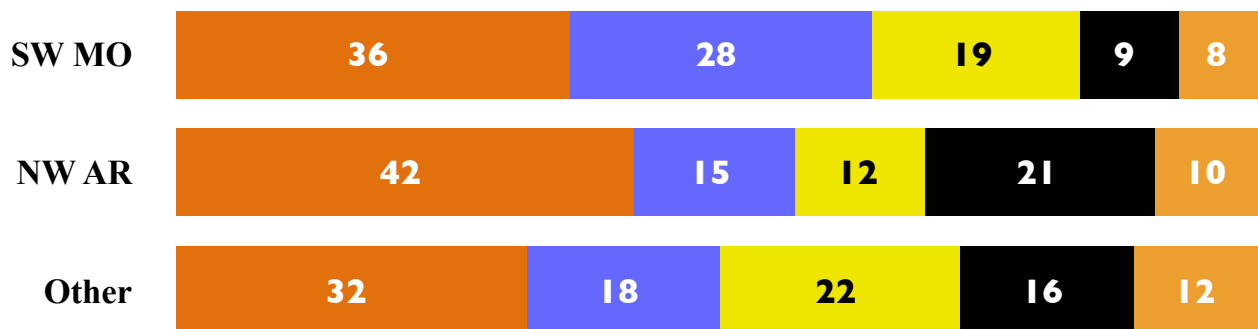
## Greatest Threat to Water Quality in Area Lakes and Rivers

Water run-off from urban development was considered the greatest threat to water quality in area lakes and rivers by a plurality of respondents (37%). Septic tanks were mentioned by 21% of respondents, followed by wastewater treatment plants (17%), and farming operations (15%). Ten percent identified various other threats (see [Appendix A](#) on page 19 of this report).

### Overall Results



### Results by Geographic Area



A plurality of respondents from each geographic area identified water run-off from urban development as the greatest threat to clean water. However, a relatively large percentage of residents from southwest Missouri (28%) mentioned septic tanks as the greatest threat and a sizeable percentage of northwest Arkansas residents (21%) singled out farming operations (poultry farms in particular).

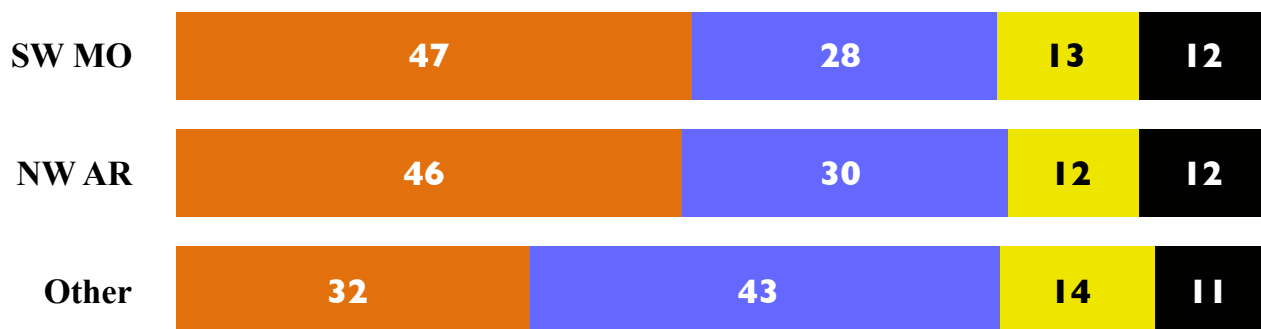
## Most Effective Way to Help Promote Clean Water

When asked how a person could most effectively promote clean water in area lakes and rivers, 43% of respondents said “supporting legislation” and 32% mentioned “becoming informed” on this issue. Minimizing water run-off from one’s property and supporting local watershed organizations were viewed as less effective methods (each named by less than 15% of respondents). See [Appendix B](#) on page 20 for additional comments.

### Overall Results



### Results by Geographic Area



Residents of southwest Missouri and northwest Arkansas held nearly identical opinions on this question. In both regions, about 50% would look to legislation first as the most effective way to promote clean water, followed by individual efforts at becoming informed (about 30%) on this issue. In contrast, residents from “other” counties in the upper White River basin were more likely to mention “becoming self-informed” first (43%), followed by “legislation” (32%).

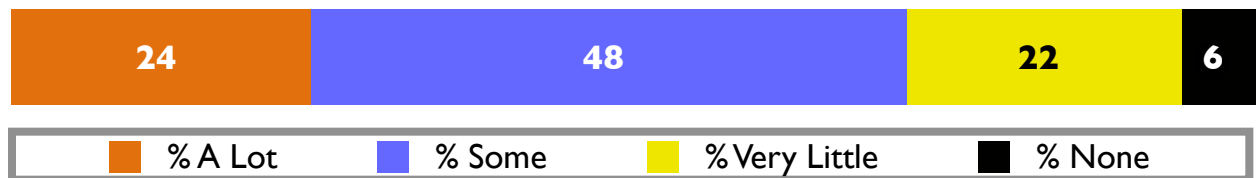
### *Key Demographic Findings (see page 28):*

- Major differences of opinion on this issue occurred between males and females residing in “other” counties throughout the upper White River basin. Specifically, females were far more likely than males to emphasize “becoming self-informed” as the best means of promoting clean water (51% v. 33%, respectively), while males were more likely than females to say minimizing water run-off was most effective (20% v. 4%, respectively).

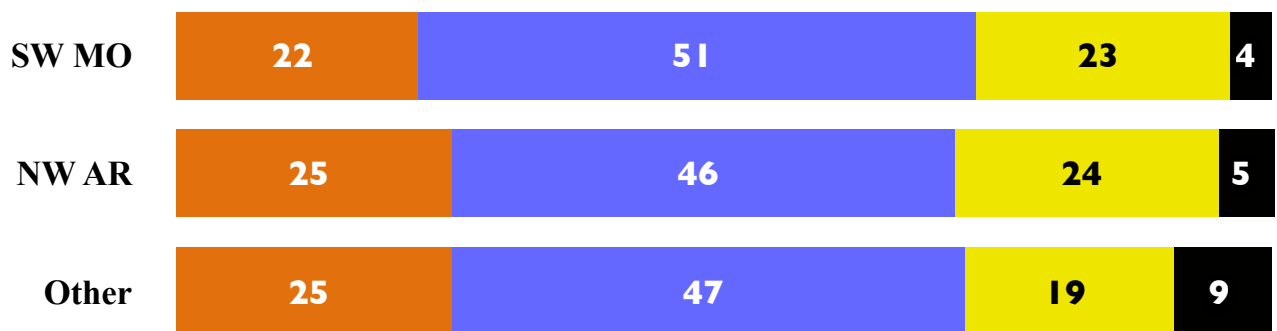
## Perceived Impact of the “Green” Environmental Movement on Improving Water Quality

More than 70% of respondents thought the “green” environmental movement would have either “a lot” (24%) or “some” (48%) impact on improving water quality in the United States.

### Overall Results



### Results by Geographic Area



There were no statistically significant differences between the three geographic areas with respect to their perceived impact of the “green” environmental movement on improving water quality in the United States.

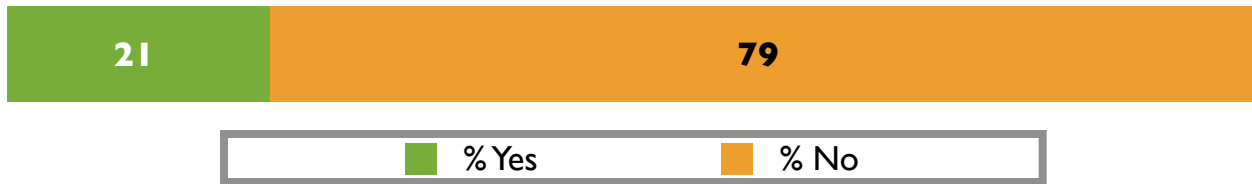
### *Key Demographic Findings (see page 28):*

- Overall, females were more likely than males to believe the “green” environmental movement would have a positive impact on improving water quality in this country.

## Ability to Name a Local or Regional Organization Working to Improve Water Quality in SW Missouri or NW Arkansas

Approximately 20% of respondents were able to name at least one local or regional organization working to improve water quality in southwest Missouri or northwest Arkansas. (See [Appendix C](#) on page 21 for a complete listing of respondents' unaided recall of those organizations.)

### Overall Results



### Results by Geographic Area



Southwest Missouri residents were more likely than those from northwest Arkansas or from “other” counties in the region to name at least one local or regional organization working to improve water quality in the area.

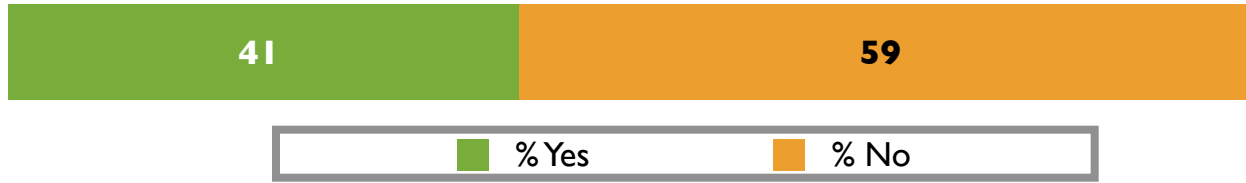
### *Key Demographic Findings (see page 28):*

- Regardless of region, the ability to name a local or regional organization working to improve water quality in the upper White River basin region tended to increase with educational level, being male, and being between 50 and 59 years old.

## Heard of the Upper White River Basin Foundation

About 40% of respondents had heard of the Upper White River Basin Foundation.

### Overall Results



### Results by Geographic Area



Just over 50% of residents from southwest Missouri (51%) had heard of the Upper White River Basin Foundation compared to 30% of those from northwest Arkansas and 42% from “other” counties throughout the upper White River basin.

### *Key Demographic Findings (see page 28):*

- Familiarity with the Upper White River Basin Foundation increased significantly with years of residency.

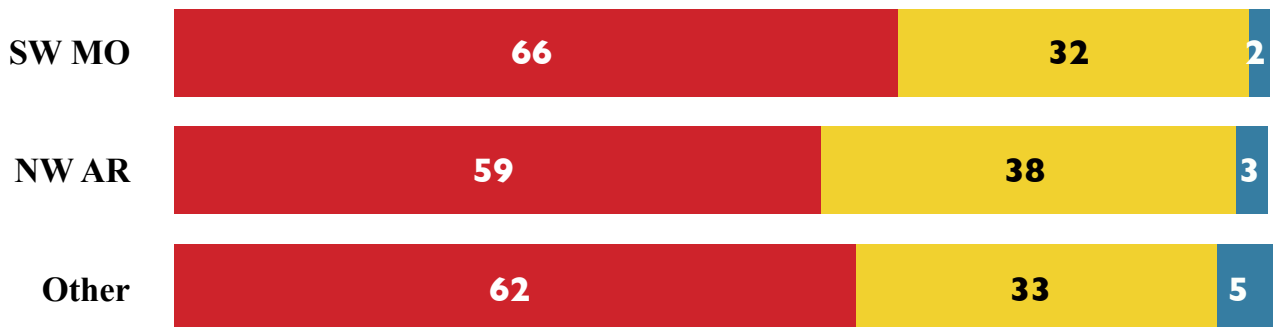
## Level of Concern for Pollution in Area Lakes and Rivers

Just over 60% of respondents said pollution in area lakes and rivers was a “major” concern to them, while 34% said it was a “minor” concern.

### Overall Results



### Results by Geographic Area



There were no statistically significant differences between the three geographic areas and the level of concern for pollution in area lakes and rivers.

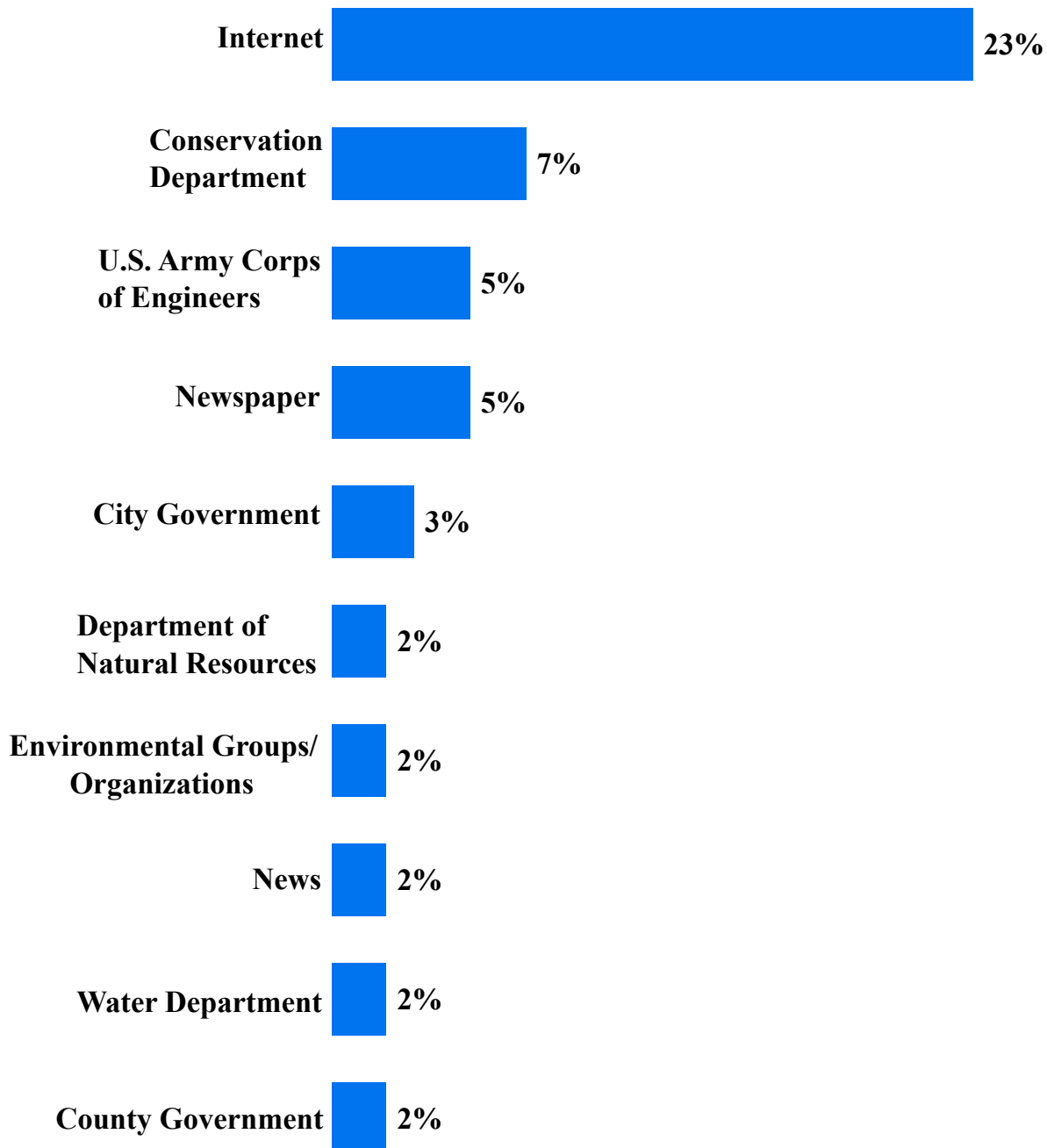
### *Key Demographic Findings (see page 28):*

- Respondents most concerned about pollution in area lakes and rivers were apt to be older (at least 50 years old), female, and less formally educated.

## Sources Used to Gather Information About Water Quality Issues

In an open-ended question, respondents were asked to identify sources they would access if needing information about water quality issues involving area lakes and rivers. While 20% could not think of any sources, a plurality (23%) said they would use the Internet, followed by the Conservation Department (7%). (See [Appendix D](#) on page 24 for a complete listing of respondent answers to this question.)

### Overall Results



# APPENDICES

## **APPENDIX A**

### **FACTORS POSING THE GREATEST THREAT TO WATER QUALITY IN AREA LAKES AND RIVERS**

(All responses received one comment unless otherwise specified)

Business and industry/Industrial runoff and waste/Factories/Manufacturers/  
chemical runoff—20 comments;  
People polluting/litter and debris (dumping trash into lakes/rivers)—14 comments;  
Pollution—6 comments;  
Chicken processing plant waste going into waterways—5 comments;  
Not taking care of things/trash left behind that goes into lakes and rivers—2  
comments;  
Motor boats—exhaust from fuel and fuel leaks—2 comments;  
Individual polluters—2 comments;  
Ethanol plants;  
Acid Rain;  
Stormwater runoff;  
Overuse of and overcrowding of lakes;  
Chemicals from terrorists;  
Littering in general;  
Individuals polluting;  
Too much rain;  
Boating;  
Overuse of lakes—boating and swimming in particular;  
Tourism and floating;  
People polluting with garbage;  
Meth labs;  
Accidental discharge of contaminants;  
Trash (not recycling);  
Lack of care and concern and ignorance;  
Too much building around lakes and rivers with no regard to protecting the area.

## **APPENDIX B**

### **WAYS INDIVIDUALS CAN HELP PROMOTE CLEAN WATER IN AREA LAKES AND RIVERS**

(All responses received one comment unless otherwise specified)

Grow more trees.

Grass roots meeting for people in area to pump their own septic tanks each year.

It's up to the town you live in.

Stop putting so much wastewater in the area lakes and rivers.

Individuals take greater care and concern.

## APPENDIX C

### RESPONDENTS' UNAIDED RECALL OF NAMES OF ANY LOCAL OR REGIONAL ORGANIZATIONS WORKING TO IMPROVE WATER QUALITY IN SOUTHWEST MISSOURI OR NORTHWEST ARKANSAS

(All responses received one comment unless otherwise specified)

Could not name any local or regional organizations working to improve water quality in Southwest Missouri or Northwest Arkansas—79% of respondents.

The remaining 21% of respondents gave the following responses:

ABLE—5 comments;  
Arkansas Club;  
Arkansas Department of Environmental Quality, Arkansas rural water department;  
Arkansas Game and Fish Commission;  
ARWP;  
Audubon Society;  
Bass Pro Shops;  
Beaver Lake;  
Beaver Lake Association;  
Beaver Lake Committee;  
Beaver Lake Corps of Engineers;  
Beaver Lake Foundation, Sierra Club;  
Beaver Lake Group;  
Beaver Lake Groups—Coast Guard Auxiliary, Beaver Lake Sailing Club;  
Beaver Lake System;  
Boating Club;  
Boy Scouts—2 comments;  
Branson Water Works;  
City Utilities—3 comments;  
Cooperative Extension Service;  
Commissioner's Group;  
Conservation Commission—2 comments;  
Conservation Department—5 comments;  
Corps of Engineers—8 comments;  
Corps of Engineers, Wastewater Treatment;  
DECA—local water quality group;  
Department of Natural Resources—6 comments;  
Department of Natural Resources, Roaring River Friends Alliance;  
Ducks Unlimited;

## APPENDIX C (Cont'd)

EPA—2 comments;  
Federation of Fly-Fishing;  
Finley River Project;  
Finley River Rescue, Buffalo River Watershed;  
Fischer Will Distributing Company;  
Fish and Game Bureau of Land Management;  
Friends of Clean Water;  
Friends of Lake Taneycomo—2 comments;  
Friends of the Lake;  
Friends of the Mulberry River;  
Friends of the River;  
Holiday Island Clean-Up Group;  
Illinois Basin Watershed Group;  
Illinois River Group;  
Illinois River Group, Wild Life Farmers;  
Illinois River Water Project;  
Illinois River Watershed—4 comments;  
Illinois River Watershed Group—2 comments;  
Illinois River Watershed, Beaver Lake Corps of Engineers;  
Illinois Water Conservation Group;  
Illinois Watershed Authority;  
James River Basin—8 comments;  
James River Basin Corp;  
James River Basin Foundation;  
James River Basin Organization;  
James River Basin Partnership;  
James River Basin Partnership Watershed;  
James River Basin Watershed Committee;  
James River Foundation;  
James River Partnership—2 comments;  
James River Watershed Organization;  
James River Watershed, White River Watershed;  
Jordan Valley Creek Group;  
Local Sierra Club;  
Lowell Water Treatment Plant;  
Missouri Conservation Department;  
Missouri Conservation;  
Missouri Department of Conservation—3 comments;  
Missouri Stream Team;  
Natural Resources Conservation Office;  
Northwest Arkansas Council;

## APPENDIX C (Cont'd)

Oklahoma Scenic Waterway Commission;  
Organization of Spelunkers;  
Ozark Greenways;  
Ozark Watershed Committee;  
Ozark Waterways;  
Ozarks Water Quality;  
Prime Trucking;  
Sam's Club;  
Shell Water Creek Watershed;  
Sierra Club—4 comments;  
Soil and Resources Conservation;  
Stream Teams—3 comments;  
Table Rock Water Quality Committee;  
Taney County Watershed Committee;  
Trout Unlimited;  
Upper White River Basin;  
Upper White River Basin Foundation—5 comments;  
Utility Company;  
Valley Mill Watershed;  
Wal-Mart—5 comments;  
Tyson's;  
Water Conservation Department;  
Water Department;  
Water Environment Improvement;  
Water for People;  
Watershed Committee;  
Watershed Committee in Springfield;  
Watershed Committee of the Ozarks—4 comments;  
Watershed Group of Northwest Arkansas;  
Watershed Improvement Organization;  
Watershed of the Ozarks—2 comments;  
Watershed Organization;  
Watershed program sponsored by the water company;  
Watershed Project of the Ozarks;  
We All Live Downstream;  
White River . . . ;  
White River Basin—4 comments;  
White River Basin Foundation;  
White River Basin Group;  
White River Group—2 comments;  
White Water . . . .

## **APPENDIX D**

### **SOURCES RESPONDENTS WOULD BE MOST LIKELY TO USE WHEN GATHERING INFORMATION ABOUT WATER QUALITY ISSUES INVOLVING AREA LAKES AND RIVERS**

(All responses received one comment unless otherwise specified)

Could not answer this question—20% of respondents.

The remaining 80% of respondents gave the following responses:

Internet—188 comments.

Conservation Department—60 comments.

U.S. Army Corps of Engineers—40 comments.

Newspaper—38 comments.

City government offices—21 comments.

Department of Natural Resources—18 comments.

Environmental groups/organizations—16 comments.

News—16 comments.

Water Department—13 comments.

County/County Agent—12 comments.

Library—11 comments.

Health Department—10 comments.

Arkansas Game and Fish Commission—9 comments.

City Hall/Town Hall—8 comments.

State government office—8 comments.

Government—7 comments.

University—7 comments.

Chamber of Commerce—6 comments.

City Utilities—6 comments.

County Extension—6 comments.

Government organizations—6 comments.

Local water district—6 comments.

Word of Mouth (neighbors, people, friends, work)—6 comments.

Conservation Commission—5 comments.

Department of Agriculture—5 comments.

Environmental Protection Agency—5 comments.

Conservation Department Website—4 comments.

Lake (check it out for self)—4 comments.

University Extension Office—4 comments.

Media—3 comments.

Parks and Recreation Department—3 comments.

## APPENDIX D (Cont'd)

Television—3 comments.  
Water Department—3 comments.  
Watershed groups/organizations—3 comments.  
ABLE—2 comments.  
Beaver Lake Committee/Agency—2 comments.  
Courthouse—2 comments.  
Government Website—2 comments.  
James River Basin Partnership—2 comments.  
Local water company—2 comments.  
Local watershed or Conservation Department—2 comments.  
Mail—2 comments.  
Nature Center—2 comments.  
Parks Department—2 comments.  
Sierra Club—2 comments.  
Water organizations—2 comments.  
Watershed Committee of the Ozarks—2 comments.  
Arkansas Department of Environmental Quality and Arkansas rural water department.  
Barbara Harmony's organization (cannot think of name).  
Beaver Dam.  
Beaver Lake Association.  
Beaver Lake office.  
Beaver Lake water district.  
Branson City Utilities.  
Bureau of Land Management.  
Camping/Canoe rental places or Internet.  
Check tap.  
City Council.  
Conservation Department magazines.  
County and state records.  
County Health Department.  
County Lakes Department.  
County water authority.  
Department of Natural Resources Website.  
Department of Natural Resources and Conservation Department.  
Department of Natural Resources and EPA.  
EPA Website.  
Forestry Department.  
Internet for Arkansas Conservation Department.  
Internet—State Water Quality Department.  
Legislation.

## APPENDIX D (Cont'd)

Local clean water association.  
Local cooperative.  
Local records.  
Local water board.  
Local water control.  
Local water control board.  
Magazines.  
Mayor.  
National Conservation Organization.  
National Forest Preserve.  
NOAA—National Oceanic and Atmospheric Administration.  
Newsletter from the water company.  
News or pamphlets.  
Ozark Watershed Committee.  
Parks Service.  
Preservation and conservation groups.  
Public Works Agency.  
Radio and television.  
Roaring River Friends Alliance.  
State environmental groups.  
State Extension.  
State or county groups. State water department.  
State representative.  
Stream Team through the Conservation Department.  
Television or mail.  
University campus water resources.  
University and Conservation Department.  
**Upper White River Basin Foundation.**  
Waste management.  
Watchgroup.  
Water or Health Department.  
Water quality reports.  
Water treatment plant.

# DEMOGRAPHIC ANALYSES

**NOTE:** Table percentages **bolded in red** denote statistical significance at the .05 level or less.

Table percentages **bolded in red** and **shaded in yellow** denote statistical significance at the .001 level or less.

Insert Excel pages 29–36 here.















# QUESTIONNAIRES