

## Preparing Your Consumer Confidence Report (CCR)

This sheet outlines some requirements to help you prepare your CCR to report the quality of your drinking water during the last year. For more information, contact the environmental quality analyst at your DEQ district office.

**Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5):** Report the running annual average (RAA) and the range of detections of TTHM and HAA5. Note that the last 3 quarters of the previous year's averages are included in order to calculate the RAA at the end of the 1<sup>st</sup> quarter of the year covered by the CCR.

Single distribution site:

TTHM	Previous Year			Year Covered by the CCR			
	2 Qtr	3 Qtr	4 Qtr	1 Qtr	2 Qtr	3 Qtr	4 Qtr
Distribution site	80	55	60	45	65	115	79
RAA	-	-	-	60	56	71	76

Report the highest RAA (76) and the range of detections during the year covered by the report (45-115).

**Initial Distribution System Evaluation (IDSE):** During 2008 water supplies sampled for TTHM and HAA5 under IDSE requirements of the Stage 2 Disinfectants and Disinfection Byproducts Rule. The range of detections of TTHM and HAA5 must include both Stage 1 and Stage 2 TTHM detections. However, the highest RAA is based only on Stage 1 monitoring.

**Cryptosporidium Monitoring:** Some systems may have monitored for *Cryptosporidium* in 2008 to comply with the new Long Term 2 Enhanced Surface Water Treatment Rule. If monitoring indicates the presence of *Cryptosporidium* either in the source water or finished water, then include a summary of the results of the monitoring, though actual results are not required. Also, include an explanation of the significance of the results. Suggested language is:

"*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.

***E. coli* monitoring:** Any water supply with a confirmed *E. coli* or fecal coliform result from the distribution system must include the health effects language. Confirmed detection means that the original sample or the repeat sample was total coliform positive, fecal coliform, or *E. coli* and the other sample detected fecal coliform or *E. coli*.

Surface water supplies that sampled the source water for *E. coli* in under the Long Term 2 Enhanced Surface Water Treatment Rule are NOT required to report those detections on the CCR.

**New CCR Language for Lead:** Beginning next year (CCR covering 2009), water supplies must include information about lead, *even if lead is not detected*. The MDEQ encourages water supplies to include it this year. But supplies aren't required to include the new lead information until the CCR covering 2009. Delete any lead language you have used in the past and include the following new language:

*New lead language:* 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>.

**Chlorine residual:** Chlorine residual is based on a running annual average, calculated quarterly of monthly averages for the last 12 months. Therefore, at the end of the month calculate the average of all chlorine residual measurements taken that month. At the end of the quarter, calculate the average of the previous 12 months ending that quarter to determine compliance with the RAA. For example, the shaded numbers in the table below are averaged to calculate the RAA at the end of the 1st quarter of the year covered by the report.

Chlorine or Chloramines	Previous Year											
	Ja	Fe	Ma	Ap	Ma	Ju	Jl	Au	Se	Oc	No	De
Bacteriological sample site #1	-	-	-	0.5	0.5	4	2	1	4	4	1	2
Bacteriological sample site #2	-	-	-	2.5	5.5	1	3	2	2	3	3	3
Average of all measurements taken in the month	N/A for RAA in year covered by the CCR			1.5	3	2.5	2.5	1.5	3	3.5	2	2.5
Chlorine or Chloramines	Year Covered by the CCR											
Bacteriological sample site #1	<b>1</b>	2	3	3	3	2	4	2	1	1	3	5
Bacteriological sample site #2	4	1	<b>5</b>	2	1	1	1	4	2	2	3	1
Average of all measurements taken in the month	2.5	1.5	4	2.5	2	1.5	2.5	3	1.5	1.5	3	3
RAA calculated quarterly of 12 monthly averages	-	-	<b>2.5</b>	-	-	2.4	-	-	2.4	-	-	2.4

*Report chlorine residual on the CCR:* Report the highest RAA (2.5 in example, above) and the range of detections during the year covered in the report (1 to 5 in the example). The federal disinfection rule is unclear whether supplies should report the range of individual residual measurements or the range of monthly averages. Whether you report the range of individual detections or the range of monthly averages, we believe you have reported in good faith. We will inform you if the U.S. EPA clarifies requirements.

**Arsenic:** Effective January 23, 2006, supplies must comply with the new arsenic maximum contaminant level (MCL) of 0.010 milligrams per liter, or 10 parts per billion (ppb). You may need to include additional information based on the level detected. Use the following table as a guide:

<i>If arsenic results were ...</i>	<i>Then include the following in your table of detected contaminants ...</i>
Not detected	Not applicable – you don't need to report contaminants that are not detected (except sodium, which must be reported, even if not detected).
Detected at 5 ppb or lower	<ul style="list-style-type: none"> <li>Levels detected.</li> <li>The typical sources of contamination.</li> </ul>
Detected above 5 ppb but less than or equal to 10 ppb	<ul style="list-style-type: none"> <li>Levels detected.</li> <li>The typical sources of contamination.</li> <li>"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."</li> </ul>
Calculated Running Annual Average above 10 ppb	<ul style="list-style-type: none"> <li>Levels detected.</li> <li>The typical sources of contamination.</li> <li>Note on the table of detected contaminants that a violation occurred.</li> <li>"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."</li> </ul>

**Sodium:** Include sodium levels, even if sodium is not detected, from the entry point to the distribution system (also known as the plant tap.) Feel free to include the level in the list of detected contaminants, either regulated or unregulated, whatever's easiest. Sodium has no MCL or MCLG. Include the typical source of contamination as "Erosion of natural deposits."

**Include health effects language:** Usually the health effects language is not required unless the system violates the MCL. However, Michigan rules require including the health effects language when the level of any sample result is above the MCL for fluoride, nitrate, or nitrite. Also, Michigan requires health effects language when any sample result for lead is above 15 ppb or copper above 1.3 mg/L. A water supply with a confirmed *E. coli* or fecal coliform result from the distribution system must include the health effects language. Confirmed detection means that the original sample or the repeat sample was total coliform positive, fecal coliform, or *E. coli* and the other sample detected fecal coliform or *E. coli*.

### References for CCR

The CCR page of the U.S. EPA web site at <http://www.epa.gov/safewater/ccr/index.html> which includes:

- *Preparing Your Drinking Water Consumer Confidence Report: Revised Guidance for Water Suppliers*, April 2005. You can access it at <http://www.epa.gov/safewater/ccr/compliancehelp.html> Click on Guidance For Water Suppliers.
- CCRiWriter is an on-line tool to make your own CCR. You can access it at <http://www.ccriwriter.com/>