ABCWUA Compliance Division

Introduction to Water Quality Regulations, Safe Drinking Water Act & Consumer Confidence Report

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Compliance Division Objectives

- 1. Manage wastewater, reuse and drinking water quality regulatory requirements to include:
 - Sample Collection
 - Laboratory Analyses
 - Data Management
 - Water Quality Special Studies and Investigations
 - Permit Management
 - Compliance Reporting
 - Public Notice Requirements
 - Compliance Facility Inspections
- 2. Establish routine monitoring processes to ensure water quality standards are always met.



How does the Water Authority Help Other Communities?

- 1. <u>Consecutive Water Systems</u>: have their own infrastructure for service, but lack adequate sources of water to meet customer demands or compliance requirements. ABCWUA serves the community by wholesaling water through a master meter. Examples are Lost Horizon Coop Association, Pajarito Mesa MDWCA and soon To'Hajiilee
- 2. <u>Emergency Connections</u>: Water Systems with their own water sources have similar wholesale meters, but utilize ABCWUA water only if needed. Examples are UNM, KAFB, VA Hospital.
- **3.** <u>Emergency Water Hauling:</u> In emergency circumstances if systems unexpectedly cannot produce any water, we can fill trucks and deliver potable water.

Where do ABCWUA's compliance requirements come from?

1. Federal laws, regulations and standards

2. Tribal water quality standards

3. State laws, regulations and standards

Federal Legislation: Congress Passes the Act

- The primary federal laws that drive the Water Authority's water quality actions are:
 - <u>Clean Water Act</u> (1972) regulates discharges of pollutants into Water of the US

 <u>Safe Drinking Water Act</u> (1974) – establishes minimum standards to protect drinking water in the US

https://www.epa.gov/laws-regulations/basics-regulatory-process https://www.epa.gov/laws-regulations/laws-and-executive-orders



Federal Regulations Implement the Law

- The Environmental Protection Agency (EPA) is authorized by Congress to write regulations that explain the technical, operational and legal details necessary to implement environmental laws. The rules and regulations always have a documented **public comment period** before becoming final.
- These rules are documented in the Code of Federal Regulations (CFR), specifically in *Title 40: Protection of the Environment*.
- 40 CFR Part 122-133 covers aspects of the National Pollutant Discharge Elimination System (NPDES) surface water discharge
- 40 CFR Part 136 covers the wastewater laboratory requirements
- 40 CFR Part 141 covers the primary drinking water regulations
- 40 CFR Part 144-7 covers Underground Injection Control https://ecfr.io/Title-40/



Tribal Water Quality Standards

- Sovereign Tribal Nations have the right to govern themselves, hold the same powers as federal and state governments to regulate internal affairs, and can set separate water quality standards for waters on tribal land.
- Specifically, the Pueblo of Isleta (POI) is downstream of the Water Authority on the Rio Grande, so that the water quality standards set by POI must be followed for Water Authority wastewater discharged into the river.
- The Environmental Protection Agency (EPA) enforces the POI water quality standards through the National Pollutant Discharge Elimination System (NPDES) permits.

https://www.epa.gov/wqs-tech/water-quality-standards-regulations-pueblo-isleta

Enforcement of Federal Regulations

- In New Mexico, the State has "primacy" or enforcement power over the federal drinking water regulations but not the NPDES discharge regulations from the federal Clean Water Act.
- Region 6 EPA provides direct enforcement for NM on the Clean Water Act regulations and Tribal water quality standards, specifically oversight of the NPDES permitting process.
- NMED Drinking Water Bureau provides enforcement on the Safe Drinking Water Act and State regulations.

NM Laws passed by the Legislature

- In NM state laws are passed by the legislature and approved by the Governor.
- The New Mexico Environment Department is authorized to develop, implement and enforce state environmental regulations for NM Statutes listed in <u>Chapter 74 – Environmental Improvement</u>.
- State Laws in New Mexico that are most relevant to the Water Authority water quality actions are:
 - Environmental Improvement Act
 - Water Conservation Fee Act
 - Water Quality Act



State Surface Water Discharge Law & Regulations

- The NMED <u>Surface Water Quality Bureau</u> (SWQB) implements and enforces the regulations related to surface water in NM with approval of the WQCC.
 - Setting surface <u>Water Quality</u> Standards for NM stream segments
 - Developing Total Maximum Daily Loads (TMDLs) pollutant limits for NM stream segments
 - Determining which NM stream segments are impaired or not meeting standards
 - Setting Industrial and Stormwater discharge permits
 - Watershed & Wetland Protection & Restoration
- The SWQB also supports the federal enforcement of the NPDES program by certifying the NPDES permits issued by the EPA to ensure that the permits meet State regulations as well.

State Groundwater Discharge Laws & Regulations

- The NMED <u>Ground Water Quality Bureau</u> (GWQB) develops, implements and enforces regulations that protect groundwater quality and develops water quality standards for aquifer protection with approval of the WQCC.
- The GWQB regulations:

| 20.6.2 NMAC | Ground and Surface Water Protection |
|--------------------|---|
| 20.6.3 NMAC | Voluntary Remediation |
| 20.6.6 NMAC | Supplemental Permitting Requirements for Dairy Facilities |
| <u>20.6.7 NMAC</u> | Supplemental Permitting Requirements for Copper Mine Facilities |
| | |



State Utility Operator Laws & Regulations

- New Mexico passed the <u>Utility Operators Certification Act</u> (1978) which establishes criteria for water and wastewater operator certification.
- The NMED Drinking Water Bureau develops, implements and enforces operator certification regulations with approval of the Water Quality Control Commission (WQCC).
- Wastewater and water supply facility utility operator certification requirements are found in State regulations <u>NMAC 20.7.4</u> for all levels.



State Drinking Water Laws & Regulations

- Environmental Improvement Act (1978) requires NM Environment Department (NMED) with approvals from the Environmental Improvement Board as appointed by the Governor, to maintain, develop and enforce rules and standards for public water supplies.
- The <u>Water Conservation Fee Act</u> establishes a \$0.03/kgal water produced tax used by NMED to complete compliance monitoring for all community public water systems.
- The <u>NMED Drinking Water Bureau</u> is responsible to develop, implement and enforce the State drinking water regulations as documented in the 20.7.10 <u>NM</u> <u>Administrative Code</u>, which includes:
 - Incorporation of federal CFR rules
 - Additional State requirements for design, construction, operation of public water supply facilities and water haulers.

Safe Drinking Water Act (SDWA) & NMAC

- 1. Distribution rules:
 - Revised Total Coliform Rule
 - Revised Lead and Copper Rule
 - Disinfection By-products Rule
 - Groundwater Rule
 - Consumer Confidence Report Rule





- 2. Entry point (before the first customer) rules:
 - Inorganic Compounds 10 Metals, Nitrate and Nitrite, Cyanide and Fluoride
 - Synthetic and Volatile Organic Compounds
 - Radionuclides Rule
 - Unregulated Contaminant Monitoring Rule (UCMR)



Revised Total Coliform Rule (RTCR)

Purpose & Contaminant Level:

- Addresses the presence of total coliforms and E. coli in drinking water
- For E. coli (EC), the Maximum Contaminant Level Goal (MCLG) is set at zero

Monitoring:

- Total coliform is the routine test used to indicate the absence or presence of any coliform bacteria
- Develop and follow a sample siting plan that designates the collection schedule and location of routine and repeat water samples
 - ✓ Water Quality Program collects at least 240 samples per month from approximately 440 approved sample sites
- Samples tested for the presence of total coliforms by a state certified laboratory
- Analyze all routine or repeat samples that are total coliform positive (TC+) for *E. coli*
- Collect repeat samples (at least 3) for each TC+ positive routine sample

✓ Repeat at site, point upstream and point downstream on same pipe

FECAL COLIFORM E. COLI PATHOGENIC E.COLI

TOTAL COLIFORM

Revised Total Coliform Rule (RTCR) cont.

RTCR is so important because,

- Applies to all Public Water Systems (PWS)
- Is the most frequent and time-consuming sampling
 - ✓ 3 -WQ Specialist each collect approx. 11 RTCR samples per day -Monday thru Wednesday
- Must follow systematic and detailed technique to collect sample without contamination from other sources
- Time sensitive samples must be collected and analyzed within 8 hours
- One TC+ sample, does not indicate contamination so it must be further analyzed for *E. coli*, also requirement for repeat samples
- If any repeat TC+ sample is also *E. coli* positive (EC+), the EC+ sample result must be reported to the State, NMED, by the end of the day and public notice within 24 hours

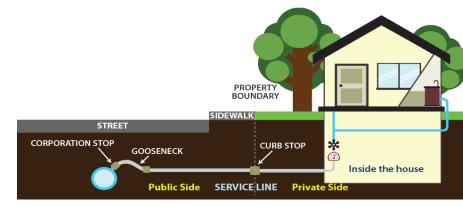


Revised Lead and Copper Rule (RLCR)

Purpose & Contaminant Level:

- Protect public health by minimizing lead (Pb) and copper (Cu) levels in drinking water. These elements enter drinking water mainly from corrosion of Pb and Cu containing plumbing materials.
- 90th percentile (P90) level above lead action level of 15 $\mu g/L$ or copper action level of 1.3 mg/L

- Prioritizes collecting samples from sites served by Lead Service Lines (LSLs) –all samples must be collected from sites served by LSLs, if available
- Requires collection of the fifth-liter sample in homes with LSLs after water has sat stagnant for a minimum of 6 hours
- Sampling at 20% of elementary schools and 20% of childcare facilities per year and conduct sampling at secondary schools on request for 1 testing cycle (5 years). Conduct sampling on request of all schools and childcare facilities thereafter
- All systems must develop an LSL inventory of both utility side and private side or demonstrate absence of LSLs within 3 years of final rule publication



Stage 2 Disinfectants and Disinfection Byproducts Rule

Purpose & Contaminant Level:

- Improve public health protection by reducing exposure to disinfection byproducts (DBPs) which have been shown to cause cancer
- Quarterly monitoring for two classes of DBPs
 - Total Trihalomethanes, TTHM MCL at 80 $\mu g/L$
 - Five Haloacetic Acids, HAA5 MCL at 60 $\mu g/L$

- DBPs created in reaction between chlorine disinfectant and total organics in water
 ✓ Reaction influenced by water age, temperature, and type of organic content
- Bases TTHM and HAA5 compliance on a locational running annual average (LRAA) calculated at each monitoring location over 4 consecutive quarters
 - \checkmark WQP required to sample at 12 locations based on population served
 - \checkmark DBPs can be treated at reservoirs



Ground Water Rule

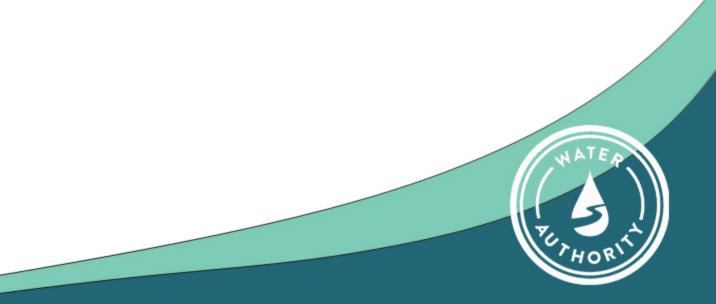
Purpose & Contaminant Level:

- Reduce the risk of illness caused by microbial contamination in public ground water systems (GWSs)
- GWSs must notify the state that it provides at least 4-log treatment of viruses using virus inactivation before or at the first customer
 - ✓ A Ground water report was submitted to NMED with contact time requirements at the 27 entry points in ABCWUA system

- GWSs that use chemical disinfection must continuously monitor their disinfectant concentration and maintain the minimum disinfectant residual concentration determined by the State
 - ✓ Online instruments report chlorine residual to SCADA, cannot go below 0.2 mg/L for over 4 hours
 - ✓ Distribution system monitoring done in conjunction with RTCR sampling, where WQP reports any residual below 0.4 mg/L to Ops



Entry Point Rules



Arsenic Rule

Purpose & Contaminant Level:

- Improve public health by reducing exposure to arsenic in drinking water
- In 2001, EPA adopted a lower standard for arsenic in drinking water. The lower MCL of 10 $\mu g/L$ or parts per billion (ppb) replaced the prior standard of 50 ppb
 - \checkmark Wells taken out of service exceeding MCL
 - \checkmark Arsenic Treatment operating at high arsenic wells that remain in service

Monitoring:

- Ground water systems must collect samples every 3 years. Surface water systems must collect annual samples.
 - ✓ WQP takes 27 entry points samples including SJCWTP and numerous process monitoring samples
- Systems that are in violation of the arsenic MLC must include a health effects statement in their CCRs and report the violation.



On-site Arsenic Absorbers

Other Regulated Inorganic Compounds

| ;/L fibers per liter |
|-------------------------|
| fibers per liter |
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Synthetic and Volatile Organic Contaminants

Purpose & Contaminant Level:

- Increased public health protection through consistent monitoring
- Fifty-one (51) synthetic organic compounds (SOCs) and volatile organic compounds (VOCs) regulated under SDWA. Examples include,

 \checkmark SOCs – alachlor, atrazine, PCBs, and diquat

✓ VOCs – benzene, toluene, xylenes, and dichloromethane

• Each contaminant has set MCL based on anticipated adverse effects on health

- Monitoring schedule dependent on historical data, waivers by NMED, and proximity to a possible contamination source
 - ✓ WQP samples SOCs and VOCs on reduced monitoring schedule
 - ✓ VOCs at all entry points triennial, except for SJCSWTP
 - SOCs at all entry points triennial and must be done in consecutive quarters in certain instances



Radionuclides Rule

Purpose & Contaminant Level:

• Reducing the exposure to radionuclides in drinking water will reduce the risk of cancer.

| Regulated Radionuclide | MCL |
|-------------------------|-----------|
| Beta/photon emitters* | 4 mrem/yr |
| Gross alpha particle | 15 pCi/L |
| Combined Radium 226/228 | 5 pCi/L |
| Uranium | 30 μg/L |

Monitoring:

Monitoring of entry points is either every 9 years, 6 years, or 3 years based on initial results from sampling
 ✓ WQP samples at 27 entry points on varying schedules



Unregulated Contaminant Monitoring Rule

Purpose:

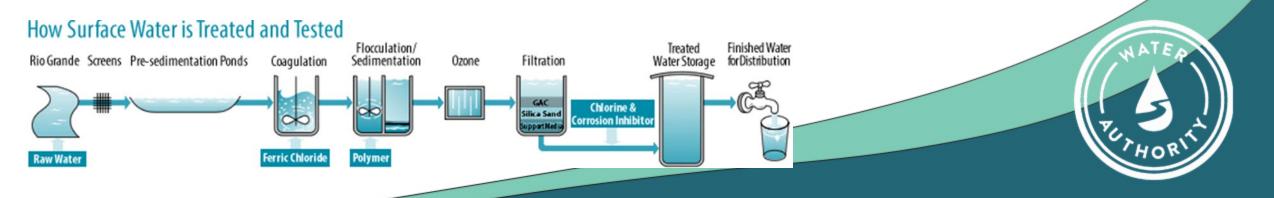
- EPA uses the Unregulated Contaminant Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have standards set under the SDWA
- Data collected supports determination of whether to regulate a particular contaminant in the interest of public health protection under the SDWA

- Monitoring no more than 30 contaminants every five years
- Analytical results stored in a National Contaminant Occurrence Database (NCOD) – data set is primary resource of occurrence and exposure information used to develop regulatory decisions for emerging contaminants
- Round 4 or UCMR 4 was just completed monitoring 30 unregulated contaminants between 2018 and 2020, including cyanotoxins, HAAs, manganese, and various pesticides



Safe Drinking Water Process Monitoring

- **1.** <u>**Treatment Process Monitoring**</u> water quality laboratory at the surface water treatment plant analyzes samples every day to make sure treatment is running as expected.
- 2. <u>Online Monitoring</u> occurs at the treatment plant for turbidity and before every entry point where chlorine is added for disinfection. Online monitors run all the time and are can all be read electronically on a computer system.
- **3.** <u>**Routine Process Monitoring**</u> occurs all the time at entry points and throughout distribution to ensure that results are as expected.



Consumer Confidence Report (CCR)

Purpose & Requirements:

- Provide educational material to allow consumers to make educated decisions regarding their drink water supply
- Requires all community water systems to prepare and distribute an annual water quality report containing information about source water, detected contaminants, compliance, and educational topics
- Current year report provides summarized data from previous year monitoring
- A copy is submitted to the State prior to public distribution, so the information can be confirmed to be correct with State data
- CCR must be mailed or delivered to each customer by July 1.
- Must be on a publicly accessible website
- Must be available upon request



- Where your water comes from
- How your water is made safe to drink
- Results of EPA-required sampling and testing
- Understanding water quality regulation
 Where to find more information



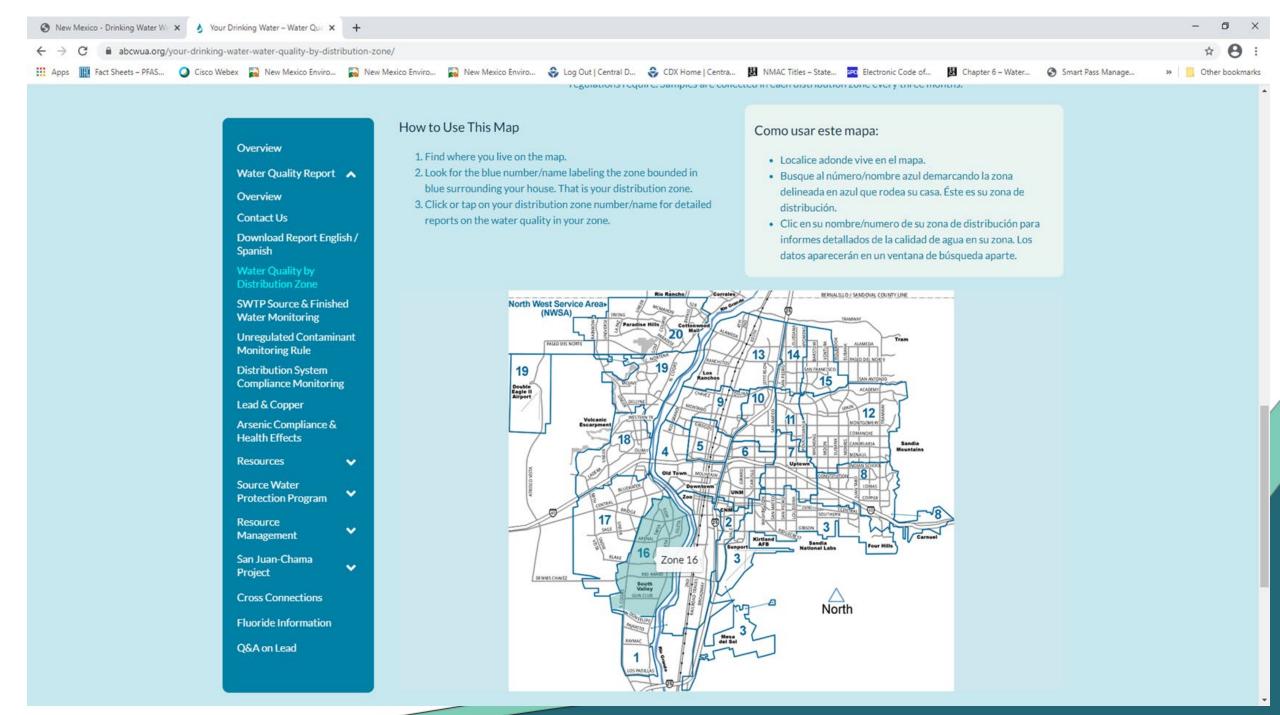


2019 COMPLIANCE MONITORING RESULTS (Albuquerque Water System, NM35-10701; see page 3 for definitions) Detection Limit Average Average Detected

| 2019 WATER QUALITY REPORT | Outperforming ALL Federal Standards for Safe Drinking Water |
|--|---|
| Where your water comes from How your water is made safe to drink, and how it's protected from contaminants including the novel coronavirus Results of EPA-required sampling and testing Understanding water quality regulations Where to find more information | |
| | PREPARED FOR CUSTOMERS OF THE Albuquerque Bernalillo County Water Utility Authority |

| SUBSTANCE OR CONDITION Source | | | Sample Year(s) | Detection Lowest amount detected with a | | Minimum Detected | Average Detected System-wide | Average Detecte at San Juan-Cham Drinking Water Pl | na | Maximum | Detected | Maxim Level () | um Contamir MCL) | nant Contaminant Level Goal (MG | PER | |
|---|---|---|--|---|---|---------------------|------------------------------------|--|-------------------------|----------------------|---|---|-----------------------|---------------------------------------|-----------------|---|
| s | Arsenic See Common Concerns on page 4 | Erosion of volcanic de | | 2017- 2018 | 1 PPB | | Zero PPB | 2 PPB | Zero PPB | | 9 PPB | 10 PP | | | Zero PPB | |
| a | Barium | Erosion of | natural deposits | 2017-2019 | 0.1 PPM | | Zero PPM | 0.020 PPM | 0.076 PPM 0.2 | | 0.2 PPM | 2 PPM | | | 2 PPM | |
| r | Chromium | Erosion of | natural deposits | 2017-2019 | 1 PPB | | Zero PPB | 1 PPB | 1 PPB | 1 PPB 7 PPB | | | 100 PPB | | 100 PPB | |
| - | Fluoride* | Erosion of | natural deposits | 2017-2019 | 0.10 PPM | | 0.25 PPM | 0.49 PPM | 0.82 PPM 1.18 PPM | | 4 PPM | | 4 PPM | 1 | | |
| 2 | Gross Alpha Particle Activity | Erosion of | natural deposits | 2014-2018 | 0.7 - 0.9 p | Ci/L | Zero pCi/L | 0.8 pCi/L | Zero pCi/L | Zero pCi/L 2.5 pCi/L | | | 15 pCi/L | | Zero pCi/L | Т |
| Nitrate Runoff from fertilizer use; leaching from septic tanks, sewage; erosion or natural deposits | | 2019 | 0.05 PPM | | 0.06 PPM | 0.37 PPM | 0.21 PPM | | 3.25 PPM | | 10 PPM | | 10 PPM | | | |
| ₹a | Radium 226 + 228 | ium Erosion of natural deposits | | 2014-2018 | 2018 0.01 - 0.21 pCi/L | | 0.02 pCi/L | 0.17 pCi/L | 0.05 pCi/L 0 | | 0.41 pCi/L 5 pC | | 5 pCi/L | | Zero pCi/L | |
| Hu | Total Xylenes | Discharge from petroleum or chemical factories | | 2019 | 0.0005 PF | M | Zero PPM | Zero PPM | Zero PPM | | 0.00057 PPM | | 10 PPM | | 10 PPM | T |
| U | Uranium | Erosion of natural deposits | | 2014-2018 | 1.0 PPB | | Zero PPB | 2 PPB | Zero PPB | 9 PPB | | 30 PPE | | | Zero PPB | T |
| r0;- | Bromate | By-produc water disir | t of drinking | 2019 | 1.0 PPB | | Zero PPB | Not Applicable | 1.45 PPB | 2.2 PPB | | 10 PPB | | Zero PPB | | |
| C1 | Chlorine Disinfectant 2019 | | 2019 | 0.1 PPM (distribution system) | | 0.3 PPM | 1.0 PPM | Not Applicable | | 1.9 PPM | | 4 PPM (MRDL) | | 4 PPM (MRDLO | 3 | |
| | | | | 0.03 PPM | (surface water) | 0.9 PPM | Not Applicable | 1.5 PPM | | 1.8 PPM 4 PI | | 4 PPM | (MRDL) | 4 PPM (MRDL0 | 3 | |
| | | | 0.03 PPM | (groundwater) | TT met at 100% of sites (TT= Maintain required chlorine level or restore within 4 hours) | | | | | | TT | | TT | 1 | | |
| 2 | Cryptosporidium | Human an fecal wast | | 2015-2017 | 1 Oocyst | | Zero Oocysts/L | Not Applicable | 0.004 Oocysts/L | | 0.093 Oocysts/L | | TT | | Zero Oocysts/I | · |
| ••• | Turbidity (doudiness; indicates effectiveness of filtration and disinfection) | ntes effectiveness of | | 2019 | 0.002 NTU | | 0.02 NTU | Not Applicable | Not Applicable 0.13 NTU | | | 1 NTU in all finished water samples, 95% of the finished water samples must be less than 0.3 NTU | | 25 | | |
| С | Total Organic Carbon | Naturally the enviro | | 2019 | 1.0 PPM | | Zero PPM | Not Applicable | 1.0 PPM | | 1.8 PPM | | TT | | Not Applicable | |
| 50 | Total Coliform | | are bacteria ormally present ronment | 2019 | Not Appli | cable | Not Applicable | Not Applicable | Not Applicable | | 1 of 245 samples or 0.41% of samples taken in a month had detectable total coliform bacteria. No total coliform bacteria was detected in any repeat sample at any location | | any month | | with detectable | |
| SUBSTANCE Source | | | Sample Year | Detection Limit | Range of Res | ults" | Maximum LRAA | | | Contaminant Lev | | Maximum Level Goal | Contaminant (MCLG) | | | |
| Total Haloacetic Acids (HAAS) By-product of c | | hlorination | n 2019 0.48 - 0.50 PPB | | 0.61 - 28.0 PPB | | | | 60 PPB | | | Not Applica | able | | | |
| TTHM Total Trihalomethanes(ITHM) By-product of ch | | hlorination | 2019 0.50 PPB 3 | | 3.30 - 65.0 PPB | | 55.0 PPB 80 PPB | | 80 PPB | | Not Applicable | | Ť | | | |
| UB | STANCE | | Source | e Sample Year Detection Limit | | 90th Percen | Number of that Excee | f Samples Maxi ed Action Level Dete | | | | | | laximum Contaminar evel Goal (Mag) | nt | |
| РЬ | Lead See Common Concer | rns on page 4 | Corrosion of household plur | mbing | 2018 | 1.0 PPB | 1 PPB | Zero | 3 P | | 3 | 15 PPB | | Z | ero PPB | |
| - | Copper Corrosion of | | | | 2018 | 0.01 PPM | 0.25 PPM | Zero | 0.36 P | | PPM 1.3 PPM | | Zero | | 0.014 | - |







Water Quality Report 2019

Distribution Zone 16

Definitions & Terms Notes & Sources of Substances

Regulatory Compliance Monitoring at EPTDS

| Metals | Sample Collection Years | Units | Detection | Zone 16 | City-Wide | Maximum Contaminant Level (MCL) | MCL Goal |
|-------------------------------|-------------------------------|-------|------------------|---------|-----------------------|---------------------------------------|----------|
| Arsenic | 2017 | PPB | Average Range | 3 | 2 0 - 9 | 10 | Zero |
| Barium | 2017 | PPM | Average Range | 0 | 0.02 0 - 0.2 | 2 | 2 |
| Chromium | 2017 | PPB | Average Range | 1 | 1 0 - 7 | 100 | 100 |
| Minerals | | | | | | | |
| Fluoride | 2017 | PPM | Average Range | 0.67 | 0.49 0.25 - 1.18 | 4 | 4 |
| Nutrients | | | | | | | |
| Nitrate | 2019 | PPM | Average Range | 0.22 | 0.35 0.06 - 3.25 | 10 | 10 |
| Organics | | | | | | | |
| Total Xylenes | 2019 | PPM | Average | 0 | 0.0005 | 10 | 10 |
| Radionuclides | | | Range | 0 | 0 - 0.00057 | 10 | 10 |
| Radium 226 + 228 | 2014 - 2017 | pCi/L | Average Range | 0.12 | 0.1794 0.02 - 0.41 | 5 | Zero |
| Gross Alpha Particle Activity | 2014 - 2017 | pCi/L | Average Range | 1.0 | 0.8 0 - 2.5 | 15 | Zero |
| Uranium | 2014 - 2017 | PPB | Average Range | 4 | 2 0 - 9 | 30 | Zero |



| Metals | Units | Zone 16 Minimum | Average | Maximum | City Average | MCL |
|------------------------|----------------|--------------------|---------|---------|-------------------|-------|
| Arsenic | PPB | 0 | 1 | 4 | 1 0-8 | 10 |
| Chromium | PPB | 0 | 1 | 1 | 1 0 - 4 | 100 |
| Iron | PPM | 0 | 0.006 | 0.02 | 0.009 0 - 0.16 | 0.3 a |
| Minerals | | | | | | |
| Fluoride | PPM | 0.49 | 0.63 | 0.84 | 0.62 0.37 - 1 | 4 |
| Nutrients | | | | | | |
| Nitrate | PPM as N | 0.00 | 0.06 | 0.44 | 0.13 0 - 2.32 | 10 |
| General Chemistry | | | | | | |
| Alkalinity | PPM as CaCO3 | 74 | 95.1 | 122.9 | 96 64 - 142 | ~ |
| Bicarbonate | PPM as CaCO3 | 74 | 94.5 | 122.1 | 96 63 - 141 | ~ |
| Calcium | PPM | 52 | 58 | 73 | 53 23 - 74 | ~ |
| Chloride | PPM | 34 | 38 | 45 | 34 14 - 54 | 250 a |
| Hardness | grains/gallon | 8.7 | 9.9 | 12.5 | 9.1 4.4 - 12.7 | ~ |
| Magnesium | PPM | 3.7 | 6.1 | 7.6 | 5.6 2.5 - 7.9 | ~ |
| Potassium | PPM | 0.0 | 2.8 | 5.0 | 3 0 - 7 | ~ |
| Silica | PPM as SiO2 | 16 | 28 | 42 | 27 16 - 66 | ~ |
| Sodium | PPM | 15 | 23 | 33 | 25 0.15 - 68 | ~ |
| Sulfate | PPM | 58 | 77 | 116 | 72 36 - 116 | 250 a |
| Total Dissolved Solids | PPM | 258 | 292 | 350 | 277 188 - 368 | 500 a |
| Conductance | micromhos/cm | 475 | 525 | 646 | 482 310 - 662 | ~ |
| Free Chlorine Residual | PPM | 0.5 | 0.88 | 1.17 | 1 0.3 - 1.4 | ~ |
| pH | Standard Units | 7.7 | 7.8 | 7.9 | 7.7 7.2 - 8.3 | ~ |
| Temperature | Fahrenheit | 50.0 | 63.0 | 82 | 62 37 - 88 | ~ |

Voluntary Comprehensive Monitoring in Distribution (Samples taken every three months, 2019 results)

a: Represents the USEPA Secondary Maximum Contaminant Level (SMCL). Secondary Drinking Water Standards are unenforceable federal guidelines regarding taste, odor, color and certain other non-aesthetic effects of drinking water. USEPA recommends them as reasonable goals, but federal law does not require water systems to comply with them.



Questions?

