**ATTACHMENT 1**

**Regulated Contaminants with PRIMARY DRINKING WATER STANDARDS**

| **Contaminant** | **Unit****Measure-ment** | **MCL(AL)****[MRDL]****TT, as noted** | **PHG****(MCLG)****[MRDLG]** | **Typical Source of Contaminant** | **Health Effects Language**  |
| --- | --- | --- | --- | --- | --- |
| Microbiological Contaminants |
| Total Coliform Bacteria(state Total Coliform Rule) | **MCL:****For systems that collect less than 40 samples per month:** 1 positive monthly sample **For systems that collect 40 or more samples per month:** 5.0% of monthly samples are positive | (7) | 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 *E. coli*(state Total Coliform Rule) | **MCL:**A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or *E. coli* positive | (0) | Human and animal fecal waste | Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems. |
| Total Coliform Bacteria(federal Revised Total Coliform Rule) | 0 | TT | n/a | 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, 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 any problems that were found during these assessments. |
| *E. coli*(federal Revised Total Coliform Rule) | A | See Footnote (a) | (0) | Human and animal fecal waste | *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.*For the consumer confidence report, if a water system detects* E. coli *and has violated the* E. coli *MCL, the water system shall include the following statements, as appropriate.* * We had an *E. coli*-positive repeat sample following a total coliform-positive routine sample.
* We had a total coliform-positive repeat sample following an *E. coli*-positive routine sample.
* We failed to take all required repeat samples following an *E. coli*-positive routine sample.
* We failed to test for *E. coli* when any re repeat sample tests positive for total coliform.

*If the E. coli MCL was not violated, the water system may include a statement that explains that although* E. coli *was detected, the water system is not in violation of the* E. coli *MCL*. |
| (a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*. |
| *E. coli*(federal Revised Total Coliform Rule) | A | TT | n/a | Human and animal fecal waste | *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. |
| Fecal Indicator*(E. coli)*(Ground Water Rule) | A | 0 | (0) | Human and animal fecal waste | Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems. |
| Fecal Indicators (enterococci or coliphage)(Ground Water Rule) | A | TT | n/a | 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 effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems. |
| Turbidity | 0.3 | TT | N/A | Soil runoff | Turbidity has no health effects. However, high levels of 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. |
| *Giardia lamblia*, viruses, heterotrophic plate count bacteria, *Legionella*, *Cryptosporidium* | A | TT | HPC = N/A; Others = (0) | Naturally present in the environment  | Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. |
| Radioactive Contaminants |
| Gross Beta Particle Activity | 0 pCi/L | 50 (b) | (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. |
| (b) Effective 6/11/2006, the gross beta particle activity MCL is 4 millirems/year annual dose equivalent to the total body or any internal organ. 50 pCi/L is used as a screening level. |
| Strontium-90 | 0 pCi/L | 8 | 0.35 | Decay of natural and man-made deposit | Some people who drink water containing strontium-90 in excess of the MCL over many years may have an increased risk of getting cancer. |
| Tritium |  0 pCi/L | 20,000 | 400 | Decay of natural and man-made deposits | Some people who drink water containing tritium in excess of the MCL over many years may have an increased risk of getting cancer. |
| Gross Alpha Particle Activity | 14 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 226 & 228 | 0 pCi/L | 5 | (0)(c) | 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. |
| Total Radium (for nontransient-noncommunity water systems) | 0 pCi/L | 5 | n/a | Erosion of natural deposits | Some people who drink water containing radium 223, 224, or 226 in excess of the MCL over many years may have an increased risk of getting cancer. |
| (c) If reporting results for Ra-226 and Ra-228 as individual constituents, the PHG is 0.05 pCi/L for Ra-226 and 0.019 pCi/L for Ra-228. |
| Uranium | 14 pCi/L | 20 | 0.43 | Erosion of natural deposits | Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer. |
| Inorganic Contaminants |
| Aluminum | ND ppm | 1 | 0.6 | Erosion of natural deposits; residue from some surface water treatment processes | Some people who drink water containing aluminum in excess of the MCL over many years may experience short-term gastrointestinal tract effects. |
| Antimony | ND ppb | 6 | 1 | Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder | Some people who drink water containing antimony in excess of the MCL over many years may experience increases in blood cholesterol and decreases in blood sugar. |
| Arsenic | ND ppb |  10 | 0.004 | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes | Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems, and may have an increased risk of getting cancer. |
| Asbestos | ND MFL | 7 | 7 | Internal corrosion of asbestos cement water mains; erosion of natural deposits | Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps. |
| Barium | ND ppm | 1 | 2 | Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits | Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure. |
| Beryllium | ND ppb | 4 | 1 | Discharge from metal refineries, coal-burning factories, and electrical, aerospace, and defense industries | Some people who drink water containing beryllium in excess of the MCL over many years may develop intestinal lesions. |
| Cadmium | ND ppb | 5 | 0.04 | Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal refineries; runoff from waste batteries and paints | Some people who drink water containing cadmium in excess of the MCL over many years may experience kidney damage. |
| Chromium | ND ppb | 50 | (100) | Discharge from steel and pulp mills and chrome plating; erosion of natural deposits | Some people who use water containing chromium in excess of the MCL over many years may experience allergic dermatitis. |
| Copper | 0.28 ppm | (AL=1.3) | 0.3 | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives | Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor. |
| Cyanide | ND ppb | 150 | 150 | Discharge from steel/metal, plastic and fertilizer factories | Some people who drink water containing cyanide in excess of the MCL over many years may experience nerve damage or thyroid problems. |
| Fluoride | 0.65 ppm | 2.0 | 1 | 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 federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth. |
| Hexavalent Chromium[[1]](#footnote-1) | 3.5 ppb | 1 | 0.02 | Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits.  | Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer. |
| Lead | ND ppb | (AL=15) | 0.2 | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits | Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure. |
| Mercury (inorganic) | ND ppb | 2 | 1.2 | Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and cropland | Some people who drink water containing mercury in excess of the MCL over many years may experience mental disturbances, or impaired physical coordination, speech and hearing. |
| Nickel | ND ppb | 100 | 12 | Erosion of natural deposits; discharge from metal factories | Some people who drink water containing nickel in excess of the MCL over many years may experience liver and heart effects. |
| Nitrate (as nitrogen, N) | 4.55 ppm | 10  | 10  | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits | Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant’s blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women. |
| Nitrite (as nitrogen, N) | ND ppm | 1 | 1 | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits | Infants below the age of six months who drink water containing nitrite in excess of the MCL may quickly become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blueness of the skin. |
| Perchlorate | 2.85 ppb | 6 | 1 | Perchlorate is an inorganic chemical used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts. | Perchlorate has been shown to interfere with uptake of iodide by the thyroid gland, and to thereby reduce the production of thyroid hormones, leading to adverse affects associated with inadequate hormone levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones are needed for normal metabolism and mental function. |
| Selenium | ND ppb | 50 | 30 | Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive) | Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years may experience hair or fingernail losses, numbness in fingers or toes, or circulation system problems. |
| Thallium | ND ppb | 2 | 0.1 | 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 may experience hair loss, changes in their blood, or kidney, intestinal, or liver problems. |
| Synthetic Organic Contaminants including Pesticides and Herbicides |
| 2,4-D | ND ppb | 70 | 20 | Runoff from herbicide used on row crops, range land, lawns, and aquatic weeds | Some people who use water containing the weed killer 2,4-D in excess of the MCL over many years may experience kidney, liver, or adrenal gland problems. |
| 2,4,5-TP (Silvex}  | ND ppb | 50 | 3 | Residue of banned herbicide | Some people who drink water containing Silvex in excess of the MCL over many years may experience liver problems. |
| Acrylamide | 0 | 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 may experience nervous system or blood problems, and may have an increased risk of getting cancer. |
| Alachlor | ND ppb | 2 | 4 | Runoff from herbicide used on row crops | Some people who use water containing alachlor in excess of the MCL over many years may experience eye, liver, kidney, or spleen problems, or experience anemia, and may have an increased risk of getting cancer. |
| Atrazine | ND ppb | 1 | 0.15 | Runoff from herbicide used on row crops and along railroad and highway right-of-ways | Some people who use water containing atrazine in excess of the MCL over many years may experience cardiovascular system problems or reproductive difficulties. |
| Bentazon | ND ppb | 18 | 200 | Runoff/leaching from herbicide used on beans, peppers, corn, peanuts, rice, and ornamental grasses | Some people who drink water containing bentazon in excess of the MCL over many year may experience prostate and gastrointestinal effects. |
| Benzo(a)pyrene (PAH) | ND ppt | 200 | 7 | Leaching from linings of water storage tanks and distribution mains | Some people who use water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer. |
| Carbofuran | ND ppb | 18 | 0.7 | Leaching of soil fumigant used on rice and alfalfa, and grape vineyards | Some people who use water containing carbofuran in excess of the MCL over many years may experience problems with their blood, or nervous or reproductive system problems. |
| Chlordane | ND ppt | 100 | 30 | Residue of banned insecticide | Some people who use water containing chlordane in excess of the MCL over many years may experience liver or nervous system problems, and may have an increased risk of getting cancer. |
| Dalapon | ND ppb | 200 | 790 | Runoff from herbicide used on rights-of-ways, and crops and landscape maintenance | Some people who drink water containing dalapon in excess of the MCL over many years may experience minor kidney changes. |
| Di(2-ethylhexyl) adipate | ND ppb | 400 | 200 | Discharge from chemical factories | Some people who drink water containing di(2-ethylhexyl) adipate in excess of the MCL over many years may experi­ence weight loss, liver enlargement, or possible reproductive difficulties. |
| Di(2-ethylhexyl) phthalate | ND ppb | 4 | 12 | Discharge from rubber and chemical factories; inert ingredient in pesticides | Some people who use water containing di(2-ethylhexyl) phthalate in excess of the MCL over many years may experience liver problems or reproductive difficulties, and may have an increased risk of getting cancer. |
| Dibromochloropropane (DBCP) | ND ppt | 200 | 1.7 | Banned nematocide that may still be present in soils due to runoff/leaching from former use on soybeans, cotton, vineyards, tomatoes, and tree fruit | Some people who use water containing DBCP in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer. |
| Dinoseb | ND ppb | 7 | 14 | Runoff from herbicide used on soybeans, vegetables, and fruits | Some people who drink water containing dinoseb in excess of the MCL over many years may experience reproductive difficulties. |
| Dioxin (2,3,7,8-TCDD) | ND ppq(parts per quadrillion) | 30 | 0.05 | Emissions from waste incineration and other combustion; discharge from chemical factories | Some people who use water containing dioxin in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer. |
| Diquat | ND ppb | 20 | 6 | Runoff from herbicide use for terrestrial and aquatic weeds | Some people who drink water containing diquat in excess of the MCL over many years may get cataracts. |
| Endothall | ND ppb | 100 | 94 | Runoff from herbicide use for terrestrial and aquatic weeds; defoliant | Some people who drink water containing endothall in excess of the MCL over many years may experience stomach or intestinal problems. |
| Endrin | ND ppb | 2 | 0.3 | Residue of banned insecticide and rodenticide | Some people who drink water containing endrin in excess of the MCL over many years may experience liver problems. |
| Epichlorohydrin | 0 | TT | (0) | Discharge from industrial chemical factories; impurity of some water treatment chemicals | Some people who drink water containing high levels of epichlorohydrin over a long period of time may experience stomach problems, and may have an increased risk of getting cancer. |
| Ethylene dibromide (EDB) | ND ppt | 50 | 10 | Discharge from petroleum refineries; underground gas tank leaks; banned nematocide that may still be present in soils due to runoff and leaching from grain and fruit crops | Some people who use water containing ethylene dibromide in excess of the MCL over many years may experience liver, stomach, reproductive system, or kidney problems, and may have an increased risk of getting cancer. |
| Glyphosate | ND ppb | 700 | 900 | Runoff from herbicide use | Some people who drink water containing glyphosate in excess of the MCL over many years may experience kidney problems or reproductive difficulties. |
| Heptachlor | ND ppt | 10 | 8 | Residue of banned insecticide | Some people who use water containing heptachlor in excess of the MCL over many years may experience liver damage and may have an increased risk of getting cancer. |
| Heptachlor epoxide | ND ppt | 10 | 6 | Breakdown of heptachlor | Some people who use water containing heptachlor epoxide in excess of the MCL over many years may experience liver damage, and may have an increased risk of getting cancer. |
| Hexachlorobenzene | ND ppb | 1 | 0.03 | Discharge from metal refineries and agricultural chemical factories; byproduct of chlorination reactions in wastewater | Some people who drink water containing hexachlorobenzene in excess of the MCL over many years may experience liver or kidney problems, or adverse reproductive effects, and may have an increased risk of getting cancer. |
| Hexachlorocyclopentadiene | ND ppb | 50 | 2 | Discharge from chemical factories | Some people who use water containing hexachlorocyclopentadiene in excess of the MCL over many years may experience kidney or stomach problems. |
| Lindane | ND ppt | 200 | 32 | Runoff/leaching from insecticide used on cattle, lumber, and gardens | Some people who drink water containing lindane in excess of the MCL over many years may experience kidney or liver problems. |
| Methoxychlor | ND ppb | 30 | 0.09 | Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, and livestock | Some people who drink water containing methoxychlor in excess of the MCL over many years may experience reproductive difficulties. |
| Molinate (Ordram) | ND ppb | 20 | 1 | Runoff/leaching from herbicide used on rice | Some people who use water containing molinate in excess of the MCL over many years may experience reproductive effects. |
| Oxamyl (Vydate) | ND ppb | 50 | 26 | Runoff/leaching from insecticide used on field crops, fruits and ornamentals, especially apples, potatoes, and tomatoes | Some people who drink water containing oxamyl in excess of the MCL over many years may experience slight nervous system effects. |
| PCBs (Polychlorinated biphenyls) | ND ppt | 500 | 90 | Runoff from landfills; discharge of waste chemicals | Some people who drink water containing PCBs in excess of the MCL over many years may experience changes in their skin, thymus gland problems, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer. |
| Pentachlorophenol | ND ppb | 1 | 0.3 | Discharge from wood preserving factories, cotton and other insecticidal/herbicidal uses  | Some people who use water containing pentachlorophenol in excess of the MCL over many years may experience liver or kidney problems, and may have an increased risk of getting cancer. |
| Picloram | ND ppb | 500 | 166 | Herbicide runoff | Some people who drink water containing picloram in excess of the MCL over many years may experience liver problems. |
| Simazine | ND ppb | 4 | 4 | Herbicide runoff | Some people who use water containing simazine in excess of the MCL over many years may experience blood problems. |
| Thiobencarb | ND ppb | 70 | 42 | Runoff/leaching from herbicide used on rice | Some people who use water containing thiobencarb in excess of the MCL over many years may experience body weight and blood effects. |
| Toxaphene | ND ppb | 3 | 0.03 | Runoff/leaching from insecticide used on cotton and cattle | Some people who use water containing toxaphene in excess of the MCL over many years may experience kidney, liver, or thyroid problems, and may have an increased risk of getting cancer. |
| 1,2,3-Trichloropropane[[2]](#footnote-2) | ND ppt | 5 | 0.7 | Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; used as cleaning and maintenance solvent, paint and varnish remover, and cleaning and degreasing agent; byproduct during the production of other compounds and pesticides. | Some people who drink water containing 1,2,3-trichloropropane in excess of the MCL over many years may have an increased risk of getting cancer. |
| Volatile Organic Contaminants |
| Benzene | ND ppb | 1 | 0.15 | Discharge from plastics, dyes and nylon factories; leaching from gas storage tanks and landfills | Some people who use water containing benzene in excess of the MCL over many years may experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer. |
| Carbon tetrachloride | ND ppt | 500 | 100 | Discharge from chemical plants and other industrial activities | Some people who use water containing carbon tetrachloride in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer. |
| 1,2-Dichlorobenzene | ND ppb | 600 | 600 | Discharge from industrial chemical factories | Some people who drink water containing 1,2-dichlorobenzene in excess of the MCL over many years may experience liver, kidney, or circulatory system problems. |
| 1,4-Dichlorobenzene | ND ppb | 5 | 6 | Discharge from industrial chemical factories | Some people who use water containing 1.4-dichlorobenzene in excess of the MCL over many years may experience anemia, liver, kidney, or spleen damage, or changes in their blood. |
| 1,1-Dichloroethane | ND ppb | 5 | 3 | Extraction and degreasing solvent; used in the manufacture of pharmaceuticals, stone, clay, and glass products; fumigant | Some people who use water containing 1,1-dichloroethane in excess of the MCL over many years may experience nervous system or respiratory problems. |
| 1,2-Dichloroethane | ND ppt | 500 | 400 | Discharge from industrial chemical factories | Some people who use water containing 1,2- dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer. |
| 1,1-Dichloroethylene | ND ppb | 6 | 10 | Discharge from industrial chemical factories | Some people who use water containing 1,1-dichloroethylene in excess of the MCL over many years may experience liver problems. |
| cis-1,2-Dichloroethylene | ND ppb | 6 | 100 | Discharge from industrial chemical factories; major biodegradation byproduct of TCE and PCE groundwater contamination | Some people who use water containing cis-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems. |
| trans-1,2-Dichloroethylene | ND ppb | 10 | 60 | Discharge from industrial chemical factories; minor biodegradation byproduct of TCE and PCE groundwater contamination | Some people who drink water containing trans-1,2-dichloroethylene in excess of the MCL over many years may experience liver problems. |
| Dichloromethane | ND ppb | 5 | 4 | Discharge from pharmaceutical and chemical factories; insecticide | Some people who drink water containing dichloromethane in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer. |
| 1,2-Dichloropropane | ND ppb | 5 | 0.5 | Discharge from industrial chemical factories; primary component of some fumigants | Some people who use water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer. |
| 1,3-Dichloropropene | ND ppt | 500 | 200 | Runoff/leaching from nematocide used on croplands | Some people who use water containing 1,3-dichloropropene in excess of the MCL over many years may have an increased risk of getting cancer. |
| Ethylbenzene | ND ppb | 300 | 300 | Discharge from petroleum refineries; industrial chemical factories | Some people who use water containing ethylbenzene in excess of the MCL over many years may experience liver or kidney problems. |
| Methyl-*tert*-butyl ether | ND ppb | 13 | 13 | Leaking underground storage tanks; discharges from petroleum and chemical factories | Some people who use water containing methyl-*tert*-butyl ether in excess of the MCL over many years may have an increased risk of getting cancer. |
| Monochlorobenzene | ND ppb | 70 | 70 | Discharge from industrial and agricultural chemical factories and drycleaning facilities | Some people who use water containing monochlorobenzene in excess of the MCL over many years may experience liver or kidney problems. |
| Styrene | ND ppb | 100 | 0.5 | Discharge from rubber and plastic factories; leaching from landfills | Some people who drink water containing styrene in excess of the MCL over many years may experience liver, kidney, or circulatory system problems. |
| 1,1,2,2-Tetrachloroethane | ND ppb | 1 | 0.1 | Discharge from industrial and agricultural chemical factories; solvent used in production of TCE, pesticides, varnish and lacquers | Some people who drink water containing 1,1,2,2-tetrachloroethane in excess of the MCL over many years may experience liver or nervous system problems. |
| Tetrachloroethylene (PCE) | 4.4 ppb | 5 | 0.06 | Discharge from factories, dry cleaners, and auto shops (metal degreaser) | Some people who use water containing tetrachloroethylene in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer. |
| 1,2,4-Trichlorobenzene | ND ppb | 5 | 5 | Discharge from textile-finishing factories | Some people who use water containing 1,2,4-trichlorobenzene in excess of the MCL over many years may experience adrenal gland changes. |
| 1,1,1-Trichloroethane | ND ppb | 200 | 1000 | Discharge from metal degreasing sites and other factories; manufacture of food wrappings | Some people who use water containing 1,1,1-trichloroethane in excess of the MCL over many years may experience liver, nervous system, or circulatory system problems. |
| 1,1,2-Trichloroethane | ND ppb | 5 | 0.3 | Discharge from industrial chemical factories | Some people who use water containing 1,1,2- trichloroethane in excess of the MCL over many years may experience liver, kidney, or immune system problems. |
| Trichloroethylene (TCE) | ND ppb | 5 | 1.7 | Discharge from metal degreasing sites and other factories | Some people who use water containing trichloroethylene in excess of the MCL over many years may experience liver problems and may have an increased risk of getting cancer. |
| Toluene | ND ppb | 150 | 150 | Discharge from petroleum and chemical factories; underground gas tank leaks | Some people who use water containing toluene in excess of the MCL over many years may experience nervous system, kidney, or liver problems. |
| Trichlorofluoromethane | ND ppb | 150 | 1300 | Discharge from industrial factories; degreasing solvent; propellant and refrigerant | Some people who use water containing trichlorofluoromethane in excess of the MCL over many years may experience liver problems. |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND ppm | 1.2 | 4 | Discharge from metal degreasing sites and other factories; drycleaning solvent; refrigerant | Some people who use water containing 1,1,2-trichloro-1,2,2-trifloroethane in excess of the MCL over many years may experience liver problems. |
| Vinyl chloride | ND ppt | 500 | 50 | Leaching from PVC piping; discharge from plastics factories; biodegradation byproduct of TCE and PCE groundwater contamination | Some people who use water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer. |
| Xylenes | ND ppm | 1.750 | 1.8 | Discharge from petroleum and chemical factories; fuel solvent | Some people who use water containing xylenes in excess of the MCL over many years may experience nervous system damage. |
| **Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors** |
| TTHMs (Total Trihalomethanes)  | 14.9 ppb | 80 | N/A | Byproduct of drinking water disinfection | Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. |
| Haloacetic Acids | 2.7 ppb | 60 | N/A | Byproduct 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. |
| Bromate | ND ppb | 10 | 0.1 | Byproduct 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. |
| Chloramines | 1.18 ppm | [MRDL =4.0 (as Cl2)] | [MRDLG = 4 (as Cl2)] | Drinking water disinfectant added for treatment | 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 | 1.18 ppm | [MRDL =4.0 (as Cl2)] | [MRDLG = 4 (as Cl2) | Drinking water disinfectant added for treatment | 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. |
| Chlorite | ND ppm | 1.0 | 0.05 | Byproduct of drinking water disinfection | Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia. |
| Chlorine Dioxide | ND ppb | [MRDL =800 (as ClO2)] | [MRDLG = 800 (as ClO2)] | Drinking water disinfectant added for treatment | 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. |
| Control of DBP precursors (TOC) | 0 | TT | N/A | Various natural and man-made sources | 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 cancer. |

**ATTACHMENT 2**

**Regulated Contaminants with SECONDARY DRINKING WATER STANDARDS (a)**

Monitoring Required by Section 64449, Chapter 15, Title 22, California Code of Regulations

|  |  |  |  |
| --- | --- | --- | --- |
| **Contaminant** | **UnitMeasurement** | **MCL** | **Typical Source of Contaminant** |
| Aluminum | ppb | 200 | Erosion of natural deposits; residual from some surface water treatment processes |
| Color | Units | 15 | Naturally-occurring organic materials |
| Copper | ppm | 1.0 | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Foaming Agents (MBAS) | ppb | 500 | Municipal and industrial waste discharges |
| Iron | ppb | 300 | Leaching from natural deposits; industrial wastes |
| Manganese | ppb | 50 | Leaching from natural deposits |
| Methyl-tert-butyl ether (MTBE) | ppb | 5 | Leaking underground storage tanks; discharge from petroleum and chemical factories |
| Odor--Threshold | Units | 3 | Naturally-occurring organic materials |
| Silver | ppb | 100 | Industrial discharges |
| Thiobencarb | ppb | 1 | Runoff/leaching from rice herbicide |
| Turbidity | Units | 5 | Soil runoff |
| Zinc | ppm | 5.0 | Runoff/leaching from natural deposits; industrial wastes |
| Total Dissolved Solids (TDS) | ppm | 1000 | Runoff/leaching from natural deposits |
| Specific Conductance | µS/cm | 1600 | Substances that form ions when in water; seawater influence |
| Chloride | ppm | 500 | Runoff/leaching from natural deposits; seawater influence |
| Sulfate | ppm | 500 | Runoff/leaching from natural deposits; industrial wastes |

1. There are no PHGs, MCLGs, or mandatory standard health effects language for these constituents because secondary MCLs are set on the basis of aesthetics.

**ATTACHMENT 3**

**State Regulated Contaminants with No Maximum Contaminant Levels
(*i.e.*, Unregulated Chemicals)**

Monitoring Formerly Required by Repealed Section 64450, Chapter 15, Title 22, California Code of Regulations

Section 64450 (State UCMR) was repealed effective October 18, 2007, but from time to time, the State Board may request water systems to monitor for specific contaminants per section 116375(b) of the Health and Safety Code. Water systems that continue to monitor for State UCMR contaminants are encouraged to include the information in the CCR to keep their customers informed.

Inclusion of the notification level and health effects language for levels above the notification level is recommended, not required.

|  |  |  |
| --- | --- | --- |
| **Chemicals** | **Notification Level** | **Health Effects Language*****(Optional)*** |
| Boron | 1 ppm | The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals. |
| Dichlorodifluoromethane(Freon 12) | 1 ppm | Some people who drink water containing dichlorodifluoromethane far in excess of the notification level may experience neurological and cardiac effects. Long- term exposures to dichlorodifluoromethane resulted in smaller body weight in laboratory animals. |
| Ethyl-tert-butyl ether(ETBE) | n/a | n/a |
| Hexavalent chromium[[3]](#footnote-3) | n/a | Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer. |
| tert-Amyl-methyl ether(TAME) | n/a | n/a |
| tert-Butyl alcohol(TBA) | 12 ppb | Some people who use water containing tert-butyl alcohol in excess of the notification level over many years may have an increased risk of getting cancer, based on studies in laboratory animals. |
| 1,2,3-Trichloropropane[[4]](#footnote-4)(1,2,3-TCP) | 5 ppt | Some people who drink water containing 1,2,3-trichloropropane in excess of the MCL over many years may have an increased risk of getting cancer. |
| Vanadium | 50 ppb | The babies of some pregnant women who drink water containing vanadium in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals. |

**ATTACHMENT 4**

**Federal Regulated Contaminants with No Maximum Contaminant Levels
(*i.e.*, Federal UCMR 1, UCMR 2, and UCMR 3)**

**Background**

The 1996 Amendments to the Safe Drinking Water Act required the U.S. EPA to establish criteria for a monitoring program for unregulated contaminants and to publish a list of contaminants to be monitored.

|  |  |  |  |
| --- | --- | --- | --- |
| **UCMR 1 (2001 – 2003 Monitoring)** |  | **List 1 Assessment Monitoring** | **List 2 Screening Survey** |
| In 1999, U.S. EPA revised the Unregulated Contaminant Monitoring Rule to incorporate a tiered monitoring approach. UCMR 1 had assessment monitoring (List 1) and screening survey (List 2) components.Assessment monitoring was conducted by large public water systems (PWS) serving more than 10,000 people and 800 representative small PWS serving 10,000 or fewer people for List 1 contaminants. Assessment monitoring was conducted by each PWS over a 12-month period between 2001 and 2003.Screening monitoring was conducted by a randomly selected set of 300 large and small PWSs for List 2 contaminants. Screening monitoring for chemical contaminants was conducted in 2001 and 2002 for small and large PWS, respectively. Screening monitoring for *Aeromonas* was conducted in 2003 for small and large PWS.  |  | 2,4-dinitrotoluene2,6-dinitrotolueneAcetochlorDCPA mono-acid degradateDCPA di-acid degradate4,4’ – DDEEPTCMolinateMTBENitrobenzenePerchlorateTerbacil | 1,2-diphenylhydrazine2-methyl-phenol2,4-dichlorophenol2,4-dinitrophenol2,4,6-trichlorophenol*Aeromonas* Alachlor ESADiazinonDisulfotonDiuronFonofosLinuronNitrobenzenePrometonRDXTerbufos |
|

|  |
| --- |
| **UCMR 2 (2008 – 2010 Monitoring)** |
| In 2007, U.S. EPA revised the Unregulated Contaminant Monitoring Rule to establish a new set of unregulated contaminants.Assessment monitoring was required of all PWS serving more than 10,000 people and 800 representative PWS serving 10,000 or fewer people for List 1 contaminants. Assessment monitoring was required of each PWS during a 12-month period from January 2008 – December 2010.Screening monitoring was required of all PWS serving more than 100,000 people, 320 representative PWS serving 10,001 to 100,000 people, and 480 representative PWS serving 10,000 or fewer people for List 2 contaminants. Screening monitoring was required of each PWS during a 12-month period from January 2008 – December 2010. |

  |  | **List 1 Assessment Monitoring** | **List 2 Screening Survey** |
|  | DimethoateTerbufos sulfone2,2',4,4'-tetrabromodiphenyl ether2,2',4,4',5-pentabromodiphenyl ether2,2',4,4',5,5'-hexabromobiphenyl2,2',4,4',5,5'-hexabromodiphenyl ether2,2',4,4',6-pentabromodiphenyl ether1,3-dinitrobenzene2,4,6-trinitrotoluene (TNT)Hexahydro-1,3,5-trinitro-1,3,5-trazine (RDX) | Acetochlor ethane sulfonic acidAcetochlor oxanilic acidAlachlor ethane sulfonic acidAlachlor oxanilic acidMetolachlor ethane sulfonic acidMetolachlor oxanilic acidAcetochlorAlachlorMetolachlorN-nitrosodiethylamine (NDEA)N-nitrosodimethylamine (NDMA)N-nitroso-di-n-butylamine (NDBA)N-nitroso-di-n-propylamine (NDPA)N-nitrosomethylethylamine (NMEA)N-nitrosopyrrolidine (NPYR) |

|  |  |  |  |
| --- | --- | --- | --- |
| **UCMR 3 (2008 – 2010 Monitoring)** |  | **List 1Assessment Monitoring** | **List 2Screening Survey** |
| In 2012, U.S. EPA revised the Unregulated Contaminant Monitoring Rule to establish a new set of unregulated contaminants.Assessment monitoring (List 1 Contaminants) was required of all PWS serving more than 10,000 people and 800 representative PWS serving 10,000 or fewer people. Assessment monitoring was required of each PWS during a 12-month period from January 2013 – December 2015.Screening monitoring (List 2 Contaminants) was required of all PWS serving more than 100,000 people, 320 representative PWS serving 10,001 to 100,000 people, and 480 representative PWS serving 10,000 or fewer people. Screening monitoring was required of each PWS during a 12-month period from January 2013 – December 2015.Pre-screen testing (List 3 Contaminants) was required of select 800 representative PWS serving 1,000 or fewer people that do not disinfect. These PWS with wells that were located in areas of karst or fractured bedrock monitored during a 12-month period from January 2013 – December 2015. |  | 1,2,3-trichloropropane1,3-butadieneChloromethane (methyl chloride)1,2-dichloroethaneBromomethane (methyl bromide)Chlorodifluoromethane (HCFC-22)Bromochloromethane (halon 1011)1,4-dioxaneVanadiumMolybdenumCobaltStrontiumChromium (total)Chromium-6ChloratePerfluorooctanesulfonate acid (PFOS)Perfluorooctanoic acid (PFOA)Perfluorononanoic acid (PFNA)Perfluorohexanesulfonic acid (PFHxS)Perfluoroheptanoic acid (PFHpA)Perfluorobutanesulfonic acid (PFBS) | 17-β-estradiol17-α-ethynylestradiol (ethinyl estradiol)16-α-hydroxyestradiol (estriol)EquilinEstroneTestosterone4-anderostene-3,17-dione |
| **List 3Pre-Screen Testing**EnterovirusesNoroviruses |

**Reporting**

U.S. EPA is essentially silent on the issue of reporting federal UCMR contaminants beyond the previous calendar year’s detections, other than to say it is not required and data older than 5 years need not be reported. As a result, the State Board recommends systems to report the data for 5 years.

 **ATTACHMENT 5**

**State Contaminants with Notification Levels**

Inclusion of the notification level and health effects language for levels above the notification level is recommended, not required.

|  |  |  |
| --- | --- | --- |
| **Chemical** | **Notification Level** | **Health Effects Language (Optional)** |
| Boron  | 1 ppm | See Attachment 3 |
| n-Butylbenzene | 260 ppb | n/a |
| sec-Butylbenzene | 260 ppb | n/a |
| tert-Butylbenzene | 260 ppb | n/a |
| Carbon disulfide | 160 ppb | n/a |
| Chlorate | 800 ppb | n/a |
| 2-Chlorotoluene | 140 ppb | n/a |
| 4-Chlorotoluene | 140 ppb | n/a |
| Diazinon | 1.2 ppb | n/a |
| Dichlodifluoromethane (Freon 12) | 1 ppm | See Attachment 3 |
| 1,4-Dioxane | 1 ppb | Some people who use water containing 1,4-dioxane in excess of the Notification Level over many years may experience liver or kidney problems and may have an increased risk of getting cancer, based on studies in laboratory animals. |
| Ethylene glycol | 14 ppm | n/a |
| Formaldehyde | 100 ppb | n/a |
| HMX | 350 ppb | n/a |
| Isopropylbenzene | 770 ppb | n/a |
| Manganese | 500 ppb | The notification level for manganese is used to protect consumers from neurological effects. High levels of manganese in people have been shown to result in effects of the nervous system. |
| Methyl isobutyl ketone (MIBK) | 120 ppb | n/a |
| Naphthalene | 17 ppb | n/a |
| N-Nitrosodiethylamine (NDEA) | 10 ppt | n/a |
| N-Nitrosodimethylamine (NDMA) | 10 ppt | n/a |
| N-Nitrosodi-n-propylamine (NDPA) | 10 ppt | n/a |
| Propachlor  | 90 ppb | n/a |
| n-Propylbenzene | 260 ppb | n/a |
| RDX | 300 ppt | n/a |
| Tertiary butyl alcohol (TBA) | 12 ppb | See Attachment 3 |
| 1,2,3-Trichloropropane (1,2,3-TCP)[[5]](#footnote-5) | 5 ppt | See Attachment 3 |
| 1,2,4-Trimethylbenzene | 330 ppb | n/a |
| 1,3,5-Trimethylbenzene | 330 ppb | n/a |
| 2,4,6-Trinitrotoluene (TNT) | 1 ppb | n/a |
| Vanadium | 50 ppb | See Attachment 3 |

**ATTACHMENT 6**

**Special Language for Nitrate, Arsenic, Lead, Radon, *Cryptosporidium*, Ground Water Systems, and Surface Water Systems**

**(A) Nitrate:** For systems that detect nitrate (as nitrogen) **above 5 mg/L, but below 10 mg/L**, the following language is REQUIRED:

|  |
| --- |
| Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant’s blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. |

If a utility cannot demonstrate to the State Board with at least five years of the most current monitoring data that its nitrate levels are stable, it must also add the following language to the preceding statement on nitrate:

|  |
| --- |
| *Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.*  |

**(B) Arsenic:** For systems that detect arsenic **above 5 ppb, but below or equal to 10 ppb**, the following language is REQUIRED:

|  |
| --- |
| While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic’s possible health effects against the cost of removing arsenic from drinking water. The U.S. Environmental Protection Agency 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. |

**(C) Lead:** For systems that detect lead above 15 ppb in more than 5%, and up to and including 10%, of sites sampled (or if your system samples fewer than 20 sites and has even one sample above the AL), the following language is REQUIRED:

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

**(D) Radon:** Systems that performed monitoring that indicates the presence of radon in the finished water MUST include the results of the monitoring and an explanation of the significance of the results. The following language MAY be used:

|  |
| --- |
| *We constantly monitor the water supply for various contaminants. We have detected radon in the finished water supply in \_\_\_\_\_ out of \_\_\_\_\_ samples tested. There is no federal regulation for radon levels in drinking water. Exposure over a long period of time to air transmitting radon may cause adverse health effects.* |

The language below MAY be included if the level of information is helpful.

|  |
| --- |
| *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 U.S. EPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safe Council Radon Hotline (1-800-767-7236).* |

**(E) *Cryptosporidium*:** Systems that have performed any monitoring for *Cryptosposidium* that indicates that *Cryptosporidium* may be present in the source water or finished water MUST include the results of the monitoring and an explanation of the significance of the results. The following language MAY be used:

|  |
| --- |
| *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, 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.* |

**(F) Additional Special Language for Lead:** For community water systems, the following language is REQUIRED:

|  |
| --- |
| *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.* [INSERT 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. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] 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/lead*](http://www.epa.gov/lead)*.* |

**(G) Groundwater Systems:** For ground water systems that had a TT violation described in Item S of the SWS CCR Form Instructions, the following language MAY be used to describe the potential health effects. U.S. EPA did not provide standard health effect language for these TT violations in the Ground Water Rule; U.S. EPA provided the language in their guidance to water systems.

|  |
| --- |
| *Inadequately protected or treated water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.* |

**(H)** **Surface Water Systems:** For surface water systems that had a TT violation under the **SWTR, IESWTR, FBRR,** or **LT1ESWTR**, as described in Item U of the SWS CCR Form Instructions, the following language is REQUIRED to describe the potential health effects:

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

For surface water systems that had a TT violation under the **LT2ESWTR**, as described in Item U of the SWS CCR Form Instructions, the following language MAY be used to describe the potential health effects. U.S. EPA did not provide standard health effect language for these TT violations in the LT2ESWTR; U.S. EPA provided the language in their guidance to water systems.

|  |  |
| --- | --- |
| LT2ESWTR TT Violation | Health Effect Language |
| Uncovered and Untreated Finished Water Reservoir | *Inadequately protected water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.* |
| Determine and Report Bin Classification | *Inadequately treated water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.* |
| Provide or Install an Additional Level of Treatment | *Inadequately treated water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.* |

1. There is currently no MCL for hexavalent chromium. The previous MCL of 0.010 mg/L was withdrawn on September 11, 2017. Refer to Attachment 3. [↑](#footnote-ref-1)
2. 1,2,3-trichloropropane (1,2,3-TCP) had a notification level (NL) of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective. [↑](#footnote-ref-2)
3. There is currently no MCL for hexavalent chromium. The previous MCL of 0.010 mg/L (10 ppb) was withdrawn on September 11, 2017. However, any hexavalent chromium results above the detection limit of 1 ppb should be reported. [↑](#footnote-ref-3)
4. 1,2,3-trichloropropane (1,2,3-TCP) had a notification level (NL) of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective. [↑](#footnote-ref-4)
5. 1,2,3-trichloropropane (1,2,3-TCP) had a notification level (NL) of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective [↑](#footnote-ref-5)