

TRANS-TEXAS WATER ISSUES SURVEY REPORT

WEST CENTRAL STUDY AREA

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Executive Summary
Trans-Texas Water Issues Survey
West Central Study Area

Study Background, Purposes, and Methods

The Trans-Texas Water Program is a cooperative effort among Texas' local, regional and state water resource agencies. The overall goal of the Trans-Texas Water Program is to identify the most cost-effective and environmentally sound strategies for meeting water needs both now and for the next 50 years throughout Texas. Central to the Trans-Texas Program is a commitment to involving the public and other stakeholders in water planning efforts.

This public issues survey is part of the public participation process for the 33 county Trans-Texas West Central study area (see map, Appendix A). It is overseen by the Policy Management Committee (PMC), which is made up of various local, regional, and state agencies concerned with water planning. This survey is a major component of *Task 3, Public Process Strategy Formulation*, where input from the public and stakeholders is being gathered. It helps meet the PMC's commitment to its *Principles of Participation* which state that **"no present or long-term water strategy can be implemented without the general support and consent of the public and stakeholders."**

The goals of this survey were to:

- Establish a baseline of the public's awareness, attitudes, and concerns about water issues, against which any changes can be measured
- Inform our public/stakeholder involvement efforts by obtaining insights on such questions as "what information do citizens need?" and "who do citizens trust to tell them about water issues?"

Dethman & Associates designed the telephone survey instrument, managed the survey process, and wrote the report. ProMark Research, a San Antonio public opinion research firm, fielded the survey, translated responses into computer readable form, and provided the data tables upon which this report is based. ProMark conducted the survey in accordance with the statistical standards and methods established by the Council of American Survey Research Organizations ("CASRO").

Interviews were completed with a representative sample of 500 randomly selected households in the study area; this sample size is very reliable, and carries with it a + or - 4.5% margin of error in 95 samples out of 100. The survey was pre-tested and fielded during April 1996.

This executive summary first lists the key findings from the survey and then discusses the implications of these findings.

Key Findings

Water Supply and Quality

- ▶ Two-thirds of residents in the study area were concerned their communities will face significant water shortages within the next five years, even though only half of all residents had actually experienced a drought.
- ▶ Still, a significant portion of residents (33%) said they were not concerned about water shortages.
- ▶ When asked why they were concerned about shortages, residents cited dwindling resources, no alternative supplies, the likelihood of droughts, and growth in their communities. Those less concerned felt that supplies are adequate or that their communities have good water management practices.
- ▶ Living through a drought, and feeling informed about water issues, were likely to make people more concerned about future water supplies.
- ▶ When asked if they were more concerned about having enough water or about the quality of their water, respondents were more likely to say they were concerned about water supply (56%) than water quality (32%).

Planning for Future Water Supplies

- ▶ Overall, both urban and rural areas received high overall ratings for managing their water resources (over 65% agreed cities and rural areas are doing a good job). And, both urban and rural residents held similar views of city water management efforts (75% of both groups thought cities were doing a good job).
- ▶ Urban and rural residents, however, rated rural water management efforts differently: 58% of urban residents, compared to 81% of rural residents, thought rural areas were doing a good job managing water resources.
- ▶ Conservation was most often mentioned as the *single most important thing to do* to ensure water for the future. Conservation was the most well known supply option and the most supported - far ahead of any other option.

- ▶ Residents appeared to support the concept of transferring water "in theory": 84% agreed that *areas of Texas with water surpluses should be willing to share their water with areas of Texas that need water, at least temporarily*. However, residents were less supportive of a prerequisite for water transfer - regional planning (68% agreed).
- ▶ Just over half of respondents did not know about water transfer; of those who did, more were negative (37%) than positive (27%) about it.
- ▶ Residents chose having a reliable supply as the highest priority, followed closely by water quality but more distantly by keeping the cost of water low, suggesting residents may feel more flexible about cost than about either reliability or quality.
- ▶ Residents thought environmental protection is also important to consider in choosing water supply options.

Making Decisions

- ▶ Three-quarters of residents in the study area strongly agreed that elected and water utility officials should involve the public in water planning issues.
- ▶ Residents most frequently said they trusted elected local/state officials (31%) and water officials (21%) to make decisions about meeting future water needs in their area. Still, 10% trusted nobody to make these decisions, and 22% didn't know who to trust.
- ▶ Two-thirds of residents said they felt either very (17%) or somewhat informed (52%) about water issues facing their community. Still, one-third said they do not feel informed.
- ▶ Residents said they wanted more information on water management and supply alternatives.
- ▶ When seeking reliable information on water issues, 76% of residents said they would turn to either the local water utility/department, City or County Government, Water Districts or Authorities, or State Government.
- ▶ About one-fifth of residents (21%) said they were likely to attend a local meeting on local water issues.
- ▶ Newspapers, television, radio and mail were voted the best ways to announce such meetings.
- ▶ Sixty-five percent of survey respondents want to be added to a mailing list to notify them of meetings or inform them about water planning issues in their area.

Implications for Water Planning and Public Participation

These survey data suggest several important factors which need to be considered for water planning overall within the Trans-Texas project, and for public participation activities in particular.

1. The needs, experiences, and views of citizens about water issues within the West Central study area vary greatly. For instance, urban residents often have different views on water issues than rural ones, and those who have been through a drought think about water supplies differently than those who have never experienced a shortage. Under these circumstances, a “cookie cutter” approach to public participation is unlikely to work effectively. In addition, reaching consensus about the best options will require a strong understanding of, and effectively listening to, the variety of viewpoints. Finally, great effort will need to be made to gather and hear from the many viewpoints.

2. Aside from conservation, many citizens are not *familiar* with various water supply options, much less knowledgeable about them. Only a small portion of the citizenry said they really understand the water issues facing their communities. Thus, tremendous efforts will need to be made to inform the public about water options and issues in a clear, understandable, non-technical format. Citizens will not be able to effectively participate in decision-making unless they become more informed.

3. Study area residents are concerned about water issues and want more information. The response to a variety of survey questions indicates people will attend to water issues and recognize there are challenges ahead. Fortunately, at this point, most citizens (76%) said they trusted representatives of state and local governments, water utilities, and water authorities (such as the Trans-Texas sponsors) to provide them with reliable information.

4. Respondents named the study sponsors, more than they named any other groups or individuals, as the entities they would trust for guidance and for making decisions about their water futures. Just over half (53%) said they trusted state and local officials and water officials to make decisions. However, they definitely wanted to be involved in the planning process (76% strongly agreed the public should be involved in water planning).

Chapter 1

Introduction and Methods

Research Background: The Trans-Texas Water Program and the West Central Study Area

The Trans-Texas Water Program is a cooperative effort among Texas' local, regional and state water resource agencies. The overall goal of the Trans-Texas Water Program is to identify the most cost-effective and environmentally sound strategies for meeting water needs both now and for the next 50 years throughout Texas. Central to the Trans-Texas Program is a commitment to involving the public and other stakeholders in water planning efforts.

The program is divided into four geographic study areas: North Central, Southeast, South Central, and West Central. The survey research project described in this report is part of the West Central study area (see map in Appendix A). The West Central area encompasses all or parts of the Nueces, San Antonio, Guadalupe, and Lower Colorado river basins, as well as the City of San Antonio and agricultural, municipal, and industrial users that rely on the Edwards Aquifer for their water supply.

The local lead administrative agency for the West Central study is the San Antonio River Authority; other local and state sponsors include the San Antonio Water System, Edwards Underground Water District, Bexar Metropolitan Water District, Bexar-Medina-Atascosa Counties Water Control and Improvement District #1, Canyon Lake Water Supply Corporation, Nueces River Authority, Guadalupe-Blanco River Authority, Lower Colorado River Authority, the Texas Water Development Board, the Texas Natural Resource Conservation Commission, the Coastal Coordination Council, and the Texas Parks and Wildlife Department. Taken together, these agencies comprise the Policy Management Committee (PMC) for the West Central study area.

The West Central Public Participation/Stakeholder Involvement Process

This survey research study is part of the public participation process for the West Central study area. Through a competitive process, the project sponsors selected Robert Aguirre Consultants, L.C., (RAC) to plan and implement public participation activities in this area. The RAC team devised the following public participation approach:

Task 1	Project Initiation and Management
Task 2	PMC Workshop and Determination of Desired Project Outcomes
Task 3	Public Process Strategy Formulation
Task 4	Commencement of Field Work
Task 5	Input Compilation and Synthesis
Task 6	Gaining Public Acceptance

Tasks 1 and 2 have been completed; these largely in-house activities culminated in the PMC adopting *The Principles of Participation* which express the PMC's commitment to a meaningful public participation/stakeholder process. Essentially, these principles recognize that **"no present or long-term water strategy can be implemented without the general support and consent of the public and stakeholders."**

The West Central Texas Water Issues Survey: Goals and Methods

The adoption of the Principles of Participation opened the door for Task 3 of the public participation process: Strategy Formulation. During this phase, the RAC team is gathering data from all affected parties about how best to involve citizens and other interested entities in the West Central water planning process. This phase asks the public and stakeholders what is credible and meaningful public involvement, so that the public involvement plan will meet their requirements and help ensure a successful water resource planning effort.

Survey Goals. This water issues survey is a key data gathering component, along with a subsequent series of public meetings, focus groups, and individual interviews. The survey goals were to:

- Establish a baseline of the public's awareness, attitudes, and concerns about water issues, against which any changes can be measured
- Inform our public/stakeholder involvement efforts by obtaining insights on such questions as "what information do citizens need?" and "who do citizens trust to tell them about water issues?"

Survey Methods. To accomplish these two goals, the following methods were used:

- **Design, Management and Reporting.** Dethman & Associates, a member of the RAC consulting team, designed the telephone survey instrument, managed the survey process, and wrote the report. The final survey consisted of approximately 50 items, including both close-ended rating questions, and open-ended questions which collected respondents' verbatim responses.
- **Sampling, Fielding, and Data Reduction.** ProMark Research, a San Antonio public opinion research firm, fielded the survey (which included translating it into Spanish and conducting interviews in Spanish on an as-needed basis), translated responses into computer readable form, and provided the data tables upon which this report is based. ProMark conducted the survey in accordance with the statistical standards and methods established by the Council of American Survey Research Organizations ("CASRO").

The sample consisted of randomly selected telephone numbers of households in the 33 county West Central study area, chosen to reflect household population proportions. Interview quotas, matching these population proportions, were then set for each county. For example, Bexar County has 48% of the households in the study area and received 48% (or 240) of the interviews.

In all, ProMark completed 500 interviews. This sample size carries with it a + or - 4.5% margin of error in 95 samples out of 100; this means that any percentage shown or discussed in this report could be up to 4.5% higher or lower. A random sample survey of this size reliably represents the overall study area population, especially for use as a baseline and for guiding policy decisions. However, sub-samples (i.e., analyzing just rural or urban respondents) are smaller and thus carry with them higher margins of error.

On April 14, 1996, ProMark conducted a pre-test of the survey instrument, under actual field conditions. This pretest ensured that the questionnaire was workable, that respondents understood it, and that it fit within the time parameters of the study (15 minutes per survey). The pre-test revealed that the survey took nearly 20 minutes; thus, the instrument was pared back and a few small changes were made to the remaining questions.

The revised survey was fielded by telephone between April 15 and April 22, 1996, using a computer assisted telephone interviewing system. Respondents were screened by county to make sure respondents were in the study area and that quotas were met; respondents were also screened to make sure that no one under 18 years of age participated. Each interview took 15-18 minutes.

The following table summarizes the fielding effort:

Table 1.1: Fielding Statistics	# of Calls	% of Total
Completed	500	8
Qualified Refusals	97	2
No Answer/Machines	2636	44
Busy	198	3
Language Barrier	49	1
Respondent Not Available	768	13
Refused	579	10
Disconnected	805	13
Business/Government	391	6
Total	6023	100

Once fielding was complete, verbatim responses were coded, the data were cleaned, and frequencies and cross-tabulations were generated and provided to the Trans-Texas consulting team.

Survey Caveats

The reader should bear in mind two important factors when interpreting the results of this survey. First, at the time of this survey, the West Central study area was experiencing below average rainfall conditions which was noted in the media. This contextual situation may have affected some respondents' viewpoints.

Second, surveys provide insights about how people think and behave; however, they reflect one point in time and do not necessarily predict future attitudes and behaviors. Great care should be taken when interpreting survey data to make sure it is used, along with other information, to guide decisions, rather than predict outcomes.

Report Organization and Approach

This report is organized into the following sections:

Executive Summary and Implications

Chapter 1 - Introduction and Methods

Chapter 2 - The Respondent Context

Chapter 3 - Views on Water Supply and Quality

Chapter 4 - Planning for Water Supplies

Chapter 5 - Making Decisions

Appendices

By intention, this report has been written for a non-technical audience; in this way, findings will be understandable to all interested parties. However, the design, methods and analysis techniques used in this study meet the strictest standards of survey research.

Chapter 2

The Respondent Context

This chapter profiles "who is speaking" in this report. It describes three aspects of respondents' lives which may affect their views about water issues and how they respond to public participation activities, including:

- Where they live;
- Their personal and household characteristics; and
- The source of their water.

The extent to which any of these characteristics may affect attitudes and opinions about water issues will be explored in other chapters of this report.

The people responding to this survey represent the population living in the 33 counties in the West Central Trans-Texas study area. Table 2.1 shows the full breakdown of demographic and household data.

Key Findings

Residents of this area tend to be . . .

- ▶ Spread across a range of ages, household sizes, and incomes
- ▶ Urban or suburban dwellers (72%)
- ▶ Anglo (63%) or Hispanic (25%)
- ▶ Long time residents in their communities (43% over 10 years)
- ▶ Homeowners (66%)

In addition, most residents . . .

- ▶ Buy water from water utilities (88%).

Table 2.1: Respondent Characteristics	%*
Type of Community	
Urban or suburban	72
Rural	27
Don't know	1
County	
Bexar	48
Travis	21
Williamson	4
Victoria	3
Guadalupe, Hays, Atascosa, Comal, Wharton (@2% each)	10
All other (1% or less of the sample)	14
Length of Time In Community	
Less than 2 years	18
2-5 years	27
6-10 years	12
Over 10 years	43
Age	
18 to 24	13
25 to 34	24
35 to 44	22
45 to 54	16
55 to 64	10
65+	15
Income	
Less than \$25,000	32
\$25,000 to \$49,999	32
\$50,000 to \$74,999	14
\$75,000 and over	9
Don't know/refused	13

Ethnicity	%
Anglo	63
Hispanic	25
African American	5
Asian	2
Other/Don't Know	5
Gender	
Female	62
Male	38
Size of Household	
One person	18
Two persons	29
Three persons	21
Four persons	15
Five or more persons	16
Don't know/refused	1
Home Ownership	
Own	66
Rent	33
Refused	1
Source of Water	
Utility/Water Association	88
Private Well	10
Other/Don't Know	2
N =	500
*Percentages may total more than 100 due to rounding	

Chapter 3

Views On Water Supply and Quality

The survey asked respondents a variety of questions to better understand their views about the adequacy of water supply and the level of water quality in their communities - two concerns that are likely to shape their response to water planning options. This chapter explores these views.

Key Findings

- ▶ Two-thirds of residents in the study area were concerned their communities will face significant water shortages within the next five years, even though only half of all residents had actually experienced a drought.
- ▶ Still, a significant portion of residents (33%) said they were not concerned about water shortages.
- ▶ When asked why they were concerned about shortages, residents cited dwindling resources, no alternative supplies, the likelihood of droughts, and growth in their communities. Those less concerned felt that supplies are adequate or that their communities have good water management practices.
- ▶ Living through a drought, and feeling informed about water issues, were likely to make people more concerned about future water supplies.
- ▶ When asked if they were more concerned about having enough water or about the quality of their water, respondents were more likely to say they were concerned about water supply (56%) than water quality (32%).

Concerns About Water Supply

As shown in Table 3.1 below, two-thirds of residents in the 33 county West Central Texas area were concerned their communities will face **major** water shortages within the next five years. However, the remaining third of residents did not share their concerns.

When asked the reasons behind their ratings, those who were concerned gave several distinct reasons, while those less concerned simply said they have "*adequate supply*" (see Table 3.2). The concerned group spoke about dwindling resources and poor conservation; not having enough rain or fears about drought; population growth and cities having large water needs; and poor water quality.

	%
Very Concerned	32
Somewhat Concerned	35
Not Too Concerned	23
Not At All Concerned	8
Don't Know	1
N =	500

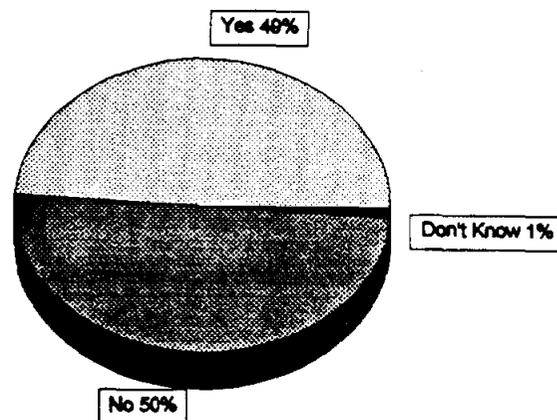
Table 3.2: Why Do You Give That Rating About Your Area Facing Water Shortage?*

	%
Reasons For Being Concerned	
Dwindling Resources, Poor Conservation	31
Not Enough Rain, Drought	20
Growth, Cities Taking More Water	10
Water Is Important For The Future	9
Poor Water Quality	4
Hear It On The News/ From Local Officials	2
Cost Going Up	1
Reasons For Being Less Concerned	
Have Adequate Water Supply	20
Not Relevant To Me	6
Good Water Management Where I Live	5
Not Enough Information	3
Other Responses	
Other	10
Don't Know/No Answer	4
N =	500
* %'s total to more than 100 since respondents were encouraged to give more than one response.	

Not surprisingly, experience with drought seems to have significantly affected whether or not people are concerned about future water supplies. Just about half of the residents said they had been through a drought in the last five years (see Figure 3.1), and this appears to have disproportionately affected their level of concern (see Table 3.3). Forty percent of residents who had been through a drought were *very concerned* about future supplies, compared to only 26% who had not experienced a drought.

Figure 3.1: Drought In The Past Five Years?

Trans-Texas Water Survey (N=500)



	Been Through Drought?	
	Yes	No
	%	%
Very Concerned About Supply	40	26
Somewhat Concerned About Supply	36	34
Not Concerned About Supply	24	40
N =	242	245

Other factors which affected views about supply were:

- Concerns about water quality: the more concerned people were about water quality, the more likely they were to be concerned about water shortages.
- Knowledge of water issues: the more informed people said they were about water issues, the more likely they were to be very concerned about supply problems: 42% of those who said they were very informed also said they were very concerned; this proportion declines to only 22% among those who said they were not informed about water issues. However, a substantial minority of those who felt very informed about water issues also said they were not concerned about supply (30%).
- Age: The older the respondent, the more likely he or she was to be concerned about future supplies; for instance, only 21% of those 18-34 said they were very concerned, compared to 39% of those 35 and over.

Factors which do not appear to produce differing views about supply shortages include:

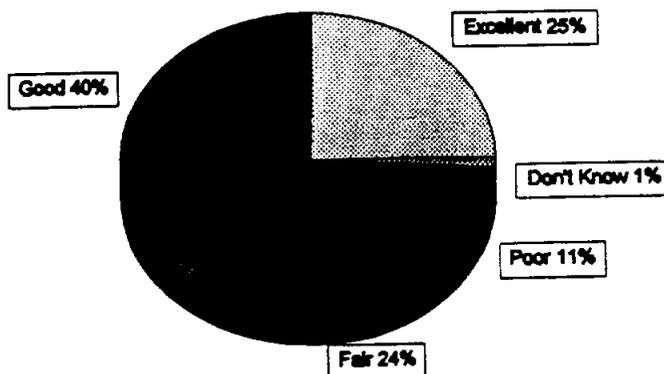
- Urban versus rural residency: Those living in the city and country voiced a similar level of concern about supply.
- Ethnicity: Anglo and Hispanic populations gave similar ratings.
- Water sharing: Those who agreed with sharing surplus water had a similar level of concern about supply as those who disagreed with this water planning option.

Concerns About Water Quality

Most residents in the West Central area felt that the current quality of their water was either *excellent* (25%) or *good* (40%). Still, about a quarter gave their water quality a *fair* rating and 11% said the quality was *poor*. (See Figure 3.2)

Figure 3.2: Rating Of Water Quality

Trans-Texas Water Survey (N=500)



Despite feeling they have adequate water quality in the present, many residents were concerned about the future: over half (54%) were concerned their area will *face major water quality problems over the next five years* (see Table 3.4).

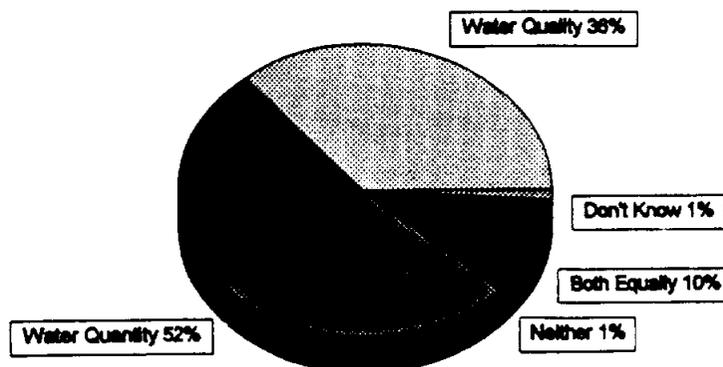
Table 3.4: Level Of Concern About Water Quality Over The Next Five Years	
	%
Very Concerned	25
Somewhat Concerned	29
Not Too Concerned	30
Not At All Concerned	13
Don't Know	3
N =	500

Water Quantity Versus Water Quality

Respondents were asked to choose whether they were *more concerned about water quality* or *more concerned about having enough water* in their area. As Figure 3.3 shows below, the quantity of water takes precedent in terms of concern: over half of residents said they were more concerned about having enough water, with another 10% saying they were equally concerned about quantity and quality.

Figure 3.3: More Concern About Water Quantity Or Quality?

Trans-Texas Water Survey (N=500)



Chapter 4

Planning for Water Supplies

This chapter examines a number of aspects of water resource planning in the Trans-Texas West Central area, and the ways in which respondents perceive them. The survey asked respondents their impressions of who is using the most water and how well rural and urban areas are managing their water. It also asked them to provide guidance about the criteria to consider when making water decisions, and their relative importance. Finally, it asked respondents to indicate if they were familiar with various supply options, and if so, what were their reactions to them - positive, negative, or neutral.

Key Findings

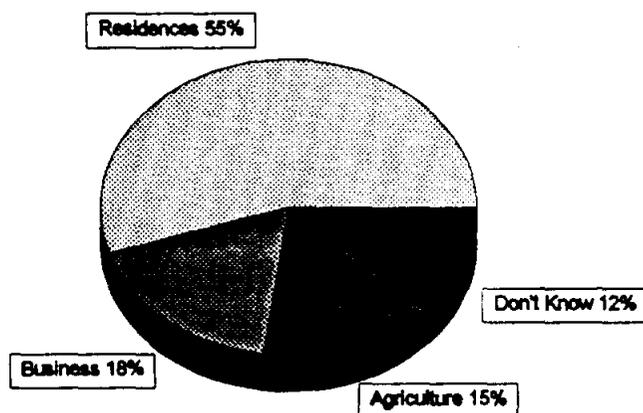
- ▶ Overall, both urban and rural areas received high overall ratings for managing their water resources (over 65% agreed cities and rural areas are doing a good job). And, both urban and rural residents held similar views of city water management efforts (75% of both groups thought cities were doing a good job)
- ▶ Urban and rural residents, however, rated rural water management efforts differently: 58% of urban residents, compared to 81% of rural residents, thought rural areas were doing a good job managing water resources.
- ▶ Conservation was most often mentioned as the *single most important thing to do* to ensure water for the future. Conservation was the most well known supply option and the most supported - far ahead of any other option.
- ▶ Residents appeared to support the concept of transferring water "in theory": 84% agreed that *areas of Texas with water surpluses should be willing to share their water with areas of Texas that need water, at least temporarily*. However, residents were less supportive of a prerequisite for water transfer - regional planning (68% agreed).
- ▶ Just over half of respondents did not know about water transfer; of those who did, more were negative (37%) than positive (27%) about it.
- ▶ Residents chose having a reliable supply as the highest priority, followed closely by water quality but more distantly by keeping the cost of water low, suggesting residents may feel more flexible about cost than about either reliability or quality.
- ▶ Residents thought environmental protection is also important to consider in choosing water supply options.

Who Is Using The Most Water?

Respondents gave their impressions on who uses the most water: residences, general business, or agricultural businesses. Over half of respondents (see Figure 4.1) believed residences use the most water, while 18% cited business, 15% cited agriculture, and 12% didn't know which sector uses the most water. Thus, many residents clearly placed themselves *in the picture* when it comes to identifying who is responsible for consuming water in their area.

Figure 4.1: Who Uses The Most Water?

Trans-Texas Water Survey (N=500)



Urban Versus Rural Water Management

Since the West Central area of Texas is large, with a few urban centers and large rural areas, we asked residents how well urban and rural areas were managing their water resources. Residents were asked how strongly they agreed with the following two statements:

- (1) *The cities in your region are trying to do a good job of managing their water resources.*
- (2) *The rural areas in your region are trying to do a good job of managing their water resources.*

Figures 4.2 and 4.3 show that, overall, both areas got high approval ratings, with urban areas receiving slightly higher levels of support.

Figure 4.2: Cities Do A Good Job Managing Water Resources?

Trans-Texas Water Survey (N=500)

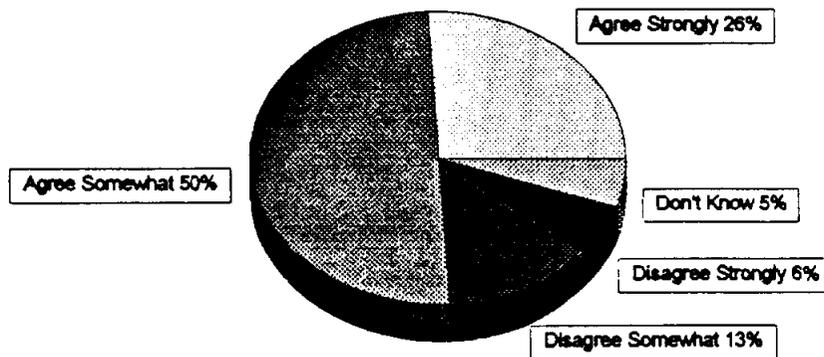
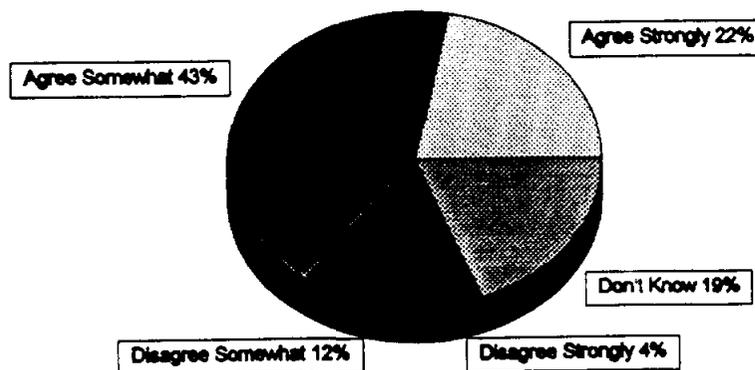


Figure 4.3: Rural Areas Do A Good Job Managing Water Resources?

Trans-Texas Water Survey (N=500)



Some interesting findings emerge when these ratings of urban and rural water management are crosstabulated with other questions, including:

- While urban and rural residents gave nearly identical ratings for how well the cities were managing their water (about 75% of each group agreed that cities were doing a good job), urban and rural residents differed markedly in their views of how well rural areas were managing their water. Only 58% of urban residents agreed rural areas were doing a good job, compared to 81% of rural residents who believed rural areas were doing a good job.
- Those who have lived through a drought were less likely to agree that cities were doing a good job of managing their water supplies. However, living through a drought did not change respondents' ratings of rural area water management efforts.
- Residents who were less concerned about future shortages were more likely to think that cities were doing a good job.
- The more strongly people agreed with the idea that water surpluses should be shared, the more strongly they agreed that both cities and rural areas were doing a good job.
- The more informed people were about water issues, the more likely they were to feel cities and rural areas were doing a good job. However, a notable minority contingent said they were very informed and disagreed with these statements (23% of this group disagreed cities were doing a good job; 10% disagreed rural areas were doing a good job).
- Hispanic residents were more likely to agree that cities and rural areas were doing a good job managing their water resources, compared to Anglo residents.

What Advice Do Residents Have for Water Planning Efforts?

Respondents were asked this broad question to gather their guidance for water planning: *What do you think is the single most important thing to do to make sure there is enough water in your area over the next 20 years?*

Table 4.1 shows that *conservation* is the priority that tends to come to mind for the majority (59%) of people. While most people tended to give a "general" conservation response, others were more specific, mentioning landscape and household conservation, business conservation, educating people about how to conserve, and encouraging water efficient appliances.

Creating alternate sources of supply and good water planning and management were also mentioned, but by a much smaller proportion of respondents. Most who advised alternate supplies made general comments, but some mentioned building dams and

lakes, and recycling and reclaiming water. Water planning advice tended to be general.

Table 4.1: Most Important Action To Ensure Water Supply For Next 20 Years.*	
	%
Conserve Water	59
Create Alternate Supplies	18
Planning/ Good Water Management	12
Depends On Weather	2
Nothing/Don't Worry	1
Other	7
Don't Know	18
N =	500
* %'s total to more than 100 since respondents were encouraged to give more than one response.	

Respondents indicated how much they agreed with two statements which are directly relevant to Trans-Texas water planning efforts:

(1) If short and long term needs were protected, areas of Texas with water surpluses should be willing to share their water with areas of Texas that need water, at least temporarily.

(2) Water planning in Texas should be done on a regional or statewide basis, rather than on a local basis.

Figures 4.4 and 4.5 show the overall level of support for each of these statements. In general, there was very strong support - 84% agree strongly or somewhat - for the notion that areas with surpluses should be willing to share, as long as the providers are protected, and as long as the sharing is temporary. Interestingly, however, the support for regional planning, while still fairly strong - 68% agreed strongly or somewhat - was quite a bit less strong than the support for sharing. In addition, over one-quarter of residents *disagreed* that planning should have more than a local perspective. These findings suggest that sharing water, while appealing in concept, may be stymied by

opposition to a regional planning approach.

Figure 4.4: Surplus Areas Should Share Water

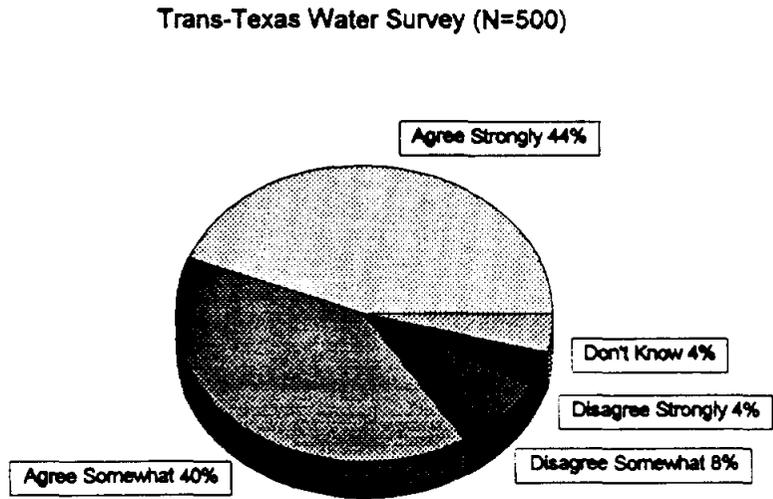
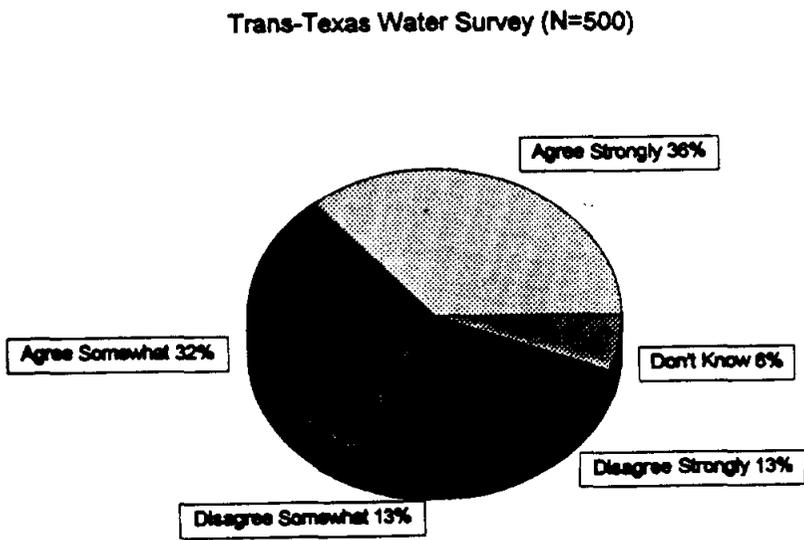


Figure 4.5: Planning Should Be Regional



When looking at other factors which affect the level of agreement with these two statements about sharing surpluses and regional planning, a few notable findings surfaced, including:

- Rural and urban dwellers gave about equal support to each statement, and age and ethnicity did not appear to make crucial differences in levels of support.
- If someone was very concerned about water shortages in the next five years, he or she was more likely to support regional planning, but support for sharing water was not affected by the level of concern people have about supply shortages.
- The more informed people said they were about water issues, the less support they had for the idea of sharing water.
- As knowledge about water issues increased, people tended to either get more positive or more negative about regional planning.

Criteria For Choosing Water Options

Respondents answered several questions related to what criteria were important to them in water planning. They were asked to rank order, from most to least important, the following factors:

- *Keeping the cost of water low*
- *Keeping the quality of water high*
- *Making sure the supply is reliable*

People were also encouraged to mention any other factors they felt were more important than the three given, but very few people gave any other factors. Table 4.2 shows the results of this ranking: while all three factors were important, respondents placed the highest priority on ensuring a reliable supply. Ensuring water quality was number two, and keeping costs low was number three.

While reliability supply leads the way, water quality concerns are not too far behind, especially compared to the much lower ranking of *keeping costs low*. This suggests that many people may feel there is more room to negotiate on water costs than there is on reliability or quality.

Table 4.2: Most Important Factor In Water Planning			
	Most Important Factor	Second Most Important Factor	Third Most Important Factor
	%	%	%
Reliable Supply	55	33	11
Keeping Quality High	37	47	13
Keeping Cost Low	6	17	74
Don't Know	2	2	2
N =	500	500	500

That respondents ranked keeping the cost low as the least important of the three choices may be related to the fact that most people don't think they pay too much for water, as shown in Table 4.3. Of the 440 respondents who pay for their water, only 26% thought the cost was high, while 57% thought the cost was about right, and 4% thought their water costs were low. In addition, another 11% of the total sample reported they do not pay for their water; in most cases, this is because they have a well.

Table 4.3: Is The Cost of Water . . .	
	%
High	26
Low	4
Just About Right	57
Don't Know	13
N =	440

Environmental Considerations

Respondents were asked in a separate question to indicate how important environmental protection is in deciding what water supply options are best. As shown in Table 4.4, Texans in the west central area are concerned about environmental

protection. When asked for the reasons behind their ratings, residents saw a strong connection between environmental protection and the quality and availability of water (see Table 4.5).

Table 4.4: Importance of Environmental Protection	
	%
Very Important	61
Somewhat Important	32
Not Too Important	4
Not At All Important	1
Don't Know	2
N =	500

Table 4.5: Why Do You Say Environmental Considerations Are/Are Not Important?*	
	%
Protect or Maintain Water Quality	18
Environment Is Important	15
Environment Plays Big Part In Water	14
Environment Is Important, But Not Only Factor	12
Have Water Available For Everyone	8
Protect What We Have For Future	6
Environmentalists Are Too Extreme	5
Other	11
Don't Know	15
N =	500
* %'s total to more than 100 since respondents were encouraged to give more than one response.	

Several factors heightened people's positive attitudes toward environmental protection:

- The higher the concern about water shortages, the higher the support for environmental protection
- The higher the concern for water quality, the higher the support for environmental protection
- The more support for water sharing, the higher the support for environmental safeguards
- Hispanic and other ethnic groups favored environmental protection more strongly than Anglos

On the other hand:

- Experience with drought produced somewhat less support for the environment.

Familiarity and Support for Various Water Supply Options

The Trans-Texas project will ultimately look at the feasibility and acceptability of a number of water supply options. In this baseline survey, we asked how familiar people were with major supply options and, if familiar, their reactions to those options. The results of these questions are shown in Table 4.6.

Respondents reported a wide variation in their familiarity with major supply options. Not surprisingly, given previous water supply efforts in the area, the greatest familiarity was with conservation (83%) and water storage (71%) options. People were much less familiar with recharging of aquifers (60%), reuse of water (58%), and transferring water from one area of Texas to another (47%).

Support for each option *among those who were familiar with them* also varied, with conservation receiving the highest percent of positive reactions (of the 83% who knew about conservation, 82% were positive). Recharge of aquifers was second (of the 60% who were familiar, 67% were positive), and water storage and reservoirs third (of the 71% who were familiar, 57% were positive). Transferring water from one area of Texas to another prompted the smallest positive response (27%), the largest negative response (37% negative) and also the largest portion of "don't know." However, reuse, water storage and reservoirs, and recharging aquifers also had notable proportions of "don't know" responses.

Table 4.6: Familiarity With Water Supply Options					
	No	Yes	Positive*	Negative*	DK*
	%	%	%	%	%
Familiar With Water Conservation	17	83 (N=413)	82	3	15
Familiar With More Water Storage & Reservoirs	29	71 (N=354)	57	11	32
Familiar With Recharge of Aquifers	40	60 (N=299)	67	4	29
Familiar With Reuse Of Water	42	58 (N=292)	50	19	31
Familiar With Transferring Water From One Area of Texas To Another	53	47 (N=235)	27	37	36
N =	500	500			
* Only those respondents who were familiar with a supply option were asked to rate it as positive, negative or neutral.					

Levels of familiarity and attitudes toward these options did change when other factors were examined, such as urban and rural differences, and experience with drought, including:

- Rural residents were less familiar with recharge, reuse, and transfer options, although those who were familiar tended to be equally positive as their urban counterparts about recharge and reuse.
- Experience with drought conditions tended to increase the proportion of people who said they were familiar with each of these water supply options.
- Experience with drought conditions tended to increase the proportion of respondents who said they were positive about each of the options, except for water transfer.

Chapter 5

Making Decisions

This chapter explores respondents' views on a variety of public involvement issues, including: their interest in involvement; who they trust to make decisions about meeting future water needs; their need for information; their sources of reliable information; and their interest in local meetings on water issues.

Key Findings

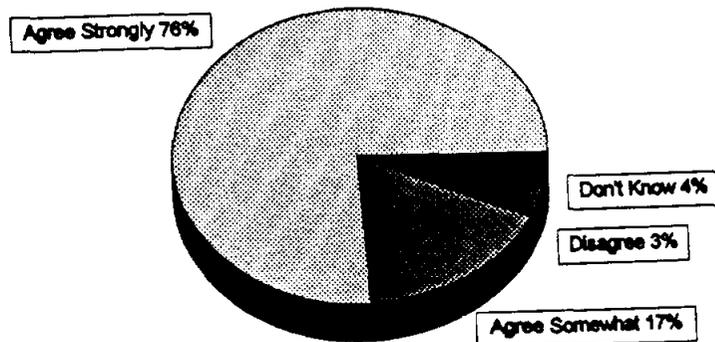
- ▶ Three-quarters of residents in the study area strongly agreed that elected and water utility officials should involve the public in water planning issues.
- ▶ Residents most frequently said they trusted elected local/state officials (31%) and water officials (21%) to make decisions about meeting future water needs in their area. Still, 10% trusted nobody to make these decisions, and 22% didn't know who to trust.
- ▶ Two-thirds of residents said they felt either very (17%) or somewhat informed (52%) about water issues facing their community. Still, one-third said they do not feel informed.
- ▶ Residents said they wanted more information on water management and supply alternatives.
- ▶ When seeking reliable information on water issues, 76 % of residents said they would turn to either the local water utility/department, City or County Government, Water Districts or Authorities, or State Government.
- ▶ About one-fifth of residents (21%) said they were likely to attend a local meeting on local water issues.
- ▶ Newspapers, television, radio and mail were voted the best ways to announce such meetings.
- ▶ Sixty-five percent of survey respondents want to be added to a mailing list to notify them of meetings or inform them about water planning issues in their area.

Public Involvement In Planning

As shown in Figure 5.1, when asked whether *Elected and water utility officials should make sure that the public is involved in planning for their water futures*, three-quarters of residents (76%) in the study area were strongly in favor, and 17% were somewhat in favor of this.

Figure 5.1: Public Should Be Involved In Planning

Trans-Texas Water Survey (N=500)



Who Do People Trust To Make Water Decisions?

When asked who they trusted to make decisions about meeting future water needs in their area, residents most frequently mentioned elected local/state officials (31%), water officials (22%), and citizens and activists (12%); 10% of residents said they trusted nobody to make these types of decisions, while 22% were unsure. Full details are given in Table 5.1, below.

	%
Elected Local/ State Officials	31
Water Officials	22
Citizens/Activists	12
Experts	6
Environmentalists	2
Nobody	10
Other	9
Don't Know	22
N =	500
* %'s total to more than 100 since respondents were encouraged to give more than one response.	

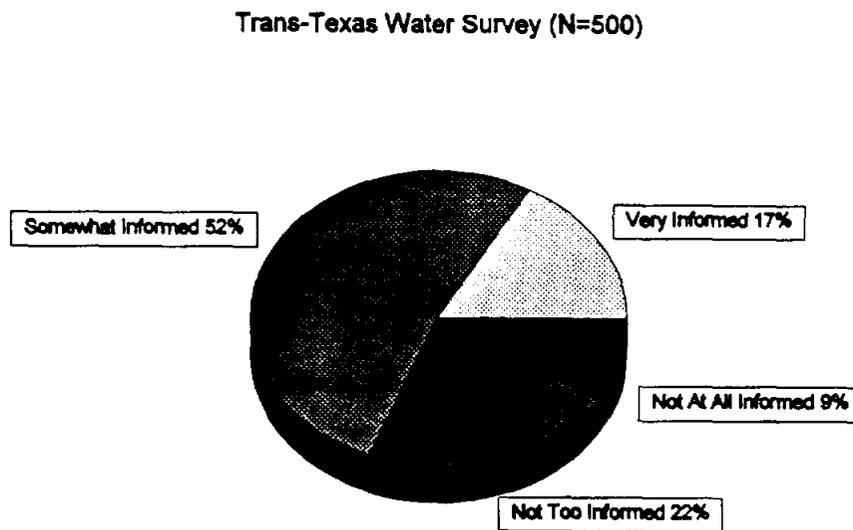
Cross-tabulations of this data reveal that:

- Urban and Hispanic residents are more likely to trust elected local/state officials.
- Rural residents and people who are very concerned about water quality are more likely to trust water officials.

Level of Information About Water Issues Facing the Community

Figure 5.2 shows that around two-thirds of residents felt they were either *very informed* (17%) or *somewhat informed* (52%) about water issues facing their community. Still, 22% of residents said they were *not too informed*, while 9% of residents said they were *not at all informed*.

Figure 5.2: How Informed Do You Feel About Water Issues?



Factors which affected how informed residents felt about water issues facing their community were:

- **Urban/rural status:** Urban dwellers were more likely than rural dwellers to feel very informed.
- **Drought experience:** Those who had experienced drought were more likely to feel very informed.
- **Water concerns:** Residents who were very concerned about both water supply and water quality were more likely to say they were very informed.
- **Age:** People aged 35 or over were more likely to feel informed.

Information Needs

When asked which water issues they wanted more information about, residents most frequently requested information on water management (41%) and supply alternatives (23%), although 17% said they did not require information on water issues. The full range of responses is given in Table 5.2.

Table 5.2: Topics About Which People Want More Information*	
	%
Water Management	41
Supply Alternatives	23
Nothing	17
All Available Information	5
Cost	4
Distribution of Water	3
Other	8
Don't Know	13
N =	500
* %'s total to more than 100 since respondents were encouraged to give more than one response.	

Where People Turn For Reliable Information About Water Issues

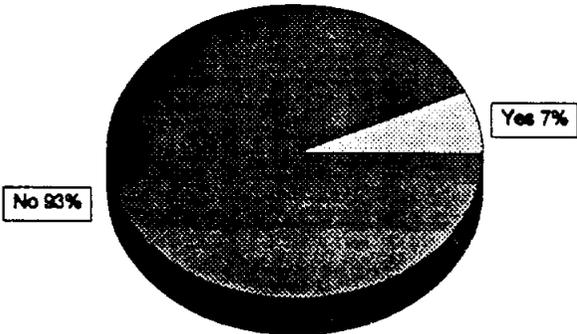
When residents want reliable information about water issues and topics, they said they were most likely to turn to the local water utility or department (30%), City or County Government (23%), Water District or River Authority (13%), or State Government (10%). The full range of preferred information sources is given in Table 5.3.

	%
Local Water Utility or Department	30
City or County Government	23
Water District or River Authority	13
State Government	10
Department Newspapers	6
Community/Environmental Groups	5
Federal Government	4
Television	3
Radio	1
Other	24
Don't Know	17
N =	500
* %'s total to more than 100 since respondents were encouraged to give more than one response.	

As Figure 5.3 shows, only 7% of residents reported they belonged to a group or organization who regularly provides them with information about water issues.

Figure 5.3: Do You Receive Water Information From Any Groups?

Trans-Texas Water Survey (N=500)



Local Meetings About Water Issues

Newspapers (59%) and television (47%) were voted the best ways to announce local meetings about water issues, followed by radio (24%) and mail (23%). Table 5.4 shows the full range of responses.

Table 5.4: Best Way To Announce A Local Meeting About Water Issues*	
	%
Newspaper Stories/Announcements/Ads	59
Television	47
Radio Stories/Announcements/Ads	24
Through The Mail	23
Radio Talk Show	7
With Water or Utility Bill	3
Other	21
Don't Know	3
N =	500
* %'s total to more than 100 since respondents were encouraged to give more than one response.	

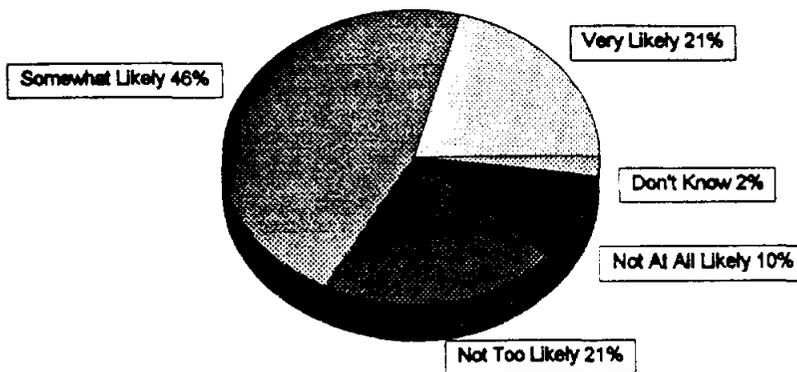
Cross-tabulations of this data reveal that:

- Urban dwellers were far more likely than rural dwellers to say that television is the best way to announce local meetings (58% to 17%).
- Anglo residents and those over 35 years old were more likely to cite newspapers as the most effective way to publicize such meetings.

As Figure 5.4 shows, about a fifth of residents (21%) said they would be *very likely* to attend a local meeting about water issues facing their area, and another 46% said they would be *somewhat likely* (46%) to do so. About a third (31%) said they would be unlikely to attend such a meeting.

Figure 5.4: Attend A Water Issues Meeting?

Trans-Texas Water Survey (N=500)



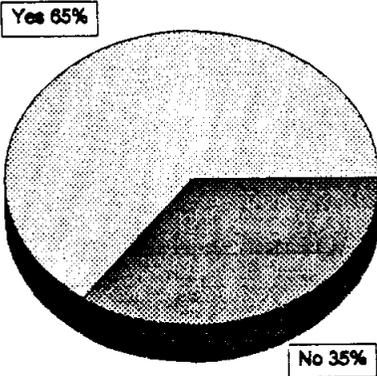
Further analysis of this data reveals that:

- Rural dwellers, Hispanic residents, people who feel very informed about the water issues facing their community, and residents aged 35 or over were more likely to say that they would attend this type of meeting.

As shown in Figure 5.5, 65% of survey respondents wanted their name to be added to a mailing list which would notify them of upcoming meetings and send them information about water planning issues in their area, while the remaining 35% of respondents were not interested in receiving such information.

Figure 5.5: Add Your Name To A Mailing List For Water Information?

Trans-Texas Water Survey (N=500)

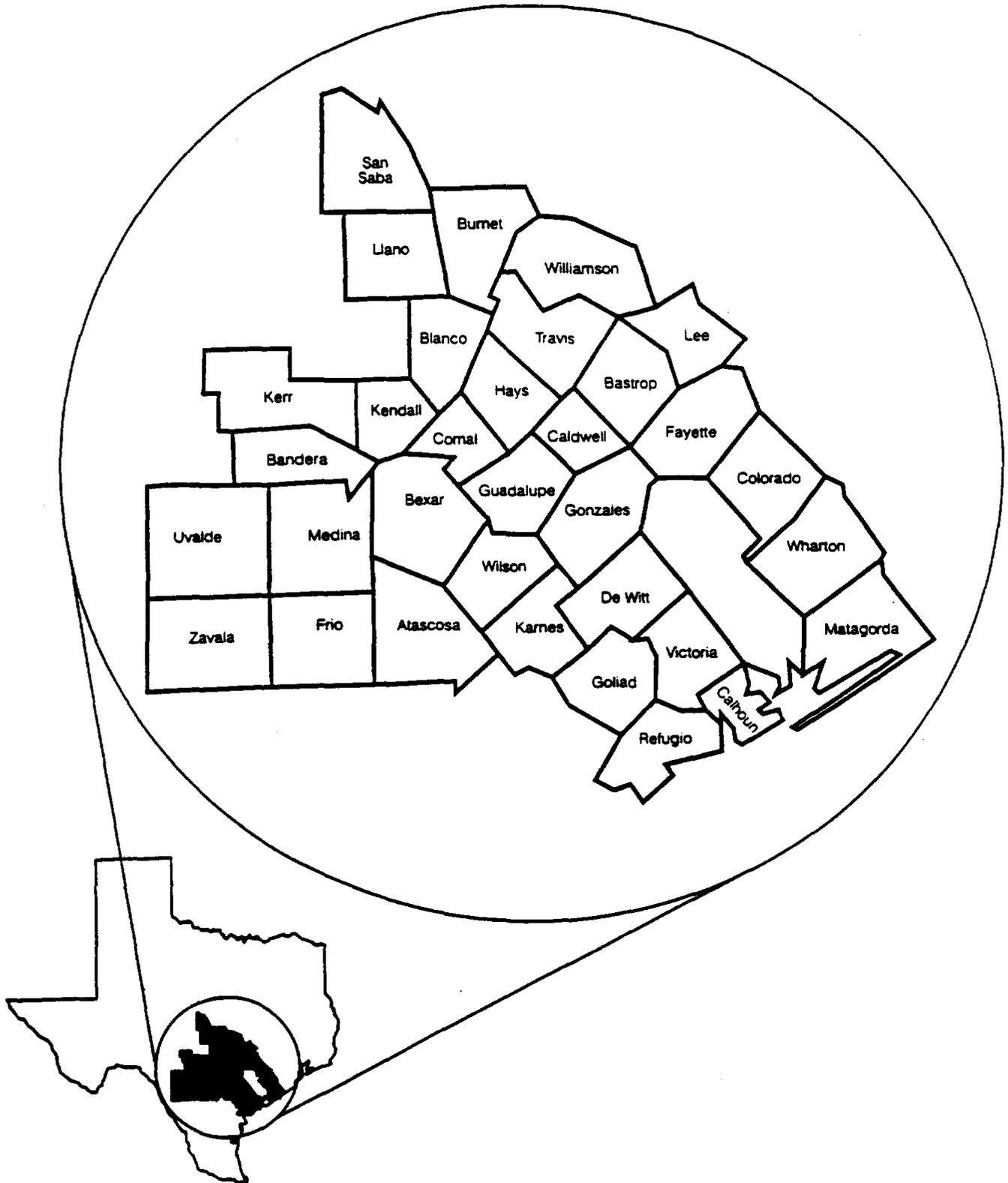


APPENDICES

- A: Map of Study Area**
- B: Questionnaire**
- C: Open-Ended Coding Schemes**

WEST-CENTRAL STUDY AREA

TRANS-TEXAS WATER PROGRAM



**FINAL
TRANS-TEXAS WATER ISSUES SURVEY
April 4, 1996**

Introduction: Hello, my name _____ and I'm calling from PROMARK Research, a public opinion firm here in Texas. We're calling to gather your opinions about water issues in your area. This survey will help local water utilities and water districts plan for future water needs. Your answers are completely confidential and the survey only takes a few minutes.

I. Background Information

1. First, we need a little background information. In what county do you live?
(Note: If respondent is **not** in one of the counties listed below, politely terminate.)

- 1 Atascosa
- 2 Bandera
- 3 Bastrop
- 4 Bexar
- 5 Blanco
- 6 Burnet
- 7 Caldwell
- 8 Calhoun
- 9 Colorado
- 10 Comal
- 11 De Witt
- 12 Fayette
- 13 Frio
- 14 Goliad
- 15 Gonzales
- 16 Guadalupe
- 17 Hays
- 18 Karnes
- 19 Kendall
- 20 Kerr
- 21 Lee
- 22 Llano
- 23 Matagorda
- 24 Medina
- 25 Refugio
- 26 San Saba
- 27 Travis
- 28 Uvalde
- 29 Victoria
- 30 Wharton
- 31 Williamson
- 32 Wilson
- 33 Zavala

1.a. And what is your zip code at your home? _____

2. And which category best describes your age? Is it (read responses)

- 1 Under 18 (close politely)
- 2 18-24
- 3 25-34
- 4 35-44
- 5 45-54
- 6 55-64
- 7 65+

3. If you had to describe your community, would you describe it as . . . (read first two responses only)

- 1 More urban or suburban
- 2 More rural
- 3 Other
- 9 Don't Know

4. About how long have you lived in the area where you live now? Would you say . . . (read responses except DK)

- 1 Less than 2 years
- 2 2-5 years
- 3 6-10 years
- 4 Over 10 years
- 9 Don't Know

5. Do you get your water from a . . . (read responses except DK)

- 1 Water company, city water utility, or water association (Go to Q5)
- 2 Your own private well (Skip to Q6)
- 8 Other (Go to Q5)
- 9 Don't Know (Skip to Q6)

6. Would you say the cost of your water is high, low, or just about right?

- 1 High
- 2 Low
- 3 Just about right
- 9 Don't Know

II. Availability of Water - Now I'd like to ask you about the supply of water in your area.

7. Have you experienced a water shortage or drought in your area in the last five years?

- 1 Yes
- 2 No
- 9 Don't Know

8. How concerned are you that your area will face major water supply problems within the next five years? Would you say . . . (read responses except DK)

- 1 Very Concerned
- 2 Somewhat Concerned
- 3 Not Too Concerned
- 4 Not At All Concerned
- 9 Don't Know (Skip to Q9)

9. Why do you give that rating? (Record verbatim response; probe to get full responses)

10. In your area, which segment of the population - residences, non-agricultural businesses, or agriculture - uses the most water? Would you say . . . (read responses except DK)

- 1 Residences use the most water
- 2 Non-agricultural businesses use the most water
- 3 Agriculture uses the most water
- 9 Don't Know

III. Water Quality - Now just a couple of questions about water quality.

11. How would you rate the quality of your drinking water? Would you say . . . (read responses except DK)

- 1 Excellent
- 2 Good
- 3 Fair
- 4 Poor
- 9 Don't Know

12. How concerned are you that your area will face major water quality problems over the next five years? Are you . . . (read responses except DK)

- 1 Very Concerned
- 2 Somewhat Concerned
- 3 Not Too Concerned
- 4 Not At All Concerned
- 9 Don't Know

13. If you had to choose, would you say you're "more concerned about water quality" or "more concerned about having enough water" in your area?

- 1 Water quality
- 2 Water quantity
- 3 Both equally
- 4 Neither
- 9 Don't Know

IV. Water Planning - Now I'd like your opinion on how best to plan future water supplies.

14. Various water supply options are being considered to assure that your area has enough water for the next 20 years. I'll read you a list of these water supply options. **(Note: Rotate List)**
 First, please tell me if you are familiar with that option, and if you are, if you feel positive, negative, or neutral about it. The first one is (read option) . . . Are you familiar with that water supply option?

	<u>Familiar With?</u>		<u>Do you feel Positive, Negative, Neutral</u>			
a. Reuse of water	1 Yes	2 No/Dk	1 Positive	2 Negative	3 Neutral	9 DK
b. Water conservation	1 Yes	2 No/DK	1 Positive	2 Negative	3 Neutral	9 DK
c. More water storage & reservoirs including dams and lakes	1 Yes	2 No/DK	1 Positive	2 Negative	3 Neutral	9 DK
d. Recharge of aquifers	1 Yes	2 No/DK	1 Positive	2 Negative	3 Neutral	9 DK
e. Transferring water from one area of Texas to another	1 Yes	2 No/DK	1 Positive	2 Negative	3 Neutral	9 DK

15. What do you think is the single most important thing to do to make sure there is enough water in your area over the next 20 years? (Record verbatim responses; probe fully)
-

16. Now, please tell me to what extent you agree with each of the following statements. The first one is . . .

- a. The cities in your region are trying to do a good job of managing their water resources. Do you . . .
 (read responses except DK)

- 1 Agree strongly
- 2 Agree somewhat
- 3 Disagree somewhat
- 4 Disagree strongly
- 9 Don't know

- b. The rural areas in your region are trying to do a good job of managing their water resources. Do you . . .
 . . . (read responses except DK)

- 1 Agree strongly
- 2 Agree somewhat
- 3 Disagree somewhat
- 4 Disagree strongly
- 9 Don't know

- c. If short and long term needs were protected, areas of Texas with water surpluses should be willing to share their water with areas of Texas that need water, at least temporarily. Do you . . .

- 1 Agree strongly
- 2 Agree somewhat
- 3 Disagree somewhat
- 4 Disagree strongly
- 9 Don't know

d. Elected and water utility officials should make sure that the public is involved in planning for their water futures. Do you. . .

- 1 Agree strongly
- 2 Agree somewhat
- 3 Disagree somewhat
- 4 Disagree strongly
- 9 Don't know

e. Water planning in Texas should be done on a regional or statewide basis, rather than on a local basis. Do you. . .

- 1 Agree strongly
- 2 Agree somewhat
- 3 Disagree somewhat
- 4 Disagree strongly
- 9 Don't know

17. Who do you trust to make decisions about meeting future water needs in your area? Please be as specific as you can. (Record verbatim responses; probe fully).

18. Many factors are weighed in water planning, including keeping the cost of water low, keeping the water quality high, and making sure the water supply is reliable. Which of these three factors do you think is most important, which ranks second, and which ranks third? (Then, after the ranking, ask) Are there any other factors you think are more important than the ones you've just ranked? (Record under "Other")

Rank

___ Keeping the cost of water low

___ Keeping the quality of water high

___ Making sure the supply is reliable

___ Other (specify) _____

19. The environment also can play a role in water decisions. In general, how important should environmental protection be in deciding which water supply options are best? Would you say (read responses except DK) . . .

- 1 Very Important
- 2 Somewhat Important
- 3 Not Too Important
- 4 Not At All Important
- 9 Don't Know (Skip to Q21)

20. Why do you give that rating (Record verbatim responses; probe fully)

V. Now we'd like to know more about how to best reach you with information about water issues and topics.

21. In general, how informed do you feel about water issues facing your community? Would you say . . .
(read all responses except DK)

- 1 Very Informed
- 2 Somewhat Informed
- 3 Not Too Informed
- 4 Not At All Informed
- 9 Don't Know

22. What water issues or topics would you really like to know more about? (record all verbatim responses;probe fully)

23. Who would you go to if you wanted reliable information about water issues and topics? (Do not read responses; circle all that are given)

- 1 City or county government
- 2 Community groups
- 3 Environmental groups
- 4 Federal government
- 5 Local water utility or water department
- 6 Newspapers
- 7 Political groups
- 8 Radio
- 9 State government
- 10 Television
- 11 Water district or river authority
- 12 Other (specify) _____
- 99 Don't Know

24. Do you belong to any groups or organizations which regularly provide you with information about water issues?

- 1 Yes --- Could you tell me which group(s)? _____
- 2 No
- 9 Don't know

25. What would be the best way to announce a local meeting about water issues so that you would be sure to know about it? (do not read; circle all responses given)

- 1 With my water or utility bill (if applicable)
- 2 Through the mail
- 3 Newspaper stories or announcements/ads
- 4 Radio stories or announcements/ads
- 5 Radio talk show
- 6 Television
- 7 Displays at nurseries and garden stores
- 8 Other (specify) _____
- 99 Don't Know

26. How likely would you be to attend a local meeting about water issues facing your area? Would you say (read responses except DK)

- 1 Very Likely
- 2 Somewhat Likely
- 3 Not Too Likely
- 4 Not At All Likely
- 9 Don't Know

VI. Final questions - Finally, we have a few questions which will help us better interpret the information you've given us.

27. How many people, including yourself, live in your household? _____

28. Do you own or rent your home?

- 1 Own
- 2 Rent

29. How would you describe your racial or ethnic identity? (Do not read unless R asks for categories)

- 1 White/Caucasian
- 2 Hispanic
- 3 African American/Black
- 4 Asian/Pacific Islander
- 5 American Indian
- 8 Other
- 9 Don't Know/No Answer

30. Which of the following categories best describes your household income, before taxes, for 1995? Would you say (read responses)

- 1 Less than \$15,000
- 2 \$15,000 to \$24,999
- 3 \$25,000 to \$49,999
- 4 \$50,000 to \$74,999
- 5 \$75,000 to \$99,999
- 6 \$100,000 or more

Thank you for all your help. As part of this survey, we are compiling lists of people who would like to hear more about water planning in their area. This would mean we would notify you of upcoming meetings and send you information about water issues. Would you be interested in being on this mailing list?

1 Yes (Record name, address below)

Name _____

Address _____ ZIP _____

2 No

Interviewer: Record Gender of respondent:

- 1 Male
- 2 Female

Coding Schemes - Trans-Texas Water Issues Survey

Q9 Concern that your area will face shortage - why?

Drought / Low rainfall

- 01 Not enough rain
- 02 Drought (current or past)

Growth

- 03 Population increase
- 04 Larger cities taking more water; Distribution of water not right

Dwindling resources/poor conservation

- 06 Edwards Aquifer - only source; level dropping
- 07 No alternative source; No viable solutions
- 08 Don't have enough water; Rationing
- 09 Poor conservation methods; Too much waste

Water quality

- 10 Pollution; No clean water in future

Media coverage

- 11 Hear it on the news or from local officials

Insufficient information

- 12 Lack of information; News/local officials
- 13 Not sure government or news is telling truth

Water is important

- 14 Water is important
- 15 Live on ranch where water is important
- 16 Concern for future & my kids future

Cost

- 17 Water prices are increasing

Adequate Water Supply

- 18 I conserve; I don't waste water; I don't use much water
- 19 Live close to river or water source
- 20 Get water from my own well
- 21 Can get water from other sources (e.g., Guadalupe)
- 22 Get sufficient rain; Have adequate water
- 23 Live on Colorado River; Never had to ration
- 24 Never had a problem before; No major water shortages

Good Water Management

- 25 Live in small town; Used to planning for water
- 26 Good city management of water
- 27 Local officials say we have plenty; Have good supply for future

Not relevant to me

- 28 Not too concerned; Don't think about it

- 97 Other
- 98 DK
- 99 No response

Coding Schemes - Trans-Texas Water Issues Survey

Q15 Most important thing to ensure sufficient water over next 20 years

Conserve Water

- 01 Conserve water - general
- 02 Conserve water - Landscape watering/household or residential use
- 03 Conserve water - Educate people how to
- 04 Conserve water - Low flow appliances
- 05 Conserve water - Businesses, control, monitor

Create Alternate Supplies

- 08 Alternate water supply - general
- 09 Alternate water supply - build more dams, reservoirs, lakes, water towers
- 10 Build Apple White
- 11 Alternate water supply - dig more wells
- 12 Recycle/reuse water
- 13 Reclaim Water

Planning

- 14 Plan for future - good water management
- 15 Control; Planned growth
- 16 Control water quality; ordinances
- 17 Watch aquifer levels; water supply

18 Depends on weather

19 Nothing; No need to worry

97 Other

98 DK

99 No response

Coding Schemes - Trans-Texas Water Issues Survey

Q17 Who do you trust to make decisions?

Elected Local/State Officials

- 01 Local officials; city council; mayor
- 02 County government
- 03 Regional government
- 04 State officials; governor
- 05 Elected officials (not specific)

Water Officials (utility/water districts/river authorities)

- 06 City Water Board; Local utility company
- 07 Current water decisionmakers (not specific)
- 08 Lower Colorado River Authority
- 09 Guadalupe Blanco River Authority

Citizens

- 10 Residents
- 11 Local citizens; watchdogs; citizen action group

Experts

- 12 Experts in the field
- 13 Environmentalists
- 14 Academia; teachers

- 15 Nobody

- 97 Other
- 98 DK
- 99 No response

Coding Schemes - Trans-Texas Water Issues Survey

Q 20 Why environment important? (no changes)

- 01 Have water available for everyone**
- 02 Protect what we have for the future**
- 03 Environment plays a big part in water**
- 04 Water quality**
- 05 It's important**

- 97 Other**
- 98 DK99 NA**

Coding Schemes - Trans-Texas Water Issues Survey

Q 22 Information on what water issues?

Supply Alternatives

- 01 Alternate water sources, general
- 02 Conservation
- 03 Recycling

Distribution of Water

- 04 Distribution of water, general
- 05 Transferring water within the state

Water Management

- 06 Water management, general
- 07 Edwards Aquifer
- 08 Quantity of water
- 09 Quality of water

10 All available information

- 97 Other
- 98 DK
- 99 NA

Coding Schemes - Trans-Texas Water Issues Survey

Q23 Who would you go to for information?

- 01** Library
- 02** Internet
- 03** River authorities (Lower Colorado River Authority etc)
- 04** Conservation Society (?)
- 05** EPA
- 06** TNRCC

97 Other

98 DK

99 NA