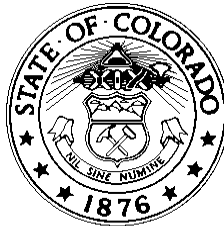


Colorado Department of Public Health and Environment  
Water Quality Control Division  
Attn: Consumer Confidence Report Rule Manager  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530  
Business Hours Contact: 303-692-3500  
Emergency After-Hours Contact: 1-877-518-5608  
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[http://www.cdphe.state.co.us/wq/Drinking\\_Water/Drinking\\_Water\\_Program\\_Home.htm](http://www.cdphe.state.co.us/wq/Drinking_Water/Drinking_Water_Program_Home.htm)

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# Consumer Confidence Reports Rule Guidance Handbook

## May 2005



Colorado Department  
of Public Health  
and Environment

*This Guidance Handbook is provided by the State of Colorado for Public Water Systems and addresses requirements for the Consumer Confidence Reports (CCR) Rule. The handbook offers guidance on how and when the Consumer Confidence Reports must be provided. It also provides a template for systems to use to prepare their CCR.*

*This document provides guidance to community public water systems. The document is not, however, the actual Environmental Protection Agency or State of Colorado regulation, nor is it a regulation itself. It does state the regulatory requirements and provides alternative methods of compliance with the regulation, in a format, designed to be easily read and understood by the water utility personnel. The actual regulation can be found in Article 9 of the Colorado Primary Drinking Water Regulations.*

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## Introduction

The Consumer Confidence Reports (CCR) Rule, 40 CFR 141 Subpart O, is the centerpiece of the right-to-know provisions in the 1996 Amendments to the *Safe Drinking Water Act*. It is important for your customers to know what is in their drinking water and where that water comes from. The CCRs are designed to assist your customers to make informed choices that affect their health and the health of their families. The CCR should encourage your customers to consider the challenges your system faces each day to deliver the best drinking water possible to them. The CCR provides the opportunity for your public water system, the State of Colorado and the Environmental Protection Agency (EPA) to work together to educate consumers about the sources and quality of their drinking water, and to increase their involvement in decisions about it. Educated consumers are more likely to help protect their drinking water sources and to understand the true costs of delivering drinking water.

### How to Contact the Water Quality Control Division

Colorado Department of Public Health and Environment  
Water Quality Control Division  
Attn: Consumer Confidence Report Specialist  
4300 Cherry Creek Drive South  
Denver, Colorado 80246-1530  
Business Hours Contact: 303-692-3500  
Emergency After-Hours Contact: 1-877-518-5608  
E-mail: [comments.wqcd@state.co.us](mailto:comments.wqcd@state.co.us)  
<http://www.cdphe.state.co.us/wq/wqhom.asp>

### What is a Consumer Confidence Report?

The CCR is a written document that is to be designed to be easily readable and understandable by your customers. The report contains:

1. Information about your source water and a summary of the state source water assessment
2. The name and phone number of a system contact person
3. Information telling your customers how they may participate in your system's public meetings
4. A table reporting the levels of detected contaminants with their maximum contaminant level (MCL), maximum contaminant level goal (MCLG), maximum residual level (MRDL), maximum residual level goal (MRDLG), action level (AL) or treatment technique (TT), common sources and the date the sample was taken
5. Details of any violations of the drinking water regulations
6. A list of any variances or exemptions issued by the State to the system
7. Required informational and warning language
8. Other educational material

Most reports will fit on a few sheets of paper.

The CCR summarizes information that the water system already collects to comply with existing regulations. It is not necessary to engage in any new monitoring just for the CCR.

## **Definition: Community Water System**

The *Colorado Primary Drinking Water Regulations* define a Community Water System as a public water system that serves at least 15 service connections used by year-round residents of the area served by the system; or a public water system that regularly serves at least 25 year-round residents.

## **Who Must Prepare a Consumer Confidence Report?**

Every **community** public water system must prepare and distribute a CCR to their customers and the Water Quality Control Division (WQCD/the division) each year. These systems typically include cities, towns, homeowners associations and trailer parks.

Public water systems (PWS) that sell water to another public water system must provide the buying system with monitoring data and other information that will enable the buyer to produce a CCR. Sellers are not responsible for creating the report for the buyer, nor are they responsible for providing data on contaminants that the buyer monitors (such as total coliform, lead/copper or trihalomethanes).

Regardless of who produces the report, the buying system is responsible for ensuring that its customers receive a report containing all required content. In some cases, the buying system will contract with the selling system to produce the report. There are several options in this relationship:

1. If you, as the buying system, do not conduct additional monitoring, simply send out the seller's CCR with a cover letter explaining the relationship between the two systems.
2. If the purchasing system conducts voluntary monitoring (such as, total coliform, trihalomethanes, or lead and copper tap monitoring results) either of the following options is acceptable.
  - Send the seller's CCR with a cover letter that includes a table containing your system's additional monitoring data and explaining the relationship between the two systems.
  - Write your CCR with two columns, 1) the seller's data and 2) your monitoring data, explaining the relationship between the two systems.

## **CCR Distribution and Record Keeping**

Once a year every community public water system must mail or otherwise home-deliver one copy of their CCR to each of their customers. Reports are based on calendar-year monitoring data. **A copy of the CCR must be delivered to each customer and to the Water Quality Control Division no later than July 1 of each year.** The report includes data collected between January and December of the previous year. For example, the 2005 CCR includes data collected from January 1, 2004 to December 31, 2004 and is due to your customers no later than July 1, 2005.

A community public water system that sells water to another community public water system, must deliver the required information to the buying system(s) no later than April 1 of the year the report is due, unless there is a separate written agreement between buyer and seller.

A new community water system must deliver its first report by July 1 of the year after its first full calendar year in operation, and annually thereafter.

Each system must make serious and “good faith” efforts to reach non-bill paying consumers, such as those who work in office buildings or live in apartment buildings. Systems that serve 100,000 or more people are required to post reports on the Internet.

A letter to WQCD certifying that the CCR was distributed to your customers, and that its information was correct and consistent with the compliance monitoring data previously submitted to the state is **REQUIRED** to be sent to the division each year by July 1 of each year. (See Appendix D)

A copy of the CCR and Certification must be retained in your records for **at least three (3) years**.

## **What Should the Report Look Like?**

**See Appendix E for an example of a CCR.**

Each system is encouraged to tailor the content of its CCR to local conditions. If an added picture or graph would help customers to understand the report, add it. If customers would benefit from an explanation of the need for new treatment facilities, tell them. As long as any additional educational information is consistent with, and not detracting from, the purpose of the report, it may be added.

The report may be called a “Consumer Confidence Report,” a “Water Quality Report” or another suitable title of your choice.

A few things to consider as you write your CCR:

1. Write short sentences.
2. Ensure type size is large enough to be easily read. Avoid acronyms, initials, and jargon. A report that contains too much information or is full of technical jargon can discourage consumers from learning about their drinking water.
3. Print the report on recycled paper
4. Print the report double sided
5. Have a friend or relative (teenager) review your draft; ask them if it makes sense.
6. Customers are most interested in a clear statement of whether or not their drinking water meets all EPA and state standards. **Be cautious using the word “safe.”** Water that meets standards and is safe for most people might not be safe for infants, chemotherapy patients, or other immuno-compromised persons.

# DIRECTIONS FOR COMPLETING YOUR CCR

## Item 1: Your Water System

Identify:

- The name of your system and the Colorado Public Water System Identification (PWSID) number
- The name and telephone number, including area code, of a person at the water system who can answer questions about the report
- A list of available opportunities for public participation in decisions that affect drinking water quality (e.g., time and place of regularly scheduled water board or city council meetings). If there are no regularly scheduled meetings, tell customers how to get information when meetings are announced
- The time-period the report covers, such as, “This report shows the results of our monitoring for the period of January 1 to December 31, 2004 unless otherwise noted.”
- **Systems that have a large number of non-English speaking residents** must include information in the appropriate language expressing the importance of the report or offering additional information in that language

EXAMPLE:

“Esta informacion es importante. Si no la pueden leer, necesitan que alguien se la pueda traducir.” (Spanish)

Translated to English, “*This is important information. If you cannot read it, you need to have someone translate it.*”

## Item 2: Describe Your Water Source

Describe your source water by:

- Identifying the **type** of source you have:
  - 1) Ground water
  - 2) Ground water under the direct influence of surface water
  - 3) Surface water
  - 4) A blend of more than one source
  - 5) Purchased water and the source
- The commonly used name(s) of your source water
- The locations of the system water source(s). Do not include specific locations such as street addresses or latitude/longitude of the system’s wells or water intakes, use generic descriptions instead.
  - ❖ “Our 150 foot deep, ground water wells draw from the Duncan Aquifer.”
  - ❖ “Our water is treated surface water from the River Jordan.”
  - ❖ “We purchase our water from the City of Waterville, which is treated surface water from Lake Duncan.”

Explaining various interconnections and back-up sources may be difficult, but it is important that your customers understand that the source of their water may vary during the year.

- If the state has completed your **source water assessment**, include a brief summary of the report and tell your customers how to get a copy.

If the source water assessment information is not available, include information about potential sources of contamination; such as the information contained in your sanitary survey. This is an opportunity to educate your customers about the impact of human activity on the quality of their source water. It may be an avenue to provide pollution prevention tips or information on local watershed cleanup activities.

### Item 3: Definitions

- Every CCR must include definitions of key terms that consumers will need to understand the reported contaminant data.
  1. **Maximum Contaminant Level (MCL):** The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
  2. **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water, below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
  3. **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
  4. **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
  5. **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
  6. **Action Level (AL):** The concentration of a contaminant, which if exceeded, triggers treatment or other requirements a water system must follow.
  7. **Variations or Exemptions:** Permission to not meet an MCL, MRDL, AL or a treatment technique granted by the state or EPA.
- Define all other terms or abbreviations that are used in the CCR. (See Appendix A for definitions)
- Define all concentration units that are used in the CCR. Such as, ppm, ppb, mg/L. (See Appendix A for definitions)

## Item 4: Table of Detected Contaminants

An essential part of the CCR is the table that shows the levels of detected contaminants from the most recent round of compliance sampling reported to the State. If you conduct more sampling than is reported to the state for compliance purposes, it must be reported in a separate table.

- For **official monitoring data for regulated and unregulated detected contaminants, include:**
  1. The date the sample was taken
  2. Was the level detected a violation? Yes or No
  3. The level detected, reported in the **same units as the MCL**. (See Appendix A for the CCR reporting units) (See Appendix C to determine the value(s) to be reported.)
  4. The MCLG for that contaminant expressed in the **same units as the MCL**.
  5. To make it easier for your consumers to compare the detected contaminant levels to the MCLs, the table must display **the MCL (MRDL, AL, and TT) for each contaminant as a number greater than 1.0**. The CCR Rule REQUIRES this. (See Appendix A & C for the correct reporting units and how to do the conversions.) For contaminants regulated by AL, TT or MRDL:
    - A contaminant regulated by an AL. Specify the applicable Action Level.
    - A contaminant regulated by a treatment technique. Place the letters “TT” in place of the MCL.
    - A contaminant regulated by a maximum residual disinfectant level. Specify the MRDL.
  6. A statement indicating the most likely source(s) of contamination for each contaminant detected. (See Appendix A)
- **Monitors less than once per year:** Use the most recent data. For example, if the system monitors once every three years for lindane and detects lindane in a sample, report the same detection level each year until a new compliance sample is taken.

The table must show the date the sample was taken and the report must contain a brief statement explaining that the data presented is from the most recent monitoring done in compliance with regulations. Such as:

*“The State permits monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of this data, though representative, is more than one year old.”*

You are not required to report monitoring results that are more than five years old.

- **Reporting Unofficial Monitoring Data:** You may report unofficial data in your CCR, but it must be in a separate, clearly labeled table from the official monitoring data. Unofficial data is data collected by the system, but not submitted to the state for compliance purposes.



- **Multiple Distribution Systems:** If the system supplies water through two or more distribution systems that use different raw water sources, and are not physically interconnected, it may be helpful to include in the table a separate column of detection data for each service area. Describe the area that each distribution system serves.

**The table is for detected contaminants. Do not report contaminants that were not tested for or not detected.** *If contaminants were tested for and not detected, but you would like to report the results in the CCR, add a separate table or list them in a paragraph following the table of detected contaminants.*

## Item 5: Additional Required Language

- **Reporting MCL, TT, MRDL Violations or Exceedance of an AL**

For any contaminant detected that is in violation of an MCL, TT, or MRDL or exceeds an AL or TT, clearly highlight the violation or exceeding the AL in the table (use bold type, a star, etc.). All violations of this type during the year must be reported in the CCR.

Select the appropriate explanation for the Test Results Chart. If you had an MCL, MRDL, AL or TT violation, you are **REQUIRED** to have a clear and readily understandable explanation of the violation. Include, but not within the table, an explanation of:

1. The length of time of the violation or exceeding the AL
2. The potential adverse health effects (see Appendix A for the required language)
3. The actions taken to address the violation or exceeding the AL

For Example: “The table shows that our system uncovered some problems this year. We are in violation of exceeding the action level for lead and copper. Copper is an essential nutrient, but some people who drink water that contains copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water that contains copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor. Infants and children who drink water that contains lead, in excess of the action level, could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. We are working with the state to implement a corrosion control plan within this calendar year.”

*If the system had no violations of this type for the reporting year, this section is not required.*

- **Violations of Other Drinking Water Regulations**

If the water system violated one of the following rules during the year covered by the report, the CCR must describe the violation(s). Just as it is necessary to explain the potential health effects of any MCL violation, a clear and readily understandable explanation of any other violation is required, with a description of potential adverse health effects (if any), and the steps the system has taken to correct the violation. All violations of these types during the year must be reported in the CCR.

1. **Treatment Techniques - Filtration and Disinfection  
(Surface Water Treatment Rule requirements)**

- For systems which have failed to install adequate filtration or disinfection equipment or processes, or have had a failure of such equipment or processes, which constitutes an MCL or treatment technique violation, the following language is **REQUIRED**:

“Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.”

- **Lead and Copper Control Requirements**  
If the violation was a failure to meet corrosion control treatment, source water treatment, or lead service line requirements, include the health effects language for lead or copper listed in Appendix A.
- **Acrylamide and Epichlorohydrin**  
If you violate either treatment technique, you must include the relevant “health effects” language from Appendix A.

## 2. Failure to Monitor and/or Report Compliance Data

Failure to take the sample on time, the report should say:

“We constantly monitor for various constituents in the water supply to meet all regulatory requirements. This past year we were in violation of (describe violation and it’s duration). The health effects are unknown. This does not pose a direct threat to the quality of our water supply.”

## 3. Record Keeping Requirements

Provide a brief explanation of the violation and efforts to address the issues.

## 4. Special Monitoring Requirements

Provide a brief explanation of the violation and efforts to address the issues.

## 5. Violation of an Administrative or Judicial Order

Provide a brief explanation of the violation and efforts to address the issues.

- **Reporting *Cryptosporidium***

If you monitored for *Cryptosporidium* and/or radon and did not detect them, it is not necessary to discuss the monitoring or the results in the report.

If the system has completed testing that indicates the **presence of *Cryptosporidium***, either in its source water or its finished water:

- 1) Include a summary of the test results. Each system may choose whether or not to report the actual analytical results as a part of this summary.
- 2) Include the following explanation of the significance of *cryptosporidium* in water test results.

“*Cryptosporidium* is a microbial pathogen found in surface water throughout the United States. Although filtration removes *cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of

these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.”

- **Reporting Radon**

If the system has completed monitoring that indicates the **presence of radon** in its finished water:

- 1) Include the results of monitoring (the analytical values) reported by the lab.
- 2) Include the following explanation of the significance of radon in water test results.

“Radon is a radioactive gas that you cannot see, taste, or smell. It is found in the soil throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can reach high levels in all types of homes.” Radon can also be released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through the soil, radon entering the home through tap water will be, in most cases, a small source of radon in indoor air.”

“Radon is a known human carcinogen. Breathing air that contains radon can lead to lung cancer. Drinking water that contains radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is four (4) picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are relatively inexpensive. For additional information, call the state radon program at 303-692-3030 or call the EPA Radon Hotline 1-800-SOS-RADON.”

- **Additional Voluntary Monitoring**

If the system has performed voluntary monitoring that indicates the presence of contaminants in the finished water above a proposed MCL or health advisory level, it is strongly recommended that the results be included in the CCR, in a separate table. Public knowledge of potential problems is in every ones best interests. For these contaminants, the report should contain:

1. The results of monitoring
2. An explanation of the significance of the results  
(Note the existence of a health advisory or proposed MCL.)

- **Explanation of Contaminants and Their Presence in Drinking Water**

Your CCR is required to prominently display the following statement:

“All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-

AIDS or other immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. More information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.”

The CCR must contain basic information about drinking water contaminants. Use the following language or use comparable language that has been approved by the division that better fits the specific local situation:

*“The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:*

- ***Microbial contaminants***, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- ***Inorganic contaminants***, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- ***Pesticides and herbicides*** that may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- ***Organic chemical contaminants***, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems.
- ***Radioactive contaminants***, that can be naturally occurring or be the result of oil and gas production and mining activities.”

*“In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.”*

- **Special Requirements for Nitrate, Arsenic, or Lead Detection**

1. **Nitrate** above 5 ppm (50 % of the MCL), but below 10 ppm (the MCL); the relevant special educational statement must be included.

*Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.*

2. **Arsenic** above 5 ppb, but less than or equal to 10 ppb (the MCL); the following special educational statement must be included.

*While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.*

Arsenic detected above 10 ppb **MUST** include the arsenic health effects language prescribed in Section 9.1 of the *Colorado Primary Drinking Water Regulations*.

3. **Lead** above 15 ppb (the Action Level) in more than five percent, and up to and including 10 percent, of sites sampled the relevant special educational statement must be included. [If the system samples fewer than 20 sites and has even one sample above the AL, include the standard explanation for exceeding an AL.]

*Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline 1-800-426-4791.*

- **Variance or Exemption**

List any variance or exemption, for the reporting year, that has been issued for the system.

- **Additional Educational Information**

The system is not limited to providing only the required information in its report. The report may be used to explain (or include a diagram of) treatment processes, source water protection efforts, or the costs of making water safe to drink. The mayor or general manager may include a statement. The report could educate customers about water conservation, taste and odor issues, your systems affiliations with programs such as the Partnership for Safe Water and others. The only limitation on this additional information is that it must not interfere with the educational purpose of the report.

## **Item 6: Report Delivery and Record Keeping**

- **Mailing Waiver For Small Systems**

Community water systems that serve fewer than 10,000 people will be granted a mailing (or direct delivery) waiver if they complete all of the following steps:

1. Publish the report in one or more local newspapers.
2. Inform all customers the CCR will not be mailed, either by notification in a local newspaper or by other approved method.
3. Make the reports available upon request.

Community water systems that serve 500 or less persons per day will be granted a mailing waiver if they:

1. Inform all customers by mail at least once per year the CCR will not be mailed
2. Post the CCR in locations that will be seen by the majority of customers
3. Make the reports available upon request

- Each community water system must mail or otherwise home-deliver one **copy of the report to each customer and to the State of Colorado no later than July 1** of each year. The report may be delivered with water bills, if feasible, or the reports may be sent as a separate mailer. Send one copy of the CCR and the Certification of Delivery to:

CDPHE-Water Quality Control Division  
Attention: CADM-CCR  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

It is also recommended that your system distribute copies of the CCR to your local health department.

- It is in your system's interest to spread the word about the quality of your water. Since many water consumers may not receive bills (such as apartment renters), you must make serious and **"good faith"** efforts to reach non-bill paying consumers. A "good faith" effort means selecting the most appropriate method(s) to reach those consumers from a menu of options that include, but are not limited to:
  - 1) Posting the report on the Internet: Systems that serve 100,000 or more people must post their reports on the Internet. EPA encourages other systems to post their reports as well. Many local governments have sites where you could post your report, even if your system itself does not have a site. EPA will make links from its web site to your report. Go to <http://www.epa.gov/safewater/dwinfo.htm> and link your report.
  - 2) Mailing the report to all postal patrons
  - 3) Advertising the availability of the report in newspapers, TV, and radio
  - 4) Publishing the report in a local newspaper
  - 5) Posting the report in public places such as cafeterias of public buildings, libraries, churches, and schools
  - 6) Delivering multiple reports for distribution by single-billed customers such as apartment buildings or large private employers
  - 7) Delivering the report to community organizations
- A community water system that sells water to another community water system must deliver the applicable information to the buyer system **no later than April 1** of each year, unless there is a separate written agreement between buyer and seller.
- Submit to the State a "Certification of Delivery Form" (See Appendix D). **This certificate must be submitted with the copy of the CCR due July 1.**
- A copy of the CCR and Certification must be retained in your records for **no less than 3 years**.

# CCR CHECKLIST

*This checklist is a quick reference guide  
Designed for use in preparing your annual Consumer Confidence Report*

## ITEM 1: YOUR WATER SYSTEM

- Name and PWSID Number for your system
- Name of the contact person and telephone number
- Information about public participation opportunities
- The time-period the report covers
- Statement(s) for non-English speaking consumers

## ITEM 2: DESCRIBE YOUR WATER SOURCE

- Type of each water source (ground, surface, well, purchased, etc.)
- Common name(s) of your water source(s)
- Location of the well(s), surface water source(s), or where you purchase your water
- Information on susceptibility of your source(s) to contamination

## ITEM 3: DEFINITIONS

- Key Regulatory terms: MCL, MCLG, MRDL, MRDLG; also AL, TT (variance/exemption if granted)
- All terms, abbreviations and acronyms used in the report must be defined
- Define all concentration units that are used in your CCR: ppb, ppm, pCi/l, mg/l, mrem/yr, etc.

## ITEM 4: TABLE OF DETECTED CONTAMINANTS

- Official monitoring data for regulated and unregulated detected contaminants (as submitted to the state for compliance)
  - 1) Sample Date
  - 2) Was the level detected a violation? Highlight (bold, star, etc.) all violations
  - 3) The level detected reported in the same units as the MCL
  - 4) MCL and MCLG reported as a value greater than 1.0 (See Appendix A)
  - 5) Known or likely source of each detected contaminant
- Requirements for monitoring less than once per year
- Reporting unofficial monitoring data
- Multiple distribution systems
- Contaminants that were not tested for should not be included in this table
- Contaminants that were tested for but were not detected should not be included in this table

## ITEM 5: ADDITIONAL REQUIRED LANGUAGE

- Reporting violations
- Reporting *Cryptosporidium* and radon detection
- Reporting additional voluntary monitoring data
- Explanation of contaminants and their presence in drinking water
- Special Requirements for nitrate, lead, and arsenic detection
- List any variances or exemptions
- Additional educational information
- Contaminants that were tested for but were not detected may be listed in a separate table from the "Table of Detected Contaminants"

## ITEM 6: REPORT DELIVERY AND RECORD KEEPING

- Copy of report to customers and the Water Quality Control Division no later than July 1 each year
- Make a "good faith" effort to reach non-bill paying consumers (i.e., renters, apartments dwellers, students and workers)
- Wholesale water resellers information to wholesale buyers no later than April 1<sup>st</sup> of each year
- Certification due no later than July 1 of every year
- A copy of your Certificate of Delivery Form and CCR report must be maintained in your files for at least three years

## Appendix A – Table of Regulated Contaminants

**Key:**  
**AL** = Action Level  
**MCL** = Maximum Contaminant Level  
**MCLG** = Maximum Contaminant Level Goal  
**MFL** = Million fibers per liter  
**MRDL** = Maximum Residual Disinfectant Level  
**MRDLG** = Maximum Residual Disinfectant Level Goal  
**N/A** = Not Applicable  
**NTU** = Nephelometric Turbidity Units (a measure of water clarity)

**ppm** = Parts per million, or milligrams per liter (mg/l)  
**ppb** = Parts per billion, or micrograms per liter (µg/l)  
**ppt** = Parts per trillion, or nanograms per liter  
**ppq** = Parts per quadrillion, or picograms per liter  
**TT** = Treatment Technique  
**pCi/L** = PicoCuries per liter (a measure of radioactivity)  
**mrem/year** = Millirems per year (a measure of radiation absorbed by the body)

<i>Contaminant (units)</i>	<i>Traditional MCL in mg/L</i>	<i>To convert for CCR, multiply by:</i>	<i>MCL in CCR units</i>	<i>MCLG</i>	<i>Major Sources in Drinking Water</i>	<i>Health Effects Language</i>
<b>Microbiological Contaminants</b>						
Total Coliform Bacteria	MCL: (systems that collect >40 samples/month) 5% of monthly samples are positive; (systems that collect < 40 samples/month) 1 positive monthly sample		MCL: (systems that collect >40 samples/month) 5% of monthly samples are positive; (systems that collect < 40 samples/month) 1 positive monthly sample	0	Naturally present in the environment	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.
Fecal coliform and <i>E. coli</i>	0		0	0	Human and animal fecal waste	Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
Total organic carbon (ppm)	TT		TT	N/A	Naturally present in the environment	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.



<i>Contaminant (units)</i>	<i>Traditional MCL in mg/L</i>	<i>To convert for CCR, multiply by:</i>	<i>MCL in CCR units</i>	<i>MCLG</i>	<i>Major Sources in Drinking Water</i>	<i>Health Effects Language</i>
Turbidity (NTU)	TT		TT	N/A	Soil runoff	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
<b>Radioactive Contaminants</b>						
Beta/photon emitters (mrem/yr)	4 mrem/yr		4	0	Decay of natural and man-made deposits	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta particle and photon radioactivity in excess of the MCL over many years may have an increased risk of getting cancer.
Alpha emitters (pCi/L)	15 pCi/L		15	0	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined radium (pCi/L)	5 pCi/L		5	0	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (pCi/L) **Effective Dec 8, 2003	30µg/l		30	0	Erosion of natural deposits	Some people who drink water that contains uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
<b>Inorganic Contaminants</b>						
Antimony (ppb)	0.006	1000	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.
Arsenic (ppb) **Effective January 23, 2006 (Until then, the MCL is 0.05 mg/l (50 ppb) and there is no MCLG.)	0.01	1000	10	0	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Asbestos (MFL)	7 MFL		7	7	Decay of asbestos cement water mains; Erosion of natural deposits	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
Barium (ppm)	2		2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Beryllium (ppb)	0.004	1000	4	4	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries	Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.

<i>Contaminant (units)</i>	<i>Traditional MCL in mg/L</i>	<i>To convert for CCR, multiply by:</i>	<i>MCL in CCR units</i>	<i>MCLG</i>	<i>Major Sources in Drinking Water</i>	<i>Health Effects Language</i>
Cadmium (ppb)	0.005	1000	5	5	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
Chromium (ppb)	0.1	1000	100	100	Discharge from steel and pulp mills; Erosion of natural deposits	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
Copper (ppm)	AL= 1.3		AL= 1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water that contains copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Cyanide (ppb)	0.2	1000	200	200	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories	Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.
Fluoride (ppm)	4		4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
Lead (ppb)	AL= .015	1000	AL= 15	0	Corrosion of household plumbing systems; Erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Mercury [inorganic] (ppb)	0.002	1000	2	2	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland	Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.
Nitrate (ppm)	10		10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

<i>Contaminant (units)</i>	<i>Traditional MCL in mg/L</i>	<i>To convert for CCR, multiply by:</i>	<i>MCL in CCR units</i>	<i>MCLG</i>	<i>Major Sources in Drinking Water</i>	<i>Health Effects Language</i>
Nitrite (ppm)	1		1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Selenium (ppb)	0.05	1000	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
Thallium (ppb)	0.002	1000	2	0.5	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories	Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.
<b>Synthetic Organic Contaminants including Pesticides and Herbicides</b>						
2,4-D (ppb)	0.07	1000	70	70	Runoff from herbicide used on row crops	Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.
2,4,5-TP [Silvex](ppb)	0.05	1000	50	50	Residue of banned herbicide	Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.
Acrylamide	TT		TT	0	Added to water during sewage/ wastewater treatment	Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.
Alachlor (ppb)	0.002	1000	2	0	Runoff from herbicide used on row crops	Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.
Atrazine (ppb)	0.003	1000	3	3	Runoff from herbicide used on row crops	Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.
Benzo (a)pyrene [PAH] (nanograms/l)	0.0002	1,000,000	200	0	Leaching from linings of water storage tanks and distribution lines	Some people who drink water containing benzo (a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Carbofuran (ppb)	0.04	1000	40	40	Leaching of soil fumigant used on rice and alfalfa	Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.
Chlordane (ppb)	0.002	1000	2	0	Residue of banned termiticide	Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.
Dalapon (ppb)	0.2	1000	200	200	Runoff from herbicide used on rights of way	Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.

<b>Contaminant (units)</b>	<b>Traditional MCL in mg/L</b>	<b>To convert for CCR, multiply by:</b>	<b>MCL in CCR units</b>	<b>MCLG</b>	<b>Major Sources in Drinking Water</b>	<b>Health Effects Language</b>
Di (2-ethylhexyl) adipate (ppb)	0.4	1000	400	400	Discharge from chemical factories	Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience general toxic effects or reproductive difficulties.
Di (2-ethylhexyl) phthalate (ppb)	0.006	1000	6	0	Discharge from rubber and chemical factories	Some people who drink water containing di (2-ethylhexyl) phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.
Dibromochloropropane (ppt)	0.0002	1,000,000	200	0	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards	Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
Dinoseb (ppb)	0.007	1000	7	7	Runoff from herbicide used on soybeans and vegetables	Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.
Diquat (ppb)	0.02	1000	20	20	Runoff from herbicide use	Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.
Dioxin [2,3,7,8-TCDD] (ppq)	0.00000003	1,000,000,000	30	0	Emissions from waste incineration and other combustion; Discharge from chemical factories	Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
Endothall (ppb)	0.1	1000	100	100	Runoff from herbicide use	Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.
Endrin (ppb)	0.002	1000	2	2	Residue of banned insecticide	Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.
Epichlorohydrin	TT		TT	0	Discharge from industrial chemical factories; An impurity of some water treatment chemicals	Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.
Ethylene dibromide (ppt)	.00005	1,000,000	50	0	Discharge from petroleum refineries	Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.
Glyphosate (ppb)	0.7	1000	700	700	Runoff from herbicide use	Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.
Heptachlor (ppt)	0.0004	1,000,000	400	0	Residue of banned pesticide	Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.
Heptachlor epoxide (ppt)	0.0002	1,000,000	200	0	Breakdown of heptachlor	Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.

<i>Contaminant (units)</i>	<i>Traditional MCL in mg/L</i>	<i>To convert for CCR, multiply by:</i>	<i>MCL in CCR units</i>	<i>MCLG</i>	<i>Major Sources in Drinking Water</i>	<i>Health Effects Language</i>
Hexachlorobenzene (ppb)	0.001	1000	1	0	Discharge from metal refineries and agricultural chemical factories	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.
Hexachlorocyclopentadiene (ppb)	0.05	1000	50	50	Discharge from chemical factories	Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.
Lindane (ppt)	0.0002	1,000,000	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens	Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.
Methoxychlor (ppb)	0.04	1000	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock	Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.
Oxamyl [Vydate] (ppb)	0.2	1000	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes	Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.
PCBs [Polychlorinated biphenyls] (ppt)	0.0005	1,000,000	500	0	Runoff from landfills; Discharge of waste chemicals	Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
Pentachlorophenol (ppb)	0.001	1000	1	0	Discharge from wood preserving factories	Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.
Picloram (ppb)	0.5	1000	500	500	Herbicide runoff	Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.
Simazine (ppb)	0.004	1000	4	4	Herbicide runoff	Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.
Toxaphene (ppb)	0.003	1000	3	0	Runoff/leaching from insecticide used on cotton and cattle	Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.
<b>Volatile Organic Contaminants</b>						
Benzene (ppb)	0.005	1000	5	0	Discharge from factories; Leaching from gas storage tanks and landfills	Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
Bromate (ppb)	0.010	1000	10	0	By-product of drinking water chlorination	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
Carbon tetrachloride (ppb)	0.005	1000	5	0	Discharge from chemical plants and other industrial activities	Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

<i>Contaminant (units)</i>	<i>Traditional MCL in mg/L</i>	<i>To convert for CCR, multiply by:</i>	<i>MCL in CCR units</i>	<i>MCLG</i>	<i>Major Sources in Drinking Water</i>	<i>Health Effects Language</i>
Chloramines (ppm)	MRDL = 4		MRDL = 4	MRDLG = 4	Water additive used to control microbes	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water that contains chloramines well in excess of the MRDL could experience stomach discomfort or anemia.
Chlorine (ppm)	MRDL = 4		MRDL = 4	MRDLG = 4	Water additive used to control microbes	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water that contains chlorine well in excess of the MRDL could experience stomach discomfort.
Chlorite (ppm)	1		1	0.8	By-product of drinking water chlorination	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water that contains chlorite in excess of the MCL. Some people may experience anemia.
Chloride dioxide (ppb)	MRDL = .8	1000	MRDL = 800	MRDLG = 800	Water additive used to control microbes	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.
Chlorobenzene (ppb)	0.1	1000	100	100	Discharge from chemical and agricultural chemical factories	Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.
o-Dichlorobenzene (ppb)	0.6	1000	600	600	Discharge from industrial chemical factories	Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.
p-Dichlorobenzene (ppb)	0.075	1000	75	75	Discharge from industrial chemical factories	Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.
1,2-Dichloroethane (ppb)	0.005	1000	5	0	Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.
1,1-Dichloroethylene (ppb)	0.007	1000	7	7	Discharge from industrial chemical factories	Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
cis-1,2-Dichloroethylene (ppb)	0.07	1000	70	70	Discharge from industrial chemical factories	Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
trans-1,2-Dichloroethylene (ppb)	0.1	1000	100	100	Discharge from industrial chemical factories	Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.
Dichloromethane (ppb)	0.005	1000	5	0	Discharge from pharmaceutical and chemical factories	Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.
1,2-Dichloropropane (ppb)	0.005	1000	5	0	Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
Ethylbenzene (ppb)	0.7	1000	700	700	Discharge from petroleum refineries	Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.

<b>Contaminant (units)</b>	<b>Traditional MCL in mg/L</b>	<b>To convert for CCR, multiply by:</b>	<b>MCL in CCR units</b>	<b>MCLG</b>	<b>Major Sources in Drinking Water</b>	<b>Health Effects Language</b>
Haloacetic Acids (HAA) (ppb)	0.060	1000	60	N/A	By-product of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Styrene (ppb)	0.1	1000	100	100	Discharge from rubber and plastic factories; Leaching from landfills	Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.
Tetrachloroethylene (ppb)	0.005	1000	5	0	Discharge from factories and dry cleaners	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.
1,2,4-Trichlorobenzene (ppb)	0.07	1000	70	70	Discharge from textile-finishing factories	Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.
1,1,1-Trichloroethane (ppb)	0.2	1000	200	200	Discharge from metal degreasing sites and other factories	Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.
1,1,2-Trichloroethane (ppb)	0.005	1000	5	3	Discharge from industrial chemical factories	Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.
Trichloroethylene (ppb)	0.005	1000	5	0	Discharge from metal degreasing sites and other factories	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
TTHMs [Total trihalomethanes] (ppb)	.080	1000	80	N/A	By-product of drinking water chlorination	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
Toluene (ppm)	1		1	1	Discharge from petroleum factories	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.
Vinyl Chloride (ppb)	0.002	1000	2	0	Leaching from PVC piping; Discharge from plastics factories	Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.
Xylenes (ppm)	10		10	10	Discharge from petroleum factories; Discharge from chemical factories	Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.

## Appendix B - UCMR

### Uses and Environmental Sources of Contaminants for the Final (1999) Unregulated Contaminant Monitoring Rule (UCMR) Monitoring List

<i>Contaminant Name</i>	<i>CASRN</i>	<i>Use or Environmental Source</i>
<b>List 1 – Assessment Monitoring of Contaminants with Available Methods</b>		
2,4-dinitrotoluene	121-14-2	Used in the production of isocyanate and explosives
2,6-dinitrotoluene)	606-20-2	Used as a mixture with 2,4-DNT (similar uses
DCPA mono-acid degradate	887-54-7	Degradation product of DCPA, an herbicide used on grasses and weeds with fruit and vegetable crops
DCPA di-acid degradate	2136-79-0	Degradation product of DCPA, an herbicide used on grasses and weeds with fruit and vegetable crops
4,4'-DDE	72-55-9	Degradation product of DDT, a general insecticide
EPTC	759-94-4	Herbicide used on annual grasses, weeds, in potatoes and corn
Molinate	2212-67-1	Selective herbicide used with rice, controls water grass
MTBE	1634-04-4	Octane enhancer in unleaded gasoline
Nitrobenzene	98-95-3	Used in the production of aniline, which is used to make dyes, herbicides, and drugs
Terbacil	5902-51-2	Herbicide used with sugarcane, alfalfa, and some fruit, etc.
Acetochlor	34256-82-1	Herbicide used with cabbage, citrus, coffee, and corn crops
Perchlorate	14797-73-0	Oxygen additive in solid fuel propellant for rockets, missiles, and fireworks
<b>List 2 - Screening Survey of Contaminants Projected to Have Methods by Date of Program Implementation</b>		
Diuron	330-54-1	Herbicide used on grasses in orchards and wheat crops
Linuron	330-55-2	Herbicide used with corn, soybean, cotton, and wheat crops
Prometon	1610-18-0	Herbicide used on annual and perennial weeds and grasses.
2,4,6-trichlorophenol	88-06-02	By-product of fossil fuel burning, used as bactericide and wood glue preservative
2,4-dichlorophenol	120-83-2	Chemical intermediate in herbicide production
2,4-dinitrophenol	51-28-5	Released from mines, metal, and petroleum plants
2-methyl-phenol	95-48-7	Released in automobile and diesel exhaust, coal tar and petroleum refining, and wood pulping
Alachlor ESA		Degradation product of alachlor, an herbicide used with corn, bean, peanut, and soybean crops to control grasses and weeds.
1,2-diphenylhydrazine	122-66-7	Used in the production of benzidine and anti-inflammatory drugs
Diazinon	333-41-5	Insecticide used with rice, fruit, vineyards, and corn crops
Disulfoton	298-04-4	Insecticide used with cereal, cotton, tobacco, and potato crops
Fonofos	944-22-9	Soil insecticide used on worms and centipedes
Terbufos	13071-79-9	Insecticide used with corn, sugar, beet, and grain sorghum crops.
Aeromonas Hydrophilia	N/A	Present in all freshwater and brackish water
Polonium-210 (Po-210)	13981-52-7	Part of the uranium decay series, naturally occurring
RDX	121-82-4	Used in explosives, ammunition plants
<b>List 3 - Pre-Screen Testing of Contaminants Needing Research on Methods</b>		
Algae and Toxins	N/A	Bloom in surface water bodies; produce toxins
Echoviruses	N/A	Fecal sources; hand to mouth transmission
Coxsackieviruses	N/A	Fecal sources; hand to mouth transmission
Helicobacter pylori	N/A	Fecal sources; hand to mouth transmission
Microsporidia	N/A	Occur in rivers, ponds, lakes, and unfiltered water
Caliciviruses	N/A	Contaminated food and water, raw shellfish
Adenoviruses	N/A	Fecal sources; hand to mouth transmission
Lead-210 (Pb-210)	14255-04-0	Part of the uranium decay series, naturally occurring

\*\* Taken from the Unregulated Contaminant Monitoring Rule (UCMR) published in the Federal Register on September 17, 1999 (64 FR 50556), pages 50562-50564 and 50574.



# Appendix C – Interpreting and Reporting Monitoring Data

## Total coliform

1. The highest monthly **number** of positive samples for systems collecting fewer than 40 samples per month.
2. The highest monthly **percentage** of positive samples for systems collecting at least 40 samples per month.

## Fecal coliform

Report the total number of positive samples reported for the year.

## Unregulated contaminants

Report the average value and range of values at which the contaminant was detected.

## Cryptosporidium and Radon

Specific wording is required for detection of these contaminants. See *Reporting Radon and Cryptosporidium* in the *CCR Guidance, Item 6: Additional Required Language*.

## Contaminants subject to an MCL or MRDL

When compliance with the MCL is determined by a **sample every three or more years** you must report the latest sample result.

❖ *1 Sampling site/1 Sampling date*

Example: March 2001 0.003

Report in Table: highest detected level = 0.003. Report no range.

❖ *Multiple sampling sites/1 Sampling date*

When compliance with the MCL is determined from samples taken annually or less frequently: you must report the highest detected level at any sampling point and the range of detected levels expressed in the same units as the MCL.

Barium	February 2001
Well #1	0.60
Well #2	0.46
Well #3	ND

Report in the Table: the highest detected level = 0.60 AND the range = ND-0.60.

❖ *1 Sampling site/Multiple sampling dates*

When compliance with the MCL is determined by calculating a running average of all samples taken at a sampling point, you must report the highest average of any of the sampling points and the range of all sampling points expressed in the same units of measurement as the MCL.

Atrazine	1 <sup>st</sup> quarter 2001	2 <sup>nd</sup> quarter 2001	3 <sup>rd</sup> quarter 2001	4 <sup>th</sup> quarter 2001
well 1	0.8	3.8	2.1	0.9

$$\text{Average} = (0.8+3.8+2.1+0.9) \div 4 = 1.9$$

Report in Table: average = 1.9 AND range = 0.8-3.8

❖ *Multiple sampling sites/Multiple sampling dates*

*Chlorite reporting:* Chlorite compliance with the MCL is determined on a system-wide basis of the three (3) monthly samples collected in the distribution system. There will be a minimum of 36 samples collected during any reporting year. Report the highest level detected and also report the range of values detected.

When compliance with the MCL is determined on a system-wide basis by calculating an annual average of all samples at all sampling points: you must report the average and range of detection expressed in the same units as the MCL.

Contaminant XXX	1 <sup>st</sup> quarter 2004	2 <sup>nd</sup> quarter 2004	3 <sup>rd</sup> quarter 2004	4 <sup>th</sup> quarter 2004
site #1	45	60	125	70
site #2	<b>40</b>	55	115	60
site #3	45	60	105	70
site #4	50	65	<b>135</b>	80
quarterly average	45	60	120	70
<b>Annual Average</b>				<b>73.75</b>

**Report in Table: Annual Average = 73.75 AND the range = 40-135.**

For contaminants that are reported as a RUNNING Annual Average (RAA)

	2 <sup>nd</sup> quarter 2003	3 <sup>rd</sup> quarter 2003	4 <sup>th</sup> quarter 2003	1 <sup>st</sup> quarter 2004	2 <sup>nd</sup> quarter 2004	3 <sup>rd</sup> quarter 2004	4 <sup>th</sup> quarter 2004
total trihalomethanes							
site #1	-	-	-	45	60	125	70
site #2	-	-	-	<b>40</b>	55	115	60
site #3	-	-	-	45	60	105	70
site #4	-	-	-	50	65	<b>135</b>	80
quarterly average	55	125	65	45	60	120	70
running annual average (RAA)	-	-	-	73	<b>74</b>	73	<b>74</b>

**Report in Table: highest Annual Average = 74 AND the range = 40-135.**

Note the last 3 quarters of the 2003 are shown to compute the running annual average. The range would include only detection data from the reporting year, unless one of the values from the previous year was so extraordinary that consumers would need it to understand the reported annual average.

## Lead and Copper

The 90<sup>th</sup> percentile value of the most recent round of tap sampling and the percentage of homes exceeding the action level must be reported.

- ❖ To calculate the 90<sup>th</sup> percentile with **10 sample** sites, rank the results lowest to highest.

	site 1	site 2	site 3	site 4	site 5	site 6	site 7	site 8	site 9	site 10
July 2001	ND	ND	8	12	19	3	ND	ND	4	22

ND, ND, ND, ND, 3, 4, 8, 12, **19**, 22

Report: The 90<sup>th</sup> percentile = the 9<sup>th</sup> highest value = 19 AND

the number of sites above the action level (lead AL = 15 ppb) = 2

- ❖ To calculate the 90<sup>th</sup> percentile with **5 sample** sites, rank the results lowest to highest.

	site 1	site 2	site 3	site 4	site 5
May 2001	2.2	ND	0.52	1.2	0.09

**ND, 0.09, 0.52, 1.2, 2.2**

Average the 4<sup>th</sup> and 5<sup>th</sup> highest values:  $1.2 + 2.2 = 3.4$   $3.4 \div 2 = 1.7$

Report: The 90<sup>th</sup> percentile = 1.7 and the number of sites exceeding the AL (copper AL = 1.3 ppm) = 1

If the system takes 20 or more samples and more than 5 percent (and up to and including 10 percent) of the samples are above the action level, the educational language provided in the Appendix A must be included. Parametric data that are collected in association with this rule should not be included in the report.

## Treatment Techniques

- ❖ **Turbidity:** When reporting turbidity as an indicator of filtration performance, systems must report the highest single measurement and the lowest monthly percentage of samples meeting the requirements specified for that technology. In this situation, report the data in two (2) rows of the table as follows:

	MCL	MCLG	Level found	Range	Sample date	Violation	Typical source
Turbidity	TT=5 NTU	0	1 NTU	N/A			Soil runoff
	TT= percentage of samples<0.5 NTU		96 %	N/A			

- ❖ **TOC (total organic carbon):** When reporting TOC, report the running annual average (RAA) of the removal ratio as of December 31<sup>st</sup> of the reporting year. In the sample date box, report that it is a running annual average.

## Converting Concentration Units

When reporting the MCL, MCLG, MRDL, MRDLG, AL, or TT for many constituents it is necessary to convert from the traditional MCL units of milligrams per liter (mg/l) or parts per million (ppm) to CCR units. The CCR Rule requires that the MCL, MCLG, MRDL, MRDLG, AL, and TT be reported as a number **greater than 1.0** for all contaminants. This requires conversion from parts per million (ppm) to parts per billion (ppb), parts per trillion (ppt), or parts per quadrillion (ppq) for many contaminants.

### Radionuclides

The uranium MCL is 30 micrograms per liter ( $\mu\text{g/L}$ ). This is approximately equivalent to 20 picocuries per liter (pCi/L). The laboratory will report the result for uranium analysis in the units prescribed by the analytical method used. The conversion factor used is  $0.67\text{pCi}/\mu\text{g}$ . For example:

The lab result is **15  $\mu\text{g/L}$** . To convert from micrograms per liter to picocuries per liter, multiply:

$$15 \mu\text{g/L} * 0.67 \text{ pCi}/\mu\text{g} = 10.05 \text{ pCi/L}$$

The lab result is **18 pCi/L** and you want to compare this to the uranium MCL; convert from picocuries per liter to micrograms per liter, divide:

$$18 \text{ pCi/L} \div 0.67 \text{ pCi}/\mu\text{g} = 26.86 \mu\text{g/L}$$

## Inorganic Contaminants

Check Appendix A carefully for the correct CCR concentration units when reporting each contaminant. Antimony, Arsenic, Beryllium, Cadmium, Chromium, Lead, Mercury, Selenium and Thallium must be reported in ppb.

## Organic Contaminants

1. Check Appendix A carefully for the correct CCR concentration units when reporting each contaminant.
2. For example: the laboratory usually reports atrazine in mg/L (ppm). It is easier for customers to see that the water contains atrazine at a level 10 times lower than the MCL if the MCL is reported as 3 ppb and the detected level as 0.3 ppb than if it were to be report that the MCL is 0.003 mg/L and the detected level is 0.0003 mg/L.
  - a. In this case, it is necessary to convert by multiplying the detected level and the standard MCL by 1000.
  - b. Appendix A shows the conversion factor for each contaminant.
  - c. When rounding results to determine compliance, round before multiplying the results by the factor listed in Appendix A.

## Comparison of Traditional MCL to CCR MCL

The EPA identified through focus group studies that expressing the MCL in a whole number rather than a fraction or decimal was much easier to understand. The CCR rule requires that all MCLs be reported as a number greater than or equal to one (1). The examples below illustrate how the CCR MCLs should be reported.

### Traditional MCL:

Contaminant	Sample Date	Violation Y/N	Traditional Unit Measurement	MCLG	<b>MCL</b>	Level Detected	Likely Source of Contamination
Atrazine			ppm	0.003	<b>0.003</b>	0.0003	Runoff from herbicide used on row crops
PCB [Polychlorinated Biphenyls]			ppm	0	<b>0.0005</b>	0.00025	Runoff from landfills; Discharge of waste chemicals

### CCR MCL:

Contaminant	Sample Date	Violation Y/N	CCR Unit Measurement	MCLG	<b>MCL</b>	Level Detected	Likely Source of Contamination
Atrazine			ppb	3	<b>3</b>	0.3	Runoff from herbicide used on row crops
PCB [Polychlorinated Biphenyls]			ppt	0	<b>500</b>	250	Runoff from landfills; Discharge of waste chemicals

It is clearly easier for your customers to understand the MCL and to be able to compare it to the level detected by using the CCR MCL method of reporting. **Be certain the level detected has been converted from it's reported units to the CCR units as well.**

## Appendix D - CCR - Certificate of Delivery Form

A “Certificate of Delivery” must be submitted every year to the Water Quality Control Division (the division) certifying your CCR was distributed, and that the information reported was correct and consistent with the compliance monitoring data previously submitted to the state. The form on the following page has been created for your convenience. (See next page.)

This certification **must be submitted to the division with a copy of the CCR due July 1.**

A copy of the CCR and your certification of delivery must be retained in your records for **at least 3 years.**

Please complete the entire form. If you choose not to use the form, please ensure all the required information is included in your letter.



**Colorado Department of Public Health and Environment  
Water Quality Control Division  
Compliance Assurance and Data Management Unit**

**Certificate of Delivery Form**

**\*\*Submit this Certification Form and a Copy of Your Completed CCR No Later than July 1\*\***

System Name: \_\_\_\_\_ PWSID: CO0\_\_\_\_\_

The community water system named above hereby confirms that its consumer confidence report has been distributed to customers (or appropriate notices of availability have been given). Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the Colorado Department of Public Health and Environment.

**Certified by:** *(Please print name)* \_\_\_\_\_

Title: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_

*Check all Items That Apply:*

- CCR was distributed by:
  - Mailing or
  - Direct delivery by \_\_\_\_\_

**Direct Delivery Waivers**

- The system serves 500 or fewer** persons and provided notice to their customers by mail, door-to-door delivery or by posting in an appropriate location that the report is available upon request (attach a list of locations).
  - Mail
  - Direct Delivery by \_\_\_\_\_
  - Posting in appropriate locations (attach a list of locations)
- The system serves less than 10,000** persons and qualifies for a direct delivery waiver and has completed all of the following requirements:
  - Published the reports in the following newspaper(s) \_\_\_\_\_  
\_\_\_\_\_ on \_\_\_\_\_; and
  - Informed the customers that the reports would not be mailed in the following manner:  
\_\_\_\_\_ on \_\_\_\_\_; and
  - Made the reports available to the public upon request

**“Good faith” Efforts**

- To reach non-bill paying consumers the system:
  - Posting the CCR on the Internet at <http://www.>\_\_\_\_\_
  - Mailing the CCR to postal patrons within the service area (attach a list of zip codes used)
  - Publication of CCR in local newspaper (attach copy)
  - Posting the CCR in public places (attach a list of locations)
  - Delivery of multiple copies to single bill addresses serving several persons (such as: apartments, businesses, and large private employers)

**Using the CCR for Public Notification Requirements for System Violations (i.e., Secondary Fluoride MCL)**

- The system is using the CCR to fulfill Public Notification requirements for the following system violations:  
List the violation(s): \_\_\_\_\_

**Mail to: CDPHE-WQCD  
ATTN: CADM-CCR  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530**

## Appendix E - Example of a Consumer Confidence Report

### Samletown 2005 Annual Water Quality Report

PWSID # 945678

*Esta es informacion importante. Si no la pueden leer, necesitan que alguien se la traduzca.*

Last year, we conducted more than 500 tests for over 80 drinking water contaminants. We only detected seven (7) contaminants, and found only atrazine at a level higher than the state allows. As we told you in a letter at the time, our water was temporarily unsafe. For more information, see the paragraph on the back marked **Violation**. This brochure is a snapshot of the quality of the water that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customer are our best allies. For more information about your water, call 555-111-2222 and ask for Joe Sampler.

**Some people may be more vulnerable to contaminants in drinking water than the public in general.** Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV-AIDS or other immune system disorders, some elderly, and infants can be particularly at risk of infections. These people should seek advice about drinking water from their health care providers. The Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and microbiological contaminants are available from the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

**Your water comes from three municipal wells** sunk about 500 feet into an underground source of water called the Low Plain Aquifer. These wells are located west of town behind the municipal garage. The town owns the land around these wells and restricts any activity that could contaminate them. After the water comes out of the wells, we treat it to remove several contaminants and we also add disinfectant to protect you against microbial contaminants. The state is performing an assessment of our source water that is to be completed by January 2003. We will report the results to you and tell you how to get a copy of the report when it is available.

**Our water board meets** on the first Tuesday of each month at 7:30 p.m. in the Town Hall. Please feel free to participate in these meetings.

**All drinking water, including bottled water,** may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's *Safe Drinking Water Hotline* at 1-800-426-4791.

**The sources of drinking water (both tap water and bottled water)** include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides** that may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, that can be naturally occurring or be the result of oil and gas production and mining activities."

**In order to ensure that tap water is safe to drink,** EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

**The table contains many terms and abbreviations** that may be unfamiliar. To help you better understand these terms we've provided the following definitions:

- **Non-Detects (ND):** Laboratory analysis indicates that the constituent is not present.
- **Parts per million (ppm) or Milligrams per liter (mg/l):** One part per million corresponds to one minute in two years.



- *Parts per billion (ppb) or Micrograms per liter (µg/l)*: One part per billion corresponds to one minute in 2,000 years.
- *Action Level (AL)*: The concentration of a contaminant, if exceeded, triggers treatment or other requirements a water system must follow.
- *Maximum Contaminant Level (MCL)*: The “maximum allowed” is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- *Maximum Contaminant Level Goal (MCLG)*: The “goal” is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- *Maximum Residual Disinfectant Level Goal (MRDLG)*: The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- *Maximum Residual Disinfectant Level (MRDL)*: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- *Millirems per Year (mrem/year)*: A measure of radiation absorbed by the body.

## Table of Detected Contaminants

*The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Some of our data, though representative, may be more than one year old.*

All data is from January 1, 2001 to December 31, 2004 unless otherwise noted.

Inorganic Contaminants	MCL	MCLG	Level Detected	Units	Range	Sample Date	Violation	Typical Source of Contamination
Fluoride	4	4	1.8	ppm			No	Erosion of natural deposits
Nitrate/Nitrite	10	10	6	ppm	ND-9		No	Runoff from fertilizer
<b>Organic Chemical Contaminants</b>								
Atrazine	3	3	3.275	ppb	0.1-9		<b>YES</b>	Runoff from herbicide used on row crops
TTHMs - Total Trihalomethanes	100	N/A	73	ppb	10-135		No	By-product of drinking water chlorination
<b>Radionuclides</b>								
Beta/positron emitters	4	0	2.6	mrem/year			No	Erosion of natural deposits
<b>Lead and Copper</b>								
Lead	AL = 15	0	0.25	ppb		1 site above AL out of 20 sites sampled		Corrosion of household plumbing systems

**Violation:** During March, April and May, a big surge in the use of atrazine-based herbicides by area farmers caused our water to exceed the MCL for atrazine. We sent a notice warning you of this problem when it occurred. We are working with the state and local farmers to ensure that this never happens again, and we are monitoring atrazine levels monthly. We regret exposing you to any potential risk. You should know that some people who drink water that contains atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties. If you want more information about atrazine or the violation, please call us at (555)-111-2222.

The state has issued our system waivers for asbestos, cyanide, dioxin, and glyphosate.

**About Nitrate:** Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods-of-time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

**Is our water system meeting other rules that govern our operations?** The state and EPA require us to test our water on a regular basis to ensure its safety. In February and May of 2001, we took the samples at the required time, but failed to submit the results of this monitoring to the state in a timely manner. We are revising our procedures to ensure that this paperwork will be submitted in a timely manner in the future. This did not pose a direct threat to the quality of our water supply.