

**Analysis and Findings of  
The Gallup Organization's  
Drinking Water Customer Satisfaction Survey**

August 6, 2003

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## Introduction

The Environmental Protection Agency is responsible for assuring the safety of the nation's drinking water. The Agency has set health-based standards for over 80 contaminants. These contaminants are regulated in public drinking water systems. Over 267<sup>1</sup> million Americans receive their drinking water from public water systems subject to EPA regulations. EPA and water systems must provide customers with relevant information about the safety of their drinking water empowering citizens to make informed choices. Focus groups, public comment periods, and surveys are some of the many tools the Agency uses to understand public attitudes, trends, and assess consumer awareness of drinking water issues.

In 1998, a survey sponsored by the National Environmental Education and Training Foundation (NEETF) was conducted by Roper Starch Worldwide. The survey looked at consumer awareness of environmental issues. The Roper survey provided EPA with a benchmark for understanding the public's awareness and interest in drinking water issues.

EPA determined the timing was appropriate to conduct a follow up to the Roper survey to gauge public awareness of general drinking water issues. Water systems completed their fourth round of consumer confidence reports and the deadline for completion of state source water assessments is rapidly approaching. EPA concluded it would be opportune to assess public perception of these reports, and document trends and attitudes to help determine how to provide information to the public more effectively.

EPA commissioned the Gallup Organization to conduct a nationwide telephone survey of 1,000 households during August and September of 2002<sup>2</sup>. The survey assessed: 1.) General drinking water consumer knowledge, 2.) Water use behavior, 3.) Public confidence with information sources, and 4.) Value placed on EPA's right-to-know efforts. Findings from the survey demonstrated that Americans recognize the importance of receiving information on aspects of their drinking water and value being informed.

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<sup>1</sup> Based on information from the Safe Drinking Water Information System (SDWIS) database for the fourth quarter of 2002.

<sup>2</sup> The margin of error due to sampling is about plus or minus 3% at 95% confidence level with 1,000 interviews at the national level for all data.

## General Drinking Water Consumer Knowledge

### Findings:

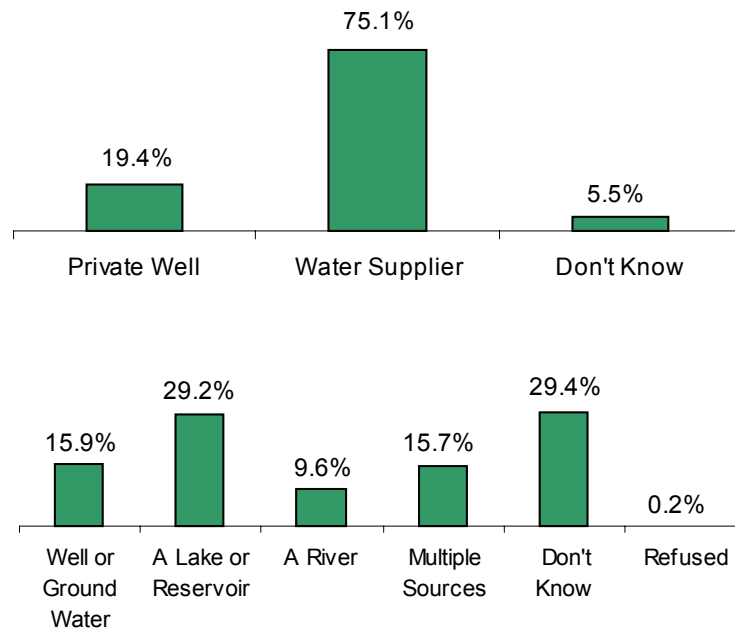
- Gallup results reveal the American public has a basic understanding of their drinking water supply and source. The public understands the connection between the source of their water and their tap water, and the relationship of water suppliers to their tap water.

### Gallup Survey Results:

In order to measure consumer awareness of general drinking water issues, Gallup asked respondents if they could identify whether their household tap water came from a community water system or a private well.

- 94% (which equates to 264M individuals Nationally) were able to identify whether they were on a community water system (CWS) or Private Well.
  - 19% (53M Nationally) stated they owned private wells<sup>3</sup>
  - 75% (210M Nationally) stated they obtained water from water suppliers.
- Of those who knew they were on a CWS, 74.5% were able to name their water system provider.
  - 71% of those on CWSs, were able to identify the source (i.e., lake, reservoir, aquifer, etc.).

### Americans Identify Where Their Drinking Water Supply Comes From



<sup>3</sup> EPA sources estimate that approximately 15% of Americans are on private wells.

**Data:**

Knowledge of water supply and source has remained fairly constant over the past four years. The Gallup results were similar to results obtained in the 1998 Roper Survey. Seven out of 10 Americans receiving their drinking water from service providers were able to identify their source (i.e., a lake, reservoir, aquifer, river, etc.) and name their water service provider.

With the passage of the 1996 Safe Drinking Water Act (SDWA) Amendments, provisions were added for consumer right-to-know efforts. The Consumer Confidence Reports (CCRs) are the centerpiece of these provisions. One of the many goals of these reports was to increase an individual's understanding of where their drinking water source comes from. These reports were designed as a way to encourage dialogue between consumers and drinking water utilities with the hope of getting consumers more involved with decisions that affect their health.

Most Americans get their drinking water from large municipal water systems that rely on surface water sources such as rivers, lakes, and reservoirs, or groundwater sources such as wells and aquifers. The Agency was pleased to confirm that Americans are knowledgeable about where their water comes from. Ninety-four percent were able to identify whether they were on a CWS or a private well. This represents an increase from Roper Survey results (74%). Seven out of 10 identified their source, which matched the Roper results from 1998. This trend indicates Americans are aware about general drinking water issues.

**Next Steps:**

Right-to-know provisions are based on the belief that accountability to the public is vital to address and prevent threats to drinking water. These provisions are designed to encourage consumers to become more involved.

- EPA will continue talking with stakeholders to evaluate what can be done to make CCRs more visible and improve public knowledge of drinking water sources.

## Water Use Behavior and Trends

### Findings:

- The United States enjoys one of the cleanest drinking water supplies in the world. Gallup results indicate that a significant number of Americans drink tap water. However, a significant percentage have added some type of treatment or opted to purchase bottled water citing taste, odor, or health concerns as reasons for doing so.

### Gallup Survey Results:

Survey results show that:

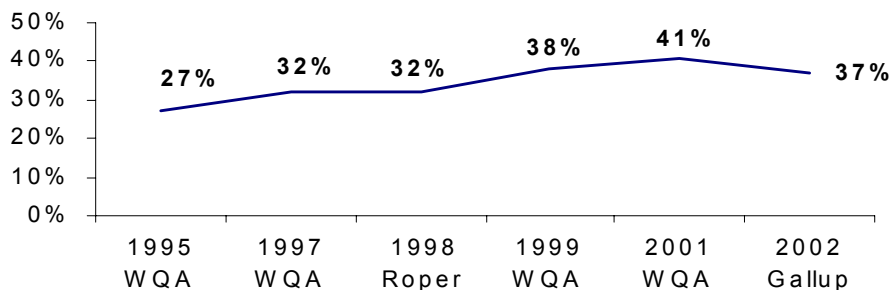
- 82% (which equates to 231M Nationally) drink tap water.
- 56% \*(157M) drink water straight from the tap.
- 37% \*(104M) reported using a filtering or treatment device.
- 74% (208M) purchase and drink bottled water.
- 20% \*(56M) drink bottled water exclusively

(\* Please note: Percentages total 113%. The Gallup survey asked specific questions regarding water use. Percentages may overlap. For example people who drink tap water at home, may buy bottled water when they are out, or they may filter tap water at the office but not at home. The percentages in this case overlap.)

### Data:

Many Americans are opting to treat their tap water. Gallup's result of 37% was slightly lower than the 41% obtained in a 2001 National Consumer Water Quality Survey conducted by the Water Quality Association (WQA) as reported in the AWWA Journal, August 2002. In 1998, Roper Survey results revealed that 32% of respondents use filtering or treatment devices. Differences may be accounted for in sampling, methodology, margin of error, question wording, etc. Regardless, there has been an increase in the use of water filtering treatment devices in the past few years (a reported 38% in 1999, 32% in 1997, and 27% in 1995 (The 1999 National Consumer Water Quality Survey conducted by the Water Quality Association)).

**Percent of Americans Who Use Drinking Water Treatment or Filtering Devices**



When Gallup asked respondents why they boiled, filtered, treated tap water, or purchased bottled water, the most frequent responses cited were health related issues (33.3%), followed by taste (27.7%) and convenience (17.5%). In the 1998 Roper Survey, the top reasons cited for drinking bottled water or boiling, filtering or in some way treating tap water was due to taste, smell, or color (69%), followed second, by stories in the news about pollution (49%), and third, for convenience (41%).<sup>4</sup>

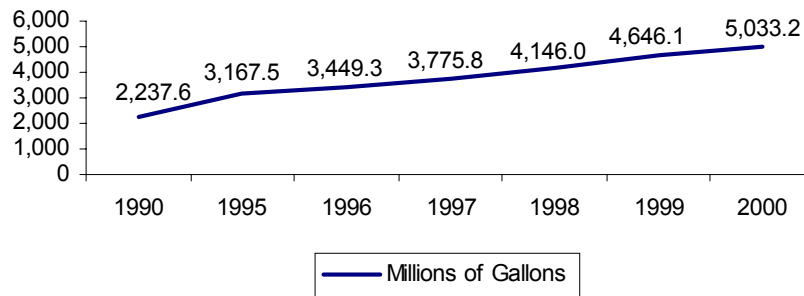
Gallup demographic results indicated younger age groups (e.g., those in their 30's and 40's) and those with higher education levels (e.g., college or more) were more likely to purchase filtering/treatment devices and bottled water.

*“American consumers spent more than \$1 billion on all manner of home water filtering gear last year, according to Frost and Sullivan, a market research firm. One third of the water they drank was bottled.”*

*-Consumer Reports, January 2003*

Bottled water use continues to rise. The increased use of bottled water may be a result of a consumer shift away from soft drinks and other beverages. While bottled water sales have been increasing over the past several years, soft drink sales have remained steady, and beer consumption has been dipping (It's Water Torture, New York Post, May 2003). Bottled water can now be found in vending machines alongside soft drinks, in grocery stores, and at restaurants. Trends show an average of 10% increase in bottled water sales each year from 1995 to 2000. National marketing research from 2002 showed that water bottlers' sales grew more than 13% in the last five years (On Tap Magazine, Spring 2003).

**U.S. Bottled Water Market Sales  
1990-2000**



Source: Beverage Marketing Corporation of New York

<sup>4</sup> Respondents in the 1998 Roper Survey were allowed to selected more than one response.

The average cost of bottled water is \$.89 per gallon, \$2.25 if delivered (Consumer Reports, January 2003). The average cost for tap water is less than a penny a gallon, indicating that cost for what is perceived as better quality water is not a factor in consumer choices.

**Next Steps:**

With only slightly more than half of the respondents (56%) indicating they drink water straight from the tap, and 1 in 5 choosing to use bottled water exclusively, EPA and its partners must work together to increase consumer's trust in public water supplies. Meeting customer needs, exceeding customer expectations, and providing accurate and timely information on drinking water quality will help develop and maintain public confidence in tap water. Americans have one of the cleanest drinking water supplies in the world. EPA's database indicates 94% of Americans are drinking water that meets federal standards. Therefore, a number of Americans may be taking unnecessary and costly precautions. An increase in trust of water quality may result in increased public involvement in decision making, and stronger community support. In addition, a well informed public is better able to make choices that are cost effective and offer the level of health protection customers feel is important for them. To increase public trust, it is critical that water systems, states, and federal entities utilize all outreach mechanisms available to continue to promote dialogue, raise awareness, and promote confidence.

- EPA recognizes this survey should be conducted frequently to document trends and consumer perception. The Office of Water will propose to conduct a similar survey approximately once every three years, to better understand customers needs and concerns.
- EPA will share this information with stakeholders and establish dialogue to determine how to build trust, increase awareness and provide the kind of information consumers want in a timely manner.



## Value of Consumer Confidence Reports

### **Findings:**

- Results indicate customers are generally satisfied with the information they are receiving from their water companies and their local or state environmental offices.
- CCRs are effectively empowering and providing citizens with information.
- Only 7% of those who read their CCRs changed their tap water usage behavior after reading the report, 93% did not, indicating that consumers were not alarmed by the report.

### **Gallup Survey Results:**

- Nationally, 29% (which equates to 81M Nationally) are reading their CCRs.
- 34% (96M) are aware of the CCR requirement.
- 37% (104M) remember seeing their CCR.
  - 78% (81M) of those who remember receiving a CCR, read the report.
  - Over 80% (64M) felt the information was adequate, educational, and useful.
  - 71% (74M satisfied) overall satisfaction rating.

### **Data:**

The centerpiece of the Safe Drinking Water Act's "right-to-know" provisions is the Consumer Confidence Report rule. Annual drinking water quality reports or CCRs were based on the premise that consumers have a right to know what is found in their drinking water. Reports were intended to promote dialogue between consumers and water systems, raise consumer awareness, promote confidence in drinking water, and help customers make informed decisions. Reports are intended to be clear, easy to understand, and provide a starting point for customers to learn more about their water.

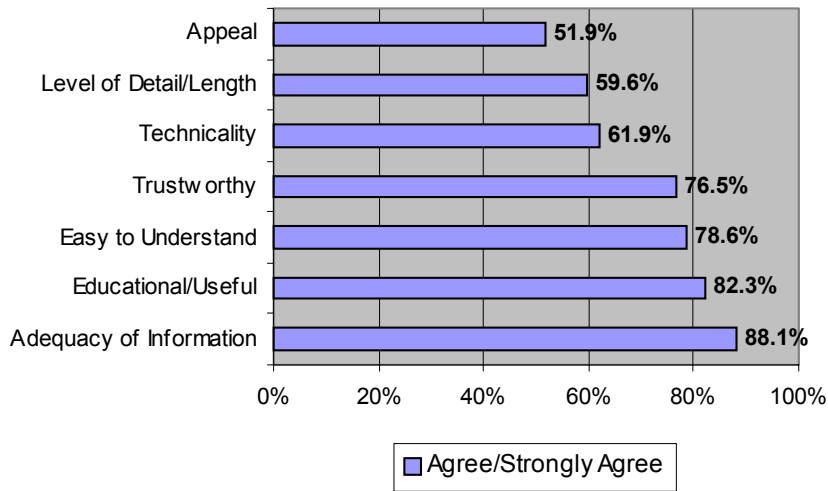
Gallup asked a series of questions to determine if consumer right-to-know efforts are reaching the intended audience, assess attitudes and perceptions on information included in CCRs, and evaluate if format and content were meeting customer expectations and distribution preferences. Results suggest one of three respondents is aware of the CCR requirement. Thirty-seven percent remembered receiving the report in the mail or seeing it in the newspaper, and 78% of those who recall receiving the report took the time to read it.

Gallup's results are higher than data obtained from other surveys and research studies. The Water Quality Association reported in the 2001 National Consumer Water Quality Survey that less than 1 in 5 (17%) recalled receiving and reading CCRs. The length of time between when CCRs were first received and when surveys were administered (approximately 1-2 months for Gallup and 7 months for WQA) may account for the difference. Sample size, survey methodology, and margin of error may also account for some differences. Further, a study conducted for the California Water Awareness Campaign (CWAC) in October and November of 2001, indicated that exposure to messages of water quality or conservation was low at 26% .

Gallup asked those respondents who had read their CCR a series of questions to gauge customer satisfaction. The majority indicated they were satisfied with various aspects of the report in terms of adequacy (88%), usefulness (82%), ease of understanding (79%), trustworthiness (77%), technical information (62%), and length (60%). Ninety-three percent did not change their water use after reading the information in the report.

Demographics from Gallup's survey indicate individuals living in homes and mobile homes are more likely to receive CCRs, while those living in apartments, townhomes, or condos were half as likely to see reports.

### Satisfaction with CCR\*



\*Note: The graph is based on the 232 respondents who remembered receiving CCR in the mail or newspaper, and took the time to read it.

The format and content appear to meet respondent needs and expectations. Overall, the majority of respondents who read the report were satisfied with the report. Seventy-one percent responded they were confident or very confident about the quality and safety of their tap water. Nine out of 10 indicated they wanted to continue receiving some type of drinking water information.

Gallup results suggest the reason for CCRs not reaching a larger audience may not be due to a lack of interest on the part of the public. Rather, a lack of publicizing efforts explaining the requirements of the regulation, as well as the availability of such documents may account for the low number of respondents who recalled seeing the report.

**Next Steps:**

- EPA plans to share this information with water associations, environmental groups, States, water systems, and other stakeholders to encourage discussion on what can be done to make the requirements and CCRs themselves more visible.
- The Agency is planning to highlight success stories from water systems who view CCRs as a successful public outreach tool.

**WASHINGTON SUBURBAN SANITARY COMMISSION**

# WATER QUALITY REPORT-2002

## Where Does My Water Come From?

Two rivers, the Patuxent and Potomac, are the sources of all the water we process. The raw water treated at the Patuxent Water Filtration Plant (WFP) is held in two reservoirs – Triadelphia and Rocky Gorge – and is pumped to the plant. The Potomac WFP takes its raw water directly from the Potomac River. The map shows the approximate service area of both plants. As indicated, some areas we serve receive blended water, processed at both the Patuxent and Potomac WFPs.

Dear Valued Customer,

We are pleased to share our 2002 Water Quality Report containing important information about the source of your water, how it is cleaned, and answers to frequently asked questions. We are very proud to have once again provided you with water that met or did better than U.S. Environmental Protection Agency (USEPA) standards for safety. As a matter of fact, we've never violated a drinking water quality standard in our 84-year history.

In addition to safeguarding your water and the environment, we are working more efficiently, resulting in the fifth fiscal year in a row without a rate increase and AAA bond ratings, all while embarking on unprecedented infrastructure upgrades.

We hope you find this report to be useful. Please contact us with any questions or comments. Thank you for the opportunity to supply you with clean, reliable water.

*John R. Griffin*  
John R. Griffin  
General Manager

### Is My Water Hard Or Soft?

Potomac water tends to be hard (120-130 milligrams per liter)  
Patuxent water is soft (60-65 milligrams per liter)  
(Hard water contains more dissolved calcium and magnesium and less sodium.)

Engineers at WSSC's Patuxent plant monitoring water quality.

This report contains very important information about your drinking water. Please translate it, or speak with someone who understands it.

El informe contiene información importante sobre la calidad del agua en su comunidad. Tradúzcalo o hable con alguien que lo entienda bien.

這份報告中有非常重要的信息。請將其翻譯成您的母語，或與能理解的人溝通。

이 보고서는 귀하의 거주지는 지역의 수질에 관한 중요한 정보가 들어 있습니다. 이것을 번역하거나 충분한 이해하시는 친구와 상의하십시오.

Example of a Consumer Confidence Report<sup>5</sup>

<sup>5</sup> Used with the permission of the Washington Suburban Sanitary Commission.

## **Public Confidence and Consumer Satisfaction**

### **Findings:**

- The public wants information.
- Results indicate customers are satisfied with the information they are receiving from their water companies, environmental organizations, and local and state environmental offices.
- The majority of Americans are confident about the quality and safety of their tap water.

### **Gallup Survey Results:**

- 71% (which equates to 200M Nationally) responded they were confident or very confident about the quality and safety of their tap water.
- 94% (264M) agreed receiving information on possible contaminants, health effects, and protection was important.
- 88% (247M) stated that additional information about taste, smell, and color of their tap water is important.
- Overall, of those who read their CCR, 71% were satisfied with the information they received.

### **Data:**

Findings demonstrate that Americans recognize the importance of receiving information on all aspects of drinking water. Nine out of 10 want the type of information currently required in CCRs. The format and content of CCRs appear to meet customer expectations. Gallup concluded the majority of respondents who reported receiving information were satisfied with the characteristics of the documents, recording a 71% overall customer satisfaction rating.

### **Next Steps:**

Public right-to-know provisions are based on the belief that accountability to the public and public support are vital to not only addressing threats to drinking water quality, but also preventing future threats. While EPA is excited that the majority of respondents are satisfied with the information they are receiving, the Agency hopes to continue to improve this satisfaction rating.

- EPA has developed web-based software that will simplify creating consumer confidence reports that meet all federal requirements while providing important information to consumers in plain English.
- Recent changes to the public notification requirements give consumers more accurate and timely information on violations.
- The Office of Ground Water and Drinking Water created a poster highlighting water systems using innovative communication techniques.<sup>6</sup>
- EPA is meeting with stakeholders to identify ways to increase awareness of the reports.

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<sup>6</sup> To view and order the poster, go to [http://www.epa.gov/safewater/publicoutreach/posters\\_vids.html](http://www.epa.gov/safewater/publicoutreach/posters_vids.html)

## **Public Confidence with Information Sources**

### **Findings:**

- Findings demonstrate the public values receiving information on their drinking water.
- Respondents expressed having the most confidence in doctors and health care professionals, followed by state environmental agencies, environmental groups, and water companies.

### **Gallup Survey Results:**

- 71% (200M Nationally) are confident or very confident about the quality and safety of their tap water.
- For respondents that remembered seeing tap water information<sup>7</sup>, the majority receive information from:
  - the media--65.8%
  - water company—38.5%
  - environmental groups—34.8
- However, for all respondents, they trust:
  - Doctor/healthcare professional—79.2%
  - State environmental agency—73.2%
  - environmental/public interest group—66.2%
  - water company 64.3%

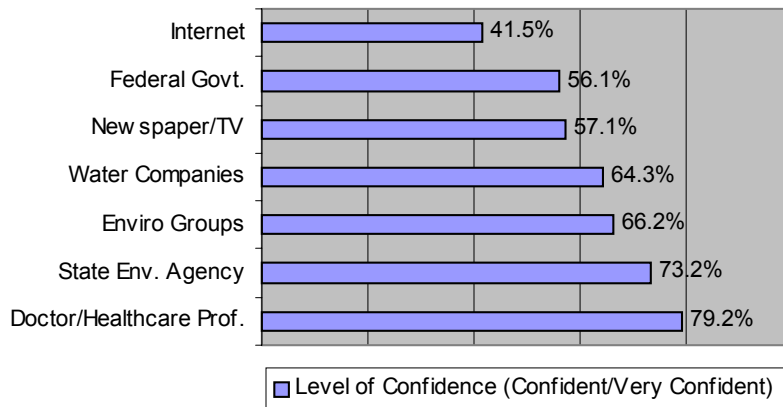
### **Data:**

Respondents indicate they prefer receiving information from individuals they trust. Respondents expressed having the most confidence in doctors and health care professionals, followed by state environmental agencies, environmental groups, and water companies respectively. The Gallup results indicate that the public has a slightly higher trust in State government and water companies than results from the original 1998 Roper Survey indicate (56% and 58% respectively). The media and Internet were rated as less credible sources, however, most individuals cited receiving the majority of information through the media. It is possible that the most cost effective and credible sources have yet to be tapped.

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<sup>7</sup> Percentages are for a subset of all respondents, 140 responses total.

## Confidence With Information Sources



### Next Steps:

EPA is piloting a video series entitled “Tap Into Prevention: Drinking Water Information for Health Care Providers” highlighting three case studies documenting water-borne concerns.<sup>8</sup> The series stresses that health care providers are trusted sources of information. Doctors, nurses, and other health care providers are on the front lines of recognizing, reporting, and preventing waterborne illnesses. The case studies are targeted to the medical community to increase their awareness of water-borne illnesses and/or contaminants that may affect public health.

- EPA will pilot the video series and share information regarding the trends observed and results obtained from Gallup with the Medical Community in 2003.
  - National Environmental Health Association—June 8-9, Reno
  - American College of Nurse Practitioners—June 28-July 1, Anaheim
  - American Public Health Association—November 15-19, San Francisco
  - National Association of City and County Health Officials/Association of State and Territorial Health Officials—September 9-12, Phoenix
- EPA also plans to have exhibits at conferences to exchange information and to express the importance of local leaders encouraging their medical community to become involved.
  - National Science Teacher Association, Association of State Drinking Water Administrators, American Water Works Association, National Rural Water Association Conferences.

<sup>8</sup> For more information, go to [http://www.epa.gov/safewater/publicoutreach/posters\\_vids.html](http://www.epa.gov/safewater/publicoutreach/posters_vids.html)

## Value Placed on Source Water Assessments

### **Findings:**

- Gallup concluded that the majority of respondents are currently unaware of state source water assessment (SWA) efforts.

### **Gallup Survey Results:**

- 4% (1.1M Nationally) indicated seeing their SWAs.
- 22% (6.2M) have received some type of information on potential pollution that may affect the safety or quality of their drinking water.
- 85% (238M) indicated they would be interested in receiving information on source water.

### **Data:**

Right-to-know efforts will be further enhanced with the addition of source water assessments. States are required under the 1996 SDWA amendments to assess the condition of every public water supply within the state, and provide an explanation of the source's boundaries and contamination threats. Currently, only 4% of those surveyed had seen their SWAs. However, states are not required to have these reports completed until the year's end. Gallup results indicate 85% of Americans are interested or willing to learn more about source water and take action towards source water protection. The vast majority (78%) reported they have not been exposed to any information regarding pollution that may affect the quality or safety of their drinking water source. The completion of the SWAs and inclusion of their availability in CCRs should improve these numbers in the future.

### **Next Steps:**

The Safe Drinking Water Act right-to-know provisions will be enhanced by the addition of source water assessments in 2003. The data collected by Gallup provides EPA with baseline numbers to assess trends once the requirement is fully implemented.

- EPA will reevaluate the data after the next survey to measure progress and evaluate implementation of the requirement.

## **Conclusion**

Four years ago, customers of public water systems did not receive information on the quality of their drinking water. With the passage of the right-to-know provisions of the Safe Drinking Water Act, consumers are now provided with this information on an annual basis. Currently, 1 in 3 Americans are aware that their water suppliers are required to send out annual drinking water quality reports (CCRs). One hundred and four million individuals remember receiving last year's report. Of those, 81 million read their report. Trends show the use of filtering or treatment devices, and bottled water sales are increasing. Consumers indicate that they want to receive information on all aspects of their drinking water and the information provided in CCRs seems to meet consumer needs. Increase trust in water quality and information provided about it, may lead to an increase in public involvement in decision making, community support for infrastructure improvements, an increase in public interaction, and consumers making more informed choices. In order to achieve these outcomes, it is critical that water systems, states, and federal entities utilize all outreach mechanisms available to continue to promote dialogue, raise awareness, and promote confidence.

## **Summary of Next Steps:**

- Consumer Confidence Report provisions of the SDWA are based on the belief that accountability to the public is vital to address and prevent threats to drinking water quality in the years ahead. EPA will continue talking with stakeholders to evaluate what can be done to make CCRs and SWAs more visible and improve public knowledge of the CCR and SWA requirements.
- EPA has developed web-based software that will simplify creating consumer confidence reports that meet all federal requirements while providing important information to consumers in plain English.
- The Agency will share this information with stakeholders and establish a dialogue to determine what the next steps should be.
- EPA recognizes this survey will need to be conducted on a frequent basis, and will propose to conduct this once every three years to document trends and assess public perceptions.