



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

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 Randi Henderson at Hendersonr7@michigan.gov or at (517) 899-4974.

FOR HELP PREPARING YOUR CCR

Visit these websites:

- [How Water Systems Comply with the CCR Requirements | US EPA](#)
- [Preparing Your Drinking Water Consumer Confidence Report, April 2010](#)
- [CCRiWriter](#), an on-line tool to make your own CCR. CCRiWriter does not account for some state specific CCR requirements such as lead service line count details, including sodium result, and additional language surrounding lead or copper results that exceed the action level.
- The Michigan Department of Environment, Great Lakes, and Energy (EGLE) CCR web page at [Michigan.gov/CommunityWater](#) has helpful guidance documents, webinars, and a blank CCR Template for you to use. Just click on “Consumer Confidence Report Rule” under the Laws and Rule category.

Include health effects language.

Usually, the health effects language is not required on the CCR unless the system violates a drinking water standard. However, the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended, also requires water systems to include the health effects language and the vulnerable subpopulation for any contaminant that is detected in a single sample (or confirmed presence) above the level of concern as listed in the table below:

Contaminant	Susceptible Vulnerable Subpopulation	Level of Concern
Fecal coliform or <i>E. coli</i>	Infants, young children, the elderly, and people with severely compromised immune supplies	Confirmed Presence
Copper	People with Wilson’s Disease	1.3 mg/L (ppm)
Fluoride	Children	4.0 mg/L (ppm)
Lead	Infants and Children	15.0 µg/L (ppb)
Nitrate	Infants below the age of six months	10.0 mg/L (ppm)
Nitrite	Infants below the age of six months	1.0 mg/L (ppm)

Notes:

- Confirmed presence means that the routine distribution system sample or the repeat sample was total coliform-positive or fecal-positive or *E. coli*-positive and the other sample (routine distribution system sample or repeat sample) was fecal-positive or *E. coli*-positive.
- PPM parts per million; PPB parts per billion.
- Health effects language is found in R 325.10405.

If nitrate was detected above 5 ppm but below 10 ppm include the following:

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

Groundwater Rule (GWR)

Groundwater supplies must report any *E. coli* positive source sample result or any significant deficiency that remains uncorrected at the end of the calendar year covered by the CCR, even if the water supply has an approved schedule for correction. A special notice must be included in the CCR for both *E. coli* and for an uncorrected significant deficiency.

The *E. coli* special notice includes:

- The source of the *E. coli* contamination, if known, and date(s) of positive samples.
- Whether the *E. coli* contamination has been addressed and the date addressed.
- The approved plan and schedule to address the *E. coli* contamination.
- The potential health effects of *E. coli* positive.

The significant deficiency special notice includes:

- The nature of the significant deficiency and date it was identified.
- The approved plan and correction schedule, if still unaddressed.

For more information on the public right-to-know requirements under the GWR, see the United States Environmental Protection Agency (USEPA) Compliance Help website at <http://water.epa.gov/lawsregs/rulesregs/sdwa/gwr/compliancehelp.cfm>. Click on “For Water System Owners and Operators,” then click *Ground Water Rule Factsheet: Public Notification and Special Notice Requirements for Community Water Systems*.

Revised Total Coliform Rule (RTCR)

If a Level 1 Assessment or a Level 2 Assessment was completed during the calendar year covered by the report, additional language is required.

- 1. If a Level 1 Assessment or a Level 2 Assessment was required, include the following, as appropriate:**
 - (A) 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.
 - (B) 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.
- 2. If a Level 1 Assessment or a Level 2 Assessment was required but not completed, or the identified sanitary defects were not corrected, include the following, as appropriate:**
 - During the past year we failed to conduct all the required assessment(s).
 - During the past year we failed to correct all identified defects that were found during the assessment.

3. If a Level 1 Assessment or a Level 2 Assessment was required that was not due to an E. coli Maximum Contaminant Level (MCL) violation, include the following:

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 the 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.

4. If a Level 2 Assessment was required due to an E. coli MCL violation, include the following:

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.

E. coli Monitoring

Any water supply with a confirmed *E. coli*-positive result from the distribution system must include the health effects language. Confirmed detection means that the routine distribution system sample or the repeat sample was total coliform-positive or *E. coli*-positive and the other sample (routine distribution system sample or repeat sample) was *E. coli*-positive. Surface water supplies that sampled the source water for *E. coli* under the Long Term 2 Enhanced Surface Water Treatment Rule are **NOT** required to report those detections on the CCR.

If E. coli was detected and the E. coli MCL was violated, include the following, as appropriate:

- (A) We had an *E. coli*-positive repeat sample following a total coliform-positive routine sample.
- (B) We had a total coliform-positive repeat sample following an *E. coli*-positive routine sample.
- (C) We failed to take all required repeat samples following an *E. coli*-positive routine sample.
- (D) We failed to test for *E. coli* when a repeat sample tests positive for total coliform.

Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5)

Report the highest locational running annual average (LRAA) and the range of detections of TTHM and HAA5. Note in the example below that the last three quarters of the previous year's averages are included in order to calculate the LRAA at the end of the 1st quarter of the year covered by the CCR.

TTHM	Previous Year			Year Covered by the CCR			
	2nd Qtr	3rd Qtr	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Site DBP1	80	55	60	45	65	115	79
Site DBP 1 LRAA	-	-	-	60	56	71	76
Site DBP2	45	64	66	100	82	40	59
Site DBP2 LRAA	-	-	-	69	78	72	70

Report the highest LRAA (78) and the range of detections in the year covered by the report (40-115).

Supplies that changed TTHM and HAA5 monitoring during the year should review the EGLE guidance [preparing-your-consumer-confidence-report-report-stage-2-dbp-monitoring.pdf \(michigan.gov\)](https://www.michigan.gov/egle/0,4570,7-293_17337_17338_17339_17340_17341_17342_17343_17344_17345_17346_17347_17348_17349_17350_17351_17352_17353_17354_17355_17356_17357_17358_17359_17360_17361_17362_17363_17364_17365_17366_17367_17368_17369_17370_17371_17372_17373_17374_17375_17376_17377_17378_17379_17380_17381_17382_17383_17384_17385_17386_17387_17388_17389_17390_17391_17392_17393_17394_17395_17396_17397_17398_17399_17400_17401_17402_17403_17404_17405_17406_17407_17408_17409_17410_17411_17412_17413_17414_17415_17416_17417_17418_17419_17420_17421_17422_17423_17424_17425_17426_17427_17428_17429_17430_17431_17432_17433_17434_17435_17436_17437_17438_17439_17440_17441_17442_17443_17444_17445_17446_17447_17448_17449_17450_17451_17452_17453_17454_17455_17456_17457_17458_17459_17460_17461_17462_17463_17464_17465_17466_17467_17468_17469_17470_17471_17472_17473_17474_17475_17476_17477_17478_17479_17480_17481_17482_17483_17484_17485_17486_17487_17488_17489_17490_17491_17492_17493_17494_17495_17496_17497_17498_17499_17500_17501_17502_17503_17504_17505_17506_17507_17508_17509_17510_17511_17512_17513_17514_17515_17516_17517_17518_17519_17520_17521_17522_17523_17524_17525_17526_17527_17528_17529_17530_17531_17532_17533_17534_17535_17536_17537_17538_17539_17540_17541_17542_17543_17544_17545_17546_17547_17548_17549_17550_17551_17552_17553_17554_17555_17556_17557_17558_17559_17560_17561_17562_17563_17564_17565_17566_17567_17568_17569_17570_17571_17572_17573_17574_17575_17576_17577_17578_17579_17580_17581_17582_17583_17584_17585_17586_17587_17588_17589_17590_17591_17592_17593_17594_17595_17596_17597_17598_17599_17600_17601_17602_17603_17604_17605_17606_17607_17608_17609_17610_17611_17612_17613_17614_17615_17616_17617_17618_17619_17620_17621_17622_17623_17624_17625_17626_17627_17628_17629_17630_17631_17632_17633_17634_17635_17636_17637_17638_17639_17640_17641_17642_17643_17644_17645_17646_17647_17648_17649_17650_17651_17652_17653_17654_17655_17656_17657_17658_17659_17660_17661_17662_17663_17664_17665_17666_17667_17668_17669_17670_17671_17672_17673_17674_17675_17676_17677_17678_17679_17680_17681_17682_17683_17684_17685_17686_17687_17688_17689_17690_17691_17692_17693_17694_17695_17696_17697_17698_17699_17700_17701_17702_17703_17704_17705_17706_17707_17708_17709_17710_17711_17712_17713_17714_17715_17716_17717_17718_17719_17720_17721_17722_17723_17724_17725_17726_17727_17728_17729_17730_17731_17732_17733_17734_17735_17736_17737_17738_17739_17740_17741_17742_17743_17744_17745_17746_17747_17748_17749_17750_17751_17752_17753_17754_17755_17756_17757_17758_17759_17760_17761_17762_17763_17764_17765_17766_17767_17768_17769_17770_17771_17772_17773_17774_17775_17776_17777_17778_17779_17780_17781_17782_17783_17784_17785_17786_17787_17788_17789_17790_17791_17792_17793_17794_17795_17796_17797_17798_17799_17800_17801_17802_17803_17804_17805_17806_17807_17808_17809_17810_17811_17812_17813_17814_17815_17816_17817_17818_17819_17820_17821_17822_17823_17824_17825_17826_17827_17828_17829_17830_17831_17832_17833_17834_17835_17836_17837_17838_17839_17840_17841_17842_17843_17844_17845_17846_17847_17848_17849_17850_17851_17852_17853_17854_17855_17856_17857_17858_17859_17860_17861_17862_17863_17864_17865_17866_17867_17868_17869_17870_17871_17872_17873_17874_17875_17876_17877_17878_17879_17880_17881_17882_17883_17884_17885_17886_17887_17888_17889_17890_17891_17892_17893_17894_17895_17896_17897_17898_17899_17900_17901_17902_17903_17904_17905_17906_17907_17908_17909_17910_17911_17912_17913_17914_17915_17916_17917_17918_17919_17920_17921_17922_17923_17924_17925_17926_17927_17928_17929_17930_17931_17932_17933_17934_17935_17936_17937_17938_17939_17940_17941_17942_17943_17944_17945_17946_17947_17948_17949_17950_17951_17952_17953_17954_17955_17956_17957_17958_17959_17960_17961_17962_17963_17964_17965_17966_17967_17968_17969_17970_17971_17972_17973_17974_17975_17976_17977_17978_17979_17980_17981_17982_17983_17984_17985_17986_17987_17988_17989_17990_17991_17992_17993_17994_17995_17996_17997_17998_17999_18000).

Chlorine Residual

Chlorine residual is based on a running annual average (RAA), calculated quarterly using monthly averages for the last 12 months. Therefore, at the end of each 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. That is the RAA. In the example table below, the 1st quarter RAA is 2.5 (see the bottom row). It was calculated using the monthly averages over 12 months, which was April of the previous year through March 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	1	2	3	3	3	2	4	2	1	1	3	5
Bacteriological sample site 2	4	1	5	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	-	-	2.5	-	-	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 USEPA clarifies requirements.

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 is easiest. Sodium has no MCL or Maximum Contaminant Level Goal (MCLG). Include the typical source of contamination as "Erosion of natural deposits."

Arsenic

If you detected arsenic, 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 do not 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"> • Levels detected. • The typical sources of contamination.
Detected above 5 ppb but less than or equal to 10 ppb	<ul style="list-style-type: none"> • Levels detected. • The typical sources of contamination. • “While your drinking water meets USEPA's standard for arsenic, it does contain low levels of arsenic. USEPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. USEPA 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.”
Calculated RAA above 10 ppb	<ul style="list-style-type: none"> • Levels detected. • The typical sources of contamination. • Note on the table of detected contaminants that a violation occurred. • “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.”

Per- and Polyfluoroalkyl Substances (PFAS)

Any detections of the seven regulated PFAS compounds must be listed in the CCR. Each PFAS compound gets its own row since all seven compounds have different MCLs. As with any other entry point contaminant, you will list the **highest compliance value** along with the range of individual sample results. If you had all non-detect results for your PFAS sampling, you can remove the PFAS rows from your data table.

- For example:
 - If you only took one PFAS sample at your plant tap, and you had Perfluorooctanoic Acid detected at 0.2 ng/L, you would list 0.2 ng/L as your compliance value, and “N/A” as a range (since you only took one sample).
 - If you were on quarterly PFAS monitoring at your plant tap, you would list the highest quarterly RAA as your compliance value, and the range would be from the individual sample results from the calendar year covered by the report (not the range of your calculated RAA values).

Lead and Copper

The following items must be included when presenting lead and copper data in the data table:

- The action level (AL) **AND** the maximum MCLG for both lead and copper.
- The most recent 90th percentile value (if sampling was done in both six-month rounds, both sets of 90th percentile data should be included in the CCR).
- The range of individual samples.
- The number of samples above each AL.
- The year that sampling occurred.
- The updated “Typical Source of Contaminant” language as seen below:

Inorganic Contaminant Subject to AL	Action Level	MCLG	Your Water	Range of Results	Year Sampled	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15	0					Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper (ppm)	1.3	1.3					Corrosion of household plumbing systems; Erosion of natural deposits

- Although not required to be in the data table, along with how the public can access the report the following information must be listed somewhere in the report, if you have any lead service lines or lines of unknown material:
 - The number of lead service lines.
 - The number of service lines of unknown material.
 - The total number of service lines.
- The following “Information About Lead” paragraph must be included in every CCR:
 - 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]. 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>.

- Recent rule changes have altered the lead health effects language slightly. If your system had at least one lead sample above the AL (even if the 90th percentile was below the AL), the following health effects language must be added to the report. Please note that the phrase “in excess of the action level” has been removed:
 - *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.*

Summary of a Violation/Public Notice

You must describe all violations related to drinking water standards, 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. 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.

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 it in a newspaper would no longer apply.

Submit your completed document to EGLE via your Michigan Environmental Health and Drinking Water Information System (MiEHDWIS) account, or via email to your EGLE district office email address.

If you need this information in an alternate format, contact EGLE-Accessibility@Michigan.gov or call 800-662-9278.

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