pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Consumer Confidence Report (CCR) Template and Instructions

(For Systems Using Surface Water Sources)

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER

CONSUMER CONFIDENCE REPORT (CCR) TEMPLATE AND INSTRUCTIONS
(For Systems Using Surface Water Sources)

This document contains the following:

PART 1: Instructions for completing the CCR Template
PART 2: Sample CCR
PART 3: Blank CCR Template

PART 1: INSTRUCTIONS for completing the CCR Template

Minimum font size for CCR text is 10 points.

TITLE:

Add year of the report (current calendar year), your water supply 7-digit PWSID#, and your water supply name.

ITEM 1: WATER SYSTEM INFORMATION:

- The template includes the mandatory Spanish translation.
- Enter the telephone number of the owner, operator or contact person.
- If you hold regular meetings, include the date, time and place of regularly scheduled board or Authority meetings. If you do not hold meetings, delete the text regarding the meeting information.

ITEM 2: SOURCE(S) OF WATER:

Type, Name, and location:

- For *Item 2: Source(s) of Water*, you must identify the type, name, and location of the source or sources supplying your system.
- To obtain this data, you can access the *Pa. DEP Drinking Water Reporting System* web page: (www.drinkingwater.state.pa.us/dwrs/HTM/Welcome.html)
- Source information is located on the *Pa. DEP Drinking Water Reporting System* web page.

1. Click on the *Continue to DWRS* link.
2. Under *Select System(s) Based on*, click on *Public Water System ID* method.
3. Enter your 7-digit PWSID#.
4. In the Information Request drop down box, make sure *Inventory Information* is selected.
5. Click on the “Submit” button.

6. Select your water system name by clicking on it in the *Select System(s)* field.
7. From the *Select Inventory Data Report* field, select "Source information" from the drop down box.
8. Click on the "Submit" button.
9. The Source information will be displayed on the *Source Information* web page.

- The *Source Information* web page lists information about a supplier's active and inactive sources. For purposes of a CCR, include only active sources. The data you need to complete *Item 2: Source(s) of Water* section is the Source Name and Source Code.

Source Water Assessment Summary:

- If a source water assessment has been completed, fill in the blanks and select choices within the brackets that summarize the susceptibility to potential sources of contamination.

1. Delete or revise any text that is not applicable to your system.
2. If a source water assessment has not been completed, delete the entire text.

- You will need to access a Source Water Assessment Public summary, which is located on *the Source Water Assessment Summary Reports* eLibrary web page: www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045

1. Select your county from the left pane. (**HINT:** Select "Show all" for the full listing)
2. Select your water system from the assessment listed in the right pane. (**HINT:** Select "Show all" for the full listing)

- Water suppliers must provide a brief summary of the susceptibility to potential sources of contamination. The *CCR Report Template and Instructions* provides suppliers the opportunity to fill in the blanks in the *Source Water Assessment* area of the CCR.

1. The first piece of information that must be addressed in the *Source Water Assessment* area of the blank CCR template is the sources of contaminants.
2. Suppliers can locate this information in the table under *Evaluation of Significant Potential Sources of Contamination* header.
3. The sources of contaminants are listed in the first column.
4. This information should be inserted into the second sentence in the *Source Water Assessment* area of the blank CCR template.
5. The *Source Water Assessment Public Summary* provides information about a susceptibility rating for each source of contaminant. These ratings are on a scale from A to F with A being the highest susceptibility and also the highest priority for protection.
6. In order to fill in the blank regarding the overall risk of significant contamination, water suppliers should use the following criteria - Susceptibility Rating of Sources of Contaminants:
    - A or B = high risk
    - C or D = moderate risk
    - E or F = little risk

    This information must be inserted into the third sentence in the *Source Water Assessment* area in the CCR template.

Monitoring Your Water:

Enter the monitoring period in the spaces provided. The period the report covers is always the previous year.

ITEM 3: DEFINITIONS AND ABBREVIATIONS:

In addition to the mandatory definitions that are included in the template, you may add any definitions you feel are appropriate.

ITEM 4: DETECTED SAMPLE RESULTS TABLE(S):

ACCESSING YOUR DETECTED SAMPLE RESULTS:

To access your detected sample results, go to DEP's Consumer Confidence Reporting System web page at the following address: www.drinkingwater.state.pa.us/ccr/welcome.html

At the bottom of the introductory page, click on "Continue to CCR" link.

1. Select system(s) based on:
    a. PWSID
    b. Public Water System Name
    c. County
2. Click on the "Submit" button.
3. Use the drop down box to select the report you need. **NOTE: There are now several summary tables that you will need to access to gather all the data you need to report in the CCR.** For example, all groundwater systems will need to access the chemical results, lead/copper, microbial, and disinfectant residuals to complete the "Detected Sample Results tables."
4. Click on the "Submit" button.

CRYPTOSPORIDIUM MONITORING:

If your system has performed monitoring that indicates the presence of *Cryptosporidium* either in its source water or its finished water, include the following information in your report:

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

EXAMPLE - *Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people 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.*

GENERAL NOTES REGARDING ALL TABLES:

- The sample results for all contaminants from the previous calendar year must be included. If you did not monitor for a contaminant in the previous year, you must go back to your last sample result for that contaminant and include them. Continue to report existing data until a new result replaces it. No data older than 5 years is required.

- Since data in the *Sample Date* column often reflects the entire year as opposed to a single sample date, water suppliers may report it as a year, instead of month/year.
- Non-detected contaminants (or "0" results or a result with the "less than" symbol, which is "<") should *not* be included in any of the detected contaminants tables. If desired, you can list or identify your non-detected contaminants elsewhere in the report.
- All sample results must be reported in the same units that are listed in the *Contaminants* column found in *Table 1: Detected Contaminants*. MCLs must be reported in "CCR Units," not the traditional MCL units. Sample results may need to be converted to "CCR Units" as per the instructions in *Table 1*.
- The violation block must be marked "Y" (yes) or "N" (no) for each detect. If no MCL's were exceeded in all Detected Sample Results Tables, you may include the following statement: "No MCL's or Treatment Techniques were exceeded" in any location of the CCR. If the violation block is marked "Y" (yes), you must describe the violation and actions you have taken to address the violation.

HEALTH EFFECTS:

- If there is an MCL, MRDL, or treatment technique violation, the "Violation Y/N" column in your table must be marked "Y" (yes) and the corresponding health effects language for that contaminant must be included from *Table 2: Health Effects Language*.

TABLE 1: DETECTED CONTAMINANTS:

Description of Table 1 Columns:

Contaminant (units) – This column identifies the contaminants and the required units of measurement. Water systems are required to report certain contaminants in small units of measurement (usually parts per billion) so that the level detected is a number greater than 1. Refer to the units for each contaminant to determine if you can report the value your lab provides "as is" or if you need to convert that value because the units are not the same.

Traditional MCL in mg/L – This column identifies an MCL in mg/L units since many contaminants have MCLs which are measured in mg/L.

To Convert for CCR, multiply by – This value is a conversion factor that is used when the required units of measurement (usually ppb) are not the typical units of measurement that your lab uses to report your detected value. If your detected value is reported in mg/L (same as parts per million), and you need to convert this value to ppb units, you would multiply your level detected by the conversion factor found in this column. For instance, the lab may report your level detected for antimony as 0.003 mg/L, but antimony is required to be reported in ppb units. The conversion factor for antimony is 1,000. To report antimony in ppb units, multiply 0.003 mg/L x 1000 = 3 ppb. A dash (-) in this column indicates that you do not need to convert any units. Report the detected value "as is."

MCL in CCR Units – This column converts the traditional MCL (mg/L) into the required units. For instance, the traditional MCL of antimony is 0.006 mg/L. By multiplying by 1,000, the MCL is converted to 6 ppb.

MCLG – This column converts the traditional MCLG (mg/L) into the required units. For instance, the traditional MCLG of antimony is 0.006 mg/L. By multiplying by 1,000, the MCLG is converted to 6 ppb. For certain contaminants, the MCLG is zero.

Sources of Contamination – This column identifies the major sources in drinking water. This information must be included for each detected contaminant.

HOW TO USE TABLE 1:

1. Find the contaminant that you will report on your *Detected Sample Results* table.
2. Review the required units (usually ppb or ppm) that are listed in the parentheses beside the contaminant name.

3. Compare the units listed in the parentheses to the units that are reported on your lab results.

   If the units are the same, report the level detected "as is."
   If the units are different, do the following:
   - Refer to the To Convert for CCR, Multiply by column.
   - Multiply the level detected by the value listed in the To Convert for CCR, Multiply by column. (Example: level detected for lead is 0.005 mg/L must be converted to ppb by multiplying 0.005 mg/L X 1,000 = 5 ppb.)

4. Copy and paste the information in the last column for each detected contaminant into your *Detected Sample Results* table.

If your level detected exceeds an MCL, MRDL, or TT, you must include the health effects language found in *Table 2: Health Effects Language* in your report.

Nitrate and arsenic also require special educational language if your detected value is above certain levels but below the MCL. Refer to *TABLE 2: Health Effects Language* for the levels and required educational language.

Regulated Contaminants:

AL=Action Level
MCL=Maximum Contaminant Level
MCLG=Maximum Contaminant Level Goal
MFL=million fibers per liter
MRDL=Maximum Residual Disinfectant Level
MRDLG=Maximum Residual Disinfectant Level Goal
mrem/year=millirems per year (a measure of radiation absorbed by the body)
N/A=Not Applicable
NTU=Nephelometric Turbidity Units (a measure of water clarity)
pCi/l=picocuries per liter (a measure of radioactivity)
ppb=parts per billion, or micrograms per liter (µg/l)
ppm=parts per million, or milligrams per liter (mg/l)
ppq=parts per quadrillion, or picograms per liter
ppt=parts per trillion, or nanograms per liter
TT=Treatment Technique

TABLE 1

Contaminant (units)	Traditional MCL in mg/L (mg/L = ppm)	To Convert for CCR, Multiply by	MCL in CCR units	MCLG	Sources of Contamination
Total Coliform Bacteria	TT		TT	N/A	Naturally present in the environment
E. coli	Routine and repeat samples are total coliform-positive and either *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*		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*	0	Human and animal fecal waste
Turbidity (NTU)	TT	-	TT	n/a	Soil runoff
Giardia lamblia Viruses Heterotrophic plate count bacteria Legionella Cryptosporidium	Surface water treatment = treatment technique			0	Naturally present in the environment
Antimony (ppb)	.006	1,000	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	0.01	1,000	10	0	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Asbestos (MFL)	7 MFL	-	7	7	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	2	-	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	.004	1,000	4	4	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	.005	1,000	5	5	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Chromium (ppb)	.1	1,000	100	100	Discharge from steel and pulp mills; Erosion of natural deposits

TABLE 1					
Contaminant (units)	**Traditional MCL in mg/L (mg/L = ppm)**	**To Convert for CCR, Multiply by**	**MCL in CCR units**	**MCLG**	**Sources of Contamination**
Cyanide (ppb)	.2	1,000	200	200	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	2	-	2	2	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Mercury (ppb)	.002	1,000	2	2	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Nitrate (ppm)	10	-	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	1	-	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	.05	1,000	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Thallium (ppb)	.002	1,000	2	0.5	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
2,4-D (ppb)	.07	1,000	70	70	Runoff from herbicide used on row crops
2,4,5-TP [Silvex](ppb)	.05	1,000	50	50	Residue of banned herbicide
Acrylamide	TT	-	TT	0	Added to water during sewage/wastewater treatment
Alachlor (ppb)	.002	1,000	2	0	Runoff from herbicide used on row crops
Atrazine (ppb)	.003	1,000	3	3	Runoff from herbicide used on row crops
Benzo(a)pyrene [PAH] (nanograms/l)	.0002	1,000,000	200	0	Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)	.04	1,000	40	40	Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)	.002	1,000	2	0	Residue of banned termiticide
Dalapon (ppb)	.2	1,000	200	200	Runoff from herbicide used on rights of way
Di(2-ethylhexyl) adipate (ppb)	.4	1,000	400	400	Discharge from chemical factories
Di(2-ethylhexyl) phthalate (ppb)	.006	1,000	6	0	Discharge from rubber and chemical factories
Dibromochloropropane (ppt)	.0002	1,000,000	200	0	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb (ppb)	.007	1,000	7	7	Runoff from herbicide used on soybeans and vegetables
Dioxin [2,3,7,8-TCDD] (ppq)	.00000003	1,000,000,000	30	0	Emissions from waste incineration and other combustion; Discharge from chemical factories
Diquat (ppb)	.02	1,000	20	20	Runoff from herbicide use
Endothall (ppb)	.1	1,000	100	100	Runoff from herbicide use
Endrin (ppb)	.002	1,000	2	2	Residue of banned insecticide

TABLE 1					
Contaminant (units)	**Traditional MCL in mg/L (mg/L = ppm)**	**To Convert for CCR, Multiply by**	**MCL in CCR units**	**MCLG**	**Sources of Contamination**
Epichlorohydrin	TT	-	TT	0	Discharge from industrial chemical factories; An impurity of some water treatment chemicals
Ethylene dibromide (ppt)	.00005	1,000,000	50	0	Discharge from petroleum refineries
Glyphosate (ppb)	.7	1,000	700	700	Runoff from herbicide use
Heptachlor (ppt)	.0004	1,000,000	400	0	Residue of banned pesticide
Heptachlor epoxide (ppt)	.0002	1,000,000	200	0	Breakdown of heptachlor
Hexachlorobenzene (ppb)	.001	1,000	1	0	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene (ppb)	.05	1,000	50	50	Discharge from chemical factories
Lindane (ppt)	.0002	1,000,000	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	.04	1,000	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate] (ppb)	.2	1,000	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
Pentachlorophenol (ppb)	.001	1,000	1	0	Discharge from wood preserving factories
Picloram (ppb)	.5	1,000	500	500	Herbicide runoff
PCBs [Polychlorinated biphenyls] (ppt)	.0005	1,000,000	500	0	Runoff from landfills; Discharge of waste chemicals
Simazine (ppb)	.004	1,000	4	4	Herbicide runoff
Toxaphene (ppb)	.003	1,000	3	0	Runoff/leaching from insecticide used on cotton and cattle
Benzene (ppb)	.005	1,000	5	0	Discharge from factories; Leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	.005	1,000	5	0	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	.1	1,000	100	100	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	.6	1,000	600	600	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	.075	1,000	75	75	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	.005	1,000	5	0	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	.007	1,000	7	7	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	.07	1,000	70	70	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	.1	1,000	100	100	Discharge from industrial chemical factories
Dichloromethane (ppb)	.005	1,000	5	0	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	.005	1,000	5	0	Discharge from industrial chemical factories
Ethylbenzene (ppb)	.7	1,000	700	700	Discharge from petroleum refineries

TABLE 1					
Contaminant (units)	**Traditional MCL in mg/L (mg/L = ppm)**	**To Convert for CCR, Multiply by**	**MCL in CCR units**	**MCLG**	**Sources of Contamination**
Styrene (ppb)	.1	1,000	100	100	Discharge from rubber and plastic factories; Leaching from landfills
Toluene (ppm)	1	-	1	1	Discharge from petroleum factories
Tetrachloroethylene (ppb)	.005	1,000	5	0	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)	.07	1,000	70	70	Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	.2	1,000	200	200	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	.005	1,000	5	3	Discharge from industrial chemical factories
Trichloroethylene (ppb)	.005	1,000	5	0	Discharge from metal degreasing sites and other factories
Vinyl Chloride (ppb)	.002	1,000	2	0	Leaching from PVC piping; Discharge from plastics factories
Xylenes (ppm)	10	-	10	10	Discharge from petroleum factories; Discharge from chemical factories
Beta/photon emitters (mrem/yr)	4 mrem/yr	-	4	0	Decay of natural and man-made deposits
Alpha emitters (pCi/l)	15 pCi/l	-	15	0	Erosion of natural deposits
Combined radium (pCi/l)	5 pCi/l	-	5	0	Erosion of natural deposits
Uranium (pCi/L[1])	30 µg/l	-	30	0	Erosion of natural deposits
Lead (ppb)	AL=.015	1,000	AL=15	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	AL=1.3	-	AL=1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
TTHMs [Total trihalomethanes] (ppb)	.080	1,000	80	n/a	By-product of drinking water chlorination
Haloacetic Acids (HAA) (ppb)	.060	1,000	60	n/a	By-product of drinking water disinfection
Bromate (ppb)	.010	1,000	10	0	By-product of drinking water chlorination
Chlorite (ppm)	1	-	1	0.8	By-product of drinking water chlorination
Chlorine (ppm)	MRDL = 4	-	MRDL = 4	MRDLG = 4	Water additive used to control microbes
Chloramines (ppm)	MRDL = 4	-	MRDL = 4	MRDLG = 4	Water additive used to control microbes
Chloride dioxide (ppb)	MRDL = .8	1,000	MRDL = 800	MRDLG = 800	Water additive used to control microbes
Total organic carbon (ppm)	TT	-	TT	n/a	Naturally present in the environment

[1] If lab reports value in pCi/L, convert to µg/L using the following formula: ____pCi/L X 1.49 = _____ µg/L

DETECTED SAMPLE RESULTS TABLES

CHEMICAL CONTAMINANTS TABLE (FOR INORGANICS, ORGANICS, RADIONUCLIDES AND DISINFECTANTS/DISINFECTION BYPRODUCTS):

CONTAMINANTS THAT DO NOT REQUIRE A CONVERSION

Contaminants that Do Not Require a Conversion	
The following *Table 1* contaminants are contaminants that do not require conversions for the *Level Detected* column values because their MCL, MRDL, or action level values are whole numbers:	
Barium	Alpha emitters
Fluoride	Beta emitters
Nitrate	Combined radium
Nitrite	Chlorite
Toluene	Chlorine
Xylene	Chloramines
Copper	

RELATIONSHIPS BETWEEN UNITS OF MEASUREMENTS

Relationships Between Units of Measurements			
Unit of Measurement	Unit Relationships	Multiples of 10	Larger Units to Smaller Units
parts per million (ppm)	1 mg/L = 1 ppm	1	
-	1 ppm = 1000 ppb	10	
-	1 ppb is 1000X smaller than 1 ppm	100	
parts per billion (ppb)	0.001 ppm = 1 ppb	1000	

This table shows the relationship between 2 common units of measurement: parts per million and parts per billion. Since parts per billion is 1,000 times smaller than parts per million, any value reported with parts per million units must be multiplied by 1,000 to convert to the parts per billion units.

The “Level Detected” compliance value is determined in 4 different ways depending upon whether a water supplier has multiple values and multiple dates. The table below lists how the compliance value should be reported in the “Level Detected” column.

VARIABLES USED TO REPORT LEVEL DETECTED COMPLIANCE VALUES

Variables Used to Report Level Detected Compliance Values			
LOCATION(S)	**VALUE(S)**	**DATE(S)**	**COMPLIANCE VALUE REPORTED**
single	single	single	single value
single	multiple	multiple	average of multiple values
multiple	multiple	single	highest value of multiple values
multiple	multiple	multiple	highest Running Annual Average (RAA) of multiple values

STEPS TO CALCULATE THE AVERAGE OF MULTIPLE VALUES

Steps to Calculate the Average of Multiple Values

Quarterly Entry Point Results (example data)			
Contaminant	2nd quarter 2007	3rd quarter 2007	4th quarter 2007
	0.0040 ppm	**0.0037 ppm**	**0.0010 ppm**

Step 1: Add the individual values together to get a sum

0.0040 ppm (2nd quarter 2007)
0.0037 ppm (3rd quarter 2007)
+ 0.0010 ppm (4th quarter 2007)
0.0087 ppm (sum of quarters)

Step 2: Divide the sum by the number of individual values

$$\frac{\text{0.0087 ppm (sum of three quarters)}}{\text{3 (values)}} = \text{0.0029 ppm (average of three values)}$$

STEPS FOR COMPUTING AND REPORTING A RUNNING ANNUAL AVERAGE (RAA)

Steps for Computing and Reporting a Running Annual Average (RAA) **For two sites (Example year =2008)**
1. To compute the first 2008 quarterly average, add the first quarter 2008 data from site #1 to the first quarter data 2008 from site #2 and divide by 2. Insert the value into the first quarterly average field.
2. To compute the second 2008 quarterly average, add the second quarter 2008 data from site #1 to the second quarter data 2008 from site #2 and divide by 2. Insert the value into the second quarterly average field.
3. To compute the third 2008 quarterly average, add the third quarter 2008 data from site #1 to the third quarter data 2008 from site #2 and divide by 2. Insert the value into the third quarterly average field.
4. To compute the fourth 2008 quarterly average, add the fourth quarter 2008 data from site #1 to the fourth quarter data 2008 from site #2 and divide by 2. Insert the value into the fourth quarterly average field.
5. To compute RAA for the first quarter 2008, add the 2008 first quarterly average to the previous three quarterly averages in 2007 and then divide by 4. Insert the value into the first quarter 2008 RAA field.
6. To compute RAA for the second quarter 2008, add the 2008 second quarterly average to the previous three quarterly averages and then divide by 4. Insert the value into the second quarter 2008 RAA field.
7. To compute RAA for the third quarter 2008, add the 2008 third quarterly average to the previous three quarterly averages and then divide by 4. Insert the value into the third quarter 2008 RAA field.
8. To compute RAA for the fourth quarter 2008, add 2008 fourth quarterly average to the previous three quarterly averages in 2008 and then divide by 4. Insert the value into the fourth quarter 2008 RAA field.
9. Report the highest RAA of the 2008 four quarters in the Level Detected column of the Chemical Contaminants table.

Table to Compute Running Annual Average for 2008 Example Above

Contaminant	**2nd quarter 2007**	**3rd quarter 2007**	**4th quarter 2007**	**1st quarter 2008**	**2nd quarter 2008**	**3rd quarter 2008**	**4th quarter 2008**
Site #1	Insert data	Insert data	Insert data	Insert data	Insert data	Insert data	Insert data
Site #2	Insert data	Insert data	Insert data	Insert data	Insert data	Insert data	Insert data
Quarterly Avg.	See Step 1	See Step 1	See Step 1	See Step 1	See Step 2	See Step 3	See Step 4
RAA	-	-	-	See Step 5	See Step 6	See Step 7	See Step 8

- For annual samples (or samples taken less frequently), report the highest of multiple values and range (if applicable). For example: If more than one source is sampled or more than one sample is collected, report the highest of multiple values in the Level Detected column. You should report the lowest and highest sample results in the Range column. This will enable you to report sample results from multiple sources without having to list them separately. You may list them separately if they serve different distribution areas.
- For contaminants where compliance is based on a running annual average, report the highest running annual average and range (example: TTHMs and HAA5s). The last three quarterly averages of the previous year are needed to calculate the first quarterly average. The range would be the highest and lowest individual detected sample results for the year.
- If no VOCs, IOCs, or SOCs were detected, insert the following statement: "We had no detections of Volatile Organic Compounds, Inorganic Compounds, or Synthetic Organic Compounds." in a separate area of your CCR.
- Include "Sources of Contamination" which can be found in the last column of Table 1: Detected Contaminants.

RADIOLOGICAL REPORTING

EPA established detection limits that determine which values are considered "Non-detect" (ND). ND values do not need to be reported in the *Detected Sample Results* table. Unfortunately, some labs are incorrectly reporting values as detections that are below detection limits and those values get a "XXX" detect designation on the *Consumer Confidence Report Data* web page. Water suppliers need to compare each "XXX" detected radiological value to the EPA detection limit to determine if the value is a "ND."

COMBINED URANIUM:

Step 1: If the value is below the EPA detection limit of 0.67 pCi/L, it is an ND and does not need to be reported in the CCR Detected Results table.
Step 2: If the result is a "detect" (0.67 or more pCi/L), convert combined uranium to ug/L by multiplying the reported pCi/L value by 1.49.

ALPHA EMITTERS:

Step 1: If the alpha emitters value is below the EPA detection limit of 3 pCi/L, it is an ND and does not need to be reported in the CCR Detected Results table.
Step 2: If the alpha emitters value is a "detect" (3 or more pCi/L) and if combined uranium was analyzed and it was greater than 0.67 pCi/L, subtract the combined uranium value from the alpha emitters and report that lower value in the CCR Detected Results table.

COMBINED RADIUM:

To calculate combined radium when both results (Ra 226 and Ra 228) are sampled:
Step 1: If each individual value (Ra 226 and Ra 228) is below the EPA detection limit of 1 pCi/L, both are NDs and do not need to be reported in the *Detected Sample Results* table.
Step 2: If either individual value is a "detect," add both values together and report the sum of the values.

TO CALCULATE COMBINED RADIUM WHEN RA 226 WAS NOT SAMPLED:

Step 1: If Ra 226 was not taken, use alpha emitters value. If alpha emitters value is a ND, use 1.5 as its value.
Step 2: Add both values and report the sum of the values.

GROSS BETA:

If you detect beta particles in your water at or below 50 pCi/L, you should report the detected level in pCi/L. So that consumers may have a standard against which to compare that detected level, include "50*" in the MCL column (rather than the actual MCL of 4 mrem/year) and include a footnote to the table that says "*EPA considers 50 pCi/L to be the level of concern for beta particles."

If you detect beta particles above 50 pCi/L, contact DEP at 717-772-4018 for CCR reporting instructions.

ENTRY POINT DISINFECTANT RESIDUAL TABLE:

- You may want to use the Entry Point Disinfectant Residual table to avoid confusion with reporting a minimum residual and a maximum residual disinfectant level for the same contaminant under the "Chemical Contaminants" table.
- For reporting entry point disinfectant residual, include the lowest value and the range for entry point residuals.
- You are in violation for failing to maintain at least 0.2 ppm disinfectant residual at the entry point if the lowest level detected is below 0.2 ppm for more than 4 hours.
- You are still required to report the highest monthly average result for your distribution disinfectant (chlorine, chlorine dioxide or chloramines) as it compares to the MRDL under the "Chemical Contaminants" table.

LEAD AND COPPER TABLE:

- Report the 90th percent value of the most recent round of samples, and the number of sites (of the total number) that exceeded the action level.

MICROBIAL CONTAMINANTS TABLES:

- As a result of the Revised Total Coliform Rule, there are now 2 microbial contaminants tables.
  - The first table should be used if a system is required to comply with the Level 1 assessment requirement or a Level 2 assessment requirement that is **not due to an *E. coli* MCL violation**. Insert data in the following column: *Violation Y/N*. If you did not violate the treatment technique, you may state that under the ***"DETECTED HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS"*** section. Also, insert the appropriate health effects language and mandatory language found on page 18 under the "***DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS***" section of the template.
  - **The second table should be used if a system is required to conduct a Level 2 assessment** due to an *E. coli* MCL violation. Insert data in the following columns: *Positive Sample(s), and Violation Y/N.* If you detected ***E. coli*** but did not violate the MCL, you may state that under the ***"DETECTED HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS"*** section. If you did not detect ***E. coli,*** you may delete that specific row. Insert the appropriate health effects language and mandatory language found on pages 18 and 19 under the **"*DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS"*** section of the template.

TURBIDITY TABLE:

- If you have slow sand or diatomaceous earth filtration, you must revise the MCL information to read: TT= 2.0 for a single measurement AND TT= at least 95% of monthly samples < 1.0
- In the Level Detected column, report highest single measurement and lowest monthly percent of samples meeting the treatment technique standard.

TOTAL ORGANIC CARBON (TOC) TABLE:

- TOC data required for conventional filter plants:
  Report in Table:
  - Range of percent removal required,
  - Range of percent removal achieved,
  - Number of quarters out of compliance, AND
  - Whether the system violated the TT, as indicated by the running annual average (RAA) computed quarterly.
- Note: If alternative compliance criteria (ACC) are used to determine compliance with the TT, you may not have percent removal data to report. Simply explain that ACC were used to determine compliance and indicate the number of quarters out of compliance.

TABLE 2: HEALTH EFFECTS LANGUAGE

Description of Columns:

Contaminant (units) – This column identifies the contaminants and the required units of measurement.

Health Effects Language – This language is required to be included in the CCR when the MCL, MRDL, or TT is exceeded for the specific contaminant. Also include an explanation of the violation and the steps taken to correct the violation. Insert this information under the **"*DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS*"** section of the template.

NOTE: Effective 4/1/16, the Revised Total Coliform Rule requires specific potential **health effects language *(in italics)* and additional mandatory language** for the following situations:

1. **Any system required to comply with the Level 1 assessment requirement or a Level 2 assessment requirement that is not due to an *E. coli* MCL violation:** *Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially-harmful, bacteria 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.*

   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.

   Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement and must also include one or both of the following statements, 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.

2. ***Any system required to conduct a level 2 assessment due to an E. coli MCL violation:*** *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 health 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 violated the standard for E. coli indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct a detailed assessment to identify problems and to correct any 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.

Any system that has failed to complete the required assessment or correct all identified sanitary defects, is in violation of the treatment technique requirement and **must also include one or both of the following statements,** as appropriate:

We failed to conduct the required assessment.

We failed to correct all sanitary defects that were identified during the assessment that we conducted.

If a system detects *E. coli* and has violated the *E. coli* MCL, in addition to completing the Detected Sample Results table, the system **must include one or more of the following statements to describe any noncompliance,** as applicable:

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 repeat sample tests positive for total coliform.

If a system detects *E. coli* and has not violated the *E. coli* MCL, the system may include a statement that explains that although they have detected *E. coli*, they are not in violation of the *E. coli* MCL.

HOW TO USE TABLE 2:

If you have a contaminant that exceeds an MCL, MRDL, or TT, you must include the health effects language found in this table in your report.

Regulated Contaminants**:**

Key

MCL=Maximum Contaminant Level
MFL=million fibers per liter
MRDLG=Maximum Residual Disinfectant Level Goal
N/A=Not Applicable
pCi/l=picocuries per liter (a measure of radioactivity)
ppb=parts per billion, or micrograms per liter (µg/l)
ppq=parts per quadrillion, or picograms per liter
AL=Action Level
MCLG=Maximum Contaminant Level Goal
MRDL=Maximum Residual Disinfectant Level
mrem/year=millirems per year (a measure of radiation absorbed by the body)
NTU=Nephelometric Turbidity Units (a measure of water clarity)
ppm=parts per million, or milligrams per liter (mg/l)
ppt=parts per trillion, or nanograms per liter
TT=Treatment Technique

TABLE 2

Contaminant (units)	**Health Effects Language (Required when MCL, MRDL, or TT is exceeded)**
Total Coliform Bacteria	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially-harmful, bacteria 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	*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 health 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 conduction assessment(s) to identify problems and to correct any problems that were found during these assessments.
Turbidity (NTU)	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
Giardia lamblia Viruses Heterotrophic plate count bacteria Legionella *Cryptosporidium*	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.
Antimony (ppb)	Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.
Arsenic (ppb)	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Asbestos (MFL)	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 (ppm)	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Beryllium (ppb)	Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.
Cadmium (ppb)	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
Chromium (ppb)	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
Cyanide (ppb)	Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.
Fluoride (ppm)	This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). Dental fluorosis, in its moderate or severe forms, may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease.
Mercury [inorganic] (ppb)	Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.

TABLE 2	
Contaminant (units)	**Health Effects Language (Required when MCL, MRDL, or TT is exceeded)**
Nitrate (ppm)	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Nitrite (ppm)	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Selenium (ppb)	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
Thallium (ppb)	Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.
2,4-D (ppb)	Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.
2,4,5-TP [Silvex](ppb)	Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.
Acrylamide	Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.
Alachlor (ppb)	Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.
Atrazine (ppb)	Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.
Benzo(a)pyrene [PAH] (nanograms/l)	Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Carbofuran (ppb)	Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.
Chlordane (ppb)	Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.
Dalapon (ppb)	Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.
Di(2-ethylhexyl) adipate (ppb)	Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience general toxic effects or reproductive difficulties.
Di(2-ethylhexyl) phthalate (ppb)	Some people who drink water containing di (2-ethylhexyl) phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.
Dibromochloropropane (ppt)	Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
Dinoseb (ppb)	Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.
Dioxin [2,3,7,8-TCDD] (ppq)	Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
Diquat (ppb)	Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.
Endothall (ppb)	Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.
Endrin (ppb)	Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.
Epichlorohydrin	Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.
Ethylene dibromide (ppt)	Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.
Glyphosate (ppb)	Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.
Heptachlor (ppt)	Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.
Heptachlor epoxide (ppt)	Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.
Hexachlorobenzene (ppb)	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.

TABLE 2	
Contaminant (units)	**Health Effects Language (Required when MCL, MRDL, or TT is exceeded)**
Hexachlorocyclopentadiene (ppb)	Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.
Lindane (ppt)	Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.
Methoxychlor (ppb)	Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.
Oxamyl [Vydate] (ppb)	Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.
Pentachlorophenol (ppb)	Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.
Picloram (ppb)	Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.
PCBs [Polychlorinated biphenyls] (ppt)	Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
Simazine (ppb)	Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.
Toxaphene (ppb)	Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.
Benzene (ppb)	Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
Carbon tetrachloride (ppb)	Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
Chlorobenzene (ppb)	Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.
o-Dichlorobenzene (ppb)	Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.
p-Dichlorobenzene (ppb)	Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.
1,2-Dichloroethane (ppb)	Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.
1,1-Dichloroethylene (ppb)	Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
cis-1,2-Dichloroethylene (ppb)	Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
trans-1,2-Dichloroethylene (ppb)	Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.
Dichloromethane (ppb)	Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.
1,2-Dichloropropane (ppb)	Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
Ethylbenzene (ppb)	Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.
Styrene (ppb)	Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.
Toluene (ppm)	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.
Tetrachloroethylene (ppb)	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.
1,2,4-Trichlorobenzene (ppb)	Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.
1,1,1-Trichloroethane (ppb)	Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.
1,1,2-Trichloroethane (ppb)	Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.
Trichloroethylene (ppb)	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
Vinyl Chloride (ppb)	Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.
Xylenes (ppm)	Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.

TABLE 2	
Contaminant (units)	**Health Effects Language (Required when MCL, MRDL, or TT is exceeded)**
Beta/photon emitters (mrem/yr)	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta particle and photon radioactivity in excess of the MCL over many years may have an increased risk of getting cancer.
Alpha emitters (pCi/l)	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined radium (pCi/l)	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (pCi/L[2])	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
Lead (ppb)	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Copper (ppm)	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.
TTHMs (Total trihalomethanes) (ppb)	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
Haloacetic Acids (HAA) (ppb)	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 (ppb)	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
Chlorite (ppm)	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 (ppm)	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.
Chloramines (ppm)	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.
Chloride dioxide (ppb)	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.
Total organic carbon (ppm)	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

[2] If lab reports value in pCi/L, convert to µg/L using the following formula: ____pCi/L X 1.49 = _____ µg/L

ITEM 5: OTHER VIOLATIONS:

- Include information about any monitoring, reporting, record keeping or treatment technique violations.
- Include an explanation of the violation, any potential health effects and the steps taken to correct the violation.
- All violations are located on the CCR System web page: *http://www.drinkingwater.state.pa.us/ccr/welcome.html*
  At the bottom of the introductory page, click on "Continue to CCR" link.

1. Select system(s) based on:
   a. PWSID
   b. Public Water System Name
   c. County
2. Click on the "Submit" button.
3. Use the drop down box to select the violation report.
4. Click on the "Submit" button
5. If a violation is present it will appear in a table.
6. If you cannot determine why the violation occurred, you can click on the "Click here" link at the bottom of the page to view and or print a detailed description of the 2-digit violation type code.

- The *CCR Violations Report Field Descriptions* document contains a *Violations Type Descriptions* table that is a concise table that indicates the violation type code, how it is displayed on website, and violation type that includes the type and the rule that is violated.

1. To get a detailed description of each violation, click on the 2-digit type code.
2. Water suppliers should identify which situation caused a violation to occur.

- A community water supplier must use the language listed below if the CWS is in violation of any treatment technique pertaining to the surface water treatment rule requirements.
  - *Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea and associated headaches.*

Examples of treatment technique violations may include:
- Failure to install adequate filtration or disinfection equipment or processes.
- Failure of equipment or process.
- Failure to maintain at least 0.2 ppm disinfectant residual at the entry point for more than 4 hours.
- Failure to meet inactivation requirements at the treatment plant (CT value).
- Failure to determine and report bin classification.
- Failure to provide or install an additional level of treatment using a microbial toolbox option by the required date.
- Failure to achieve required treatment credit to meet the bin classification requirements using a microbial toolbox option.
- Failure to calculate and report mean *Cryptosporidium* level.
- Failure to install a second disinfectant to treat for *Cryptosporidium* by the required date.
- Failure to achieve required inactivation level by required date.
- Failure to maintain required inactivation level based on mean *Cryptosporidium* results.

SPECIAL EDUCATIONAL STATEMENT FOR NITRATE AND ARSENIC:

Nitrate and arsenic also require special educational language if your detected value is above certain levels but below the MCL.

If your water contains:

- Nitrate above 5 ppm (50% of the MCL), but below 10 ppm (the MCL), or
- Arsenic above 5 ppb and up to and including 10 ppb.

You must include in your report the relevant special educational statement listed below about that contaminant.

Nitrate: *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.*

Arsenic: *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.*

ITEM 6: EDUCATIONAL INFORMATION:

Include all mandatory educational information as written.

OTHER INFORMATION:

Include any other pertinent information about your water system. Some examples would be: a brief statement about all the monitoring conducted where the results were 'none detected', any improvements made to the system, training and education of the operator(s), or reasons for occasional rate increases.

DISTRIBUTION OF CCRS:

- You must deliver a copy of your *Consumer Confidence Report* to each of your customers and to DEP Safe Drinking Water Program (or a designated County Health Department's Drinking Water Program), on or before July 1st at the appropriate address listed on pages 27 – 30.

Effective January 2013, you may implement the following delivery methods:

- Mail – notification that CCR is available on website: You may mail to each bill-paying customer a notification that the CCR is available and provide a DIRECT URL to the CCR where it can be viewed. The mail method for the notification may be, but is not limited to, a water bill insert, statement on the water bill or community newsletter.
- Email – direct URL to CCR: You may email a direct URL to the CCR on a publicly available site on the Internet.
- Email – CCR sent as an attachment to the email: You may email the CCR as an electronic file email attachment (e.g., portable document format)
- Email – CCR sent as an embedded image in an email: You may email the CCR text and tables inserted into the body of an email (not as an attachment.)
- NOTE: You are NOT allowed to use social media (e.g., Twitter or Facebook) directed to bill-paying customers since these are membership Internet outlets and would require a customer to join the website to read their CCR. Additionally, you cannot use automatic telephone dialers to distribute CCRs because the entire content of the CCR cannot be provided in the phone call.

To view EPA's CCR Delivery Options memo and guidance, click on this link:

- **www.epa.gov/ccr/how-water-utilities-can-electronically-delivery-their-ccr**
- Additionally, you must make a good faith effort to get the report to non-bill-paying customers. Non-bill-paying customers would include apartment building residents, nursing home residents, and possibly some mobile home park residents. You should encourage the owner to make the report available to the actual users. Copies of the report could be made or a copy posted in a central location such as a bulletin board.

CERTIFICATION OF CCR CONTENT AND DELIVERY REQUIREMENTS:

- You must certify that the annual CCR has been distributed to customers and that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the Department. This certification must be delivered to the DEP address listed on pages 27 through 30 on or before October 1st.

Link to CCR Certification form: www.elibrary.dep.state.pa.us/dsweb/View/Collection%20-10962

DEP AND CHD OFFICES CONTACT LIST:

- The completed form is to be addressed to: PA DEP - Safe Drinking Water and sent to the address of the appropriate district office or county health department (CHD) having jurisdiction over the water system.

- District and CHD addresses by county can be found within DEP document number 3930-FM-BSDW0560. This document can be located by searching under “forms” for document number 3930-FM-BSDW0560 on eLibrary at the following link: http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=3195.

PART 2: SAMPLE CCR

2017 ANNUAL DRINKING WATER QUALITY REPORT
PWSID # 7210093 Sampletown Water Company

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

WATER SYSTEM INFORMATION:

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Joe Sampson at 717-867-5309. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held the first Tuesday of each month at 7:30 PM in the Borough building.

SOURCE(S) OF WATER:

Our water source is surface water from the Sampletown Dam. The water is treated at our Orange Street filtration plant. A *Source Water Assessment* of the Sampletown Dam, which supplies water to the Orange Street Filtration Plant, was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that the Sampletown Dam Intake is potentially most susceptible to transportation corridors and public use. Overall, the Sampletown Watershed has a high risk of significant contamination. A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page: http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045. Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the Pa. DEP SouthCentral Regional Office, Records Management Unit at (717)-705-4732.

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 microbiological contaminants are available from the *Safe Drinking Water Hotline* (800-426-4791).

MONITORING YOUR WATER:

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following table shows the results of our monitoring for the period of January 1 to December 31, 2016. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data is from prior years in accordance with the *Safe Drinking Water Act*. The date has been noted on the sampling results table.

DEFINITIONS:

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

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

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant that is allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Minimum Residual Disinfectant Level (MinRDL) - The minimum level of residual disinfectant required at the entry point to the distribution system.

Level 1 Assessment – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment – A Level 2 assessment is 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 our water system on multiple occasions.

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

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

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

DETECTED SAMPLE RESULTS:

Chemical Contaminants								
Contaminant	**MCL in CCR Units**	**MCLG**	**Level Detected**	**Range of Detections**	**Units**	**Sample Date**	**Violation Y/N**	**Sources of Contamination**
Chlorine	MRDL= 4	MRDLG= 4	2.8	0.2 - 3.0	ppm	2016	N	Water additive used to control microbes.
Fluoride	2*	4	0.98	-	ppm	2016	N	Water additive which promotes strong teeth.
Nitrate	10	10	6	1 - 9	ppm	2016	N	Runoff from fertilizer use.
Atrazine	3	3	3.4	2.8 - 4.3	ppb	2016	Y	Runoff from herbicide used on row crops.
HAA5	60	NA	28.23	0 - 62	ppb	2016	N	By-product of drinking water disinfection
TTHM	80	NA	37.75	18 - 88	ppb	2016	N	By-product of drinking water chlorination
Alpha/Excl. Radon & Uranium	15	0	3.1	-	pCi/l	2016	N	Erosion of natural deposits.

*EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

Entry Point Disinfectant Residual							
Contaminant	Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	0.2	0.5	0.5- 1.0	ppm	2016	N	Water additive used to control microbes.

Lead and Copper							
Contaminant	**Action Level (AL)**	**MCLG**	**90th Percentile Value**	**Units**	**# of Sites Above AL of Total Sites**	**Violation Y/N**	**Sources of Contamination**
Lead	15	0	2	ppb	0 out of 5	N	Corrosion of household plumbing.
Copper	1.3	1.3	0.62	ppm	0 out of 5	N	Corrosion of household plumbing.

Microbial (related to Assessments/Corrective Actions regarding TC positive results)					
Contaminants	**TT**	**MCLG**	**Assessments/ Corrective Actions**	**Violation Y/N**	**Sources of Contamination**
Total Coliform Bacteria	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See detailed description under **"DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS"** section	Y	Naturally present in the environment.

Turbidity						
Contaminant	**MCL**	**MCLG**	**Level Detected**	**Sample Date**	**Violation Y/N**	**Source of Contamination**
Turbidity	TT=1 NTU for a single measurement	0	0.6 NTU	02/06/16	N	Soil runoff
	TT= at least 95% of monthly samples≤0.3 NTU		98 %	02/16	N	

Total Organic Carbon (TOC)					
Contaminant	**Range of % Removal Required**	**Range of percent removal achieved**	**Number of quarters out of compliance**	**Violation Y/N**	**Sources of Contamination**
TOC	25 - 35%	26 - 38%	1	N	Naturally present in the environment

DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

About our atrazine violation: During March, April and May, a big surge in the use of atrazine-based herbicides by area farmers caused our water to exceed the MCL for atrazine. We sent a notice warning you of this problem when it occurred. We are working with the state and local farmers to ensure that this never happens again, and we are monitoring atrazine levels quarterly. *Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.* If you want more information about atrazine or the violation, please call us (867-5309), or the State Drinking Water office (853-323-3333).

About our total coliform bacteria TT violation: During the past year, we were required to conduct a Level 1 assessment because we had a confirmed positive total coliform result. We did not complete the required Level 1 assessment on time. C*oliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially-harmful, bacteria 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.* We sent notices to all of our customers within 30 days of learning of the failure to complete the required Level 1 assessment on time. We completed the Level 1 assessment later in the year and discovered our storage tank was damaged. We implemented the corrective action plan, repaired the damage and disinfected the tank.

OTHER VIOLATIONS:

We delivered our 2016 CCR to our customers by July 1, 2016; however, we failed to deliver our 2016 CCR to DEP by July 1, 2016. We have submitted this CCR to DEP to return to compliance.

EDUCATIONAL INFORMATION:

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 human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater run-off, 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 run-off 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 run-off 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 assure that tap water is safe to drink, EPA and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's *Safe Drinking Water Hotline* (800-426-4791).

Information about Lead

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. Sampletown Water Company is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the *Safe Drinking Water Hotline* or at *www.epa.gov/safewater/lead*.

OTHER INFORMATION:

About Nitrate: 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.

PART 3: BLANK CCR TEMPLATE

The following pages contain a blank *CCR Template*. Enter or delete text as needed. Mandatory language has been protected; however, there are areas you may modify. To modify the template, go to "Review", click on "Restrict Editing" and click on the "Stop Protection" in the lower right pane to make edits. When you are finished editing the document, you may want to protect it by selecting "Restrict Editing" under the "Review" drop down box. Click on the button "Yes, Start Enforcing Protection" in the right pane. Please refer to the following formatting instructions.

WATER SYSTEM INFORMATION:

If you have regularly scheduled meeting, replace the bracketed text with details about your meeting. You may delete this text if you do not hold meetings.

SOURCE(S) OF WATER:

Under the source water assessment paragraph, replace the bracketed text with the appropriate information. If you have not had a source water assessment, you may delete the entire paragraph.

MONITORING YOUR WATER:

Insert the year.

DETECTED SAMPLE RESULTS:

There are four columns that you can copy and paste from the *Table 1: Detected Contaminants*. These include: *MCL in CCR units*, *MCLG*, *Units*, and *Sources of Contamination*.

For the lead and copper table, insert data in the following columns: the *90th Percentile Value*, *# of Sites Above AL of Total Sites*, and *Violation of TT Y/N*. If you had a non-detect for either row, you may delete that specific row from the table.

For the **microbial contaminants table related to Assessment/Corrective Actions**, insert data in the following column: *Violation Y/N*. If you did not violate the treatment technique, you may state that under the **"DETECTED HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS"** section. For the **microbial contaminants table related to *E. coli,*** insert data in the following columns: *Positive Sample(s), and Violation Y/N.* If you detected ***E. coli*** but did not violate the MCL, you may state that under the **"DETECTED HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS"** section. If you did not detect ***E. coli****,* you may delete that specific row.

For the turbidity table, insert data in the following columns: *Level Detected, Sample Date*, and *Violation of TT Y/N*. In the *Level Detected* column, report highest single measurement on the first row and lowest monthly percent of samples meeting the treatment technique standard on the second row.

DETECTED HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

When you violate an MCL, MRDL, or TT, you must include the specific health effects language for that contaminant. You may copy and paste from *Table 2: Health Effects Language*. You must also include an explanation of the violation and the steps taken to correct the violation.

OTHER VIOLATIONS:/OTHER INFORMATION:

You may delete these sections if you do not have violations or information to report.

Printing your template:

To avoid printing the entire file,

1. Move your cursor to the first page of your completed template.
2. Use "Current Page" option to print that page.
3. Repeat steps 1 and 2 for each page.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER

2022

ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 4440013 **NAME:** NEWTON HAMILTON BOROUGH

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

WATER SYSTEM INFORMATION:

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact LAURA JOHNSON at 814-251-5100. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held THE SECOND MONDAY OF THE MONTH @7:30 PM.

SOURCE(S) OF WATER:

Our water source(s) is/are: (Name-Type-Location)

PURCHASED FROM MOUNT UNION MUNICIPAL AUTHORITY. THE WATER SOURCES ARE LAKE MOUNT UNION DAM, OR AS COMMONLY CALLED SINGER'S GAP RESERVIOR (SURFACE WATER) AND WELL # 1 AND WELL #2 AT THE RIVERVIEW INDUSTRIAL PARK (GROUND WATER).

A Source Water Assessment of our source(s) was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our source(s) of is/are potentially most susceptible to [insert potential Sources of Contamination listed in your Source Water Assessment Summary]. Overall, our source(s) has/have [little, moderate, high] risk of significant contamination. A summary report of the Assessment is available on the Source Water Assessment Summary Reports eLibrary web page: www.elibrary.dep.state.pa.us/dsweb/View/Collection-10045. Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the Pa. DEP ALTOONA Regional Office, Records Management Unit at (814) 946-7290.

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).

MONITORING YOUR WATER:

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2022. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data is from prior years in accordance with the Safe Drinking Water Act. The date has been noted on the sampling results table.

DEFINITIONS:

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

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

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Minimum Residual Disinfectant Level (MinRDL) - The minimum level of residual disinfectant required at the entry point to the distribution system.

Level 1 Assessment – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment – A Level 2 assessment is 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 our water system on multiple occasions.

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

Mrem/year = millirems per year (a measure of radiation absorbed by the body)

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

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

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

ppq = parts per quadrillion, or picograms per liter

ppt = parts per trillion, or nanograms per liter

DETECTED SAMPLE RESULTS:

Chemical Contaminants								
Contaminant	**MCL in CCR Units**	**MCLG**	**Level Detected**	**Range of Detections**	**Units**	**Sample Date**	**Violation Y/N**	**Sources of Contamination**
HAA PPB HALO ACETIC ACIDS	40	NA	4.0	0-4.0	PPB	09/14/2021	N	BY-PRODUCT OF DRINKING WATER DISINFECTIONS
TOTAL CHLORINE DISTRIBUTION	4	4	.65-1.11	.65-1.11	PPM	04/2022	N	WATER ADDITIVE USED TO CONTROL MICROBES
NITRATES-SURFACE	10	10	.87	0-.87	PPM	09/14/2021	N	RUNOFF FROM FERTILIZER USE; LEACHING FROM SEPTIC TANKS, SEWAGE; ERIOSION OF NATURAL DEPOSITS
TTHMS (TOTAL TRIHALOMETHANES)	80	N/A	.00406	0-..406	80	09/2021	N	BY-PRODUCT OF DRINKING WATER DISINFECTIONS

*EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

Entry Point Disinfectant Residual							
Contaminant	**Minimum Disinfectant Residual**	**Lowest Level Detected**	**Range of Detections**	**Units**	**Sample Date**	**Violation Y/N**	**Sources of Contamination**
				ppm			Water additive used to control microbes.

Lead and Copper							
Contaminant	**Action Level (AL)**	**MCLG**	**90th Percentile Value**	**Units**	**# of Sites Above AL of Total Sites**	**Violation Y/N**	**Sources of Contamination**
Lead	15	0	.000799	ppb	0 OF 5	N	Corrosion of household plumbing.
Copper	1.3	1.3	.577	ppm	0 OF 5	N	Corrosion of household plumbing.

Microbial (related to Assessments/Corrective Actions regarding TC positive results)					
Contaminants	**TT**	**MCLG**	**Assessments/ Corrective Actions**	**Violation Y/N**	**Sources of Contamination**
Total Coliform Bacteria	Any system that has failed to complete all the required assessments **or** correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See detailed description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Naturally present in the environment.

Microbial (related to E. coli)					
Contaminants	**MCL**	**MCLG**	**Positive Sample(s)**	**Violation Y/N**	**Sources of Contamination**
E. coli	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.*	0	0	N	Human and animal fecal waste.
Contaminants	**TT**	**MCLG**	**Assessments/ Corrective Actions**	**Violation Y/N**	**Sources of Contamination**
E. coli	Any system that has failed to complete all the required assessments **or** correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See description under "Detected Contaminants Health Effects Language and Corrective Actions" section	N	Human and animal fecal waste.

Turbidity						
Contaminant	**MCL**	**MCLG**	**Level Detected**	**Sample Date**	**Violation Y/N**	**Source of Contamination**
Turbidity	TT=1 NTU for a single measurement	0			N	Soil runoff
	TT= at least 95% of monthly samples≤0.3 NTU				N	

Total Organic Carbon (TOC)					
Contaminant	**Range of % Removal Required**	**Range of percent removal achieved**	**Number of quarters out of compliance**	**Violation Y/N**	**Sources of Contamination**
TOC				N	Naturally present in the environment

DETECTED CONTAMINANTS HEALTH EFFECTS LANGUAGE AND CORRECTIVE ACTIONS:

N/A

OTHER VIOLATIONS:

N/A

EDUCATIONAL INFORMATION:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater run-off, 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 and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some

contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's *Safe Drinking Water Hotline* (800-426-4791).

Information about Lead

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OTHER INFORMATION:

NEWTON HAMILTON BOROUGH ASKS THAT ALL CUSTOMERS HELP US PROTECT OUR WATER SOURCES, WHICH ARE THE HEART OF OUR COMMUNITY, OUR WAY OF LIFE, AND OUR CHILDREN'S FUTURE. THE BOROUGH HAS NUMEROUS TEST THAT MUST BE COMPLETED ON A MONTHLY BASIS TO SUSTAIN OUR NEWLY INSTALLED WATER SYSTEM AND WE HAVE MONTHLY WATER BILLS.