Public Drinking Water

The Louisiana Department of Health oversees approximately 1,241 public water systems to make sure that they are complying with state and federal drinking water regulations. In Louisiana, more than 85 percent of the population obtains their drinking water from community water systems (CWS). Public water systems are subject to treatment and monitoring regulations set by the U.S. Environmental Protection Agency (EPA) under the Safe Drinking Water Act (SDWA). The EPA National Primary Drinking Water Regulations (primary standards) are legally enforceable standards that apply to public water systems (PWS). These primary standards protect public health by limiting the levels of contaminants in drinking water.

A list of contaminants and their associated maximum contaminant levels (MCLs) can be found on the EPA's website (https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations). State agencies and water suppliers work together to help ensure that drinking water contamination levels are as low as possible by protecting water sources, treating water to remove contaminants, and monitoring water quality to identify and resolve problems quickly.

Data Sources

Measures of community drinking water were developed following the Centers for Disease Control and Prevention (CDC)'s Environmental Public Health Tracking Program Standards for Nationally Consistent Data and Measures (NCDMs). The purpose of NCDMs is to ensure compatibility and comparability of data and measures across and within states, and nationally. They allow for consistency in data use, quality, and interpretation. Applying common data standards makes it possible to find associations and explore trends that may be present in the data, which is useful for better understanding the impact of our environment on our health.

- This dataset was provided by the Louisiana Department of Health, Safe Drinking Water Program (SDWP).
- The public can access drinking water data on the SDWP Drinking Water Viewer at: https://sdw.ldh.la.gov/

Vintage: The latest dataset available from LDH Tracking as of February 2026 includes data years 2000-2023.

Explore Data

The LDH Health Data Explorer (http://ldh.la.gov/tracking) is an online query tool which allows users to explore health outcomes, exposures, and environmental data in one place. Data can be exported for further analysis.

To *Explore Data* on the query tool:
Select Criteria
Category: **Environmental Quality**
Topic: **Public Drinking Water**
Focus: Choose specific focus (e.g., Community System Users, Contaminant Concentration, Public Water Use)

Data Measure(s) included in this dataset:

Community Water System Inventory and Water Use

- Annual Number of People Receiving Water From Community Water Systems in Louisiana
- Population (Number of People) Served by the Water System

Water Quality Contaminant Data

- Mean and Maximum Arsenic Concentrations (µg/L) (microgram per Liter)
- Mean and Maximum Atrazine Concentrations (µg/L) (microgram Per Liter)
- Mean and Maximum Di (2-Ethylhexyl) Phthlate (DEHP) Concentrations (µg/L) (microgram Per Liter)
- Mean and Maximum Nitrate Concentrations (mg/L) (milligrams per Liter, Nitrate as nitrogen)
- Mean and Maximum Nitrate-Nitrate Combined (mg/L) (milligram per Liter)
- Mean and Maximum Tetrachloroethene (Tetrachloroethylene) (PCE) Concentrations (µg/L) (microgram Per Liter)
- Mean and Maximum Trichloroethene (Trichloroethylene) (TCE) Concentrations (µg/L) (microgram Per Liter)
- Mean and Maximum Haloacetic Acids (HAA5) Concentrations (µg/L) (microgram Per Liter)
- Mean and Maximum Total Trihalomethanes (TTHM) Concentrations (µg/L) (microgram Per Liter)
- Mean and Maximum Radium Concentrations (pCi/L) (picocuries per Liter of air)
- Mean and Maximum Uranium Concentrations (µg/L) (microgram Per Liter)

Definitions and Frequently Asked Questions

Public water systems have at least 15 service connections or serve at least 25 people, for at least 60 days a year. There are two types of public water systems which include community and non-community water sources (EPA, 2015).

- ***Community water system***: Serves the same people year-round. This category includes most residences including homes, apartments, condos in cities, parishes and mobile home parks (EPA, 2015).
- Non-community water system: A public water system that serves persons in a nonresidential setting. Serves the public but does not serve the same people year round. Non-community water systems include: 1) Non-Transient Non-Community Water Systems and 2) Transient Non-Community Water Systems (EPA, 2015).
    - Non-Transient Non-Community Water System: Serves the same people more than six months per year. Examples of locations that are served by non-transient systems include: schools, factories, office buildings and hospitals which have their own water systems (EPA, 2015).
    - Transient Non-Community Water System: Supplies drinking water to the public but not the same individuals for more than 6 months. Examples in this category include gas stations, rest areas and campgrounds (EPA, 2015).

How do we determine what populations are served by public water systems?

The 'population served' indicates the total number of persons served by a public water system.

- Total number of persons served is calculated from either the actual population counts by the department <or> the number of service connections for a particular water system multiplied by 3 persons per connection.

What are 'raw' and 'finished' water?

These include names used to describe the two different types of water before they have been distributed to customers.

- Raw water: Water in its natural state before it has been treated. Analytes collected from raw water include, but are not limited to, Arsenic, Atrazine, DEHP, Nitrate/Nitrite, PCE/TCE and Uranium.
- Finished water: Water that has been treated and is delivered to customers.
    - Finished water samples are typically taken at the 'point of entry' to the distribution system to ensure they are in compliance with safe drinking water regulations upon leaving a treatment facility. However, some analytes are tested from samples taken within the distribution system, such as disinfection by-products.

For detailed information on each contaminant tracked, please refer to Appendix 1.

Methods, Data Limitations and Important Considerations

Water Data Considerations (this section applies to all contaminants and measures)

- For samples coded as non-detects, a concentration was reported as a zero (0) (CFR 141). Zeros may also represent a sampled contaminant that was under the detection limit. This is accepted per Louisiana State Regulation.
- For Arsenic, Atrazine, DEHP, Nitrate-Nitrite, PCE, TCE and Uranium, average concentration values were derived by first averaging by sampling station, then averaging by CWS. For disinfection by-products (TTHM and HAA5) annual and quarterly average concentration values were derived by first averaging by day, then by CWS.
- There are three categories (Detect (non-zero result), Detect, Detect and Non-Detect) in the query.
    - o Detect (non-zero result) category only included samples identified as detected with non-zero values
    - o Detect category included samples identified as detected
    - o Detect and Non-Detect category included all samples (detected and non-detected samples)
- Detected samples with results below the detection limit with non-zero values were included in the dataset.
- Wholesale system is a public water system that treats source water as necessary to produce finished water system and then delivers some or all of that finished water to another public water system. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems.
- The total population served included all different types of population such as residential, commercial, and transient. The 'number of population served' may be a larger number than the state's population due to multiple counts of the same population.
- Population estimates for Louisiana and for individual water systems should be viewed only as general approximations.
- Data gaps and recording errors due to hurricanes may exist in the dataset. If possible, these are corrected when identified.
- Non detected samples presenting a zero result may cause calculated result underestimations
- The concentration of each drinking water contaminant during distribution is dependent mainly on the concentration in the water going into the supply, but may be affected by reactions within the distribution system with pH, temperature, water age, organic concentration and/or other variables. For disinfection byproducts (DBPs) the levels are typically lower at the entry point (EP) than they are in the distribution system (DS), precisely because the reactions responsible for DBP formation may continue to progress in the DS.

- LDH's Safe Drinking Water Information System (SDWIS) primarily contains combined systems which served both residential and commercial units. Therefore, the numbers of service connections were not only serving residential units.
- Only water systems for which finished water samples were available are shown in these measures. CWS may be sampled every three years depending on the contaminant, but may move to quarterly monitoring if the running annual average exceeds the standard. The change in sampling frequency may affect the ability to make meaningful comparisons over time using this measure. Systems may also sample more than quarterly and have many samples taken in a year.
- Comparisons should not be made between parishes, because multiple water systems can serve the same parish and multiple parishes can be served by the same water system. At this time, all the water use measures are statewide or by CWS. The LDH Tracking measures are based on active CWS for an entire year or a portion. Active water systems test on various schedules depending on the contaminant, water source, size of the system and previous testing history. Only systems with test results in a given period are included in the population calculations for that period. This can create gaps in the data and fluctuations in the reported population served because some tests are done quarterly, some annually and some every three years.
- The presence of contaminants in drinking water cannot be assumed to reflect exposure because overall water consumption and the proportion of water consumed that comes from the tap is variable. Differences in human behaviors (e.g., showering and bathing time, consumption of bottled water and water at workplaces or other locations) complicate efforts to estimate exposure from drinking water measurements. Assessment is further hampered by the fact that many water systems obtain their water from more than one source, so the actual contaminant level at a given connection may be the result of mixing water from several sources.
- Drinking water quality sampling and reporting requirements are complex and challenging to translate into water quality measures for local use. Current LDH Tracking measures may be useful to gain preliminary information on water quality, with an understanding of the methods involved in testing, testing frequency, extent of water distribution systems, test detection limits, and other factors. Identifying specific water supply sources, analyzing trends, and comparing system or parish water quality is an ongoing goal of the network. LDH Tracking is working closely with the CDC's Environmental Public Health Tracking Program and LDH's Safe Drinking Water Program and other data partners such as the EPA to provide and display these measures in useful formats.

Data Re-release

This is a public dataset which can be freely shared. Personally identifiable health information has been removed. Please refer to the Data Methods section of these metadata from more information.

Data Citations

Please cite the US CDC, LDH Environmental Public Health Tracking Program Cooperative Agreement NUE1EH001490, and any **data source(s)** listed on Page 1 when re-sharing or applying these data in analyses or publications.

Disclaimer

Data are intended to spur further research and should be used only as a starting point to understanding how the environment and other contributing factors may be connected to disease. Datasets presented on this site are intended to answer some basic questions, but should ultimately lead to further inquiry and more detailed study. Data limitations should be noted if conducting exploratory ecological studies with these data. Limitations may include data gaps, reporting discrepancies (for example, a disruption of reporting or

instrument recording following hurricanes) and insufficient data on all potentially confounding factors.

There are numerous additional factors which may contribute to disease onset. These include genetics, access to health care, existing health conditions, medicines, other chemical substances we come into contact with or ingest, nutrition, route and duration of exposure, level of activity, level of stress, and many others.

Responsible use of this data therefore requires exercising caution when drawing conclusions based solely on views of the limited available data. Any perceived relationship, trend, or pattern apparent in the data should not be interpreted to imply causation; may in fact be unrelated; and should be regarded as preliminary, and potentially erroneous, until more in-depth study and if applicable, statistical evaluation, can be applied. The LDH Bureau of Health Informatics and Environmental Public Health Tracking Program cannot guarantee the completeness of the information contained in these datasets and expressly disclaim liability for errors and omissions in their content.

Additional Information

Please visit the following links for more information:

- Louisiana Department of Health - Safe Drinking Water Program
  https://www.ldh.la.gov/page/safe-drinking-water-program
- Centers for Disease Control & Prevention – Waterborne Disease in the United States
  https://www.cdc.gov/healthy-water-data/waterborne-disease-in-us/index.html
- Centers for Disease Control & Prevention – Agency for Toxic Substances & Disease Registry (ATSDR) Toxic Substances Portal
  https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsLanding.aspx
- US EPA- Safe Drinking Water Act (SDWP)
  https://www.epa.gov/sdwa

Questions?

- Email: healthdata@la.gov
- Website: ldh.la.gov/page/LEPHT
- Toll free Phone: 1-888-293-7020

Appendix 1. Detailed information on each Contaminant

Arsenic (Analyte Code: 1005)

What is arsenic? Arsenic is an element, a metal, that is naturally occurring in the environment. Additionally, in manufacturing and industry, arsenic has been used as a preservative for wood to make wood more resistant to rotting and decay. Historically arsenic was widely used as a pesticide (for example, lead arsenate). Thankfully it is less commonly used in agriculture today, but some forms continue in use. Arsenic is less commonly used to make metal alloys *(abridged from the ATSDR Toxicological Profile, February 2019).*

There are two types of arsenic compounds:

- Inorganic arsenic: arsenic combined with elements such as oxygen, chlorine and sulfur. In terms of industrial uses which may have an impact on the environment, inorganic arsenic was mainly used to preserve wood.
    - Copper chromated arsenate (CCA) is used to make 'pressure-treated' lumber. CCA is no longer used in the U.S. for residential uses; it is still used in industrial purposes (CDC, 2007)
- Organic arsenic: arsenic combined with elements such as carbon and hydrogen.
    - Organic arsenic compounds are used as pesticides, primarily on cotton fields and orchards (CDC, 2007).

How does arsenic get into water?
Arsenic may get into water from runoff and leaching.

How can arsenic affect my health? *(abridged from the ATSDR Public Health Statement on Arsenic, February 2019)*

- Inorganic arsenic has been recognized as a human poison since ancient times
- Depending on the dose, the amount consumed by drinking water, health effects can range from stomach irritation to nausea, vomiting, and diarrhea
- Arsenic ingestion (in sufficient doses) may cause fatigue, abnormal heart rhythm, and blood-vessel damage resulting in bruising, and impaired nerve function causing a 'pins and needles' sensation in your hands and feet. It can also lead to skin changes, skin cancer and an increased risk of developing other forms of cancer of the liver, bladder and lung
- A known poison, very high doses of arsenic can result in death

The Department of Health and Human Services (DHHS) has determined that inorganic arsenic is known to be a human carcinogen (a chemical that causes cancer). The International Agency for Research on Cancer (IARC) has determined that inorganic arsenic is carcinogenic to humans. EPA also has classified inorganic arsenic as a known human carcinogen.

What is the drinking water standard for arsenic?

- EPA National Primary Drinking Water Regulations are legally enforceable primary standards and treatment techniques that apply to public water systems. Primary standards protect our health by limiting the levels of contaminants found in our drinking water. Visit https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulationsfor more information on drinking water standards.

- EPA reduced the regulatory drinking water standard Maximum Contaminant Level (MCL) from 50 ug/L to 10 ug/L (microgram per liter) in January 2006.
- Maximum Contaminant Level Goal (MCLG) indicates the level of contaminant in drinking water below which there is no know or expected risk to health.

How is drinking water monitored for arsenic in Louisiana?

- Compliance with the arsenic MCL is based on a Running Annual Average of the sample results for the finished water (taken at the entry point to the distribution system). Community water system and non-transient non-community water systems are required to be monitored.

  Routine monitoring [if monitoring results for arsenic are less than ½ the MCL (10 ug/L)]:
  - Surface Water Systems - collect annual sample at the point of entry (finished water);
  - Ground Water Systems - collect one sample every three years at each source (raw water).

  Increased monitoring:
  - If a source water sample is greater than MCL (10 ug/L), quarterly monitoring is conducted at the entry point to distribution system (EPTDS).
  - If a source sample is equal or greater than the EPA detection limit, then follow-up monitoring is conducted at EPTDS to determine if quarterly monitoring is required.
  - If the EPTDS sample is greater than the EPA detection limit, quarterly monitoring is conducted until the results are reliable and consistently below the MCL.

Atrazine (Analyte Code: 2050)

What is Atrazine?

Atrazine is a pesticide that is used to control broadleaf and grassy weeds. It can be applied before and after planting. Atrazine is used in farming on corn, sorghum, sugarcane and may also be profusely used on residential lawns, golf courses, and on highway and railroad rights of way.

How does atrazine get into water?

Atrazine can enter drinking water through stormwater runoff from agriculture fields, roads or ditches where it has been applied.

How can contact with atrazine affect my health?

EPA states that some people who drink water containing atrazine in excess of the maximum contaminant level (MCL) for many years could experience problems with their cardiovascular or reproductive systems.

What is the drinking water standard for atrazine?

- EPA has set an enforceable regulation which is a Maximum Contaminant Level (MCL) at 3 ug/L (microgram per liter). This level has been in place since 1992.

How is drinking water monitored for atrazine in Louisiana?

- Routine monitoring in community water system and non-transient non-community water systems
- Routine monitoring [if monitoring results are non-detect]:

- Surface Water Systems - collect two samples annually at the point of entry (finished water);
- Ground Water Systems - collect one sample every three years at each source (raw water).

- If a sample is equal or greater than the EPA detection limit, then the follow up monitoring will be at the entry point to distribution (EPTDS). This sampling is conducted to determine if quarterly monitoring is required.

Disinfection By-Products (DBPs)

- Haloacetic acids (HAA5) **(Analyte Code: 2456)**
- Total Trihalomethanes (TTHMs) **(Analyte Code: 2950)**

What are Disinfection By-Products?

Chlorine and other chemicals are added to drinking water to kill germs. Disinfection By-Products are formed when chlorine and bromine interact with natural organic materials in water, such as in chlorinated drinking water or chlorine-treated swimming pools (CDC, 2015).

Amendments made to the Safe Drinking Water Act in 1996 require the EPA to develop rules to balance the risks between microbial pathogens and disinfection byproducts (DBPs).

How do we come in contact with Disinfection By-Products (DBPs)?

People come in contact with DBPs by drinking water or breathing in air that contains these chemicals.

- Our skin may absorb DBPs during bathing and swimming.
- After we come in contact, DBPs remain in the body for only a short period of time (CDC, 2009).

How does contact with DBPs affect our health?

We do not know if contact with low levels of DBPs will affect human health (refer to the US EPA MCL which provides a defined health risk associated with specific levels at specific consumption). People who come in contact DBPs could experience liver damage and decreased nervous system activity (CDC, 2009).

Timeline for monitoring DBPs in Louisiana:

- Stage 1 Disinfectants and Disinfection By-Products Rule and Interim Enhanced Surface Water Treatment Rule. The monitoring for stage 1 began in 2004 in Louisiana.
- Stage 2 Disinfectants and Disinfection By-Products Rule (stage 2 DBPR) builds upon the stage 1 DBPR. These rules strengthen protection against microbial contaminants and reduce potential health risks of DBPs. The monitoring for stage 2 was phased in during 2012 and 2013 in Louisiana.
- Emergency rule which was adopted by the state health officer (effective Nov 2013). The emergency rule increased the minimum disinfectant residual level to 0.5mg/L in public water systems due to the Louisiana Department of Health (LDH) and CDC detecting and confirming the presence of *Naegleria fowleri* (amoeba) in two treated public drinking water systems in Sept and Oct 2013.
- Beginning January 1, 2017 the LDH Safe Drinking Water Program reinstated the bacteriological sample collection program for all public water systems statewide, including beginning to collect and analyze DBPs samples for water systems statewide.

What is the drinking water standard for Disinfection By-Products (DBPs)?
EPA has set an enforceable regulation which is a Maximum Contaminant Level (MCL) at 0.08 mg/L (milligram per liter) for Total Trihalomethanes (TTHMs) and 0.06 mg/L (milligram per liter) for Haloacetic acids (HAA5).

How is drinking water monitored for Disinfection By-Products (DBPs) in Louisiana?
The Stage 2 DBPR builds upon the Stage 1 Disinfectants and Disinfection By-Products Rule (Stage 1 DBPR) by addressing the health risks of DBPs in community water systems (CWSs) and nontransient non-community water systems (NTNCWSs) that add a primary or residual disinfectant. Key provisions of the Stage 2 DBPR include:

- An Initial Distribution System Evaluation to identify compliance monitoring locations that represent high total trihalomethanes and haloacetic acids concentrations throughout the distribution system
- Use of a locational running annual average calculated for each monitoring location in the distribution system for TTHM and HAA5 to determine compliance with the Stage 2 DBPR maximum contaminant levels (MCLs) for TTHM and HAA5.

Di(2-ethylhexyl)phthalate (DEHP) (Analyte Code: 2039)

What is Di(2-ethylhexyl)phthalate (DEHP)?

- DEHP, also known as phthalate, is found in many products made from plastic, especially plastics containing polyvinyl chloride or vinyl.
- DEHP is ubiquitous in the environment, both in air and water. DEHP does not evaporate easily or dissolve easily in water (e.g. microplastics in humans)
- It is present in plastic products such as wall coverings, tablecloths, floor tiles, furniture upholstery, shower curtains, garden hoses, swimming pool liners, rainwear, baby pants, dolls, some toys, shoes, automobile upholstery and tops, packaging film and sheets, sheathing for wire and cable, medical tubing, and blood storage bags (CDC, 2002).

How does Di(2-ethylhexyl) phthalate get into water?
DEHP may be present in discharge from rubber and chemical factories or other sources of runoff.

How can of Di(2-ethylhexyl) phthalate effect our health?

- At the levels normally found in the environment, DEHP is not expected to cause harmful health effects in humans.
- Most of what we know about the health effects of DEHP comes from studies of rats and mice given high amounts of DEHP. Health problems have been detected in animals that have had contact with DEHP for a longer period of time.
- The health problems that are found in animals may not be happen in humans because DEHP is absorbed and breakdown differently in humans that it does in animals (CDC, 2002).

What is drinking water standard for Di(2-ethylhexyl)phthalate (DEHP)?
EPA has set an enforceable regulation which is a Maximum Contaminant Level (MCL) at 0.006 mg/L (milligram per liter).

How is drinking water monitored for Di(2-ethylhexyl)phthalate (DEHP) in Louisiana?

- Sampling is conducted every three years
- If a sample is equal or greater than the EPA detection limit, then the follow up monitoring will be at the entry point to distribution (EPTDS). This sampling is conducted to determine if quarterly monitoring is required.

Nitrate-Nitrite (Analyte Code: 1038)

What are Nitrates and Nitrites?

Plants and animals need nitrogen to live and grow. The nitrogen that is found in the air we breathe must be transformed into nitrogen compounds such as nitrate and nitrite in order to be used efficiently by plants and animals (CDC, 2015). Nitrates and Nitrites are two different but similar molecules that are made up of nitrogen and oxygen. They are often notated as Nitrate-Nitrite to denote nitrogen compounds.

Where are nitrates and nitrites found in the environment?

Some plants which humans eat can take up too much nitrate for what is optimal for human health. Factors such as drought for example may result in high plant nitrate. Nitrate and nitrite are most commonly produced however by sewage from human or animal waste. Outside of nature, nitrate is predominantly added in inorganic fertilizer. They are used in food preservation, some medicines and to make munition and explosives as well (CDC, 2015).

How do we come in contact with Nitrate-Nitrites in our drinking water?

- People can drink water from wells containing nitrate which intrude into the system from sources such as animal waste and/or fertilizer runoff
- The release of nitrate and/or nitrite to soil and water at waste disposal sites could result in the contamination of drinking water sources (CDC, 2015).

How does contact with Nitrate-Nitrite effect children's health?

Young infants < 6 months of age consuming formula that contains nitrites are much more sensitive to the health effects of Nitrate-Nitrite than adults. Nitrate poisoning may give babies methemoglobinemia, a dangerous disruption to their breathing, resulting in a bluish hue to their skin, and which can be fatal if not immediately addressed. We do not know if contact with nitrates and nitrites causes birth defects (CDC, 2015).

How does contact with Nitrate-Nitrite affect our health?

- Most people do not come in contact with nitrates and nitrites at levels that would cause health problems.
- Some people who ate food or drank fluids that contained unusually high levels of nitrite experienced methemoglobinemia.
- Methemoglobin causes changes to our hemoglobin making it harder for blood cells to transport oxygen to our tissues and other health problems. These problems include low blood pressure, increase heart rate, headaches, stomach cramps and bleeding (CDC, 2015).
- Nitrate-rich foods such as beets, spinach, celery, and green-leafy vegetables have been shown to be healthy in lowering blood pressure and in lowering the risk of cardiovascular disease. While nitrate is not a micronutrient, it converts to nitric oxide in the body. Nitric oxide plays a role in blood vessel dilation and cardiovascular health.

What is the drinking water standard for Nitrate-Nitrite?

EPA has set an enforceable regulation which is a Maximum Contaminant Level (MCL) at 10 mg/L (milligram per liter) for nitrate and 1 mg/L (milligram per liter) for nitrite.

How is drinking water monitoring for Nitrate-Nitrite in Louisiana?

- All PWSs are sampled each year
- Samples are analyzed as total nitrate+ nitrite
- PWSs with a total nitrate+ nitrite result exceeding 1 mg/L trigger analysis of a nitrite sample for the water system. Staff also review the system results to ensure continuous disinfection.

Tetrachloroethylene (PCE) (Analyte Code: 2987)

What is Tetrachloroethylene (PCE)?

Tetrachloroethylene is a nonflammable colorless liquid, and solvent. Another name for tetrachloroethylene is perchloroethylene (PCE). It is a man-made chemical that is used for dry cleaning clothes and degreasing metal. It is also used to make other chemicals and can be found in some household products such as water repellents and spot removers (CDC, 2014).

How does PCE get into water?

Discharge from factories and dry cleaners are the major source of PCE in drinking water (CDC, 2014).

How can contact with PCE affect our health?

- Coming in contact with low levels of tetrachloroethylene for longer periods of time may cause changes in mood, memory, attention, reaction time, and vision
- Studies in humans suggest that exposure to tetrachloroethylene might lead to a higher risk of getting bladder cancer, multiple myeloma, or non-Hodgkin's lymphoma, but the evidence is preliminary and needs more study (CDC, 2014).

What is the drinking water standard for Tetrachloroethylene (PCE)?

EPA has set an enforceable regulation which is a Maximum Contaminant Level (MCL) at 0.005 mg/L (milligrams per liter).

How is drinking water monitored for Tetrachloroethylene (PCE) in Louisiana?

- Surface Water Systems - collect one sample annually at the point of entry (finished water).
- Ground Water Systems - collect one sample every three years at each source (raw water).
- If a sample is equal or greater than the EPA detection limit, then the follow up monitoring will be at the entry point to distribution (EPTDS). This sampling will be conducted to determine if the quarterly monitoring is required.

Trichloroethylene (TCE) (Analyte Code: 2984)

What is Trichloroethylene (TCE)?

Trichloroethylene is a clear, colorless liquid, and solvent that evaporates quickly into the air. It used primarily to remove grease from metal parts and as a chemical that is used to make other chemicals, especially the refrigerant, HFC-134a (CDC, 2016).

How does TCE get into the environment?

- Trichloroethylene is broken down quickly in air, however can be released to air, water, and soil at places where it is produced or used.
- Trichloroethylene breaks down very slowly in soil and water, where it is removed mostly through exposure and evaporation to air.
- It is expected to remain in groundwater for long time since it is not always able to evaporate.
- Trichloroethylene does not build up significantly in plants or animals (CDC, 2016).

How does Trichloroethylene get into water?

Trichloroethylene has been found in underground water sources (where it may exist as a 'plume') and many surface waters as a result of manufacturing, use and disposal of the chemical.

What are the health effects of Trichloroethylene?

- Contact with moderate amounts of TCE may cause headaches, dizziness, and sleepiness; large amounts may cause coma and even death.
- Contact with high levels of TCE can also result in changes in the rhythm of the heartbeat, liver damage, and evidence of kidney damage. Skin contact with concentrated solutions of trichloroethylene can cause skin rash. (CDC, 2016).

What is the drinking water standard for Trichloroethylene?

EPA has set an enforceable regulation which is a Maximum Contaminant Level (MCL) at 0.005 mg/L (milligram per liter).

How is drinking water monitored for Trichloroethylene (TCE) in Louisiana?

- Surface Water Systems - collect one sample annually at the point of entry (finished water).
- Ground Water Systems - collect one sample every three years at each source (raw water).
- If a sample is equal or greater than the EPA detection limit, then the follow up monitoring will be at the entry point to distribution (EPTDS). This sampling will be conducted to determine if the quarterly monitoring is required.

Uranium (Analyte Code: 4006)

What is Uranium?

Uranium is naturally occurring as a radioactive metallic element. It can be present in rocks, soils, and air and can be redistributed in the environment through wind and water erosion (CDC, 2013)

How does Uranium get into drinking water?

- Natural and depleted uranium that exist in the dust in the air settles onto water, land, and plants may enter the water supply. Uranium deposited on land through natural forces or man-made pollution (hazardous waste) can be reincorporated into soil, washed into surface water, or stick to plant roots
- Uranium in air, surface water, or groundwater can be transported large distances (CDC, 2013).

How do we come in contact with Uranium?

- Food and drinking water are the primary sources of intake for the general public
- In most areas of the United States, low levels of uranium are found in the drinking water
- Higher levels may be found in areas with elevated levels of naturally occurring uranium in rocks and soil (CDC, 2013)

How can contact with Uranium effect our health?

Drinking water that contains uranium may result in harm to our kidneys (CDC, 2013). Exposure to some forms of uranium, a radioactive element, is considered more of a chemical risk to the kidneys than a cancer risk. Since uranium ores may be found with radium ores (which also decay into radon) if it is detected at concerning levels other water tests may be warranted. Radon gas is harmful to the human lungs.

What is drinking water standard for Uranium?

EPA has set an enforceable regulation which is a Maximum Contaminant Level (MCL) at 30 ug/L (micrograms per liter).

How is drinking water monitoring for Uranium in Louisiana?

- If a source water sample is greater than MCL (10 ug/L), quarterly monitoring is conducted at the entry point to distribution system (EPTDS).
- If a source sample is equal or greater than the EPA detection limit, then follow-up monitoring is conducted at EPTDS to determine if quarterly monitoring is required.
- If the EPTDS sample is greater than the EPA detection limit, quarterly monitoring is conducted until the results are reliable and consistently below the MCL.

When sampling is greater than the Maximum Contaminant Level (MCL), then sampling is conducted at the entry point to distribution (EPTDS) for the source.