

# Consumer Confidence Report Guidance and Preparation Manual



Prepared by:



**The Georgia Environmental Protection Division**

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## Disclaimer

This document is to provide guidance to water suppliers in preparing their annual Consumer Confidence Report (CCR) based on the Georgia Environmental Protection Division's (EPD) current interpretation of the Georgia Rules for Safe Drinking Water Chapter 391-3-5-.41 and 40 CFR part 141 Subpart O as published by the Federal Environmental Protection Agency (EPA).

The guidance is designed to assist Georgia community water systems to meet state and federal CCR regulations. This document is not a substitute for regulations; nor is it a regulation itself. Thus, it does not impose legally-binding requirements on the Georgia Environmental Protection Division or water suppliers, and may not apply to a particular situation based upon its circumstances. This document does not confer legal rights or impose legal obligations upon any member of the public.

The Georgia Environmental Protection Division has made every effort to ensure the accuracy of the information in this document. The statutes, regulations, or other legally-binding requirements determine the responsibilities of the water supplier. In the event of a conflict between the information in this document and any state or federal statute or regulations, this document would not be controlling.

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# Introduction

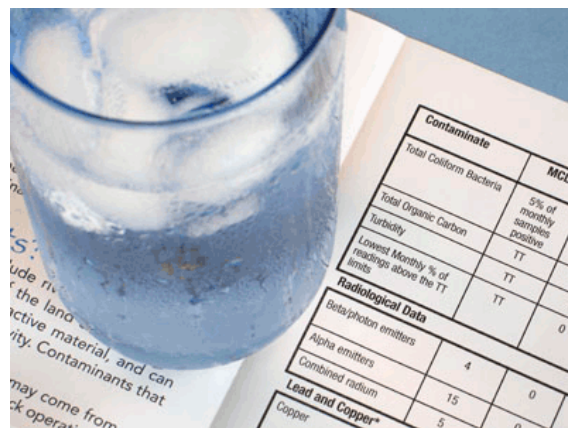
The Safe Drinking Water Act (SDWA) requires that drinking water quality information be made available to the public. All Georgia community water systems must prepare and distribute the Consumer Confidence Report (CCR) to their consumers as required by the 1996 Safe Drinking Water Act Amendments and Georgia Rules for Safe Drinking Water Chapter 391-3-5-.41 no later than July 1 of each year.

Water System owners/managers throughout Georgia have the opportunity to educate and inform their customers on many issues such as local water protection, future operation upgrades, and community involvement, among others. It is important to communicate to your consumers and your consumers have the right-to-know about their drinking water and make their own personal health decisions. The Consumer Confidence Report can help increase dialogue and trust between the water systems and their consumers. It can also raise awareness and appreciation for water treatment and the challenges of delivering safe drinking water.

This publication is intended to be used as a guidance tool by water suppliers who are preparing their annual Consumer Confidence Reports. It contains the basic information needed to prepare the CCR for consumers. It also explains the requirements for report content, format, and distribution required for compliance with the state and federal CCR regulations. The appendices include a listing of regulated contaminants, how to report monitoring results, Georgia Environmental Protection Division's (EPD) CCR certification form, CCR template for small water systems, examples of electronic delivery methods, and a CCR compliance checklist.

## I. What is a Consumer Confidence Report?

In 1996, Congress amended the Safe Drinking Water Act, adding a requirement that water systems deliver to their customers a brief annual water quality report. The Consumer Confidence Report (CCR) is a brief annual water quality report from community water systems to its customers. The purpose of the CCR is to summarize water quality data that your water system already collects to comply with regulations and to inform consumers about their drinking water.



The image shows a glass of water with ice cubes next to a Consumer Confidence Report (CCR) document. The document is partially visible, showing a table with columns for 'Contaminate', 'MCL', and '5% of monthly samples positive'. The table lists various contaminants and their corresponding values.

Contaminate	MCL	5% of monthly samples positive
Total Coliform Bacteria		
Total Organic Carbon		
Turbidity	TT	
Lowest Monthly % of readings above the TT	TT	0

Below the table, there is a section for 'Radiological Data' with columns for 'Beta/Photon emitters', 'Alpha emitters', and 'Combined radium'. The values are 4, 0, and 15 respectively. At the bottom, there is a section for 'Lead and Copper' with values 5 and 0.

The CCR includes information on source water, levels of any detected contaminants, and compliance with drinking water regulations (including monitoring requirements), plus some educational information. A CCR tells people where their water comes from and what the system is doing to deliver safe drinking water to their communities. It also tells them what contaminants, if any, are in their drinking water and how these contaminants could affect their health. Most CCRs only need to be a few pages long. The report should be easily read by the average water consumer. A report that contains *too much* information or is full of technical jargon can discourage consumers from learning about their drinking water.

Beyond the mandatory requirement, the CCR is an excellent opportunity for all Georgia water systems to strengthen their consumer base relationship to build community trust and consumer satisfaction, to communicate the value of water (both as a product and as a service), to promote wise use of water, and to encourage future investment in resource protection.

## II. Who must prepare a Consumer Confidence Report?



All Community Water Systems (CWS) that serve 25 or more residents on a year-round basis or have 15 or more service connections must prepare and distribute a CCR annually on an ongoing basis and make it available upon request. **Examples of such systems include private communities, cities, municipalities, and mobile home parks.**

A system may contract with a laboratory or other third-party to provide monitoring data analysis or CCR development assistance. If the system chooses to use a laboratory/third-party to assist with the development of the CCR, the system must work with the laboratory/third-party to make sure that all of the required elements are included in the CCR. Otherwise, a system may need to add the missing elements. Regardless of who prepared the CCR, the public water system is ultimately responsible for the content and must always distribute the CCR to its customers.


Wholesale systems (drinking water systems that sell water to one or more systems) are not responsible for creating a CCR for their consecutive systems (systems that purchase water from the wholesale system), nor are they responsible for providing data on contaminants that the consecutive system monitors (such as total coliform bacteria, lead, or Total Trihalomethanes). However, wholesale systems are responsible for providing the consecutive system with relevant source information and monitoring and compliance data so that the consecutive system can include this information in their CCR.

In some cases, a consecutive system will contract with the wholesale system to produce the report. There are several options in this relationship. If the consecutive system had no new data to add, it could simply send out the wholesale system's CCR with a cover letter explaining their relationship. If the consecutive system did need to add data, it might choose to reprint the wholesaler system's CCR with a new title/letterhead and the additional data (most consecutive systems will at least need total coliform data). Either of these options is acceptable. Regardless of who produces the CCR, the consecutive system is still responsible for ensuring that its customers receive a report containing all required content.

### III. When to deliver the Consumer Confidence Report?

You must deliver your annual CCR to consumers by July 1 of each year. The CCRs are based on data collected during, or prior to, the previous calendar year. For example, data collected between January and December 2013 must be reported in the 2013 CCR, which is due to customers by July 1, 2014. If you monitor less frequently than annually, you will need to use your most recent data even though it is outside of the previous calendar year. This is further discussed on p. 9-10 of this manual.



Key Dates for CCR Delivery		
	Wholesale systems provide data to buyer	April 1, annually
	CCR must be delivered to consumers & Georgia EPD offices	July 1, annually
	CCR Certification Form delivered to Georgia EPD offices	October 1, annually

#### New Community Systems

A new community water system must deliver its first CCR no later than July 1<sup>st</sup> after the first full **calendar year** in operation and annually thereafter. For example: A CWS that began water service on June 15, 2013 would not incur a **full** calendar year of service until December 31, 2014. Subsequently, the first CCR would not be due until July 1, 2015 and annually thereafter.

#### Wholesale Systems

A wholesale system must provide the consecutive system with the previous calendar year's monitoring data and other information by April 1 of each year unless the two systems make a different contractual agreement. This gives the consecutive system enough time to prepare their CCR before the July 1 deadline.



## IV. What content is required in the Report?

There are eight categories of basic information required for each CCR:

1. Water System Information
  - ◆ Name and telephone number of contact person
  - ◆ Information on public participation opportunities
  - ◆ Information for non-English populations, if appropriate
2. Source(s) of Water
  - ◆ Type, name, and general location of water sources
  - ◆ Availability of source water assessment
  - ◆ Information on significant sources of contamination, if available
3. Definitions
  - ◆ MCL
  - ◆ MCLG
  - ◆ MRDL
  - ◆ MRDLG
  - ◆ TT
  - ◆ AL
  - ◆ Others as needed
4. Table of Detected Contaminants
  - ◆ Table summarizing data on detected regulated & unregulated contaminants
  - ◆ Known or likely source of each detected contaminant
  - ◆ Health effects language and explanation for any violations or exceedances
5. Information on *Cryptosporidium*, Radon, and Other Contaminants
  - ◆ Warning for vulnerable populations about *Cryptosporidium*, if detected
  - ◆ Explanation of radon and its presence in the finished water, if detected
  - ◆ Explanation of unregulated contaminants, if detected
6. Compliance with Other Drinking Water Regulations
  - ◆ Explanation of violations, potential health effects, and steps taken to correct violations
  - ◆ Special notices for Ground Water Rule
7. Variances and Exemptions
  - ◆ Explanation of variance/exemption, if applicable
8. Required Educational Information (specific language)
  - ◆ Explanation regarding contaminants that may be expected to be found in drinking water including bottled water
  - ◆ Information to customers that some people may be more vulnerable to contaminants in drinking water
  - ◆ Explanation of contaminants and their presence in drinking water, if detected
  - ◆ Informational statements on arsenic and nitrate, if necessary, and lead, always required.

*Each item is discussed in detail on pages 6-23.*

## Item 1: Required Information about the Water System

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You **must** include the following information about your water system in your CCR.

- The name of the water system, city or town and ID number.
- The name and telephone of the owner, operator, water system designee who can provide additional information about the drinking water and answer questions about the report.
- Information on public meetings or other opportunities for customers to discuss water quality issues.

Systems that have a large proportion of non-English speaking residents must include information in the appropriate language(s) expressing the importance of the CCR or the CCR must contain a phone number or address where residents may contact your system to obtain a translated copy of the CCR or assistance in the appropriate language.

*EXAMPLE – This report contains important information about your drinking water. Translate it, or speak with someone who understands it.*

- **Spanish:** Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

## Item 2: Source(s) of Water

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Describe your water type (e.g., ground water, surface water, or a blend), the commonly-used name(s) (if such a name exists), and the locations of your water source(s). We encourage you to provide a simple map of your system's sources without a detailed description of their location for security reasons. **Note that water systems currently have the flexibility to address security concerns and providing a map is not required.** Listing the water body where the intake is located for a surface water source (e.g., Etowah River) and the name of the principal aquifer (e.g. Floridan Aquifer) for a ground water source would be appropriate.



For more complicated systems, explaining your various interconnections and back-up sources may be difficult, but it is important that consumers understand that the source of their water may vary during the year. Remember to include in your table of detected contaminants monitoring data for these “additional” sources if you use water from them. If your situation is complex, you may need to describe the types of sources and how they are used; work with someone from your department or contact Georgia EPD to decide what information belongs in your report.

If a source water assessment has been completed, tell customers the date it was completed (or last updated), that it is available, and where to get a copy, and provide a brief summary of your source water's vulnerability to contamination based on the assessment findings.

You can highlight potential significant source of contamination in the source water area. Including this information in the CCR is an opportunity for you to provide customers with an explanation for why a contaminant is present in the source water. You may also provide pollution prevention tips or information on local watershed cleanup activities.

If you do not have information from the source water assessment, we encourage you to include any other information about potential sources of contamination that is readily available to you; for example, information contained in a sanitary survey or wellhead protection plan.

### Item 3: Definitions

Every CCR **must** include definitions of key terms that consumers will need to understand the contaminant data. You **must** use the exact wording of the following definitions:

- **Maximum Contaminant Level (MCL):** *The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.*
- **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.*

If your system continuously adds chemical disinfectants such as chlorine, chloramines or chloride dioxide to the water and is reporting disinfection residuals, your CCR **must** include the following definitions:

- **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.*
- **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.*

If your report contains information on a detected contaminant that is regulated by a regulatory action level (e.g., lead and copper) or a treatment technique (e.g., turbidity, total organic carbon, fecal indicators) you must include the following definitions:

- **Regulatory Action Level (AL):** *The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.*
- **Treatment Technique (TT):** *A required process intended to reduce the level of a contaminant in drinking water.*

If your water system operated under a variance or exemption during the calendar year that the CCR describes:

- **Variations and Exemptions:** *State or EPA permission to exceed an MCL or not to meet an MCL, an action level, or a treatment technique under certain conditions.*



*These definitions can be listed above or below your detected contaminants table.*

## Item 4: Reporting Levels of Detected Contaminants

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The water quality data is the **most** important part of the CCR. It shows the compliance level for each detected contaminant (**level reported to Georgia EPD for compliance determination**) and the range of levels of each contaminant detected during the year. A detected contaminant is any contaminant observed at or above the state reporting level. Your report **must** include **all** detections of contaminants that are subject to mandatory monitoring in the “finished” water delivered to your consumer.

The CCR **must** include all reportable detections of these contaminants but are not limited to:

- ✓ **Microbiological contaminants** (e.g., Total Coliform, *E. Coli*)
- ✓ **Inorganic contaminants** (e.g., Arsenic, Barium)
- ✓ **Lead and copper**
- ✓ **Synthetic organic contaminants**(e.g., Atrazine, Lindane)
- ✓ **Volatile organic contaminants** (e.g., Xylenes, Benzene)
- ✓ **Turbidity**
- ✓ **Radioactive contaminants** (e.g., Alpha, Combined Radium, Uranium)
- ✓ ***Cryptosporidium***
- ✓ **Disinfection byproducts and disinfectant residuals** (e.g., Haloacetic Acids, Total Trihalomethanes, Chlorine)



**\*Note\*:** you can refer to Appendix A of this guidance manual for a complete list of regulated contaminants.

The main table of **detected** contaminants in the CCR must contain only data about **regulated** contaminants; contaminants subject to a maximum contaminant level (MCL), treatment technique (TT), and action level (AL). You can make a separate table for detected unregulated contaminants if monitoring is required by the Third Unregulated Contaminant Monitoring Rule (UCMR3). If your lab reports a contaminant as less (<) than the Method Detection Limit (MDL), not-detected (ND) or below the detection limit (BDL), you are not required to include that contaminant in your CCR. If the water is treated, only monitoring results of “finished” water must be included. Any contaminant detected in the water prior to treatment should not be included in the CCR, except *Cryptosporidium*.

The CCR **must** include water quality monitoring results from the *most recent round* of sampling for each regulated contaminant that applies to your water system. The CCR should include data from monitoring completed during the previous calendar year. For example,

*Example:* Data collected between January and December **2013** must be reported in the **2013** CCR, which is due to customers by July 1, **2014**.

If your water system has monitoring waivers, monitor less than once per year, or if you did not conduct sampling for a specific contaminant within the past year, use your most recent data even though it is outside of the reporting year. For example, if you monitor once every three years for Arsenic and detect Arsenic in a sample, report that detected Arsenic level in the CCR for the next three years until a new sample is collected. Your table **must** include the latest monitoring information available. **The table is not to include any data older than five years.**

If your water system reports a contaminant that was detected from the most recent sampling round of sampling outside of the reporting year, you **must** include the collection date and results in the table and a statement explaining that the data in the report is from the most recent testing done according to the regulations. You may use the following sample statement or create your own:

*“The water quality information presented in the table(s) is from the most recent round of testing done according to the regulations. All data shown were collected during the last calendar year unless noted in the table(s)”*



***Monitoring data must not be older than 5 years.***

If your water system received a waiver for a specific contaminant group, such as synthetic organic contaminants (SOCs) and is not required to monitor regularly, you **must** include a statement explaining that the data presented in the CCR are from the most recent testing done according to the regulations:

You may use the following sample statement or create your own:

*“Georgia EPD has reduced the monitoring requirements for **[name of contaminant(s)]** because the source is not at risk of contamination. The last sample collected for these contaminants was taken on **[date(s)]** and was found to meet all applicable standards.”*

#### Units of Measure in Table

Be careful to match or otherwise note correct units of measure when referencing multiple contaminants in your table. To ensure that consumers can easily compare detected contaminant levels to their MCLs, your table must use CCR units. Your table must display the MCL for each contaminant in units that express it as a number greater than 1.0.

Report the MCLG and level of the detected contaminant in those same units. For example, beryllium is usually reported in mg/L or ppm. The MCL for beryllium is 0.004 mg/L. If your system detected beryllium at 0.0004 mg/L, it would be difficult for consumers to understand that your water is 10 times below the MCL. After you convert the numbers, the CCR would report the beryllium detect as 0.4 ppb and the beryllium MCL as 4 ppb. *\*Refer to Appendix A for help converting MCLs, action levels and monitoring data for the CCR.*

#### **Where Do I Obtain the Correct Monitoring Results Needed For My Report?**

If your system has a contract with the Georgia Environmental Protection Division’s laboratory, the monitoring results needed for completing the CCR are normally taken from the monitoring reports issued by the Georgia EPD’s laboratory. If your water system does not contract with Georgia EPD for laboratory services, the monitoring results should come from the certified laboratory that performed the testing on your behalf or your system’s laboratory. There is also a website called Safe Drinking Water Watch located at <http://gadrinkingwater.net/> which is database that contains most of the recent monitoring results for all Georgia water systems. For more details refer to p. 31

## Creating Your Table

You **must** display all reportable monitoring data in table form. Depending on the number of monitoring results your system may have and the complexity of the information, you may choose to report your results in one table or several tables. You can make several tables to separate regulated contaminants from those that do not have MCLs (e.g., lead, copper, turbidity). You can also organize your table by contaminant type (e.g., microbial, inorganic) or by sampling site (e.g., treatment plant, distribution system). Choose what works best for your system and please keep in mind that your primary goal is to present the data so the consumers will be able to understand it.

In your table you need to make columns for the contaminant with unit of measure (e.g., ppb, ppm), detected contaminant level (e.g., MCL, MCLG), your water result (average), range, sample date, identification of violation and likely source of contaminant

Example:

Contaminant (CCR units)	MCL	MCLG	Average (result)	Range	Sample Date	Violation	Typical Source
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The table in your CCR **must** contain the following, for each detected contaminant:

- 1) If the contaminant is regulated by a MCL or MRDL (applies to most contaminants)
  - a) The MCL or MRDL, expressed as a number equal to or greater than 1.0.
  - b) The MCLG or MRDLG, expressed in the same units as the MCL or MRDL.
  - c) The level of that contaminant expressed in the same units as the MCL and MCLG or MRDL and MRDLG.

Example:

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
Barium (ppm)	2	2	0.005	N/A	2013	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits

- 2) If the contaminant is regulated by a treatment technique (TT)
  - a) Put the letters “TT” in place of the MCL.
  - b) Put “N/A” (not applicable) in place of the MCLG when no MCLG is listed in Appendix A

Example:

Contaminant (CCR units)	TT	N/A	Average	Range	Sample Date	Violation	Typical Source
Total Organic Carbon (ppm)	TT		1.2	1.0-1.5	2013	No	Naturally present in the environment

- 3) If the contaminant is regulated as an action level (AL)
- The AL expressed as a number equal to or greater than 1.0.
  - The MCLG is expressed in the same units as the AL for copper and zero for lead.

Example:

Contaminant (CCR units)	MCLG	AL	Your Water 90%	Sample Date	# of Samples Exceeding the AL	Violation	Typical Source
Lead (ppb)	0	15	9	2013	1 of 20	no	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	1.3	1.3	1.0	2013	0 of 20	no	Corrosion of household plumbing systems; erosion of natural deposits

- 4) If the contaminant is unregulated
- The average level of that contaminant and the range of results.

Example:

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
estrone (ppb)			0.07	ND-0.07			

- 5) The level of the contaminant in your table must be represented as follows

*Note: \*See examples of reporting monitoring results in Appendix B*

- If compliance is determined based on annual or less frequent sampling (many inorganic chemical contaminants), include the highest detected level at any sampling point and the range of detected levels, if applicable.
- If compliance is determined by a running annual average (RAA) of all the samples taken from a sampling point (i.e., chemical contaminants monitored more frequently than annual), include the highest average as reported to the state for compliance purposes and the range of the sample results

#### Single sample site

For a **single sampling site** for which data is being individually listed in the CCR, include the sample result. If more than one sample was collected, include the average and range of the sample results.

#### Multiple sample sites

For **multiple sampling sites**, one or more of which has been sampled more than once and for which data is being summarized together in the CCR, include the average of the individual sampling site averages and the range of all the sample results.



Some contaminant groups have special reporting and table formatting requirements based on how they are regulated. See details of these requirements below:

**c) Disinfection Byproducts [Total Trihalomethane (TTHM) and Haloacetic Acids (HAA5)]**

- For systems that have Stage 1 and Stage 2 Disinfection Byproducts results for 2013, compliance is determined based on a system-wide running annual average under the Stage 1 Disinfection Byproducts Rule, include the highest system-wide running annual average from the 1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup> quarter of 2013 and the detected range of all results taken in 2013 for the system. If the Stage 2 Locational Running Annual Average (LRAA) exceeds the MCL for the 2<sup>nd</sup>, 3<sup>rd</sup>, or 4<sup>th</sup> quarter of 2013, then include the LRAA for all locations that exceed the MCL.
- For systems that only have Stage 2 Disinfection Byproducts results, compliance is determined based on a locational running annual average under the Stage 2 Disinfection Byproducts Rule, include the highest LRAA for TTHM and HAA5 and the range of individual samples results for all monitoring locations. If more than one monitoring location exceeds the TTHM or HAA5 MCL, include the LRAA for all locations that exceed the MCL.

*Note: \*\*See examples of reporting Stage 1 and Stage 2 DBP monitoring results in Appendix B*

**d) Turbidity**

- For systems that must install filtration but have not (under 40 CFR 141.13), turbidity results should be reported as a MCL and include the highest monthly average.
- For systems that have met criteria for avoiding filtration (under 40 CFR 141.71), turbidity results should be reported as a TT and include the highest single measurement found in any month. You should explain the reasons for measuring turbidity.

*EXAMPLE – Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.*

- For systems that filter, turbidity results should be reported as a TT and include the highest single measurement and the lowest monthly percentage of samples meeting the turbidity limits specified in (40 CFR 141.73) or (40 CFR 141.551). You should explain the reasons for measuring turbidity.

*EXAMPLE – Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.*

*Note: \*\*See example of reporting turbidity results in Appendix B*

**e) Lead and/or copper**

- Include the 90<sup>th</sup> percentile value from the most recent sampling (if it is a number greater than zero), number of sites sampled, and the number of sites that exceeded the action level. Do not report related water quality parameter data.

f) **Total coliforms, Fecal coliforms, and *E. coli* under the Total Coliform Rule (TCR)**

- For total coliforms (systems that collect fewer than 40 samples per month), include the highest number of positive samples collected in any one month.
- For total coliforms (systems that collect 40 or more samples per month), include the highest number of positive samples collected in any one month.
- For fecal coliforms and *E. coli* include the total number of positive samples collected that year.

*Note: \*\*See examples of reporting Total Coliform, Fecal Coliform and E.coli results in Appendix B*

g) **Fecal indicator-positive source samples under the Ground Water Rule (GWR):**

- For *E. coli*, list the MCL and MCLG as zero.
- For enterococci or coliphage, list “TT” in the column for MCL and “N/A” in the column for MCLG.
- For *E. coli*, enterococci, or coliphage, include the total number of positive samples for the year and special notice language provided in the table or elsewhere in the CCR. Refer to Item 6 for more information on special notice language requirements for fecal indicator-positive ground water source samples.

h) **Radionuclides**

- For gross alpha detections, the reported results should reflect the subtraction of any uranium (in pCi/L) values detected.
- For combined radium 226 and radium 228 detections, add the two results together and report the total combined radium (in pCi/L) value.
- For uranium the results should be reported as (pCi/L) units of measure, but may be reported in micrograms per liter (µg/L). The MCL for uranium is 20 pCi/L or 30 µg/L. The results and the MCL values should be in the same units of measure.

i) **Reporting treatment technique (TT) violations**

In addition to detected contaminant, the CCR regulations require that all treatment technique (TT) violations be reported in a detected contaminant table(s). **TT violations are listed below**↓ and are organized by rule.

<b>Surface Water Treatment Rule (SWTR)</b>
--

- ✓ Failure to install adequate filtration or disinfection equipment or processes.
- ✓ Failure of the filtration or disinfection equipment or process.
- ✓ Failure to meet inactivation requirements at the treatment plant (CT value).

- ✓ Failure to maintain at least 0.2 ppm disinfection residual at the entry point for more than 4 hours.
- ✓ Failure to maintain a distribution system disinfectant residual.
- ✓ Failure to meet source water quality conditions (only filtration avoidance systems)
- ✓ Failure to meet watershed control program requirements (only filtration avoidance systems).
- ✓ Failure to have redundant components for disinfection or automatic shut-off of water delivered to the distribution system (only filtration avoidance systems).

*\*Note:\* refer to Item 6 for specific information about failure to install adequate filtration or disinfection equipment or processes or a failure of those processes, violations associated with acrylamide and epichlorohydrin, and violations associated with the Lead and Copper Rule.*

#### **Filter Backwash Recycling Rule (FBRR)**

- ✓ Failure to return recycle flows through the processes of the existing filtration system or to an alternate state-approved location (only conventional and direct filtration systems).

#### **Lead and Copper Rule (LCR)**

- ✓ Failure to meet corrosion control treatment, source water treatment, lead service line replacement, or public education requirements.

#### **Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 D/DBPR)**

- ✓ Failure to remove required amount of total organic carbon (TOC) [disinfection byproduct precursor (DBPP)] (only conventional filtration systems).

#### **Federal Long-Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)**

Failure to cover an uncovered finished water reservoir, provide treatment of the reservoir's discharge or be in compliance with a state-approved schedule to cover the reservoir(s) or treat the reservoir(s).

#### **Filtered systems**

- ✓ Failure to determine and report bin classification.
- ✓ Failure to provide or install an additional level of treatment using a microbial toolbox option by the required date.
- ✓ Failure to achieve required treatment credit to meet the bin classification requirements using a microbial toolbox option.

**Unfiltered systems**

- ✓ Failure to calculate and report mean *Cryptosporidium* level.
- ✓ Failure to install a second disinfectant to treat for *Cryptosporidium* by required date.
- ✓ Failure to achieve required inactivation level by required date.
- ✓ Failure to maintain required inactivation level based on mean *Cryptosporidium* results.

<b>Ground Water Rule (GWR)</b>
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- ✓ Failure to maintain at least 4-log treatment of viruses for more than 4 hours for ground water systems that are required to treat.
- ✓ Failure to take corrective action, if necessary based on a fecal indicator-positive sample, or be in compliance with a plan and schedule for a fecal indicator-positive ground water source sample.
- ✓ Failure to take corrective action, if necessary based on a significant deficiency.

Georgia EPD recommends that systems include TT violations listed in (i) above in a table adjacent to the main detected contaminant table. The table must include an explanation of the violation, the length of the violation, any potential adverse health effects, and steps taken to correct the violation. The following is an example.

TT Violation	Explanation	Length	Steps Taken to Correct the Violation	Health Effects Language
Failed to maintain 4-log treatment of viruses	On January 10, 2013, state inspection of our water system identified a malfunctioning chlorine pump. As a result, the water from one of our wells (Well 1) was not adequately disinfected for 2 weeks.	2 weeks	As directed by the Georgia Environmental Protection Division, we took immediate action to resolve this problem by repairing the malfunctioning chlorine pump. Regular testing since the pump was repaired has demonstrated that we are once again providing water that meets the state's standards for disinfection to our customers.	Inadequately treated or inadequately protected water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.

**j) Typical source(s) of contaminant**

Include the likely source of the contaminant to the best of your knowledge. If the source of the contamination is known, the CCR should identify a specific point source. If you lack reliable information on the likely source of a contaminant, include one or more of the typical sources listed in Appendices A of this manual that is most applicable to your situation.

**k) Reporting Contaminant Violations**

In the table, you **must** highlight any contaminant detected in violation of a MCL, MRDL, or TT or that exceeds an AL. Clearly highlight in the table the violation or exceedance. This indication could, for example, take the form of a different color type, a larger or bolder font, or a large star.

Near, but not in, the table, include an explanation of the length of the violation/exceedance, potential adverse health effects (from Appendix A for primary MCLs, MRDLs, TTs, and regulatory ALs), and actions you took to address the violation/exceedance.

#### 1) **Reporting unregulated contaminants**

If you have detected unregulated contaminants for which state or federal rules require monitoring (under 40 CFR 141.40) include the average of all of the year's monitoring results and the range of detections. The list of unregulated contaminants applicable for monitoring under the Unregulated Contaminant Monitoring Rule is located on the EPA Web site at

<http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/index.cfm>

You may wish to explain the reasons for unregulated contaminant monitoring with a statement like the following.

*EXAMPLE – Unregulated contaminant monitoring helps EPA and to determine where certain contaminants occur and whether the contaminants need to be regulated.*

### **Multiple distribution systems**

If your system supplies water through two or more distribution systems that are not physically interconnected and that are fed by different raw water sources, you must issue a CCR that includes information on the source water, levels of any detected contaminants, and compliance with drinking water rules for all distribution systems. You may issue one or multiple reports to your customers. If you issue one report, make sure to include a separate column of detection data for each service area in the main table of detected contaminants.

### **Including Tier 3 Public Notices in CCRs**

If you are required to provide Tier 3 public notice for a monitoring violation or other type of violation or situation, you may consider including the notice in your CCR. If you use the CCR for public notification, make sure you meet the content requirements under the Public Notification Rule. Also, remember that the timing and delivery requirements for CCRs differ from those for public notices. Be careful to adhere to the Public Notification requirement that Tier 3 public notice be completed no later than 12 months from the date the violation or situation occurred (e.g., the July 1, 2014 CCR could address all Tier 3 Notices from July 1- December 31, 2013). To minimize the timing conflict, you can publish the CCR early – as soon after the end of the calendar year as possible; or mail a separate public notice for the violations occurring in January through June of the current year in the same envelope as your CCR covering the previous calendar year's violations.

## Item 5: Monitoring Information for *Cryptosporidium*, Radon, and Other

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### Reporting on other contaminants

If your system has performed voluntary monitoring that indicates the presence of non-regulated contaminants in the finished water, we strongly encourage you to report any results that may indicate a health concern. Public knowledge of potential problems is in the interest of you and your customers. We consider any detection above a proposed MCL, or EPA health advisory level to indicate concern. Call the Safe Drinking Water Hotline (1-800-426-4791) or visit EPA's web site (<http://water.epa.gov/drink/standards/hascience.cfm>) for this information. For these contaminants, the Georgia EPD recommends that the CCR contain:

- The results of monitoring.
- An explanation of the significance of the results, noting the existence of the health advisory or proposed MCL.

### *Cryptosporidium*

If your system has performed monitoring that indicates the presence of *Cryptosporidium* in either the source water or the finished water, you **must** include the following information separate from the detected contaminant table:

- A summary of the results of monitoring. You should identify if the data is for the source water or finished water. You may choose whether or not to report the actual analytical results as part of this summary.
- An explanation of the significance of the results. Tell customers if they need to be concerned by the information that the CCR provides.

*EXAMPLE – Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. 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, infants and small children, and the elderly 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.*

## **Radon**

If your system has performed monitoring that indicates the presence of radon in its finished water, you **must** include in your CCR:

- The results of monitoring (the analytical values reported by the laboratory).
- An explanation of the significance of the results. Tell customers if they need to be concerned by the information that the CCR provides.

*EXAMPLE – Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing 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. You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your State radon program (1-800-745-7236), the EPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safety Council Radon Hotline (1-800-SOS-RADON).*

## Item 6: Compliance with Other Drinking Water Regulations

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### **Other than the Ground Water Rule – Special Notice Requirements**

If your water system violated one of the following requirements during the year covered by your CCR, the report must describe the violation(s). Just as you must explain the potential health effects of any MCL violation, you must provide a clear and readily understandable explanation of any other violation, potential adverse health effects (if any), and the steps the system has taken to correct the violation. For health effects language refer to the table in Appendix A of this manual.

- Treatment techniques (Must include length of violation)
  1. **Filtration and disinfection requirements contained in the Surface Water Treatment Rule.** If the violation was due to failure to install adequate filtration or disinfection equipment or processes, or there was a failure of that equipment process, your CCR must include the following language

*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.*

2. **Lead and copper control requirements.** If the violation was failure to meet corrosion control treatment, source water treatment, or lead service requirements, you **must** include health effects language for lead, copper, or both.
  3. **Acrylamide and Epichlorohydrin.** If you violated either treatment technique, you **must** include the appropriate health effects language from Appendix A
- **Monitoring and reporting of compliance data.** If your system failed to take the sample on time (i.e., failure to monitor), the CCR should say “health effects unknown”. If your system took the samples accurately and on-time, but mailed the results late, you do not need to discuss health effects.
  - **Record keeping requirements.**
  - **Special monitoring requirements.**
  - **Violation of the terms of a variance, an exemption, or an administrative or judicial order.**

## **Ground Water Rule – Special Notice Requirements**

The Ground Water Rule (GWR) requires community water systems using groundwater to provide special notice in their CCR for the following two situations:

### **Special Notice for Uncorrected Significant Deficiencies**

If you are a ground water system that receives notice from the Georgia EPD of a significant deficiency, you must inform your customers of any significant deficiencies that are not corrected by December 31<sup>st</sup> of the year covered by your CCR. The CCR must include the following information:

- The nature of the significant deficiency and the date it was identified by Georgia EPD.
- The state-approved plan and schedule for correction, including interim measures, progress to date, and any interim measures completed.

You must continue to inform your customers annually until the Georgia EPD determines the significant deficiency is corrected.

### **Special Notice for a Fecal Indicator-Positive Ground Water Source Sample**

If you are a ground water system that receives notice from a laboratory of a fecal indicator-positive ground water source sample in your source, you must inform your customers in the next CCR. The CCR must include the following information for a fecal indicator-positive ground water source sample:

- The source of the fecal contamination (if it is known) and the date(s) of the fecal indicator-positive source sample.



- If the fecal contamination has been addressed as prescribed by the requirements of the GWR [section 64430, which incorporates by reference the federal GWR – 40 CFR 141.403(a)] and the date the contamination was addressed.
- For fecal contamination that has not been addressed, the Division-approved plan and schedule for correction, including interim measures, progress to date, and any interim measures completed.
- The health effects language for fecal indicators (*E. coli*, enterococci or coliphage), as provided in Appendix A.

Since fecal indicator-positive ground water source samples must be included in the detected contaminant table, this special notice language can be included below the table or elsewhere in the report. Appendix C contains an example on how to present fecal indicator-positive ground water source samples and the special notice text in a CCR.

You must continue to inform customers annually until the fecal contamination in the ground water source is addressed as prescribed by the requirements of the GWR.

## Item 7: Variances and Exemptions

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If your system operated under a variance or exemption at any time during the year covered by the CCR, include an explanation of the reasons for the variance or exemption, the date that it was issued, why it was granted, when it is up for renewal, and a status report on what the system is doing to remedy the problem (e.g., install treatment, find alternative sources of water, etc.) or otherwise comply with the terms and schedules of the variance or exemption. Also, tell your customers how they may participate in the review or renewal of the variance or exemption.

## Item 8: Required Educational Information for All CCRs

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Every CCR **must** contain certain educational information, prominently displayed somewhere in the report. Your CCR **must** contain basic information about drinking water contaminants. Use the following mandatory language **exactly as written**:

*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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).*

*Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).*

Your CCR must include basic information about contaminants a person may reasonably expect to find in drinking water, including bottled water and sources of contamination.

*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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.*

***Inorganic contaminants**, such as salts and metals, that 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**, which 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.*

***Radioactive contaminants**, which 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.*

## **Special requirements for Nitrate, Arsenic, and Lead**

You must include in your CCR the relevant special educational statement for nitrate, arsenic, and lead in the specified situations. You may include additional information, either before or after the required statement.

- **Nitrate** – Systems with nitrate above 5 ppm (50% of the MCL), but below 10 ppm (the MCL) must include the following statement:

*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, or you are pregnant, you should ask advice from your health care provider.*

- **Arsenic** – Systems with arsenic above 5 ppb (50% of the MCL), but below or equal to 10 ppb (the MCL) must include the following statement:

*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.*

- **Lead** – **ALL** water systems **must** include the following statement:

*If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [NAME OF UTILITY] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.*

## Other educational information

You are not limited to providing only the required information in your report. You may want to include:

- An explanation (or include a diagram of) your system’s treatment processes.
- Source water protection tips
- Water and energy conservation tips
- The cost of making the water safe to drink including the cost of sustaining the infrastructure.
- Efforts your system has made to promote “green infrastructure” (e.g., stormwater pollution prevention measures).
- A statement from the mayor or general manager.
- Information to educate customers about taste and odor issues, affiliations with programs such as the Partnership for Safe Water, opportunities for public participation, etc.

You can provide the address for EPA’s drinking website <http://water.epa.gov/drink/index.cfm>. The only limitation on this information is that it must not interfere with the educational purpose of the CCR.

## V. What should the CCR look like?

You should try to create a CCR that is easy to read and inviting to your consumers. The best way to achieve this is to spend some time looking at other CCRs as an example. Listed below are a few tips to consider:

### Helpful Tips

- Make sure your CCR stands out so customers can read it!
- Use graphic and colors to highlight your data in table.
- Include a brief paragraph on how to read the water quality data in your table.
- Use a legible centered font in table.
- Make sure that the text is still easily read whether printed in black/white or color.
- Include a table key on the same page as your table to define acronyms and terms.
- Limit wordiness – write short sentences and keep your paragraphs short as well.
- Proofread for spelling grammar, punctuation, and accuracy.
- Keep in mind that the average consumer is probably not as familiar with water quality data as you are, so keep it simple.
- Do not make your text size too small. You might want to squeeze a few extra sentences in your CCR, but if you add too much, people might ignore the entire report.
- Give a draft of your CCR to people who are not drinking water experts and ask them if it makes sense. Ask customers for their comments when you publish the CCR.
- Do not distract from your main message with graphics and/or pictures that do not complement your message.
- Be as simple, truthful, and straight forward as possible.

*Note\*: Refer to the next page for CCR example.*

City of Sample Water Department  
I.D. # **GA4150000**  
Drinking Water Consumer Confidence Report for 2013

**What's the source of your drinking water?**

The City of Sample Water Department drinking water source is received from 4 municipal wells about 500 feet into an underground source of water called the Low Plain Aquifer. These wells are located east of the city. The City owns the land around the wells and restricts any activity that may 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 contaminants.

**Source water assessment and its availability**

The state performed an assessment of our source water in February of 2011. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are 2 potential sources identified with low and moderate susceptibility levels. Please call us at (470) 678-1234 if you would like more information about the assessment.

**What are sources of contamination to drinking water?**

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 land surface 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: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plant, septic systems, agricultural livestock operation, and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; (E) radioactive contaminants, which 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 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 (1-800-426-4791).

**Who needs to take special precautions?**

Some people may be more vulnerable to contaminants in drinking water than the general population. 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 from infection. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

## How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of the City Council which meets monthly as announced in the Sample Times Recorder.

## About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The City of Sample Water Department conducted sampling for bacteria, inorganic, radiological, and volatile organic contaminant sampling during 2013. Samples were collected for a total of 61 different contaminants most of which were not detected in the City of Sample water supply. Listed below is information on those contaminants that were found in the City of Sample drinking water.

**Table of Detected Contaminants**

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants
<b>Microbiological Contaminants</b>							
Total Coliform	0	5% of monthly samples were positive	1.5%		NO	2013	Naturally present in the environment.
<b>Inorganic Contaminants</b>							
Lead (ppb)	0	AL=15	<2.0	NA	NO	2013	Corrosion of household plumbing systems.
One out of 20 samples was found to have lead levels in excess of the Action Level of 15 ppb.							
Copper (ppm)	1.3	AL=1.3	1.0	NA	NO	2013	Corrosion of household plumbing systems.
Zero out of 20 samples was found to have copper levels in excess of the Action Level of 1.3 ppm.							
Nitrate (ppm)	10	10	0.16	<0.05-0.16	NO	2013	Runoff from fertilizer use; Erosion of natural deposits.
Sulfate (ppm)	NA	NA	134	120-150	NO	2013	Erosion of natural deposits.
<b>Volatile Organic Contaminants</b>							
TTHMs (ppb)[Total Trihalomethanes]	0	80	67.3	28 -120	NO	2013	By-product of drinking water chlorination.
HAA5 (ppb) [Haloacetic Acids]	0	60	41.2	39.0-44.5	NO	2013	By-product of drinking water chlorination.
Chloroform (ppb)	NA	NA	27.15	NA	NO	2013	By-product of drinking water chlorination.
<b>Residual Disinfectants</b>							
Total Chlorine (ppm)	MRDLG 4	MRDL 4	1.2	0.8-2.1	NO	2013	Water additive used to control microbes.

The "<" symbol: A symbol which means 'less than'. A result of "<5" means that the lowest level detected was 5 and the contaminant in that sample was not detected.

## Data Table Key Unit Descriptions

ppm	ppm: parts per million, or milligrams per liter
ppb	ppb: parts per billion, or micrograms per liter
NA	NA: not applicable

## Definitions of some terms contained within this report.

**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.

**Maximum Contaminant level (MCL):** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Residual Disinfectant Level (MRDL):** The highest residual disinfectant level allowed.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of residual disinfectant below which there is no known or expected risk to health.

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**Parts per Million (ppm)** are units of measure for concentration of a contaminant. A part per million corresponds to one second in approximately 11.5 days

**Parts per Billion (ppb)** are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

### **Violations and Exceedances**

Our water system failed to conduct monitoring for Arsenic on time. We are required to sample annually. Due to an oversight, we took the sample 3 months late. Although the late sample was below the MCL we are uncertain whether or not there may be any adverse health risks associated with this violation. We have recently implemented a new monitoring scheduling system which should prevent this type of monitoring oversight in the future.

### **Additional Language for Lead**

Also, if present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Sample is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

**For more information** on your drinking water, contact Joe Doe, Chief Operator at (470) 678-1234.

## VI. How must the CCR be distributed?

### General

Each community water system **must** mail or deliver a copy of your CCR to each of their consumers, and make a good faith effort to get CCRs to non-bill-paying consumers no later than July 1 of each year. You must also make your CCR available to the public upon request. Listed below ↓ are some methods you can use to effectively deliver the CCR to your consumers.

- ✉ Mail delivery- You may include your CCR with water bills, if feasible, or you may send it as a separate mailer. Sending your CCR as a separate mailer will likely be more effective for consumers who may not receive water bills directly.
- ✉ Notification by mail of CCR availability (such as on a bill, insert, postcard or newsletter), with a direct website link to the CCR
- ✉ Email with the CCR attached, included as an image or containing a direct website link

Please remember to send a copy of the CCR to Georgia EPD when you distribute it to your consumers and submit a certification form verifying that you distributed the CCR, and that the information is correct and consistent with the compliance monitoring data previously submitted to the state.

**Systems that serve 100,000 or more people must post their CCRs on a publicly-accessible site on the Internet. We encourage other systems to post on a website their CCRs as well.**

### Mailing Waivers

Georgia EPD has granted mailing waivers for the Consumer Confidence Report on the following basis.

***Systems serving fewer than 10,000 persons*** do not have to mail copies of the CCR to customers. However, these systems must do the following:

- Publish the reports in one or more local newspapers serving the area, in which the system is located,
- Inform customers that the reports will not be mailed, either in the newspapers in which the CCR reports are published, or by other means such as letters or notices included with the billings, and
- Make the reports available to the public upon request

***Systems serving 500 or fewer persons*** do not have to mail copies of the CCR to customers, and do not have to publish the report in a local newspaper, if they provide notice by July 1 to their customers by mail, or door to door delivery, or by posting in an appropriate location that the report is available upon request.



## **Electronic Delivery**

In January 2013, the EPA approved electronic delivery as long as the delivery will meet the requirement to mail or otherwise directly deliver. Two different approaches are allowed: 1) paper CCR delivery with a customer option to request an electronic CCR, or 2) electronic CCR delivery with a customer option to request a paper CCR. If a Community public water system (CWS) is aware of a customer's inability to receive a CCR by the chosen electronic means, it must provide the CCR by an alternative means allowed by the rule.

Electronic delivery **must** provide the CCR in a manner that is "direct." The EPA interprets this requirement to mean that CWSs can use paper or electronic communication (e.g., water bill, bill insert, postcard or newsletter) with a direct website link to the CCR to meet their CCR requirement. The link must take the customer to the entire CCR so that the customer does not have to navigate to another webpage to find any required CCR content. The communication must display the website link and notice explaining the nature of the link. *\*Note: Refer to appendix E for electronic delivery examples.*

All community water systems need to ensure delivery to every bill paying customer, which may require a combination of paper and/or electronic delivery in a service area. For example, a CWS may provide the CCR through an e-mail to electronic bill paying customers but include a mail notification with a direct website link to customers who receive paper bills or mail those customers a paper CCR.

If a community water system sends the CCR via e-mail and it receives a message that the e-mail failed to reach the customer (i.e., it bounced back) the CWS should send the CCR by an allowable alternative means. In this instance, the CWS has an alternate method of contacting the customer such as a physical address to ensure that the CCR is delivered. Please remember that electronic delivery is your responsibility and you have to make sure that the CCR gets delivered to every consumer.

## **Consumers not receiving water bills**

It is in your system's interest to spread the word about the quality of its water. Since many consumers of your water may not receive bills (people such as apartment renters or workers), you must make "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 the Georgia EPD recommends. Those options include but are not limited to:

- Posting the CCR on the Internet and providing notifications to paying and non-paying customers via e-mail, weblogs or blogs, podcasts, electronic newsletters, Twitter® tweets, reverse-911 calls, text messages, newspaper advertisements or announcements, posting a notice at prominent locations, or other notification methods.
- Mailing the CCR to postal patrons in metropolitan areas; mailing to all postal patrons is recommended.
- Advertising the availability of the CCR in news media (e.g., newspapers, TV, and radio).
- Publishing the complete CCR in a local newspaper.

- Posting the CCR in public places such as cafeterias, lunch rooms, and lobbies of public buildings, libraries, churches, and schools.
- Delivering multiple copies of the CCRs for distribution by single-billed customers such as apartment buildings or large private employers.
- Delivering the CCR to community organizations.

## VII. Keeping CCR Copies on File

Keep your report on file for three years, along with documentation of the delivery method(s) used for the CCR.



## VIII. Additional Resources

Listed below are other sources available to provide additional insight and information on preparing the CCR. ↓

### 🔗 **Consumer Confidence Rule: A Quick Reference Guide**

A brief overview of the rule, public health benefits, and annual requirements

[http://water.epa.gov/lawsregs/rulesregs/sdwa/ccr/upload/guide\\_qrg\\_ccr\\_2011.pdf](http://water.epa.gov/lawsregs/rulesregs/sdwa/ccr/upload/guide_qrg_ccr_2011.pdf)

### 🔗 **Preparing Your Drinking Water Consumer Confidence Report: Guidance for Water Suppliers**

A guidance on EPA's current interpretation of the CCR Rule for water suppliers.

[http://www.epa.gov/safewater/ccr/pdfs/guide\\_ccr\\_forwatersuppliers.pdf](http://www.epa.gov/safewater/ccr/pdfs/guide_ccr_forwatersuppliers.pdf)

### 🔗 **CCRIwriter, Fact Sheet and Website**

EPA has designed this tool to help community water systems quickly create their consumer confidence reports.

[http://water.epa.gov/lawsregs/rulesregs/sdwa/ccr/upload/guide\\_qrg\\_ccr\\_2011.pdf](http://water.epa.gov/lawsregs/rulesregs/sdwa/ccr/upload/guide_qrg_ccr_2011.pdf)

<http://www.ccriwriter.com/>

### 🔗 **Electronic Delivery Memo**

This memo describes CCR delivery methods, including several electronic delivery methods, that EPA has determined meet existing regulatory requirements to “mail or otherwise directly deliver” the CCR to bill-paying customers.

<http://water.epa.gov/lawsregs/rulesregs/sdwa/ccr/upload/ccrdeliveryoptionsmemo.pdf>

### 🔗 **Drinking Water Watch**

You can access drinking water monitoring data and other information for any community water system in Georgia. This website can help generate a report designed to present the data your community water system will need to include when creating a CCR. This is also a great tool to use if you are missing any monitoring data or to make sure your monitoring data is accurate before including it in your CCR.

<http://gadrinkingwater.net/>

### 🔗 **American Water Works Association**

AWWA has developed a complimentary Electronic CCR Best Practices Guide as a resource to water systems interested in developing electronic CCR programs.

<http://www.awwa.org/legislation-regulation/regulations/consumer-communication>

### **Need More Assistance?**

Please contact Georgia EPD's CCR Program Coordinator at (404) 463-1511

## Appendix A- REGULATED CONTAMINANTS AND REQUIRED HEALTH EFFECTS LANGUAGE

*You must report detections of any contaminants on this list in your CCR.*

**Table 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

mg/L = milligrams per liter

**mrem/year** = millirems per year

(measure of radiation absorbed by the body)

**N/A** = Not applicable

**NTU** = Nephelometric Turbidity Units (a measure of water clarity)

pCi/L = picocuries per liter (a measure of radioactivity)

pg/L = picograms per liter

ppb = parts per billion, or micrograms per liter (µg/L)

ppm = parts per million, or milligrams per liter (mg/L)

**ppt** = parts per trillion, or nanograms per liter (ng/L)

**ppq**= parts per quadrillion, or pictograms per liter (pg/L)

**TT**= Treatment Technniques

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
<b>Microbiological Contaminants</b>						
Total Coliform Bacteria (Total Coliform Rule)		MCL: (systems that collect 40 or more samples a month) 5% of monthly samples are positive; (systems that collect less than 40 samples a 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> (Total Coliform Rule)	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, and people with severely-compromised immune systems.
Fecal Indicators (enterococci or coliphage) (Federal Ground Water Rule)	TT		TT	ná	Human and animal fecal waste	Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term health effect, 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	ná	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.

## Appendix A Regulated Contaminants

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
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 and photon emitters 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)	20 pCi/L	-	20	0	Erosion of natural deposits	Some people who drink water containing 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)	0.010	1000	10	10	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

Appendix A Regulated Contaminants

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
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.
Bromate (ppb)	0.010	1000	10	0	By-product of drinking water disinfection	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
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.
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 containing 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 containing chlorine well in excess of the MRDL could experience stomach discomfort.
Chlorine Dioxide (ppb)	MRDL=0.8	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.
Chlorite (ppm)	1	-	1	0.8	By-product of drinking water disinfection	Some infants and young children who drink water containing chlorite in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.

## Appendix A Regulated Contaminants

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
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	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 containing 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=0.015	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.

## Appendix A Regulated Contaminants

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
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
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] (ppt)	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.



## Appendix A Regulated Contaminants

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
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)	.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.
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 toxic effects such as weight loss, liver enlargement or possible 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 problems 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.

Appendix A Regulated Contaminants

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
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)	0.00005	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.
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.

## Appendix A Regulated Contaminants

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major Sources in Drinking Water	Health Effects Language
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.
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.
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.

## Appendix A Regulated Contaminants

<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>
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.
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.

## Appendix A Regulated Contaminants

<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>
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)	0.080	1000	100/80	n/a	By-product of drinking water disinfection	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- Reporting Monitoring Results

*This Appendix provides examples of monitoring data and instructions on how to report certain detects in the CCR. All results must be reported in CCR units.*

### ➤ Reporting for Single Sample Sites

#### **For (1) single sampling site and (1) sampling date**

*Report the highest detected level.*

#### Example Results- Barium Monitoring

Barium MCL	2 ppm
MCL in CCR units	2 ppm
March 15 2013 Result	0.005 ppm

#### *Example CCR Table Excerpt:*

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
Barium (ppm)	2	2	0.005	N/A	3/15/2013	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits

Note: System will report this same result each CCR year until the next sample is taken.

#### **For (1) single sampling site and multiple sampling dates**

*Report the average of the samples taken and the range of detections.*

#### Example Results- Xylenes Monitoring

Xylenes MCL	10 ppm				
MCL in CCR units	10 ppm				
2013 Results reported Individually in CCR Table (ppm)	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr	Average
	1	1	2	ND	1

#### *Example CCR Table Excerpt:*

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
Xylenes (ppm)	10	10	1	ND-2	2013	No	Discharges from petroleum and chemical factories; fuel solvent

## Appendix B- Reporting Monitoring Results

### **For (1) single sample site and multiple sampling dates (quarterly running average)**

*Report the average of the samples taken and the range of detections.*

#### Example Results- Atrazine Monitoring

Atrazine MCL	3 ppb			
MCL in CCR units	3 ppb			
Source Well #1	1 <sup>st</sup> Qtr 2013	2 <sup>nd</sup> Qtr 2013	3 <sup>rd</sup> Qtr 2013	4 <sup>th</sup> Qtr 2013
2013 Atrazine Results (ppb)	<b>0.5</b>	1.6	<b>2.7</b>	1.2
Running Annual Average	0.13	0.53	1.2	<b>1.5</b>
Highest Detected level = <b>2.7</b> (ppb)				
Range = <b>0.5</b> (ppb) to <b>2.7</b> (ppb)				

\* Highlighted numbers represent the average, range and highest RAA in this table.

#### Example CCR Table Excerpt:

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
Atrazine (ppb)	3	3	1.5	0.5-2.7	2013	No	Runoff from herbicide used on row crops

## ➤ Reporting for Multiple Sample Sites

### **For multiple sampling sites and (1) sampling date**

*Report the highest detected level and the range of detections.*

#### Example Results – Barium Monitoring

Barium MCL	2 ppm			
MCL in CCR units	2 ppm			
Source	Well #1	Well #2	Well # 3	Well #4
March 2013 Results (ppm)	0.70	0.36	ND	0.15
	Average = 0.30			

#### Example CCR Table Excerpt:

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
Barium (ppm)	2	2	0.30	ND-0.70	3/2013	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits

## Appendix B- Reporting Monitoring Results

### **For multiple sample sites and multiple sampling dates**

Report the highest average results for an individual source and the range of detections for all sources.

#### Example Results – Xylenes Monitoring

Xylenes MCL	10 ppm				
MCL in CCR units	10 ppm				
Source	2013 Results (ppm)				
	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr	Average
Well 1	1	1	2	<b>ND</b>	1
Well 2	2	2	2	<b>2</b>	2
Well 3	1	1	1	1	1
All wells					<b>1.25</b>

\* Highlighted numbers represent the average and range in this table.

#### Example CCR Table Excerpt:

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
Xylenes (ppm)	10	10	1.25	ND-2	2013	No	Discharges from petroleum and chemical factories; fuel solvent

### **For multiple sample sites and multiple sampling dates (running average)**

Report the highest running annual average calculated by individual source and the range of detections.

#### Example Results – Dalapon Monitoring

Dalapon MCL	0.2 ppm							
MCL in CCR units	200 ppb							
Source	2013 Results (ppb)							
	1 <sup>st</sup> Qtr		2 <sup>nd</sup> Qtr		3 <sup>rd</sup> Qtr		4 <sup>th</sup> Qtr	
	Sample Result	Running Average	Sample Result	Running Average	Sample Result	Running Average	Sample Result	Running Average
Well 1	<b>74</b>	42	60	47	28	50	43	<b>52</b>
Well 2	36	26	12	21	<b>6</b>	17	9	16

\* Highlighted numbers represent the average, range and highest RAA in this table.

#### Example CCR Table Excerpt:

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
Dalapon (ppb)	200	200	<b>52</b>	<b>6 - 74</b>	2013	No	Runoff from herbicide used on rights-of-way, and crops and landscape maintenance



## Appendix B- Reporting Monitoring Results

### ➤ Reporting Lead Results

#### Example Results- Lead Monitoring

July 2013

Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10
ND	ND	9	13	17	3	ND	ND	4	26

#### To calculate the 90<sup>th</sup> percentile:

The results of all samples taken during a monitoring period shall be placed in **ascending order** from the sample with the lowest concentration to the sample with the highest concentration.

July 2013

1	2	3	4	5	6	7	8	<b>9</b>	10
ND	ND	ND	ND	3	4	9	13	<b>17</b>	26

\* Highlighted number represents the 90<sup>th</sup> percentile for lead\*

The number of samples taken during the monitoring period shall be multiplied by 0.9. The contaminant concentration in the numbered sample yielded by this calculation is the 90th percentile value.

**10 samples x 0.9 = 9 therefore, the ninth value is the 90<sup>th</sup> percent value.**

Report in CCR Table:

90<sup>th</sup> percentile = 17 ppb and the number of sites above the action level (15 ppb) = 2

#### Example CCR Table Excerpt:

Contaminant (CCR units)	MCLG	AL	Your Water 90%	Sample Date	# of Samples Exceeding the AL	Violation	Typical Source
Lead (ppb)	0	15	17	2013	2 of 10	No	Corrosion of household plumbing systems; erosion of natural deposits

Note\* Water quality parameter monitoring data that is collected in association with the Lead and Copper Rule should not be included in the report. All water systems must include an informational statement about lead in your report which is provided on page 36.

## Appendix B- Reporting Monitoring Results

### ➤ Reporting Stage 2 DBP Monitoring Results

#### **For multiple sample sites and multiple sampling dates (LRAA average for distribution samples)**

Report the highest locational running annual average of all samples and the range of samples for each monitoring location.

*Example Results – TTHM Monitoring (Stage 2 DBP) No LRAA Exceedance*

TTHM MCL	0.080 ppm			
MCL in CCR units	80 ppb			
Location	2013 TTHM Results (ppb)			
	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
Site 1	45	60	<b>125</b>	70
<i>Site 1 LRAA</i>	<i>11</i>	<i>26</i>	<i>76</i>	<i>75</i>
Site 2	<b>40</b>	55	115	60
<i>Site 2 LRAA</i>	<i>10</i>	<i>24</i>	<i>53</i>	<i>68</i>
Site 3	45	60	105	70
<i>Site 3 LRAA</i>	<i>11</i>	<i>26</i>	<i>53</i>	<i>70</i>
Site 4	50	65	120	75
<i>Site 4 LRAA</i>	<i>13</i>	<i>29</i>	<i>59</i>	<b>78</b>

*Example CCR Table Excerpt:*

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
TTHM (ppb)	80	N/A	<b>78</b>	<b>40 - 125</b>	2013	No	Byproduct of drinking water disinfection

#### **Note**

*Under Stage 2 DBP, for TTHM and HAA5, systems with no LRAA MCL exceedance must report the highest LRAA and the range of quarterly results (for all locations) in their main detected contaminant table.*

## Appendix B- Reporting Monitoring Results

### Example Results – TTHM Monitoring (Stage 2 DBP) LRAA Exceedance

TTHM MCL	0.080 ppm			
MCL in CCR units	80 ppb			
Location	2013 TTHM Results (ppb)			
	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
Site 1	65	60	125	70
<i>Site 1 LRAA</i>	<i>16</i>	<i>31</i>	<i>63</i>	<i>80</i>
Site 2	<b>40</b>	55	115	60
<i>Site 2 LRAA</i>	<i>10</i>	<i>24</i>	<i>53</i>	<i>68</i>
Site 3	45	60	105	70
<i>Site 3 LRAA</i>	<i>11</i>	<i>26</i>	<i>53</i>	<i>70</i>
Site 4	50	65	<b>135</b>	80
<i>Site 4 LRAA</i>	<i>13</i>	<i>29</i>	<i>63</i>	<b>83</b>

\* Highlighted numbers represent the average, range and highest LRAA in this table.

### Example CCR Table Excerpt:

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
TTHM (ppb)	80	N/A	<b>83 (highest LRAA at Site 4)</b>	<b>40 - 135</b>	2013	Yes	Byproduct of drinking water disinfection

\* Include discussion of the TTHM MCL violation at Site 4, including health effects language, below the table.

### Note

*Under Stage 2 DBP Rule, for TTHM and HAA5, systems with only one location with an exceedance, must report the highest LRAA and the range of quarterly results (for all locations) in their main detected contaminant table.*

### Violation

Testing results from 4<sup>th</sup> quarter sampling shows that our system exceeds the standard or maximum contaminant level (MCL), for total trihalomethanes (TTHMs). The standard for TTHMs is 80 ppb averaged at an individual monitoring location over the year. During the 4<sup>th</sup> quarter, our TTHM level at Site 4 was 83 ppb. TTHMs, which are four volatile organic chemicals, form when disinfectants react with natural organic matter in the water. We are working to minimize the formation of TTHMs while ensuring an adequate level of disinfection to protect customers from exposure to bacteria. We have since taken samples at this location and throughout the system and had them tested. They show that we meet the standards.

### *Health Effects Language*

*“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 many have increased risk of getting cancer.”*

## Appendix B- Reporting Monitoring Results

### Example Results – TTHM Monitoring (Stage 2 DBP) Multiple LRAA Exceedances

TTHM MCL	0.080 ppm			
MCL in CCR units	80 ppb			
Location	2013 TTHM Results (ppb)			
	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
Site 1	<b>62</b>	65	<b>125</b>	100
Site 1 LRAA	16	32	63	<b>88</b>
Site 2	<b>40</b>	55	115	60
Site 2 LRAA	10	24	53	68
Site 3	45	60	105	70
Site 3 LRAA	11	26	53	70
Site 4	<b>70</b>	65	<b>135</b>	62
Site 4 LRAA	18	34	68	<b>83</b>

\* Highlighted numbers represent the average, range and highest LRAA in this table.

### Example CCR Table Excerpt:

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
TTHM (ppb)	80	N/A	<b>88 (highest LRAA at Site 1)</b>	<b>40 - 135</b>	2013	See Sites 1 and 4	Byproduct of drinking water disinfection
TTHM Site 1 (ppb)	80	N/A	<b>88</b>	<b>62-125</b>	2013	Yes	Byproduct of drinking water disinfection
TTHM Site 4	80	N/A	<b>83</b>	<b>70-135</b>	2013	Yes	Byproduct of drinking water disinfection

\* Include discussion of the TTHM MCL violation at Sites 1 and 4, including health effects language, below the table.

### Note

Under the Stage 2 DBP Rule, for TTHM and HAA5, systems must report the highest LRAA and the range of quarterly results (for all locations) in their main detected contaminant table. In addition, systems with an LRAA MCL exceedance at more than one location, must report the LRAA for each location that exceeded the MCL.

### Violation

Testing results from 4th quarter sampling shows that our system exceeds the standard or maximum contaminant level (MCL), for total trihalomethanes (TTHMs). The standard for TTHMs is 80 ppb averaged at an individual monitoring location over the year. During the 4th quarter, our TTHM levels at Site 1 and Site 4 were 88 ppb and 83 ppb. TTHMs, which are four volatile organic chemicals, form when disinfectants react with natural organic matter in the water. We are working to minimize the formation of TTHMs while ensuring an adequate level of disinfection to protect customers from exposure to bacteria. We have since taken samples at this location and throughout the system and had them tested. They show that we meet the standards.

### Health Effects Language

“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 many have increased risk of getting cancer.”

## Appendix B- Reporting Monitoring Results

### ➤ Reporting Stage 1 and Stage 2 DBP Monitoring Results

For systems that have both Stage 1 DBP and State Stage 2 DBP data for 2013.

If Stage 2 D/DBPR monitoring began...	Include the...
2 <sup>nd</sup> Quarter of 2013	<ul style="list-style-type: none"> <li>• Stage 1 DBP system-wide RAA from the 1<sup>st</sup> quarter of 2013;</li> <li>• Range of results for all samples taken in 2013; and</li> <li>• LRAA for all locations that exceed the MCL, if the Stage 2 DBP LRAA was exceeded in the 2<sup>nd</sup>, 3<sup>rd</sup>, or 4<sup>th</sup> quarter of 2013</li> </ul>
3 <sup>rd</sup> Quarter of 2013	<ul style="list-style-type: none"> <li>• Highest Stage 1 DBP system-wide RAA from the 1<sup>st</sup> or 2<sup>nd</sup> quarter of 2013;</li> <li>• Range of results for all samples taken in 2013; and</li> <li>• LRAA for all locations that exceed the MCL, if the Stage 2 DBP LRAA was exceeded in the 3<sup>rd</sup> or 4<sup>th</sup> quarter of 2013</li> </ul>
4 <sup>th</sup> Quarter of 2013	<ul style="list-style-type: none"> <li>• Highest Stage 1 DBP system-wide RAA from the 1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup> quarter of 2013;</li> <li>• Range of results for all samples taken in 2013; and</li> <li>• LRAA for all locations that exceed the MCL, if the Stage 2 DBP LRAA was exceeded in the 4<sup>th</sup> quarter of 2013</li> </ul>

*Note\*: Refer to the next page for example.*

## Appendix B- Reporting Monitoring Results

### Example - Reporting Stage 1 and Stage 2 DBP Monitoring Results

Results for a system that began Stage 2 monitoring in 4<sup>th</sup> quarter 2013

TTHM MCL	0.080 ppm			
MCL in CCR units	80 ppb			
Location	2013 Stage 1 TTHM Results (ppb)			
	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
Site 1	45	62	70	n/a
Site 2	<b>40</b>	62	60	n/a
Site 3	45	63	70	n/a
Site 4	50	69	80	n/a
System-wide Quarterly Average	45	64	70	n/a
System-wide Running Annual Average*	73	72	<b>76</b>	n/a

\*System- wide running annual average for quarters 1-3 are based on results from previous quarters not reported on this table.

**Note \* Highlighted numbers represent the average, range and highest LRAA in tables.**

TTHM MCL	0.080 ppm			
MCL in CCR units	80 ppb			
Location	2013 Stage 2 TTHM Results (ppb)			
	1 <sup>st</sup> Qtr	2 <sup>nd</sup> Qtr	3 <sup>rd</sup> Qtr	4 <sup>th</sup> Qtr
Site 1	n/a	n/a	n/a	<b>280</b>
Site 1 LRAA	n/a	n/a	n/a	<b>70</b>
Site 2	n/a	n/a	n/a	n/a
Site 2 LRAA	n/a	n/a	n/a	n/a
Site 3	n/a	n/a	n/a	n/a
Site 3 LRAA	n/a	n/a	n/a	n/a
Site 4	n/a	n/a	n/a	n/a
Site 4 LRAA	n/a	n/a	n/a	n/a

Take the highest Stage 1 DBP system-wide RAA from the 1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup> quarter of 2013 which is **76**, then take the highest LRAA which is **70**, and then get the range of results from lowest to highest for all samples taken in 2013 which is **40-280**.

Example CCR Table Excerpt:

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
TTHM (ppb)	80	N/A	<b>76,70</b>	<b>40 - 280</b>	2013	No	Byproduct of drinking water disinfection

## Appendix B- Reporting Monitoring Results

### ➤ Reporting Turbidity Results

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.

*Example CCR Table Excerpt:*

#### *For a conventional or direct filtration system*

Contaminant	MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical Source
Turbidity	TT = 1 NTU	N/A	0.7 NTU	N/A	2013	No	soil runoff
	TT = 95% of samples ≤0.3 NTU		95%	N/A			

### ➤ Reporting Total coliforms, Fecal coliforms, and *E. coli* under TCR rule

*Example CCR Table Excerpt:*

#### *For a system collecting fewer than 40 total coliform samples per month*

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
Total Coliform	1 positive sample/month	0	1 positive sample		2013	No	Naturally present in the environment
Fecal coliform or <i>E. coli</i> bacteria		0	0		2013	No	Human or animal fecal waste

Note: \* If more than one sample collected during a month is positive then a violation should be reported in the CCR.

*Example CCR Table Excerpt:*

#### *For a system collecting 40 or more total coliform samples per month*

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
Total Coliform	5% of monthly samples are positive	0	1.5 %		2013	No	Naturally present in the environment
Fecal coliform or <i>E. coli</i> bacteria		0	0		2013	No	Human or animal fecal waste

Note: \*If more than 5% of samples collected during a month are positive then a violation should be reported in the CCR.

### ➤ Reporting Radionuclide Results

*Example CCR Table Excerpt:*

#### *Reporting Combined Radium Results*

Contaminant (CCR units)	MCL	MCLG	Average	Range	Sample Date	Violation	Typical Source
Combined Radium (pCi/L)	5	0	3		2013	No	Erosion of natural deposits

**Georgia Department of Natural Resources**  
**Environmental Protection Division**

Watershed Protection Branch Watershed Compliance Program  
 2 Martin Luther King Jr. Dr., S.W., Suite 1152 East, Atlanta, Georgia 30334  
 (404) 463-1511

**Georgia Environmental Protection Division Public Drinking Water**  
**Consumer Confidence Report Certification Form**

Community Water System (CWS) Name: \_\_\_\_\_

Georgia Public Water System I.D. Number: \_\_\_\_\_

The CWS identified above does hereby confirm that a Consumer Confidence Report (CCR) has been distributed to its customers. The water system further certifies that the information contained in the report is accurate and consistent with the compliance monitoring data previously submitted for the same time period to the Division (EPD). In addition, if this report is being used to meet Tier 3 Public Notification requirements, as denoted by the checked box below, the CWS certifies that public notification has been provided to its consumers in accordance with the requirements of 40 CFR 141.204(d).

Certified and attested by the following person:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Name: \_\_\_\_\_ Title: \_\_\_\_\_  
 E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_

The CCR includes text which provides mandated Public Notice for a monitoring violation (check box, if yes)

EPD requests the following material in order to gather information on distribution methods utilized by Community Water Systems. Please mark and/or fill out all items which apply to your CCR program or means of report distribution.

**For ALL community water systems, indicate the method(s) used for CCR notification and/or distribution:**

**Note:** For systems serving >10,000 persons, a "good faith effort" must be made to your "other" water system consumers by three or more of the following methods (mark all methods utilized):

- CCR is posted on the Internet at a publicly available site:  
 http://\_\_\_\_\_
- Notification of Electronic CCR with direct URL  
 utility bill  email  publication in newspaper  other (e.g., bill insert, newsletter, postcard)
- Electronic Delivery of CCR  
 Direct e-mail delivery of CCR ( attached  embedded  direct URL to CCR)  
 If the CCR was provided by a direct URL, please provide the direct URL Internet address:  
 http://\_\_\_\_\_
- Electronic Delivery with customer option to request paper CCR
- US Postal Service mailing to all consumers within the service area (attach list of zip codes used)
- Advertised availability of CCR to local news media (attach announcement used)
- Published CCR in local newspaper (attach physical copy of paper publication)
- Posted CCR notice of availability in prominent public location(s) (attach list)
- Directly delivered individual CCR copies to all residents in the community
- Directly mailed individual CCR copies to each customer receiving a water bill
- Included notice of availability with water bill
- Other direct delivery methods were utilized such as (please list below):  
 \_\_\_\_\_

**Indicate the number of "consumers served" or "population served" by your water system:** **Send completed CCR certification form AND a copy of final CCR to the following address:**

- <500 consumers served  
 501 - 9,999 consumers served  
 10,000 - 99,999 consumers served  
 >100,000 consumers served

Georgia EPD Watershed Compliance Program  
 Consumer Confidence Report  
 Suite 1152, Floyd Towers East  
 2 Martin Luther King Jr. Drive, SW  
 Atlanta, GA 30334



## Consumer Confidence Report Form for Georgia Community Water Systems

GA Community Water System Name: \_\_\_\_\_ GA Water System ID #: \_\_\_\_\_

Name & phone number of water system contact: \_\_\_\_\_ (#) \_\_\_\_\_

This report details information on our water system for the calendar year \_\_\_\_\_ unless otherwise noted.

### Summary Water System Information

Introduction:

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### Raw Water Source Information

Common Name of Water Source: \_\_\_\_\_ Type of Water Source: \_\_\_\_\_  
(name of lake, aquifer, stream, etc.) ( select all that apply: groundwater, surface, or combined)

Public Participation Opportunities: (community meetings, board, meetings, hearings, etc.)

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Non-English Speaking Language: (if applicable)

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Availability of Source Water Assessments and Contaminant Susceptibility:

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### General Water Quality Health Effects Language

*Some people may be more vulnerable to contaminants in drinking water than the general population. 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 from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the **Safe Drinking Water Hotline (1-800-426-4791)***

*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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **EPA Safe Drinking Water Hotline (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 the following:*

- # *Microbial contaminants, such as viruses and bacteria, which 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 storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.*

Appendix D- CCR Template for Small Water Systems

- # *Pesticides and herbicides, which 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.*
- # *Radioactive contaminants, which 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. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.*

*If present elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [Name of Water System] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.*

<b>Detected Inorganic Contaminants Table</b>							
<u>Parameter/units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Water System Results</u>	<u>Range of detections</u>	<u>Sample Date</u>	<u>Violation No/Yes</u>	<u>Typical Source of Contaminant</u>

<b>Detected Organic Contaminants Table</b>							
<u>Parameter/units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Water System Results</u>	<u>Range of detections</u>	<u>Sample Date</u>	<u>Violation No/Yes</u>	<u>Typical Source of Contaminant</u>

<b>Other Monitoring Results</b>							
<u>Parameter/units</u>	<u>MCL or AL or TT</u>	<u>MCLG</u>	<u>Water System Results</u>	<u>Range of detections</u>	<u>Sample Date</u>	<u>Violation No/Yes</u>	<u>Typical Source of Contaminant</u>

<b>Lead and Copper Monitoring Results</b>							
<u>Parameter/units</u>	<u>Action Level</u>	<u>MCLG</u>	<u>Water System Results</u>	<u># of sample sites found above the Action Level</u>	<u>Violation No/Yes</u>	<u>Sample Date</u>	<u>Typical Source of Contaminant</u>
Lead/ppb	15	0					Corrosion of household plumbing
Copper/ppm	1.3	1.3					Corrosion of household plumbing

<b>Microbiological Monitoring Results</b>						
<u>Parameter/units (present or absent in sample)</u>	<u>MCL</u>	<u>MCLG</u>	<u>Water System Results</u>	<u>Sample Date</u>	<u>Violation No/Yes</u>	<u>Typical Source of Contaminant</u>
Total Coliform Bacteria	1	0				Naturally present in the environment

**Definition of Terms and Abbreviations Used in Report**

**Maximum Contaminant Level (MCL):** *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 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.*

**Action Level (AL):** *The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.*

**Treatment Technique (TT):** *A required process intended to reduce the level of a contaminant in drinking water.*

**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 microbiological contaminants.*

**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.*

**Other Definitions of Terms Used in this Report:**

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**Health Effects Language and Background Information on any Violations Incurred During Report Period:**

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**Information On Compliance With Any Other Regulations or Specific Operating Criteria:**

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**Additional Community and Educational Information About Our Water System:**

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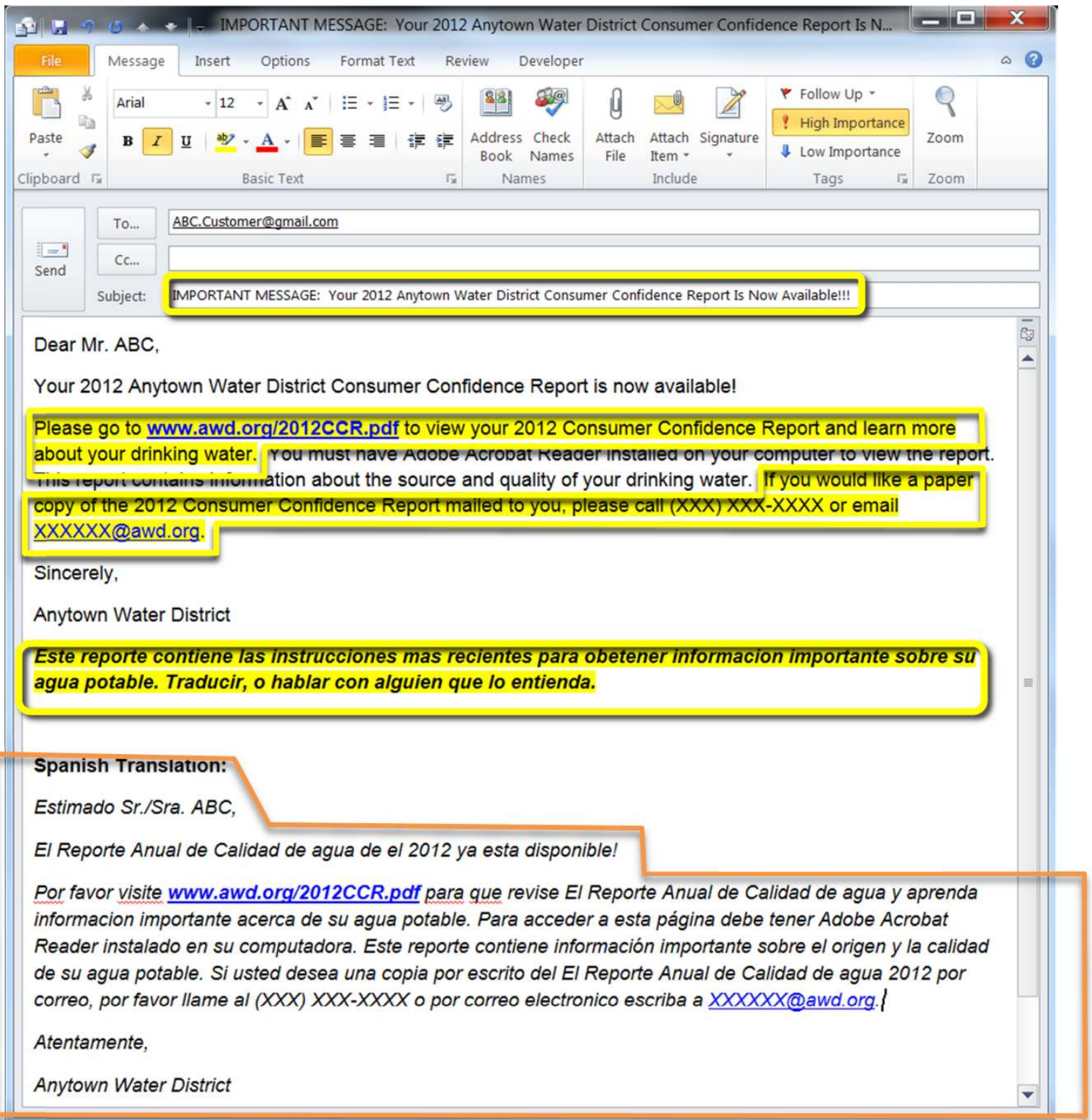
**Important Dates For Consumer Confidence Report Submission:**

Consumer Confidence Reports are due to Georgia EPD offices AND customers annually no later than July 1<sup>st</sup>.

Consumer Confidence Report Certification Forms are due to EPD offices annually no later than October 1<sup>st</sup>

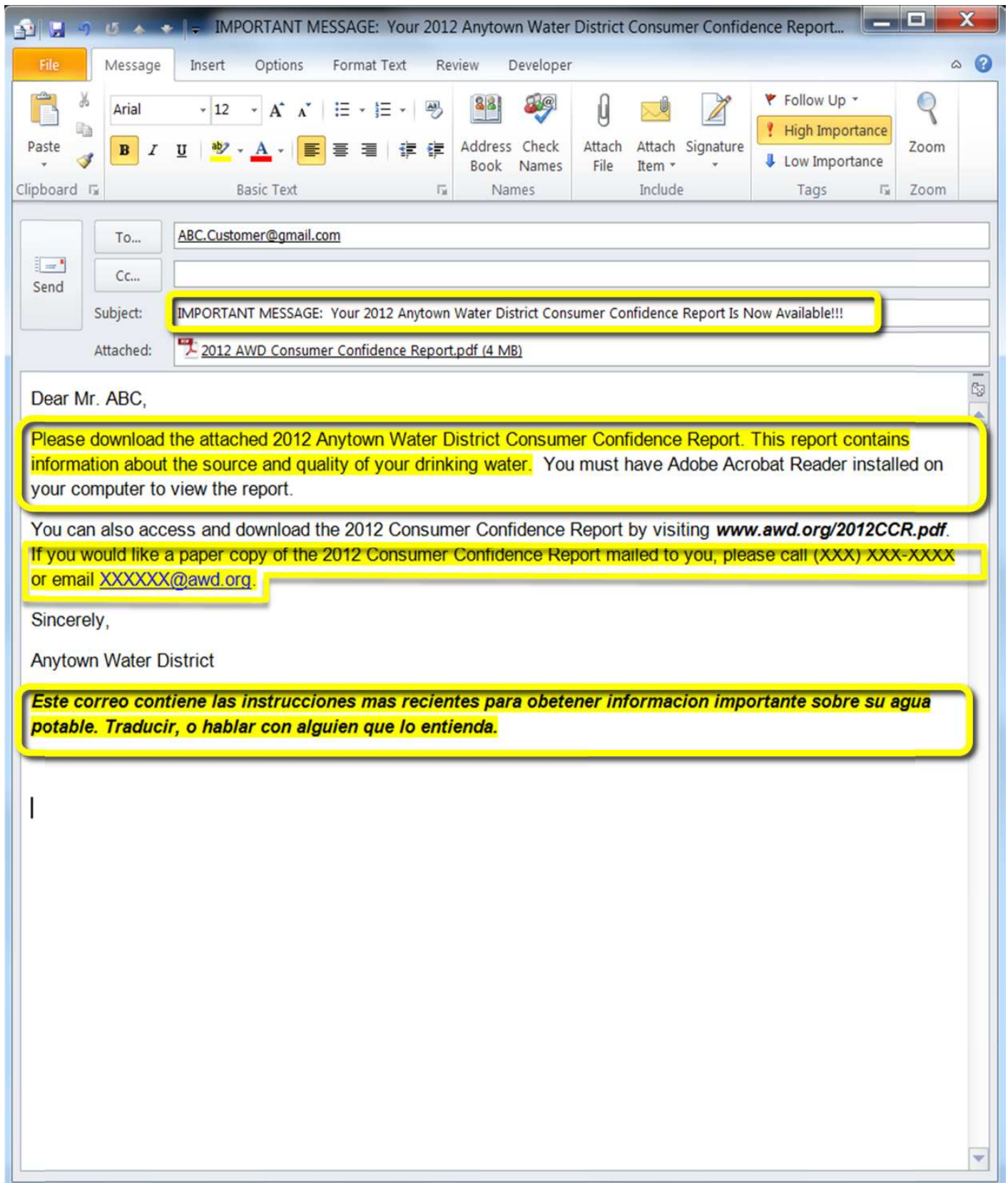


**Example Electronic CCR Delivery Method #2 – Sample of an email with a direct URL sent to bill-paying customers, including auto-pay and electronic bill-payers. Minimum required elements highlighted in yellow.**

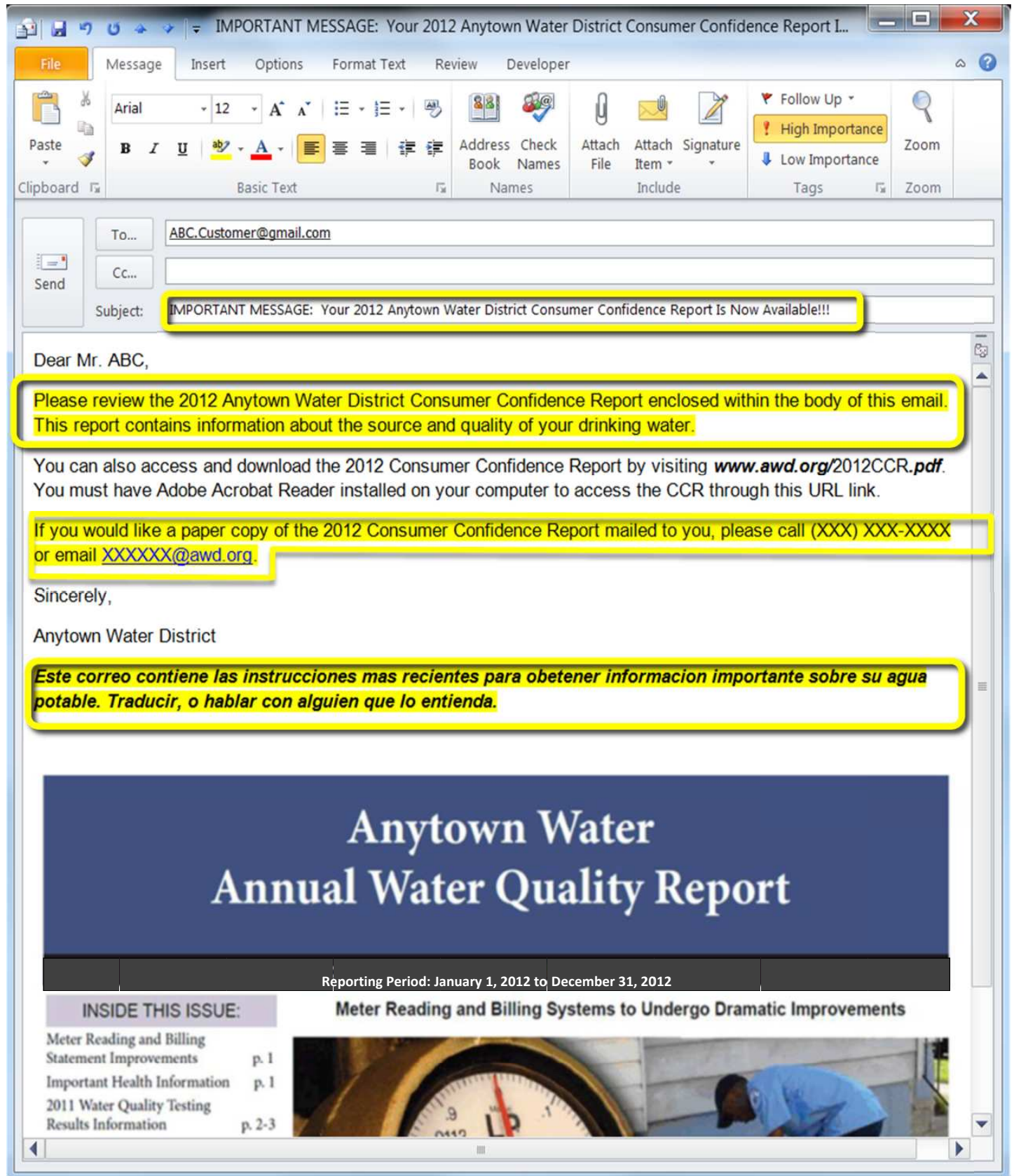


*Multilingual Requirement: Water systems may choose to exceed the minimum multilingual requirement and translate the entire text of their email to ensure delivery to non-English speaking customers (optional).*

**Example 3. CCR Delivery Method #3 – Sample of a CCR emailed to customers as an embedded image (minimum required elements highlighted in yellow).**



**Example 4. CCR Delivery Method #4 – Sample of a CCR emailed to customers as an embedded image (minimum required elements highlighted in yellow).**



**CHECKLIST FOR COMPLETED CCR**  
**Basic CCR Requirements**

**Item 1 – Water System Information**

- Name/phone number of contact person
- Information on public participation opportunities
- Information in Spanish that report content is important or offer additional information
- Information for other non-English speaking populations, if applicable

**Item 2 – Sources of Water**

- Type, name, and location of water sources
- If source water assessment completed: completion date (or when last updated), availability and how to obtain it, and vulnerability assessment

**Item 3 – Definitions (specific language)**

- MCL
- MCLG
- PHG
- Primary drinking water standard
- Others as needed (MRDL, MRDLG, regulatory action level, treatment technique, variances and exemptions)

**Item 4 – Reported Levels of Detected Contaminants (in one or more tables)**

- Summary of data on detected regulated and unregulated contaminants [both federal and state lists]
- MCL or MRDL expressed as a number equal to or greater than 1.0 and the PHG (or MCLG) or MRDLG in the same units
- TT or regulatory action level designation if there is no MCL or MRDL
- Compliance monitoring data in MCL/MRDL units for year of report, with detected level and range of sample results (see regulations and guidance Appendix C)
- For turbidity: reporting differs (see regulations and guidance)
- For coliforms: reporting differs (see regulations and guidance)
- For lead/copper: 90<sup>th</sup> percentile value, no. of sites sampled, and no. of sites exceeding action level
- For unregulated contaminants: average and range of contaminant detections
- If monitoring less than once a year: date of most recent sample, result, and statement that data is from most recent sampling
- Known or likely source of each detected contaminant with an MCL/MRDL/TT/regulatory AL
- MCL/MRDL/TT/regulatory AL violations highlighted
- Definitions of all units used in the table

**Item 5 – Information on Monitoring for *Cryptosporidium*, Radon, and Other Contaminants**

- Warning for vulnerable populations about *Cryptosporidium*, if detected
- Explanation of radon and its presence in the finished water, if detected
- Explanation of unregulated contaminants and their presence in drinking water, if detected

**Item 6 – Compliance with Other Drinking Water Regulations**

- Explanation of violation: length of violation, potential health effects (health effects language available for primary MCL, MRDL, TT, and regulatory AL), and steps taken to correct the violation
- Special notices for GWR

**Item 7 – Variances and Exemptions**

- Explanation of variance/exemption, if applicable

**Item 8 – Required Educational Information (specific language)**

- Explanation of contaminants and their presence in drinking water
- Explanation regarding contaminants that may reasonably be expected to be found in drinking water, including bottled water
- Information to customers that some people may be more vulnerable to contaminants in drinking water
- Informational statements on nitrate, lead, and arsenic, if applicable



## Consumer Confidence Reports FAQs

### Q. "What is a CCR?"

All Georgia Community Water Systems (CWS) are to provide an annual Consumer Confidence Report (CCR) to their customers and to Georgia EPD no later than July 1<sup>st</sup> of each year. The Consumer Confidence Report, or CCR, is an annual water quality report that a community water system is required to provide to its customers. The CCR helps people make informed choices about the water they drink. They let people know what contaminants if any, are in their drinking water, and how these contaminants may affect their health. CCRs also give the system a chance to tell customers what it takes to deliver safe drinking water.

### Q. "Are the State of Georgia CCR requirements different from the federal CCR requirements?"

No. The State of Georgia adopted the federal Consumer Confidence Report rule "as is." The State of Georgia CCR requirements are the same as the federal CCR requirements.

### Q. "As a new community water system am I required to produce a CCR in the same year?"

No, a community water system must deliver to all its customers their first CCR report by July 1 of the year after its first full calendar year in operation and annually thereafter.

### Q. "As a wholesaler am I required to produce a CCR?"

No, wholesaler must provide all monitoring data and information required to the buyer no later than April 1 annually.

### Q. "Are there tools available to help us to prepare the CCR? Where can I find additional information about the CCR?"

Georgia EPD has developed a guidance manual that can assist Georgia community water systems in preparing their CCR. EPA has a guidance document for water suppliers and an internet-based tool that can quickly create the CCR called CCRiwriter.

For more additional information about the CCR you can visit EPA's website:

<http://water.epa.gov/lawsregs/rulesregs/sdwa/ccr/basicinformation.cfm>

**Q. "Do I need to list all my water quality monitoring data in my Consumer Confidence Report?"**

No, the CCR rule does not require you to list all the chemicals that you test and have results for. You need to include only detected chemicals - that is, those that are reported as positive values by your laboratory.

The CCR rule requires that you NOT include non-detects in your detected contaminant table. You can talk about them if you wish, but they are not to be included in the detected contaminant table. The report is intended to provide the reader with a short "snapshot" of what was in the water in recent years.

**Q. "Do I have to report any contaminants detected under the UCMR (Unregulated Contaminant Monitoring Rule)?"**

Under the Consumer Confidence Report Rule (CCR) Rule, water systems must report the monitoring results whenever unregulated contaminants are detected. This helps EPA determine what contaminants suspected to be present in drinking water that do not have health –based standards set under the Safe Drinking Water Act (SDWA)

**Q. "How do I distribute the CCR to the consumers?"**

Community water systems MUST DIRECTLY deliver a CCR to each consumer via mail, hand delivery, or electronically by July 1 of each year. Additionally, a good faith effort must be made to reach customers who do not receive water bills. You may place the CCR on your website, publish an article in a newspaper, and/or post it in a public area.

**Q. "How early can I deliver my report to my consumers?"**

The Consumer Confidence Report is due to be delivered to your customers and Georgia EPD no later than July 1 of each year. You may deliver it any time after you have completed the previous year's monitoring requirements and received the results from your lab. As long as the report contains the most recent information through December of the previous year, it can be delivered any time between January 1 and July 1 of the new year.

**Q. “How do I distribute the CCR to the consumers?”**

Community water systems **MUST DIRECTLY** deliver a CCR to each consumer via mail, hand delivery, or electronically by July 1 of each year. Additionally, a good faith effort must be made to reach customers who do not receive water bills. You may place the CCR on your website, publish an article in a newspaper, and/or post it in a public area.

**Q. "What methods can I use to submit my CCR and certification form to Georgia EPD?"**

You can do any of the following:

- Mail a hard copy via United States Postal Service, FedEx, United Parcel Service, etc.
- Hand deliver a hard copy to the Watershed Compliance Office-Atlanta
- FAX your report
- E-mail with a word processing file or PDF attached

**Q. "I may not be able to meet the July 1 due date for this year's report. May I have an extension to avoid a violation?"**

The Consumer Confidence Report summarizes the results of water quality monitoring through December of last year. You have six months (January through the end of June) to produce and distribute the report. Georgia EPD is not granting extensions beyond the due date of July 1 because we believe six months is enough time for you to produce and distribute the report.