



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
DRINKING WATER AND ENVIRONMENTAL HEALTH

CONSUMER CONFIDENCE REPORT (CCR) CHECKLIST

Water System: _____ WSSN: _____ CCR Calendar Year: _____

I. Source of the Water Delivered

- A. Type of water (e.g., surface water, groundwater)
- B. Commonly used name and location
- C. Information on Source Water Assessments:
 - 1. Availability and means to obtain.
 - 2. Encouraged: Summary of system's susceptibility to potential sources of contamination.
 - 3. Optional: discuss wellhead protection program here.

II. Definitions (list only those terms used in the report, however Maximum Contaminant Level (MCL) and Maximum Contaminant Level Goal (MCLG) are mandatory for every CCR)

- A. Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.
- B. 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.
- C. Variance and Exemptions.
- D. Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
- E. Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- F. 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.
- G. 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.
- H. Level 1 Assessment: A study of the water supply to identify potential problems and determine (if possible) why total coliform bacteria have been found in the water system.
- I. Level 2 Assessment: A very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in the water system on multiple occasions.
- J. Units of measure (recommended).

III. Table of only detected contaminants for which monitoring is required by §141.40, §141.142 and §141.143

A. Required Data:

1. Regulated contaminants (subject to an MCL, MRDL, AL, or treatment technique)
2. Unregulated contaminants
3. Disinfection byproducts (DBP) or microbial contaminants (conducted under DBP), except *Cryptosporidium*

B. Format:

1. One table or several adjacent tables of results of contaminants detected. Results of contaminants not detected, if displayed, or results of voluntary monitoring must be separate from required data table.
2. Supplies are strongly encouraged to report results of voluntary monitoring which may indicate a health concern. The United States Environmental Protection Agency (USEPA) considers detects above a proposed MCL or health advisory level to be possible health concerns.

C. Required Data Table Must Contain:

1. Contaminants detected in a calendar year. List most recent results of detected contaminants that are tested for less frequently than annually (within five years and show the date if earlier than the year covered by the report). Include explanation such as:

“The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All of the data is representative of the water quality, but some are more than one year old.”
2. MCL expressed as a number equal to or greater than 1.0, or indicate that it is a TT or specify the AL.
3. MCLG expressed in the same units as the MCL.
4. The likely source(s) of detected contaminants.
5. Results of detected regulated contaminants that are sampled annually or less frequently:
 - a. Highest level detected
 - b. Range of sample results
6. Results of detected regulated contaminants whose MCL is determined by calculating running annual average:
 - a. Highest running annual average used for compliance
 - b. Range of individual sample results
7. Results of detected unregulated monitoring, but not including *cryptosporidium*):
 - a. Average level detected
 - b. Range of individual sample results from the calendar year covered by the report

- c. May also include a brief explanation of the reasons for monitoring for unregulated contaminants such as:

“Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where these contaminants occur and whether it needs to regulate those contaminants.”

8. Turbidity measurements:

- a. Highest single measurement
- b. Lowest monthly percentage of samples meeting the turbidity limits
- c. May also explain reasons for measuring turbidity such as:

"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."

9. Lead and copper results:

- a. The 90th percentile values of the most recent round of sampling
- b. If both six-month rounds were sampled, list both sets of data
- c. The range of individual lead and copper sample results
- d. The number of samples that exceeded either action level
- e. Lead health effects language if a sample detected lead above the action level
- f. Copper health effects language if a sample detected copper above the action level
- g. Educational information about lead must be in the CCR every year, no matter what the 90th percentile value is.

IV. *Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. [INSERT NAME OF SYSTEM] is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for at least 5 minutes to flush water from both your home plumbing and the lead service line. If you are concerned about lead in your water and wish to have your water tested, contact [INSERT NAME OF SYSTEM and CONTACT INFORMATION] for available resources. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.*

1. Microbial contaminants results:
 - a. The total number of *E. coli* -positive samples in the distribution system or at the source
 2. The table must clearly identify violations of MCLs/TT
- B. Additional Monitoring:

1. Results of cryptosporidium monitoring, if detected, performed to satisfy the requirements of §141.143. Explain significance of the results such as:

"Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Although Cryptosporidium can be removed by filtration, the most commonly used filtration methods cannot guarantee 100 percent removal. Monitoring of our source water and/or finished water indicates the presence of these organisms. Current test methods do not enable us to determine if these organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immuno-compromised people have more difficulty and are at greater risk of developing severe, life threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to prevent infection. Cryptosporidium must be ingested for it to cause disease and may be passed through other means than drinking water."

2. Results of radon monitoring, if indicates present in finished water. Explain significance of the results, such as:

"Radon is a naturally occurring gas present in some ground water. It poses a lung cancer risk when the radon gas is released from water into air (as occurs during showering, bathing, or washing dishes or clothes), and a stomach cancer risk when you drinking water containing radon. Radon gas released from drinking water is a relatively small part of the total radon in air. Other sources of radon gas are soils which enter homes through foundations, and radon inhaled directly while smoking cigarettes. Experts are not sure exactly what the cancer risk is from a given level of radon in your drinking water. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional information on how to have your home tested contact [insert name of health department or local phone number to obtain test kits]."

3. Levels of sodium monitored under R 325.10717b(2). Note that sodium levels must be reported, even if not detected.

V. Compliance with State or National Primary Drinking Water Regulations (NPDWR)

- A. Note any violation and provide a clearly and readily understandable explanation of the violation including:

1. The length of the violation.
2. The potential adverse health effects (if MCL violation).
3. Actions taken by the system to address the violation.
4. Supplies that failed to send a Consumer Notice of Lead results must say so on the CCR. We suggest a statement such as, "During the year, we failed to provide

lead results to persons served at the sites that were tested as required by the Lead and Copper Rule.”

VI. Additional Information:

- A. Non-English Speaking Notice (if large non-English speaking populations, e.g., >10%).
- B. Opportunities for Public Participation.
- C. Telephone number of system contact person.
- D. Mandatory language regarding contaminants reasonably expected to be found in drinking water. (§141.153(h)(1)(i) through (iv)):

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's Safe drinking Water Hotline (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:

- *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 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, 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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health."

E. Required Additional Health Information.

- 1. Warning about the vulnerability of some populations to contaminants in drinking water. (§151.154(a)):

"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 (800-426-4791).”

2. Educational information about arsenic and nitrate if detected at certain levels.

Arsenic if detected at >0.005mg/L (50% of the MCL):

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.

Nitrate if detected >5mg/L (50% of the MCL):

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

3. Educational information about lead must be in the CCR every year, no matter what the 90th percentile value is:

Information about lead: *Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. [INSERT NAME OF SYSTEM] is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for at least 5 minutes to flush water from both your home plumbing and the lead service line. If you are concerned about lead in your water and wish to have your water tested, contact [INSERT NAME OF SYSTEM and CONTACT INFORMATION] for available resources. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.*

4. Summary of a significant deficiency or a notice from a laboratory of a valid fecal indicator-positive groundwater source sample that is uncorrected at the time of the report. Summary should include:
 - a. The date the deficiency was identified and the nature of the deficiency
 - b. If the contamination in the groundwater source has been addressed
 - c. If the deficiency has not been addressed, the plan and schedule for correction
 - d. The potential health effects language for fecal or *E. coli* bacteria

5. A supply that completed a Level 1 or a Level 2 Assessment during the calendar year covered by the report should include the following:

- a. If an assessment was done that was **NOT** due to an *E. coli* MCL, include:

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct the problems that were found during these assessments.

During the past year we were required to conduct [INSERT NUMBER OF LEVEL 1 ASSESSMENTS] level 1 assessment(s). [INSERT NUMBER OF LEVEL 1 ASSESSMENTS] level 1 assessment(s) were completed. In addition, we were required to take [INSERT NUMBER OF CORRECTIVE ACTIONS] corrective actions and we completed [INSERT NUMBER OF CORRECTIVE ACTIONS] of these actions.

During the past year [INSERT NUMBER OF LEVEL 2 ASSESSMENTS] Level 2 assessments were required to be completed for our water supply. [INSERT NUMBER OF LEVEL 2 ASSESSMENTS] Level 2 assessments were completed. In addition, we were required to take [INSERT NUMBER OF CORRECTIVE ACTIONS] corrective actions and we completed [INSERT NUMBER OF CORRECTIVE ACTIONS] of these actions.

- b. Supplies that failed to complete the required assessments or correct all identified defects, should include, as appropriate:

During the past year we failed to conduct all of the required assessment(s).

During the past year we failed to correct all identified defects that were found during the assessment.

- c. Supplies required to undergo a Level 2 Assessment due to an *E. coli* MCL should include:

Include in the report the text, "E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We found E. coli bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct the problems that were found during these assessments.

We were required to complete a Level 2 assessment because we found E. coli in our water system. In addition, we were required to take [INSERT NUMBER OF CORRECTIVE ACTIONS] corrective actions and we completed [INSERT NUMBER OF CORRECTIVE ACTIONS] of these actions.

- d. Supplies that violated the *E. coli* MCL shall include one or more of the following statements:
 - i. *We had an E. coli-positive repeat sample following a total coliform-positive routine sample.*
 - ii. *We had a total coliform-positive repeat sample following an E.-coli-positive routine sample.*
 - iii. *We failed to take all required repeat samples following an E.-coli-positive routine sample.*
 - iv. *We failed to test for E. coli when a repeat sample tests positive for total coliform.*

F. Summary of a Violation/Public Notice.

1. You must still describe all violations below the table, which should include a description of the violation, the mandatory health effects language (from Table 1 of R 325.10405), and actions taken to address the violation.
 - a. If monitoring requirements were not met, explain the violation below the table such as:

During the monitoring period from _____ to _____, we did not take the required number of routine samples for [enter contaminant name]. This violation did not pose a threat to the quality of the drinking water. [FURTHER EXPLAIN WHAT HAPPENED, ACTIONS TAKEN TO REMEDY THE SITUATION, POTENTIAL HEALTH EFFECTS, AND STEPS TAKEN TO PREVENT ANOTHER VIOLATION.]
2. Mentioning a violation in the CCR does not count as meeting the Public Notice requirements, unless the report is directly delivered to all customers within the required Public Notice timeframe, all 10 public elements are included, and the Public Notice Certificate of Distribution is due to EGLE within 10 days of distribution.
3. If using the CCR as a vehicle to distribute a Public Notice, the supply must directly deliver the CCR to every bill paying customer. As a result, CCR waivers that allow small systems to post their CCR in one location or publish in a newspaper would no longer apply.

G. State Requirements.

1. For supplies with lead service lines (or service lines of unknown material), include the number of lead service lines, the number of service lines of unknown material, and the total number of service lines in the supply. Information on how to access the service line inventory report.
2. Must include health effects language for parameters with vulnerable subpopulations and that are detected above the level of concern.

Lead:

There is no safe level of lead in drinking water. Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of persons who are exposed to lead before or during pregnancy can

have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.

Copper:

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.

Fluoride:

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 9 years old. Mottling, also known as dental fluorosis, may include brown staining or pitting of the teeth, or both, and occurs only in developing teeth before they erupt from the gums.

E. coli:

E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems.

Nitrate:

Infants below the age of 6 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.

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