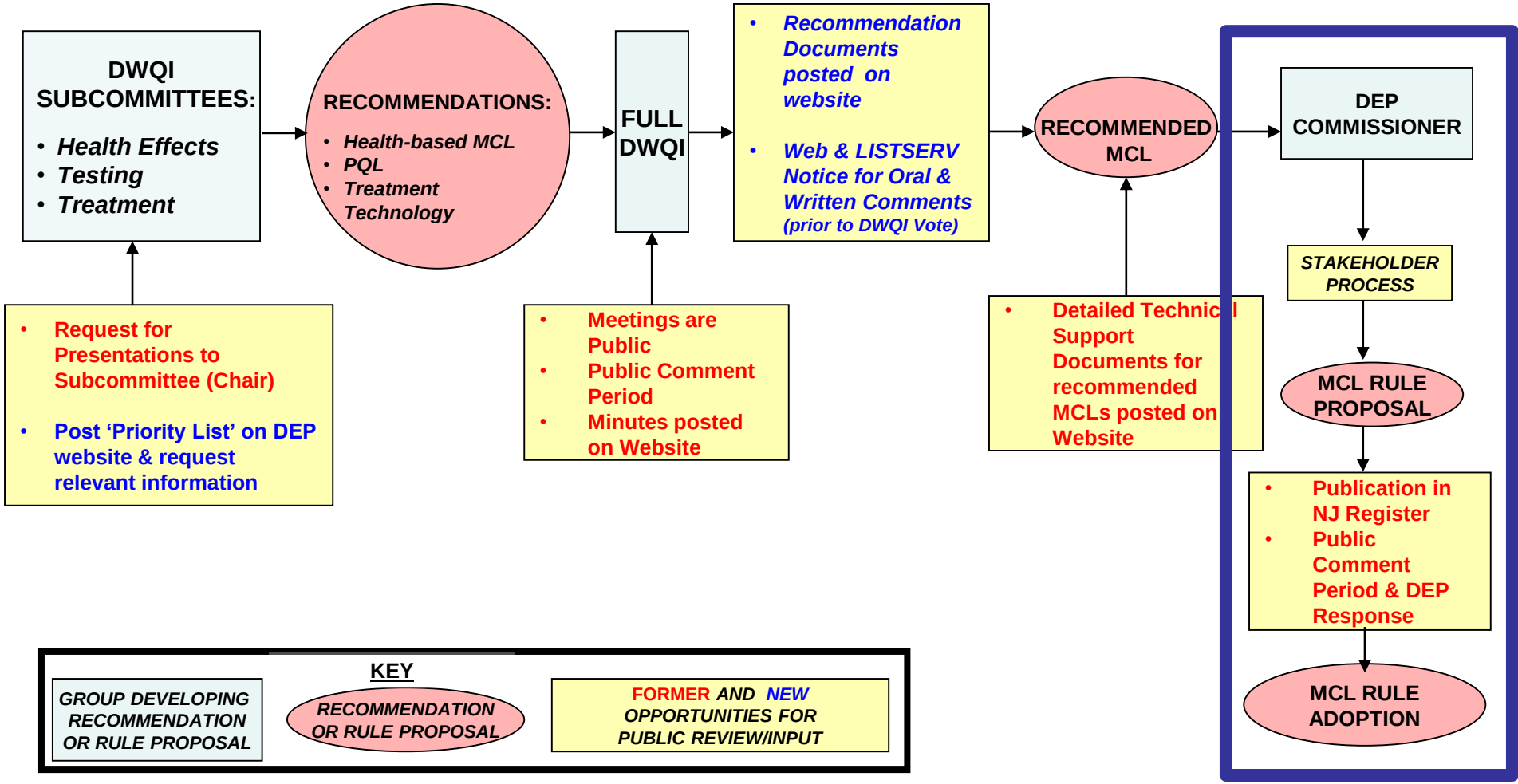
NJ Rule Update
Safe Drinking Water Act
N.J.A.C. 7:10
&
Private Well Testing Act
N.J.A.C. 7:9E

March 27, 2017

PUBLIC PARTICIPATION IN MCL DEVELOPMENT PROCESS



New Jersey Rule Process

- Stakeholder process
- Draft rule proposal
- Proposal published in NJ Register
- Public hearings and comment period
- Adoption within one year
- Effective date noted upon publication

Potential SDWA Amendments

- Testing for 1,2,3-Trichloropropane (1,2,3-TCP) Statewide
- Testing for Ethylene Dibromide (EDB) and 1,2 Dibromo-3-Chloropropane (DBCP) Statewide
- Testing of radiological contaminants for non-transient non-community water systems
- Testing for Perfluorononanoic Acid (PFNA) Statewide

Potential PWTA Amendments

- Testing for 1,2,3-Trichloropropane (1,2,3-TCP) Statewide
- Testing for Ethylene Dibromide (EDB) and 1,2 Dibromo-3-Chloropropane (DBCP) Statewide
- Expansion of arsenic testing into the South
- Expansion of gross alpha testing into the North
- New testing for uranium in the North

MCL DEVELOPMENT

1,2,3-Trichloropropane

1,2,3-Trichloropropane

- Uses: solvent, cleaning & degreasing agent, paint remover, pesticides (as an impurity)
- Evaporates from surface water
- Leaches through soil to groundwater
- Included under EPA's Unregulated Contaminant Monitoring Rule 3 (UCMR3)

1,2,3-Trichloropropane

- Detected in UCMR3 in NJ above reference concentration
  - Ref. conc. 0.0004/0.04 ug/L (10-6/10-4)
  - Results in GW ranged from 0.03 - 0.051 ug/L
- Detections in private wells in 1999-2009: Cumberland, Salem, Gloucester, Union, Camden, Atlantic Counties.
- **DWQI Recommended MCL (2009 & 2016) = 0.03 ug/L**

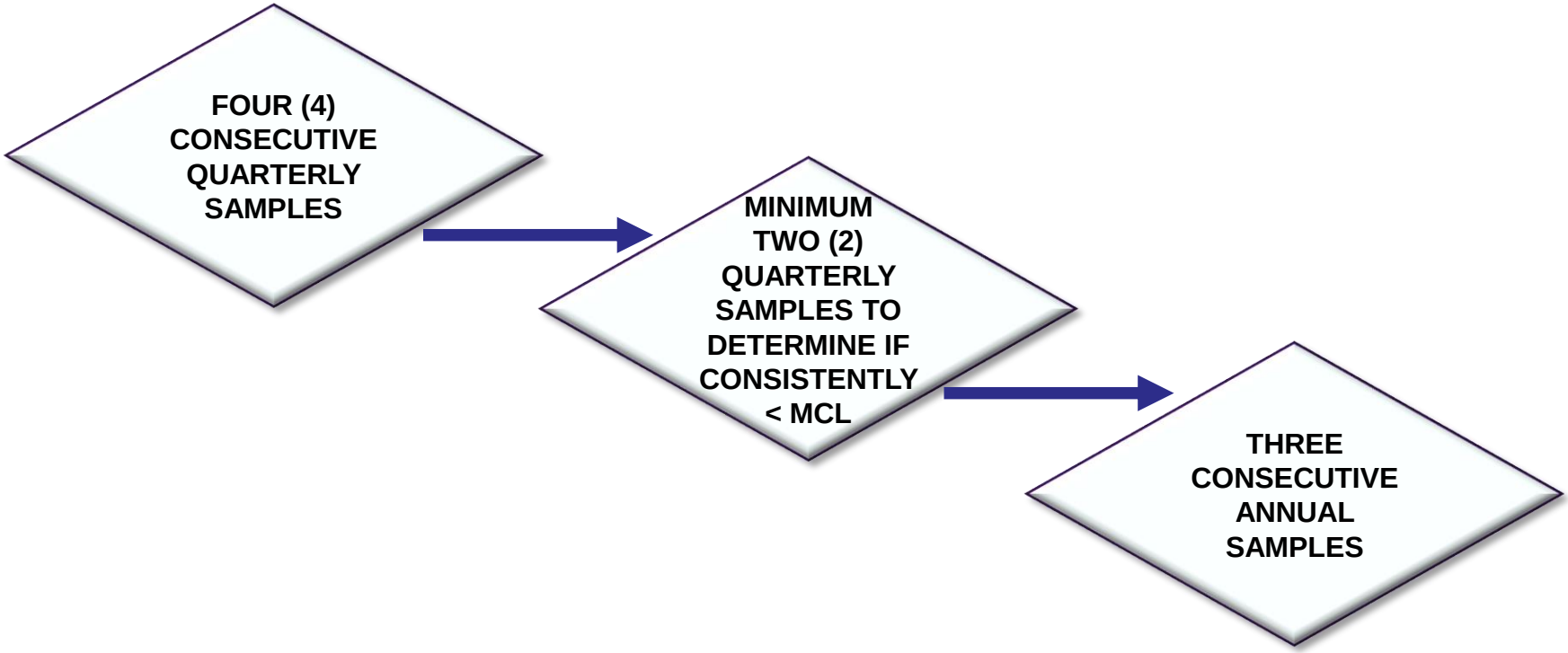
MONITORING FRAMEWORK

1,2,3-Trichloropropane

1,2,3-Trichloropropane

- Monitoring required at:
  - All Community Water Systems
  - All Non-Transient Non-Community Water Systems
  - Private Wells under PWTA
- Monitoring not required at:
  - Transient Water Systems

SOC Monitoring Framework



Monitoring Framework

- If three consecutive annual samples have no detections system can be placed on triennial monitoring

- Monitoring period in the three year cycle is determined by population and type of water system (N.J.A.C. 7:10-5.2(a)7)

EDB & DBCP

Analytical Methods

- Methods 524.3 and 504.1 used to test for 1,2,3-TCP

Also pick up EDB and DBCP

EDB and DBCP

- Federally regulated SOCs
  - EDB – MCL of 0.05 ug/l
  - DBCP – MCL 0.2 ug/l
- Three year monitoring cycles
  - 2017-2019
  - 2020-2023

MCL DEVELOPMENT

Perfluorononanoic Acid

Perfluorononanoic Acid

- Used in manufacturing of consumer goods
- Does not break down in the environmental and is water soluble
- Included under EPA's Unregulated Contaminant Monitoring Rule 3 (UCMR3)

Perfluorononanoic Acid

- Detected in UCMR3 in NJ
  - EPA MRL = 20 ng/L
  - Detected in 7/1456 samples (0.5%); 4/175 systems (2%)
- No EPA reference concentration
- **DWQI Recommended MCL (2015) = 13 ng/L**

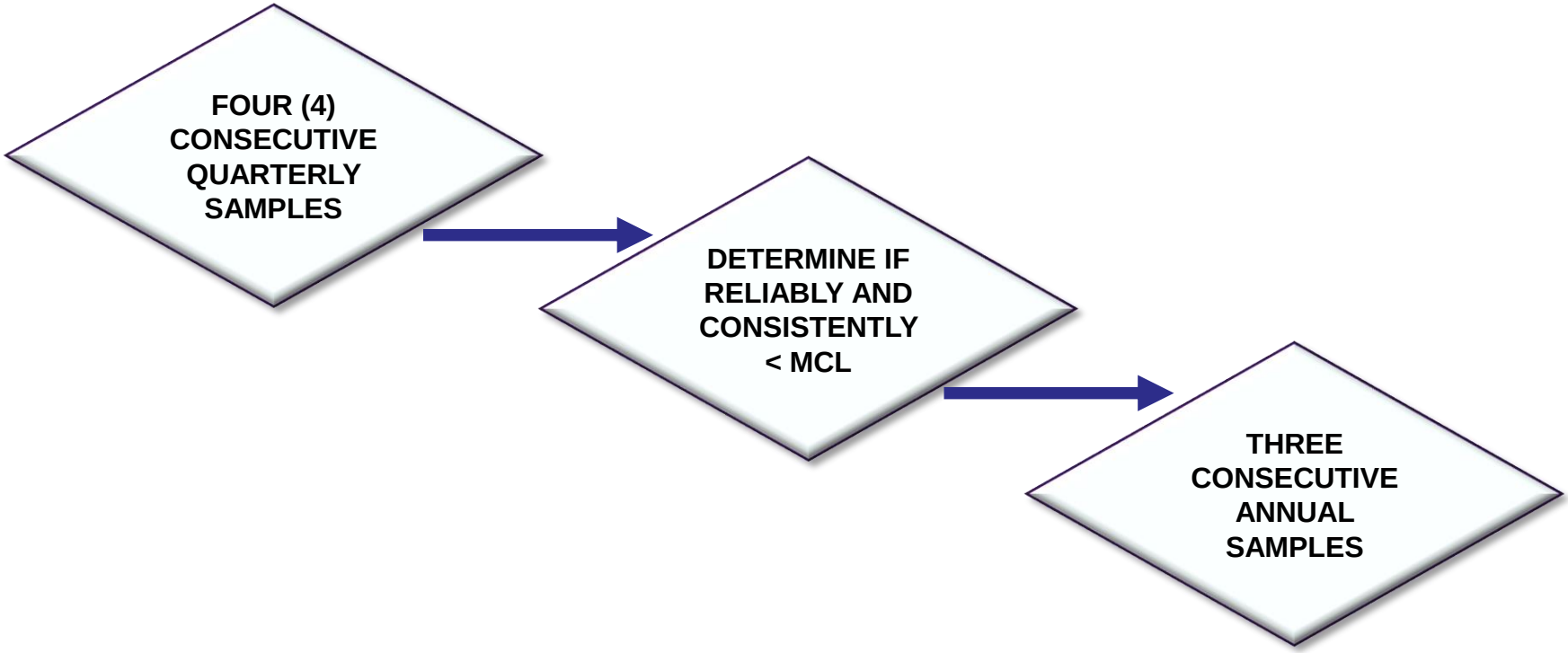
MONITORING FRAMEWORK

Perfluorononanoic Acid

Perfluorononanoic Acid

- Monitoring required at:
  - All Community Water Systems
  - All Non-Transient Non-Community Water Systems
- Monitoring not required this time at:
  - Transient Water Systems
  - Private Wells under PWTA

VOC Monitoring Framework



Monitoring Framework

- If three consecutive annual samples have no detections system can be placed on triennial monitoring

- Monitoring period in the three year cycle is determined by population and type of water system (N.J.A.C. 7:10-5.2(a)7)

RADIOLOGICAL CONTAMINANTS

Radiological Contaminants

- Monitoring required at:
  - All Community Water Systems
  - Private wells in the South under PWTA (gross alpha only)
- Monitoring not required at:
  - Non-Transient Non-Community Water Systems
  - Transient Water Systems
  - Private wells in the North under PWTA

Private Well Testing Act
Testing Requirement Revisions

Steve Spayd, PhD, MPH, PG
Research Scientist & Hydrogeologist

NJ Geological & Water Survey
Trenton, New Jersey 08625

609-984-6587
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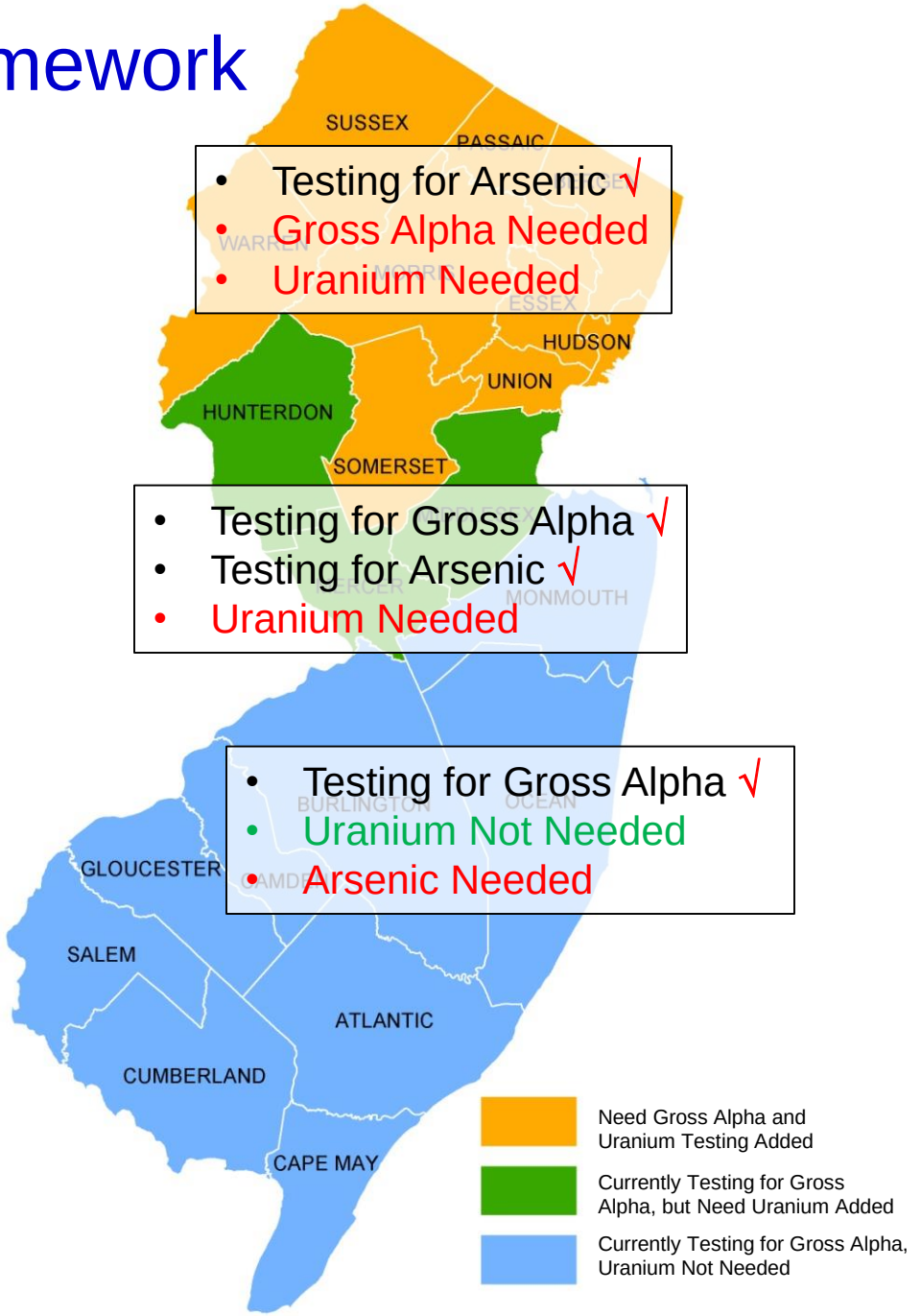
Based on a Geologic Framework

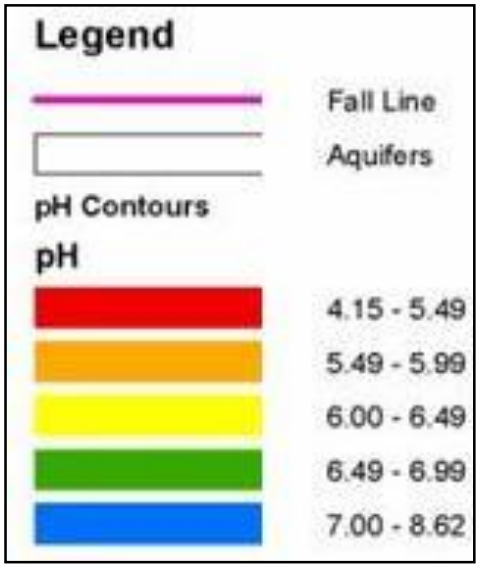
Expand PWTA Testing Requirements

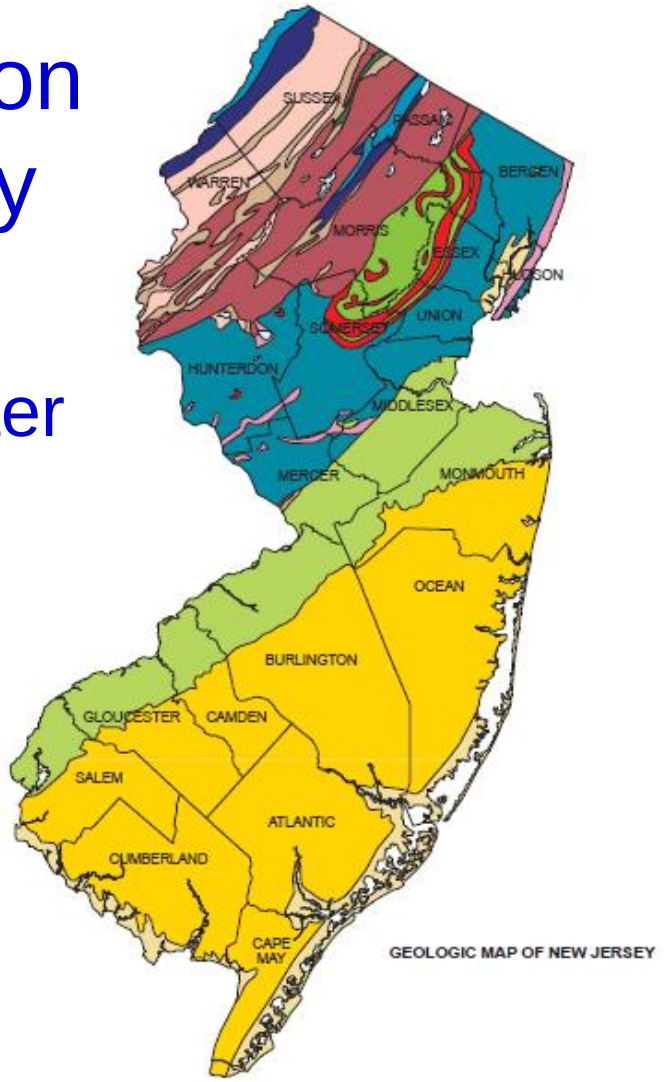
- Uranium Testing: North Jersey
- Gross Alpha Testing: Statewide
- Arsenic Testing: Statewide



Geogenic Factors on Well Water Quality

pH in Private Well Water





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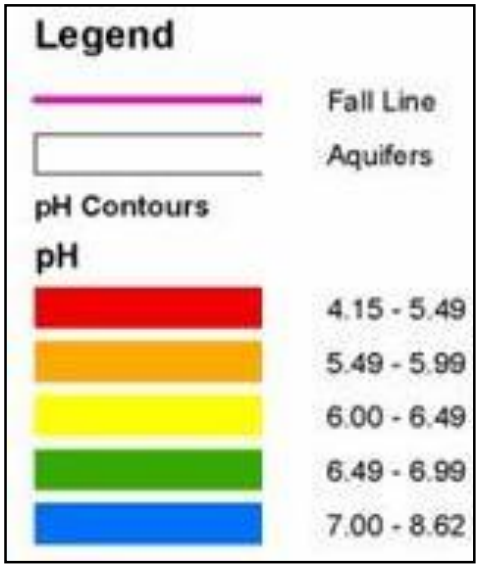
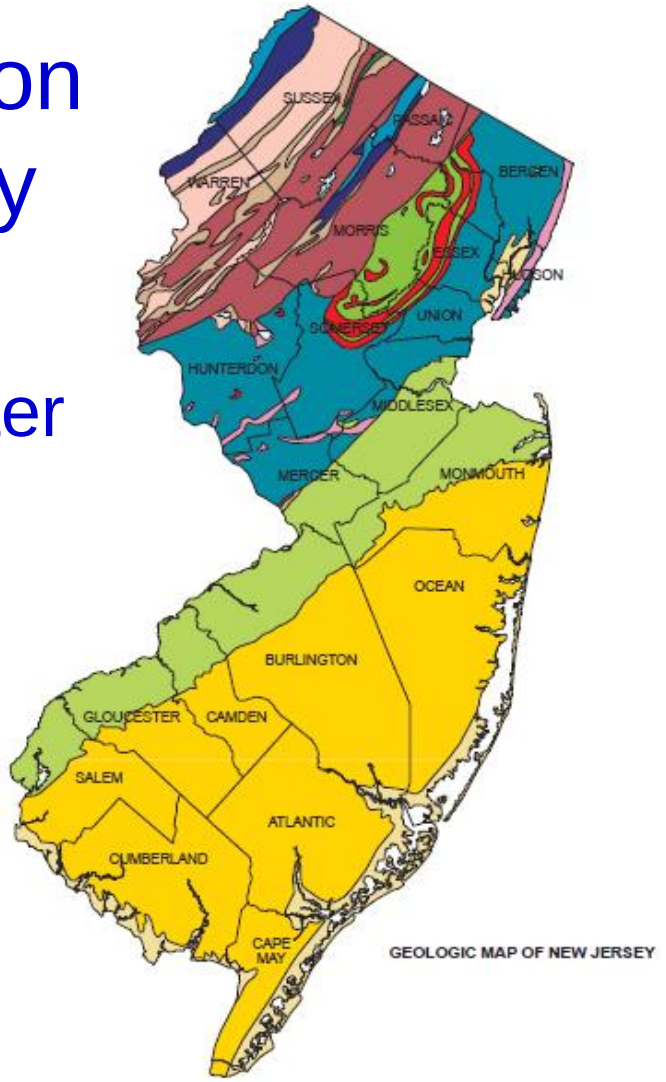




Arsenic

- NJ's new standard (MCL) effective in January 2006.
- At 5 µg/L it is most protective in the world.
- USEPA's national standard is 10 µg/L.
- The Maximum Contaminant Level Goal is 0 µg/L.
- NJ's PWTA included arsenic in Piedmont when it started in 2002.
- Arsenic expanded to additional counties in 2008.
- NJDWQI recommended further expansion to all counties.

Arsenic Health Issues

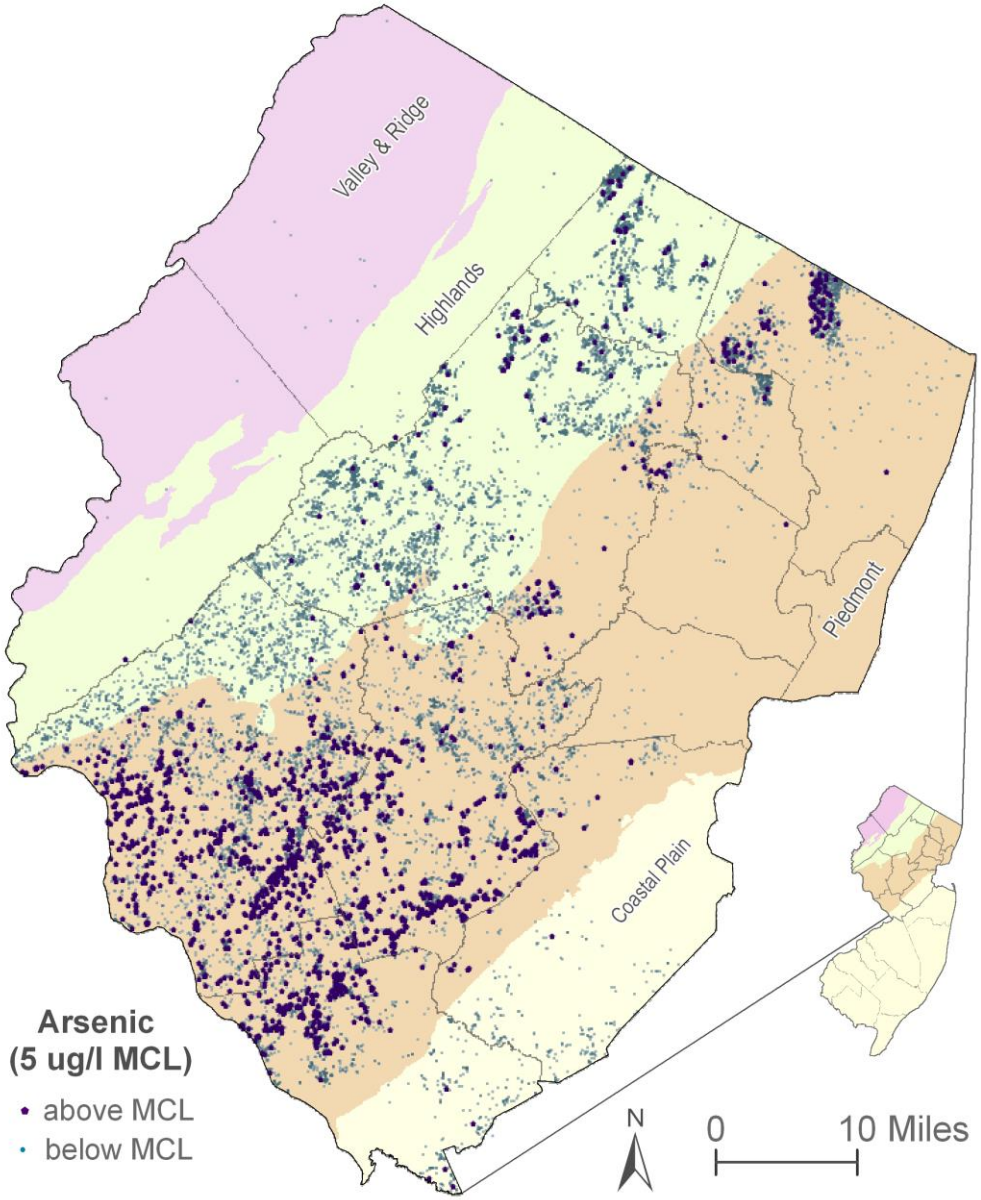
Cancer: Bladder, Lung, Liver, Kidney, Skin

Diabetes

High Blood Pressure & Heart Disease

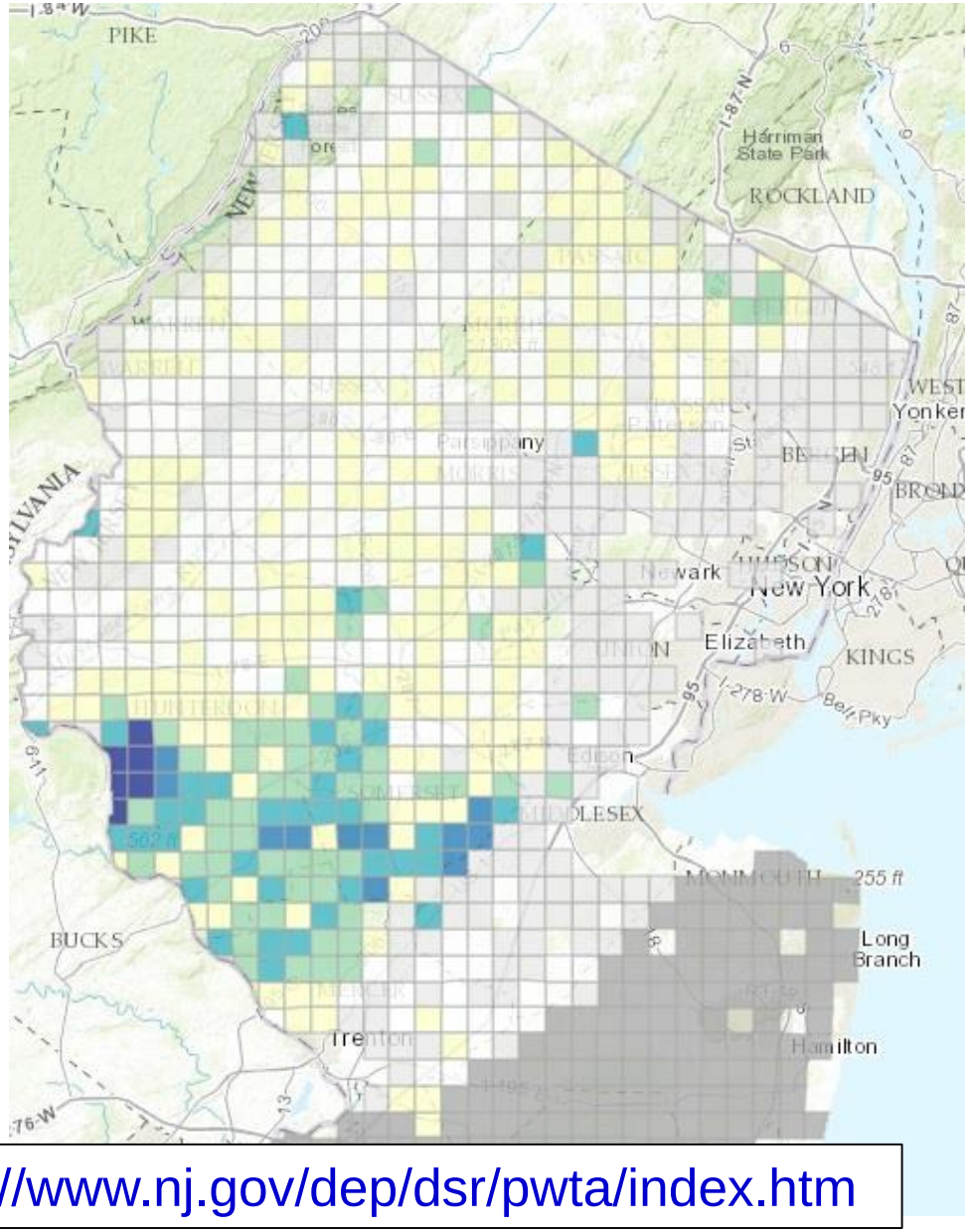
Lowers Children's IQ

NJ Private Well Testing Arsenic Results



2002-2007

NJ's Private Well Testing Act - Arsenic



Available at http://www.nj.gov/dep/dsr/pwta/index.htm

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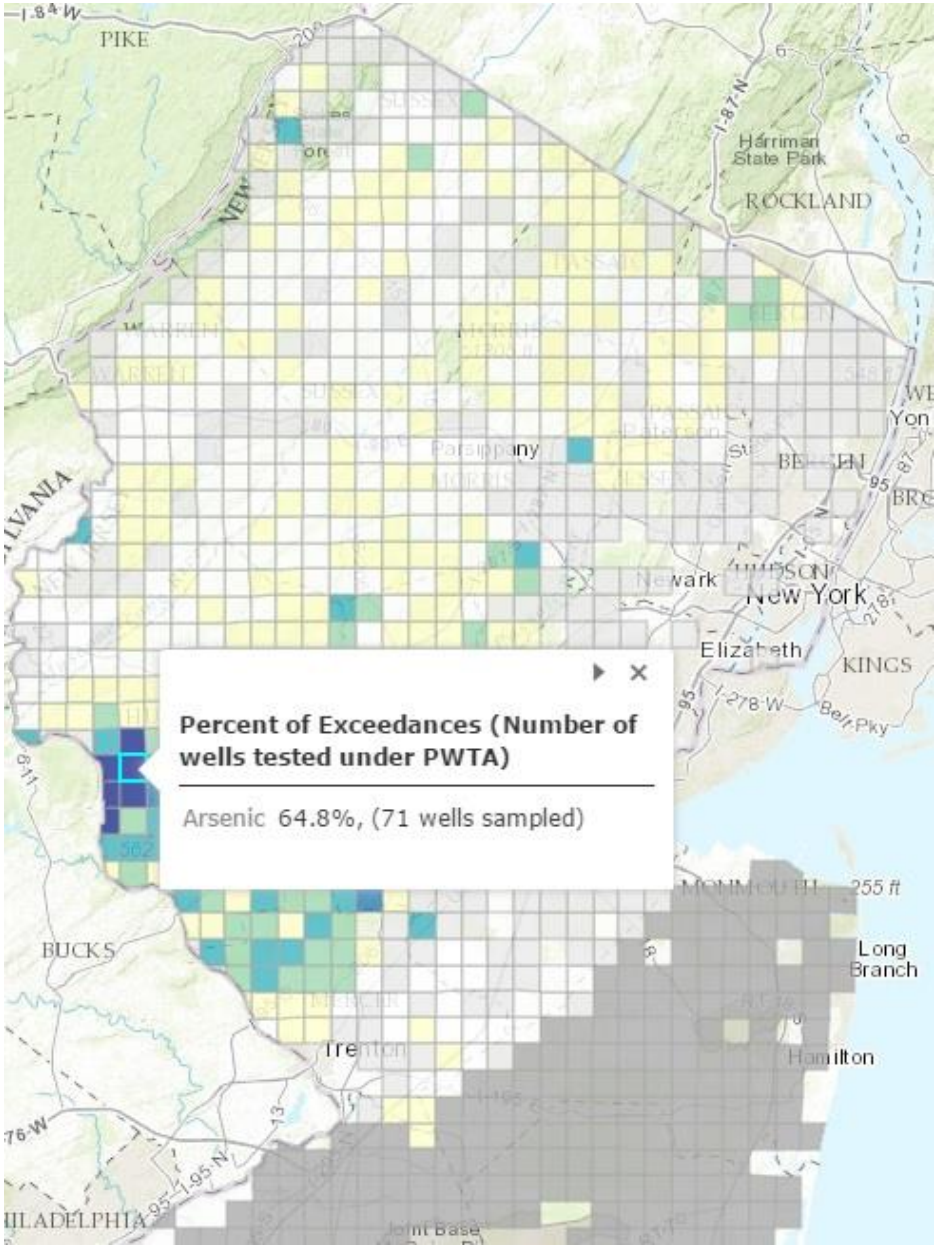
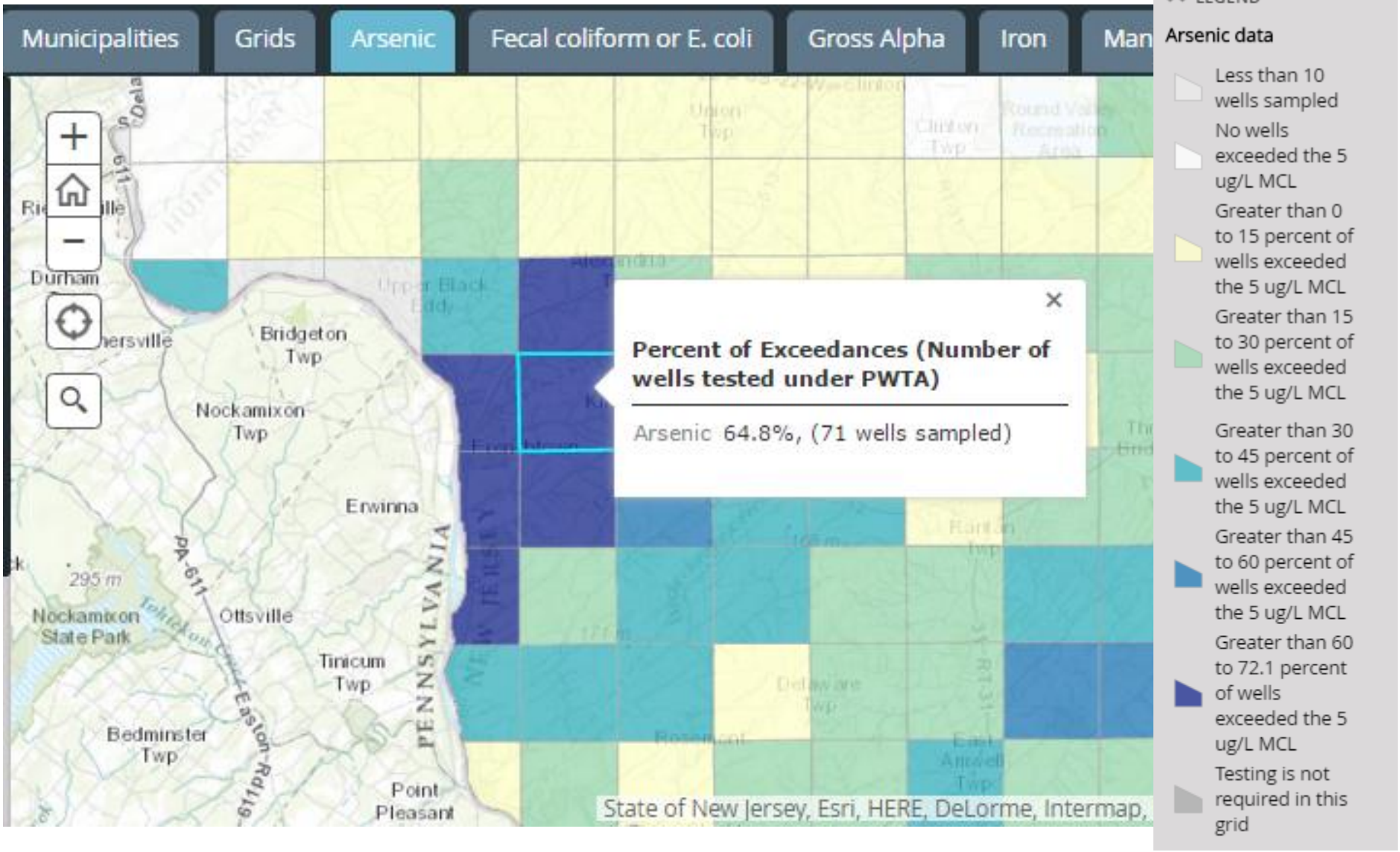


LEGEND

Arsenic data

- Less than 10 wells sampled
- No wells exceeded the 5 ug/L MCL
- Greater than 0 to 15 percent of wells exceeded the 5 ug/L MCL
- Greater than 15 to 30 percent of wells exceeded the 5 ug/L MCL
- Greater than 30 to 45 percent of wells exceeded the 5 ug/L MCL
- Greater than 45 to 60 percent of wells exceeded the 5 ug/L MCL
- Greater than 60 to 72.1 percent of wells exceeded the 5 ug/L MCL
- Testing is not required in this grid

NJ's Private Well Testing Act - Arsenic



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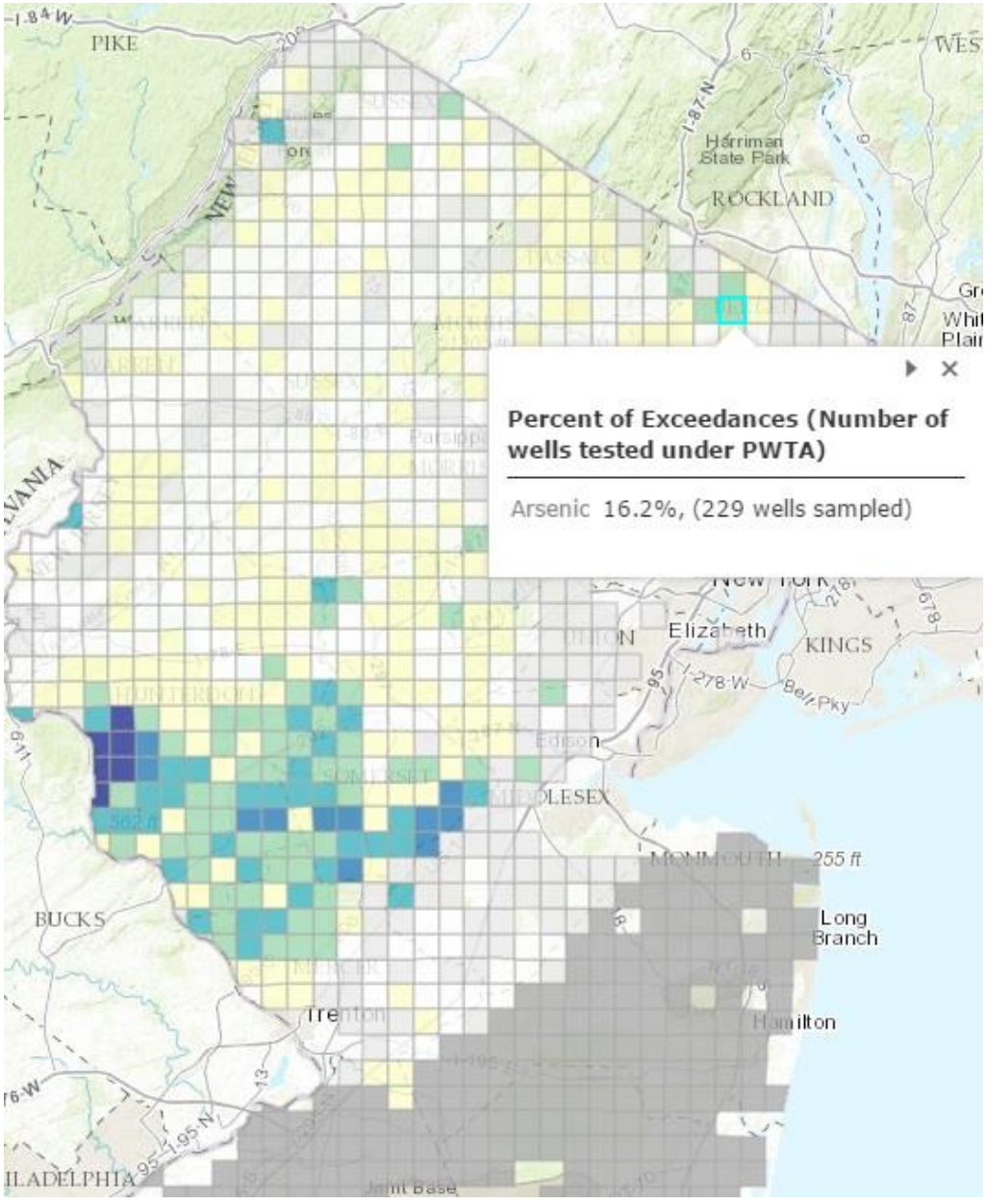

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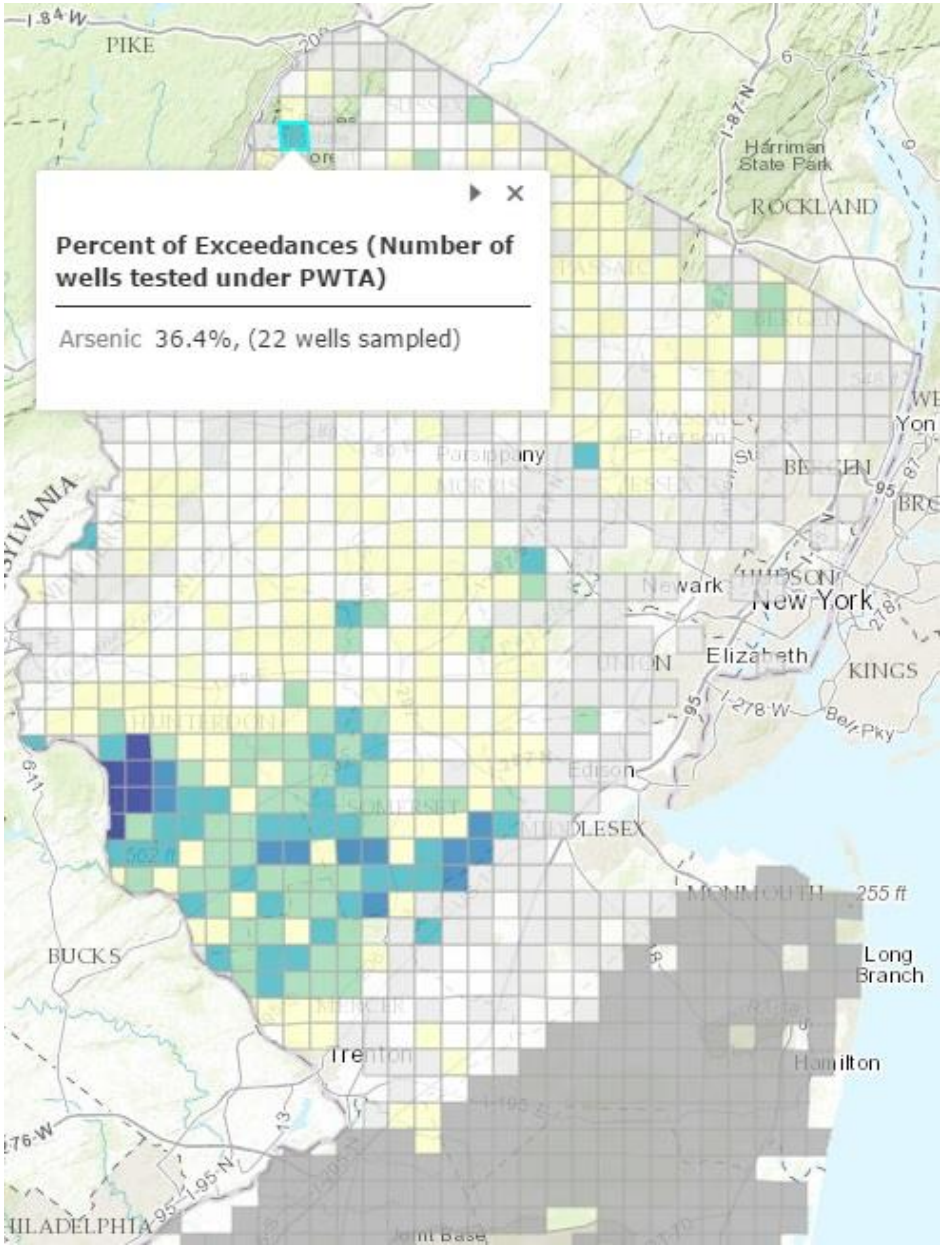
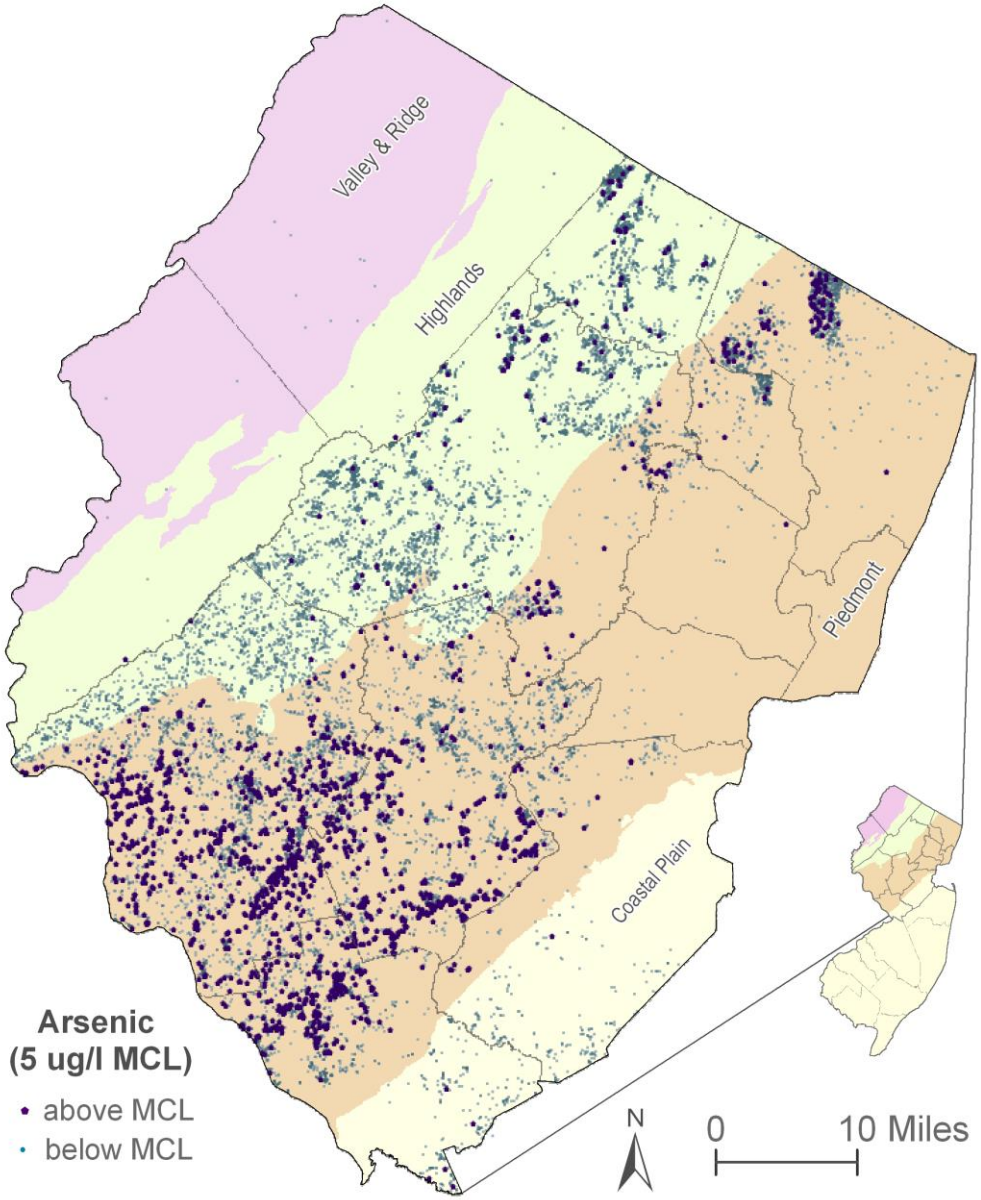


NJ Private Well Testing Arsenic Results



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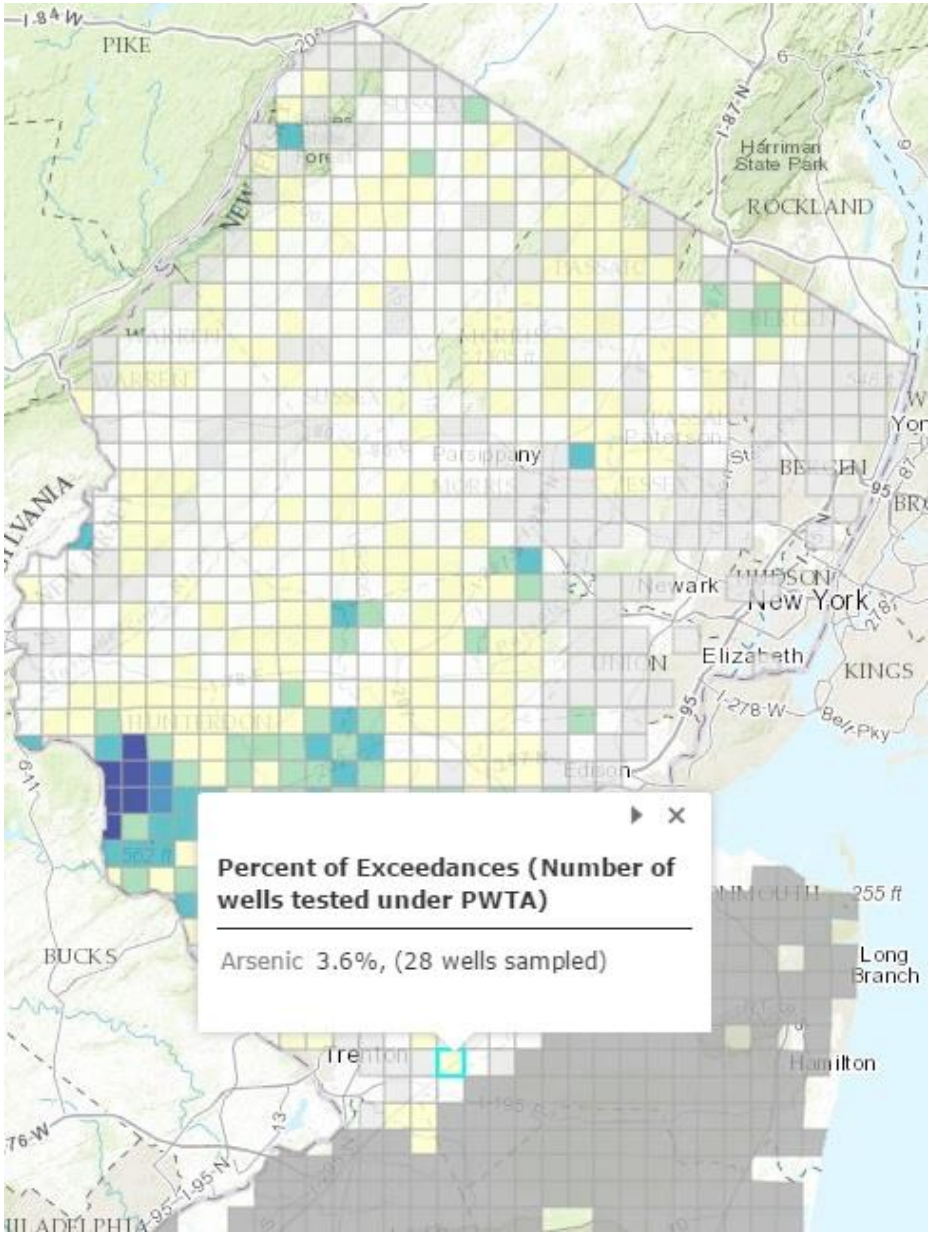

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USGS
science for a changing world

Prepared in cooperation with the New Jersey Department of Environmental Protection

Arsenic in New Jersey Coastal Plain Streams, Sediments, and Shallow Groundwater: Effects from Different Geologic Sources and Anthropogenic Inputs on Biogeochemical and Physical Mobilization Processes

Scientific Investigations Report 2013–5107

U.S. Department of the Interior
U.S. Geological Survey

Arsenic Found at Waste Sites

News Releases from Region 02

EPA Proposes Expanded Cleanup for Old Pesticide Plant in Vineland, N.J.

Public Meeting, Aug. 8, 6:30 p.m. at Vineland Town Hall

07/22/2016

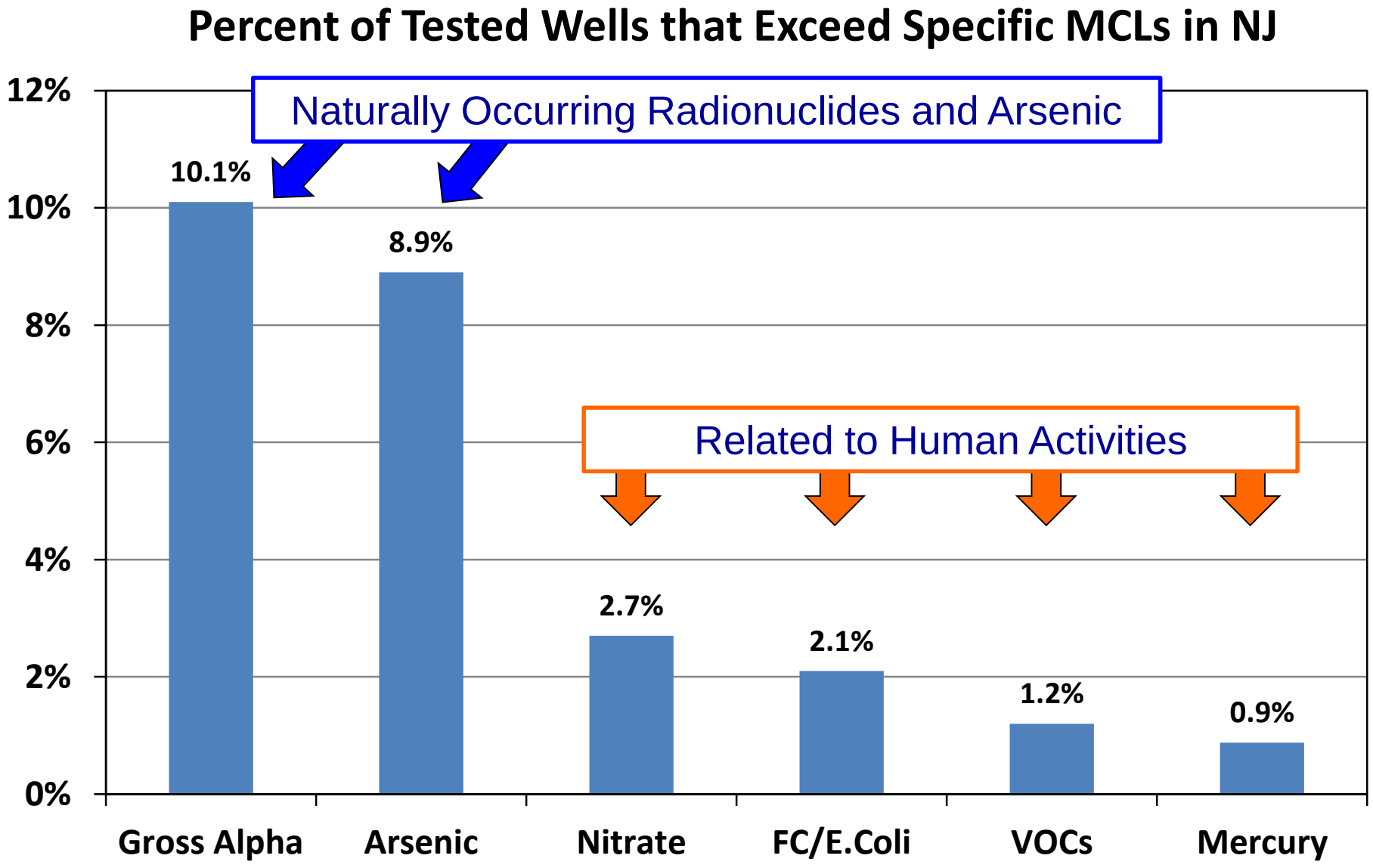
Contact Information:
Elias Rodriguez (rodriguez.elias@epa.gov)
212-637-3664

(New York, N.Y. – July 22, 2016) The U.S. Environmental Protection Agency (EPA) has proposed modifications to its plan to clean up contaminated exposed sediments in the Maurice River and Blackwater Branch at the Vineland Chemical Company Superfund site in Vineland, N.J. As a result of previous operations by the chemical company at the site, the groundwater, soil and sediment are contaminated with arsenic. Arsenic is known to cause cancer, as well as many other serious health problems. The EPA performed dredging, excavation and disposal of arsenic-contaminated sediments at the site according to its original cleanup plan. The EPA proposes to modify the plan by adding treatment technologies to address areas in the Blackwater Branch that became re-contaminated with arsenic since those activities were completed.

The EPA does not believe the city's drinking water has been impacted by the site. The EPA monitors the drinking water supply regularly to ensure the drinking water meets drinking water standards.

"The Vineland Chemical Company contaminated this site with arsenic from its production of pesticides," said EPA Regional Administrator Judith Enck. "After decades of work by the EPA, a significant amount of the toxics have been removed. The EPA's expanded work in Vineland will protect people's health and the environment."

NJ PWTA Data



Data through March 2014. 86,767 wells tested.

Expansion of Arsenic Testing Requirement to Southern Counties

- Arsenic has been detected in southern NJ private wells.
- Arsenic is naturally occurring in the greensand formations.
- Arsenic is a common contaminant at Superfund and other waste sites.
- Arsenic was a common pesticide historically.
- The percentage of MCL exceedance should be lower than in the north, but still substantial.

Gross Alpha & Uranium

- Gross alpha has the highest percentage of MCL exceedance in PWTA.
- Public wells are also affected.
- The MCL for Gross Alpha is 15 pCi/L.
- The MCL for Uranium is 30 µg/L.
- NJ's PWTA phased in Gross Alpha due to lab capacity issues.
- Currently it is required in all southern counties and Middlesex and Hunterdon.
- Radioactive elements are common in many NJ geologic formations.
- NJDEP commissioned USGS for a study on radioactive elements in northern NJ.
- A 2016 NJGWS Sussex County study confirmed the need for expanded testing.

Radioactive Elements in well water are:

- colorless
- odorless
- tasteless

Health Effects of Uranium and Radium from Drinking Water

- Radium:
  - Radium accumulates in bone, like calcium. Radium can therefore cause bone sarcomas, particularly osteosarcoma.
  - The lifetime cancer risk of radium based on this MCL is 1-2 in 10,000.
  - EPA set the MCL for radium (Ra-226 and Ra-228) at 5 pCi/L based on cancer risk.
    - Radium 224 which is widespread in southern NJ does not have an established MCL.

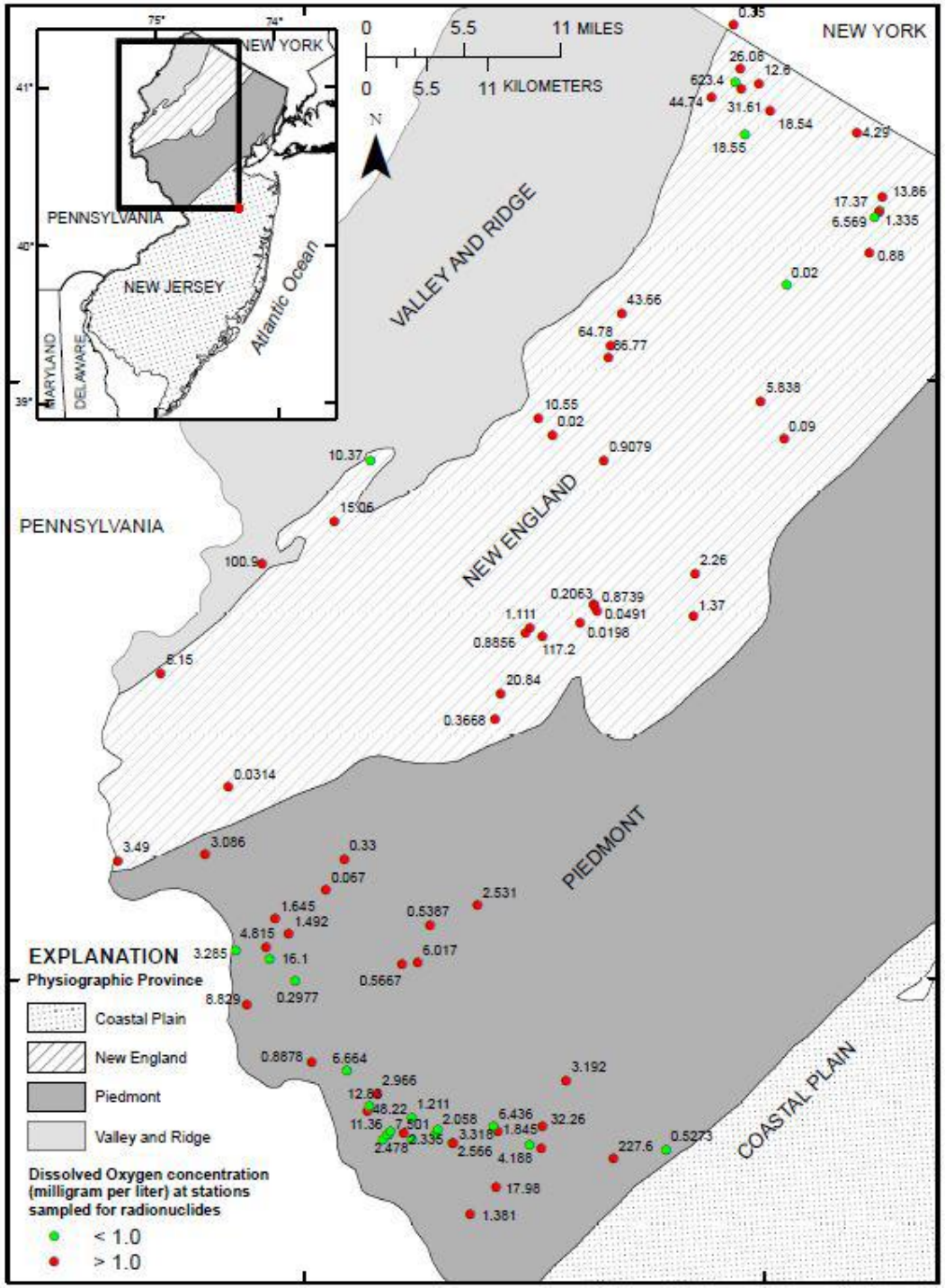
- Uranium**:**
  - Uranium is classified as a human carcinogen and causes kidney toxicity in humans. Kidney toxicity can lead to kidney inflammation and cell death in renal tubules.
  - The lifetime cancer risk of uranium based on this MCL is 1 in 10,000.
  - EPA set the MCL for uranium at 30 µg/L (approximately 20 pCi/L) based on the non-cancer kidney effects.

Contribution of Naturally Occurring Radioisotopes to Gross Alpha-Particle Activity in Northern NJ Aquifers

Zoltan Szabo (USGS), Judith B. Louis (retired DEP), Steven Spayd (DEP),
Thomas F. Kraemer (USGS), and Bahman Parsa (DOH)

- Conducted to determine the contributions of naturally occurring radionuclides (uranium and radium isotopes) to overall gross alpha-particle activity in groundwater from the Highlands and Piedmont.
- 80 ground water samples were collected from public and private drinking water wells between 2007 and 2011
- Bedrock composition, including mineralogy, lithology, and mineral surface coatings, as well as pH and oxidation-reduction potential in the aquifer, affect the occurrence and distribution of naturally occurring radionuclides (radium and uranium) in ground water.

USGS Study Well Locations



Location of wells sampled in the Highlands and Piedmont Provinces of northern NJ.

Red and green points indicate locations where dissolved oxygen was greater than 1.0 mg/L and less than 1.0 mg/L, respectively.

Numbers next to the points represent the uranium mass (ug/L).

Study Results

- Gross alpha exceeding the EPA MCL of 15 pCi/L was documented in well water from widely scattered areas in the bedrock aquifers.
- Much of the measured alpha-particle activity in the waters was attributable to the long-lived isotopes of uranium and, to a lesser extent, radium-226.
- Uranium may account for more of the gross alpha activity than is evident from a simple uranium *mass* measurement.
- Uranium occurrence predominates where waters have high dissolved oxygen concentrations.
- Ra-226 occurrence predominates where waters have low dissolved oxygen concentrations.
- Guidance on uranium and radium occurrence is possible on the basis of gross alpha, dissolved oxygen, and other parameters (pH, bicarbonate alkalinity, filtered iron and/or manganese, and rock type), but none of these “surrogates” are completely definitive.

Geographic Occurrence of Ra and U

- Piedmont: Both radium and uranium tend to be present.
    - U234/U238 ratio ranged from 1 – 9 (median 2.2)

- Highlands: Both radium and uranium tend to be present but more U rich than Piedmont with gross alpha activity more likely from U.
    - U234/U238 ratio ranged from 1 – 3 (median 1.4)

Study Take-Away

- Treatment:
  - It is important to know which radionuclides are present to select an appropriate treatment option.
  - A gross-alpha test alone does not provide adequate guidance.
  - Anion exchange systems successfully removed uranium while cation exchange systems (water softeners) successfully removed radium.

Gross Alpha Activity

- Gross Alpha MCL of 15 pCi/L
  - Gross alpha test and MCL is a “proxy” for *all radium* isotopes and other radioactive elements.
  - Compliance **excludes radon** and **uranium** activity.
    - Radon is not a factor because it is assumed to volatilize before analysis.
    - Uranium not considered in the Gross Alpha MCL because the risk is greatest from more active elements like radium.

Gross Alpha Compliance

To determine compliance with the gross alpha MCL, the total uranium activity is subtracted from the measured gross alpha activity, resulting in the "Adjusted Gross Alpha".

Gross Alpha Adjustment for Uranium

EPA allows for the conversion of uranium from mass to alpha activity directly using the single factor of: 0.672 pCi/ug of measured U mass reported in μg/L to obtain “activity”.

This assumes a 1:1 ratio between U^{234} and U^{238} isotopes…a conservative assumption.

Adjusted Gross Alpha MCL: 15 pCi/L

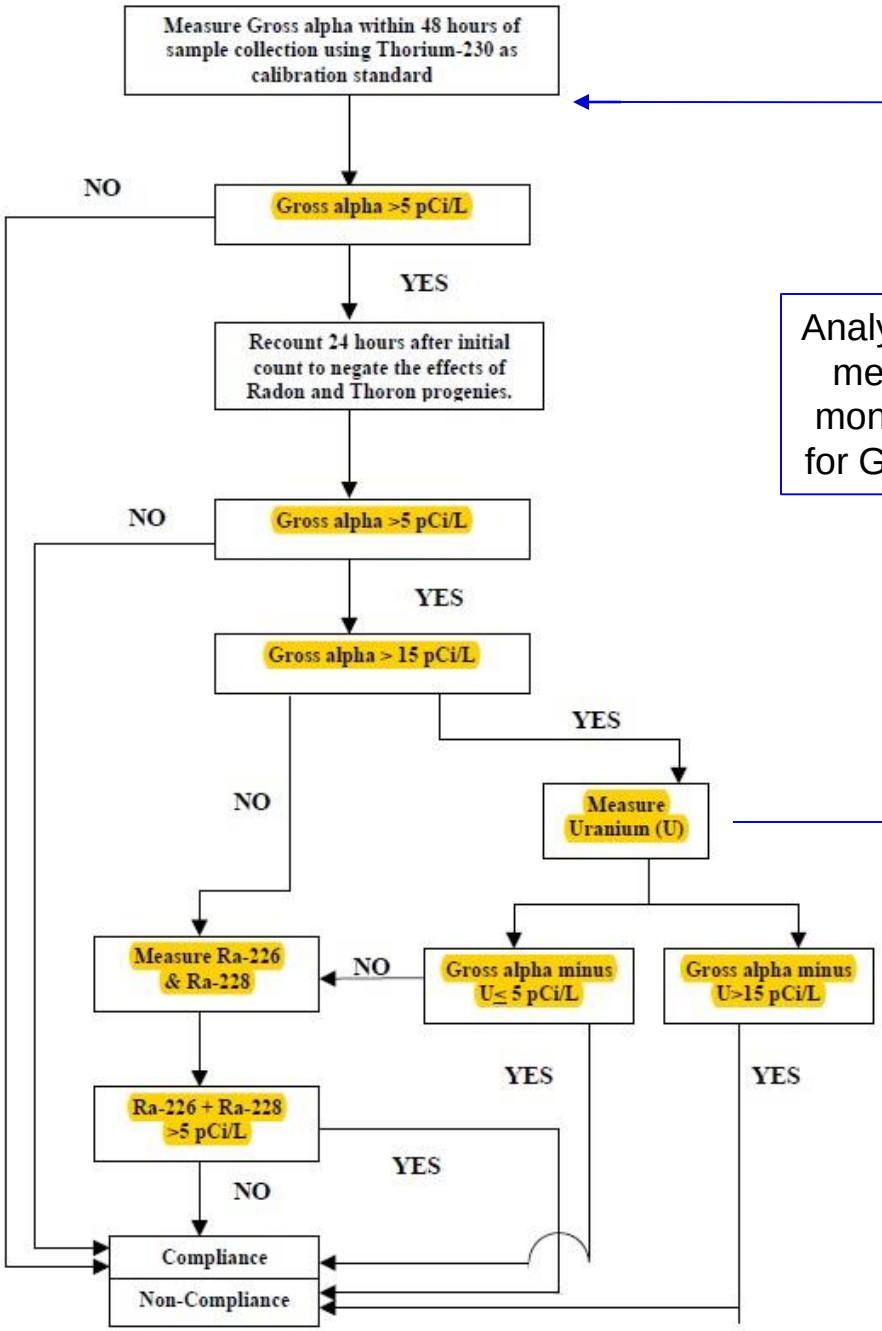
= Gross Alpha – U (ug/L) x 0.67 pCi/ug

Example:

Gross Alpha = 24 pCi/L
Uranium mass = 22 ug/L
Uranium activity = 22 x 0.67 = 15 pCi/L
Adj Gross Alpha = 24-15 = 9 pCi/L

In this case, no MCL exceedance for Uranium or Gross Alpha

Figure 1: Flow Chart for Typical Drinking Water Compliance Testing Scheme
Using the 48-Hour Rapid Gross Alpha Test



Analyze Uranium with other metals to save time and money rather than waiting for Gross Alpha > 15 pCi/L.

Gross Alpha Exceedance in Public Wells

14 Public Water Systems in Northern NJ (up to 330 pCi/L):

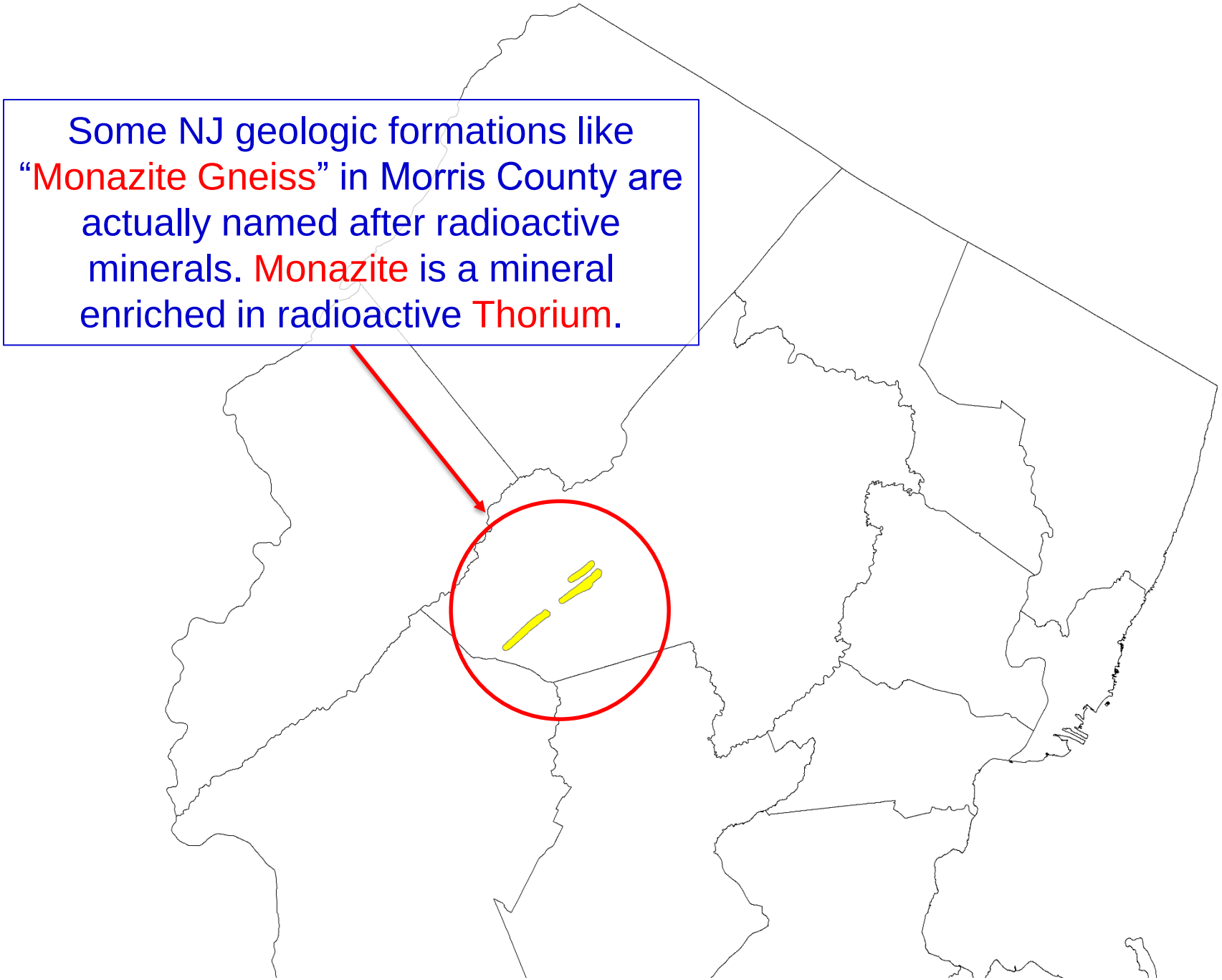
- Vernon
- Sparta
- Byram
- West Milford
- Randolph
- Rockaway
- Stillwater
- Allamuchy
- Harmony

Uranium Exceedance in Public Wells

4 Public Water Systems in Northern NJ (up to 222 ug/L):

- Vernon
- Byram

Some NJ geologic formations like "Monazite Gneiss" in Morris County are actually named after radioactive minerals. Monazite is a mineral enriched in radioactive Thorium.



VERNON TOWNSHIP

NJ Health
New Jersey Department of Health

VERNON TOWNSHIP, NJ DEPARTMENT OF HEALTH, AND NJ GEOLOGICAL AND WATER SURVEY

FREE PRIVATE WELL TESTING

SEPTEMBER 14th - 28th

for Gross Alpha and Radon in Water
for the First 100 Vernon Township Residents to Schedule

To schedule well sampling, call or email:

Emily at RAdata: 973-927-7303
elaura@radata.com

Only the first 100 residents who have samples collected by September 28th will obtain free testing.

What are Gross Alpha and Radon?

- Gross Alpha is a general test for radioactivity in water. Radon is a radioactive gas that can be found in well water.
- High Gross Alpha indicates the presence of radium and/or uranium in water.
- The geology in parts of Vernon Township may make your well water vulnerable to high levels of Gross Alpha and Radon.

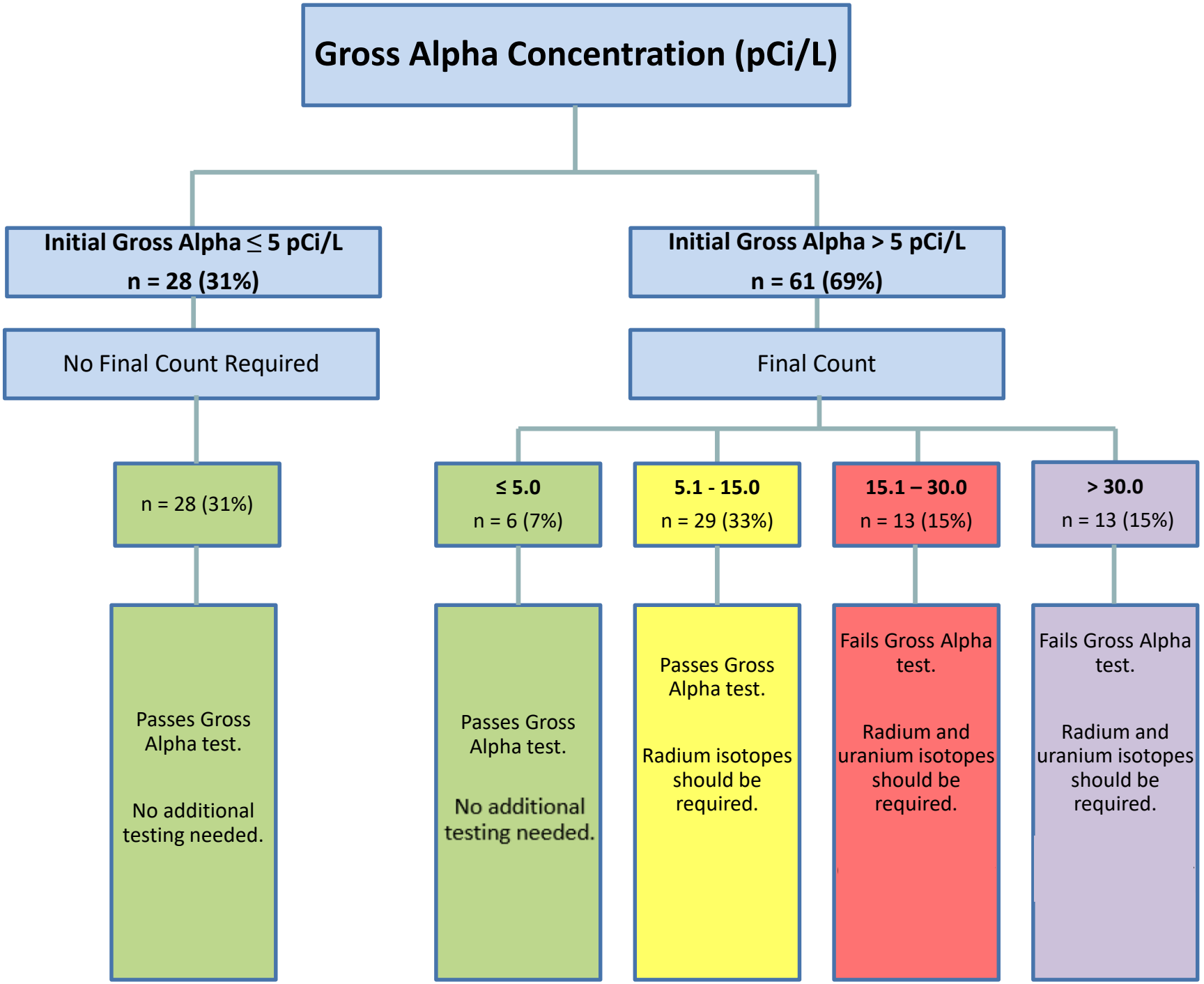
What are the potential health risks?

- Radium increases the risk of bone and sinus cancer.
- Uranium can effect kidney function.
- Radon increases the risk of lung cancer.

Why should I test?

- Testing Gross Alpha and Radon in your private well water is important to protect your family's health.
- Take advantage of this free (CDC-funded) water test ($300 value).
- All testing is voluntary. Individual results are confidential and will only be provided to the well owner.

Do you have questions? Call or email Dr. Steve Spayd at the NJ Geological and Water Survey.
Phone: 609-633-1039 E-mail: steve.spayd@dep.nj.gov


Gross Alpha Concentration (pCi/L)
Initial Gross Alpha ≤ 5 pCi/L
n = 28 (31%)
Initial Gross Alpha > 5 pCi/L
n = 61 (69%)
No Final Count Required
Final Count
n = 28 (31%)
≤ 5.0
n = 6 (7%)
5.1 - 15.0
n = 29 (33%)
15.1 – 30.0
n = 13 (15%)
> 30.0
n = 13 (15%)
Passes Gross Alpha test.
No additional testing needed.
Passes Gross Alpha test.
No additional testing needed.
Passes Gross Alpha test.
Radium isotopes should be required.
Fails Gross Alpha test.
Radium and uranium isotopes should be required.
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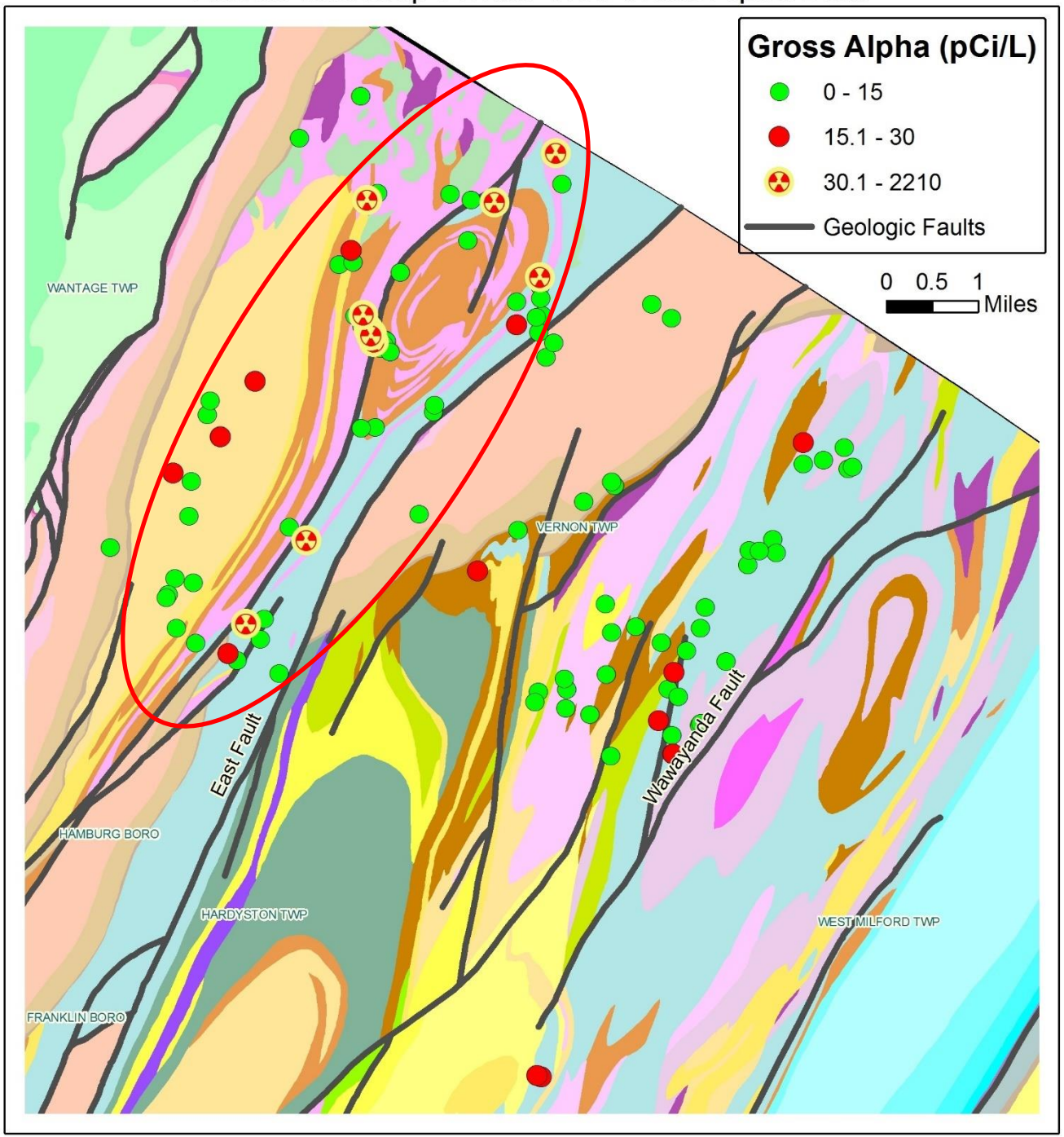
Vernon Township Private Well Gross Alpha Data



Data: Sept 2016

Water Treatment Options

New Jersey Geological Survey — Information Circular

Arsenic Water Treatment for Residential Wells in New Jersey

ARSENIC

Arsenic has been found to occur in well water of the Piedmont Physiographic Province of New Jersey (Figure 1) at levels exceeding the drinking water standard. Research by the NJ Geological Survey (NJGS) indicates the arsenic is predominantly naturally occurring.

Arsenic is a toxic element that is known to increase the risk of adverse health effects in people who drink water containing it. Arsenic is a known human carcinogen that causes cancer of the skin, bladder, lung, kidney, and liver. It also causes increased risk of cardiovascular disease, peripheral neuropathy, skin hyperpigmentation and keratoses, and diabetes. The major exposure pathway for arsenic in residential well water is drinking and cooking with the untreated water. There may also be exposure from other uses of water in the home through bathing, showering, and brushing teeth. The NJ Department of Environmental Protection (NJDEP) adopted 5 ppb as the arsenic drinking water standard in New Jersey, effective in January 2006.

TESTING

Arsenic in well water is colorless, odorless, and tasteless. The only way to identify its presence is to have the water specifically tested for arsenic. You should have your water tested for arsenic if you have your own well and live in the shaded area of the map in Figure 1. Water testing labs can usually be found in the telephone book under "Laboratories-Testing" or "Water Analysis." A list of certified labs can also be found on the Private Well Testing Act web site at http://www.state.nj.us/dep/pwta/. Use a lab that is certified to test drinking water for arsenic and can provide a method detection limit (MDL) of 3 ppb or lower. The lab will report the total arsenic concentration. Although arsenic in New Jersey well water has been found to occur in two species commonly referred to as As3 and As5, the tests for these species are difficult and not widely available from commercial labs at this time. For this reason, if your well requires arsenic treatment, it is important to choose a treatment system that removes both arsenic species.

Confirm your arsenic level by re-sampling your water for arsenic. If you have tested your well and the arsenic level is reported to be greater than 5 ppb, you should re-test to confirm the result before obtaining a treatment system. When re-sampling for arsenic, also test for pH, iron, manganese, sulfate, and silica, as their levels need to be known when designing your arsenic treatment system.

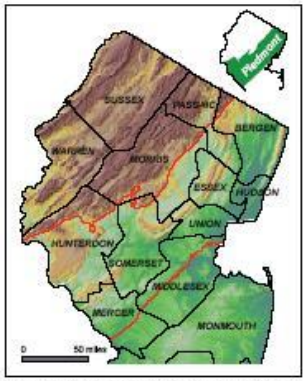


Figure 1. Location of the Piedmont Physiographic Province (shaded area in upper illustration) and color-shaded relief map (lower illustration) of northern New Jersey

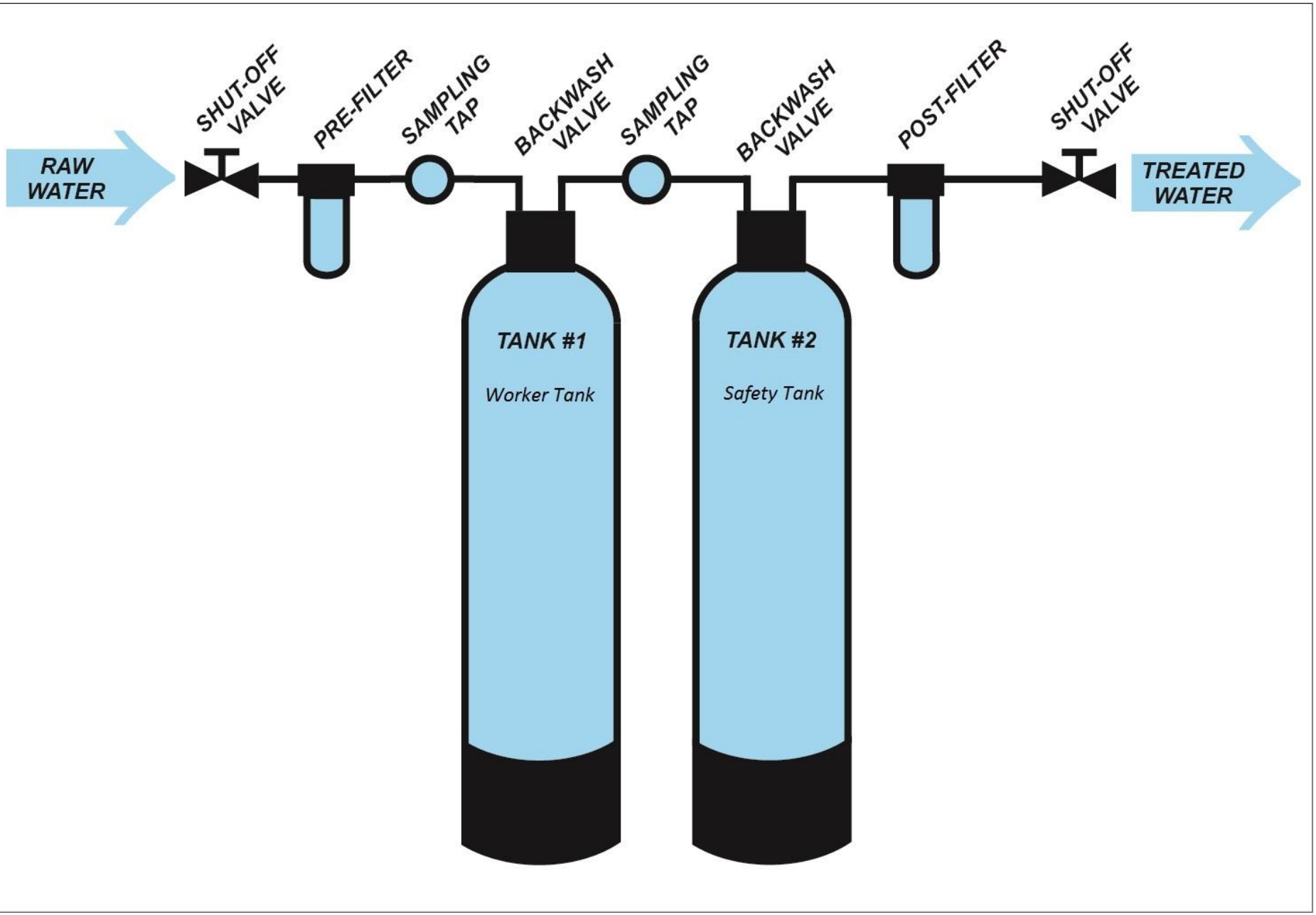
TREATMENT

NJDEP tested and evaluated treatment systems to determine the most efficient, cost effective, user friendly, and environmentally sound water treatment technologies to remove arsenic from residential well water in New Jersey. Arsenic removal requires special considerations. Water softeners and granular activated carbon do not remove arsenic. As of the publication date, the research has resulted in the following treatment guidance.

The preferred treatment technology for arsenic removal in New Jersey is a whole-house granular ferric adsorption system as shown in the below table. It effectively removes both arsenic species from all water in the home, is easy to operate and maintain, and the arsenic is not returned to the environment via regeneration. This type of system is called a "Point-of-Entry" system because the water is treated where it enters the home and all the water in the home is treated. This type of system should be installed as shown in Figure 2. The system consists of a shut-off valve, a 5-micron sediment pre-filter, a raw water sampling tap, two 10x40 inch or 9x48 inch tanks each containing at least one cubic foot of adsorption media (if arsenic concentrations are greater than 50 ppb, a greater volume of media should be considered in consultation with your water treatment professional), backwash control valves on each tank, a sampling tap between the tanks, and a shut-off valve after the system. The system

Arsenic Treatment Option Summary

Treatment Type	Preferred	Process & Maintenance	Chemical Use	Waste Generated	Arsenic Species Removed	Typical Media Life	Average Installation Cost	Average Maintenance Cost
Granular Ferric Adsorption Whole House	1st Choice	Simple	None	Low	As3 & As5	2-3 Years	$2,740	$0.67-1.00/day
Gran Ferric Single Tap Cartridges	2nd Choice	Simple	None	Low	As3 & As5	1 year	$365	$0.32/day
Anion Exchange Whole House	No	Complex	Salt	High	As5 Only	10 Years	$2,000	$0.27/day
Reverse Osmosis Single Tap	No	Moderate	Disinfectant	Low	As5 Only	3 Years	$700	$0.33/day


RAW WATER
SHUT-OFF VALVE
PRE-FILTER
SAMPLING TAP
BACKWASH VALVE
SAMPLING TAP
BACKWASH VALVE
POST-FILTER
SHUT-OFF VALVE
TREATED WATER
TANK #1
Worker Tank
TANK #2
Safety Tank

Whole House Arsenic Water Treatment

Cost:
$3,000

Water Treatment That Works for Radioactive Elements

- Radium:
  - Water Softener (Cation Exchange) ($1,500)
  - Reverse Osmosis (POU) ($800)

- Uranium:
  - Anion Exchange (followed by Neutralizer) ($2,000)
  - Reverse Osmosis (POU) ($800)

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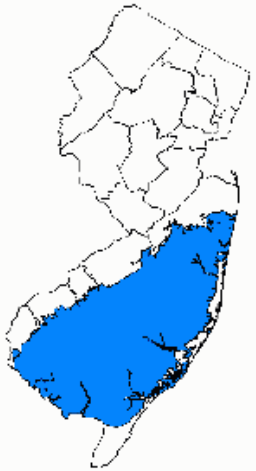
A South Jersey Homeowner's Guide to Radioactivity in Drinking Water: Radium

Radioactive substances in ground water, such as radium, uranium and thorium, occur naturally. They are present at least to some extent in almost all rocks and radium, in particular, dissolves more readily into ground water in contact with sands or soils. The acidity of the water, which may be increased by the presence of elevated levels of nitrates associated with agricultural land use, is believed to increase the amount of radium that dissolves into ground water from contact with sands and soils.



Sampling of public and private wells that draw water from southern New Jersey's Cohansey aquifer has shown elevated levels of naturally occurring radioactivity. The aquifer, sometimes referred to as the Kirkwood-Cohansey aquifer, is present in all, or parts of Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Monmouth, Ocean and Salem counties (see map at right). Elevated levels of radioactivity most recently were found in the area of Dover township, Ocean County, where an investigation is under way into specific childhood cancers in that area. It is important to note, however, that radioactivity in drinking water, especially at these low concentrations, is not known to cause these types of cancers.

Results from investigations in Dover Township, Ocean County, which used a new testing procedure that detects radiation from short-lived radioactive substances, indicated that elevated levels of radioactivity existed in some area drinking water supplies. Consequently, the N. J. Department of Environmental Protection and the U. S. Geological Survey conducted studies to better understand the presence of radioactivity in this aquifer. The results of these studies confirmed that Radium 226, 228 and 224 may be found in elevated concentrations in parts of the Cohansey aquifer.

Radioactivity in drinking water is not a new phenomenon, having been present to some extent for thousands of years. Nevertheless, exposure to radium over a long period of time is believed to increase one's lifetime risk of developing certain types of cancer. Therefore, homeowners should be aware of the steps they might wish to take to test their private drinking water wells for radioactivity and to reduce their exposure.

Revised April 2004

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A North Jersey Homeowner's Guide to Radioactivity in Drinking Water: Uranium

Naturally occurring radioactive substances are frequently found in ground water in New Jersey. They are present at least to some extent in almost all rocks and soils. Radioactivity in drinking water is not a new phenomenon, having been present to some extent since the earth was formed. Despite this history, uranium in drinking water above the standard may be harmful to your health. Radionuclide testing of public drinking water systems has been required since the 1970's, however, uranium testing has not been required until recently. Concentrations of uranium in drinking water above the US Environmental Protection Agency's (EPA's) Maximum Contaminant Level (MCL) over a long period of time is believed to cause kidney damage and to increase one's lifetime risk of developing certain types of cancer. Therefore, this homeowner's guide was developed to provide important information for homeowners who are interested in testing their private drinking water wells for radioactivity and reducing their exposure.

Geologically, high levels of uranium in drinking water are most likely to be found in the Highlands Province and neighboring regions of North Jersey. It is also possible for radium and radon in water to be found in this area. The Highlands Province lies within the southeastern portions of Sussex and Warren Counties, as well as major portions of Hunterdon, Morris and Passaic and small parts of Bergen and Somerset. In Pennsylvania this region is called the Reading Prong while in New York, it is called the Hudson Highlands.

http://www.nj.gov/dep/rpp/download/urwater.pdf

Summary

Expand PWTA Testing Requirements

- Uranium Testing: North Jersey
- Gross Alpha Testing: Statewide
- Arsenic Testing: Statewide

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