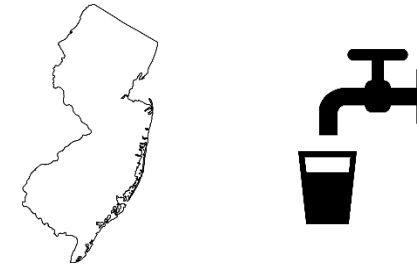


Thank you for taking the time to complete this survey!

Please return this survey in the envelope provided.



New Jersey Well Water Survey

Instructions

- ✓ Please have an **adult** in your home complete the survey.
- ✓ Answer survey items for your home **at this mailing address**.
- ✓ Choose the answer that is the closest fit. **There are no right or wrong answers.**
- ✓ Please return the completed survey in the enclosed postage-paid envelope.

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE



PLEASE START HERE

1) Does this property have a well that supplies water to the house?

- Yes → Please continue
- No → Please stop and return this survey in the postage-paid envelope

2) How often do you use this well for drinking water?

- Rarely or Never
- Sometimes
- Mostly or Always

3) How satisfied are you with your **unfiltered, untreated, unsoftened** well water?

For each statement please indicate how much you agree. (Circle one number for each)

	Disagree Strongly	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Agree Strongly
The overall quality of my untreated water is good	1	2	3	4	5	6
I like my untreated well water (e.g. smell, taste, looks)	1	2	3	4	5	6
My untreated well water is perfectly safe to drink	1	2	3	4	5	6

4) During your real estate transaction (when you bought or rented this current residence), was your well water tested by a lab?

- Yes → Please continue with question 5
- No (or don't know) → Have you tested your water for **arsenic** anytime since?
 - Yes → Please continue with question 5
 - No → Please skip to question 14 on page 4

27) What is the highest level of formal education you have completed?

- Some high school or less
- High school/GED degree
- Some college
- Technical/Community College degree
- Bachelor's degree
- Some graduate school
- Graduate degree

28) What is your employment situation?

- Working full-time
- Working part-time
- Retired
- Unemployed
- Student
- Other (please specify): _____

29) What was your total gross household income in 2016?

- Under \$25,000
- \$25,000 - \$50,000
- \$50,000 - \$75,000
- \$75,000 - \$100,000
- \$100,000 - \$125,000
- \$125,000 - \$150,000
- \$150,000 - \$175,000
- \$175,000 - \$200,000
- Higher than \$200,000

30) How many **adults** age 18 or older, including you, currently live in your home? ____

31) How many **children/youth** age 17 or younger currently live in your home? _____

32) If there are children in the home, what is the **age of the youngest child**? _____

22) Where do you look for information to help you manage the safety and quality of your well water? (Fill in the corresponding letter to indicate each choice)

___ 1st choice ___ 2nd choice ___ 3rd choice

A. Online (website)	F. Water testing laboratory
B. NJ Department of Health	G. Well drilling company
C. NJ Department of Environmental Protection	H. Water treatment company
D. County/Town/Municipality office	I. Physician/Health Clinic
E. Other government agency	J. Other (write in) _____

About you and your home:

23) Which of the following best describes the property at this mailing address?

- My home that I own
- My home that I rent
- Vacation or seasonal home
 - ↳ How many months do you reside at this address per year?
_____MONTHS
- Business only
- Other _____

24) How many years have you lived in this home? _____YEARS

25) In what year were you born? _____

26) What is your gender?

- Male
- Female

5) Did that test show a problem with any of the following? (Choose ALL that apply)

<input type="checkbox"/> Arsenic	<input type="checkbox"/> Hardness
<input type="checkbox"/> Bacteria	<input type="checkbox"/> Manganese
<input type="checkbox"/> Iron	<input type="checkbox"/> Naturally occurring radioactive elements (Gross Alpha)
<input type="checkbox"/> Nitrates	<input type="checkbox"/> Other (write in) _____
<input type="checkbox"/> Don't Know	<input type="checkbox"/> No problems

6) What was the arsenic level measured for your well?

- 5 µg/L (ppb) or less
- between 5 and 10 µg/L
- between 10 and 25 µg/L
- between 25 and 50 µg/L
- greater than 50 µg/L
- Don't remember

1 µg/L = 1 ppb = .001 mg/L
 µg/L = micrograms per liter
 ppb = parts per billion
 mg/L = milligrams per liter

7) How easy was it to understand your well water test results?

- Very easy
- Easy
- Neither Easy nor Difficult
- Difficult
- Very Difficult

8) If your water test results were difficult to understand, please explain which part(s). _____

9) Have you discussed the arsenic in your well water with anyone?

(Please choose ALL that apply)

<input type="checkbox"/> Real estate agent	<input type="checkbox"/> Neighbor
<input type="checkbox"/> Testing lab representative	<input type="checkbox"/> Friend / Relative
<input type="checkbox"/> Water treatment professional	<input type="checkbox"/> Plumber / Well driller
<input type="checkbox"/> Local health department	<input type="checkbox"/> Other _____
<input type="checkbox"/> We have not discussed our arsenic level with anyone	

10) What is the highest arsenic level you consider safe for drinking?

- 5 µg/L (ppb) or less
- between 5 and 10 µg/L
- between 10 and 25 µg/L
- between 25 and 50 µg/L
- greater than 50 µg/L

11) Has a treatment system been installed to remove arsenic from your well water?

- Yes, installed by me/my family → Skip to question 14 on page 4
- Yes, installed by the previous owner or landlord → Skip to question 14 on page 4
- No
- Don't know

12) If water treatment for arsenic was not installed, why not? (Choose ALL that apply)

- Previous owner refused
- I am not concerned about the arsenic level in my water
- I didn't know what kind of treatment to get
- I didn't know who to contact
- Treatment options were too expensive
- I haven't gotten around to installing treatment yet, but I intend to
- We drink only bottled water to lower our arsenic exposure
- Other (write in) _____

13) Which of the following would prompt you to treat for arsenic? (ALL that apply)

- If arsenic caused a change in the taste, smell, or appearance of my water
- If a laboratory test showed my arsenic level has increased above what it is now
- Learning that my neighbors are treating their well water for arsenic
- An interest-free loan for a well water treatment system
- Free or subsidized water treatment based on my income
- Needing to sell or rent my home
- A new baby or child living in or visiting my home
- If a household member were diagnosed with a new disease or health condition
- Learning that arsenic in my drinking water could increase my risk for cancer
- Being recommended to treat by my doctor
- Other (write in) _____

	Disagree Strongly	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Agree Strongly
It is hard to compare the pros and cons of arsenic treatment methods	1	2	3	4	5	6
Local authorities have advised me to not drink my well water untreated	1	2	3	4	5	6
I feel a personal obligation to make sure our well water is safe to drink	1	2	3	4	5	6
My neighbors would expect me to treat my well water	1	2	3	4	5	6
I feel worried about my well arsenic level	1	2	3	4	5	6
I know how to find a company to install a water treatment system for arsenic	1	2	3	4	5	6
I am confident I can choose an appropriate water treatment system	1	2	3	4	5	6
I am confident I can maintain a water treatment system, even if there are additional costs	1	2	3	4	5	6
I am committed to decreasing our arsenic exposure	1	2	3	4	5	6

	Disagree Strongly	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Agree Strongly
There is nothing I can do about the arsenic level in my well water	1	2	3	4	5	6
I know someone else with a well arsenic problem	1	2	3	4	5	6
Our well arsenic level can change over time	1	2	3	4	5	6
Drinking less of our untreated water is better for our health	1	2	3	4	5	6
Reducing arsenic in our drinking water would increase our home value	1	2	3	4	5	6
I feel concerned about our well arsenic level	1	2	3	4	5	6
Treating my water is good for my health	1	2	3	4	5	6
Treating my water is too expensive	1	2	3	4	5	6
Treating my water is too much hassle	1	2	3	4	5	6
Treating my well water reduces my risk for disease	1	2	3	4	5	6
I believe some of my neighbors treat their well water	1	2	3	4	5	6

14) Please select *all that apply* regarding the filters or treatments that you currently use on your well water.

- We don't use any treatment → *Please skip to question 21 on page 5*
- Treat at point of use/under sink (*check which types*)
 - ↳ Carbon filter (e.g. Brita pitcher, faucet-mount, refrigerator filter)
 - Reverse osmosis
 - Distillation
 - Other _____
 - Adsorbent media (Iron-oxide filter)
 - Don't know
- Treat all water in the home (*check which types*)
 - ↳ Water Softener
 - Reverse osmosis
 - Distillation
 - Chlorinator/ UV filter
 - Sediment filter
 - Adsorbent media (Iron-oxide filter)
 - Don't know
 - Other _____
- We drink only purchased bottled water
- Don't know

15) How much did this treatment system cost? _____

16) When was the treatment system installed? (year) _____

17) Why did you choose to treat your water this way? (Please choose ALL that apply)

- Results of laboratory test showed that we need treatment for: (*check ALL that apply*)
 - ↳ Arsenic
 - Iron
 - Manganese
 - Hardness
 - Other _____
 - Bacteria
 - Gross Alpha
 - Nitrates/Nitrites
 - Don't know
- Didn't like the taste
- Sediment in water
- Came as is with purchase of the home
- There are children/babies/pregnant women in our home
- Recommended by well contractor or water treatment company
- Recommended by local health department or government agency
- Other _____
- Don't know

18) Has your **treated** tap water (from the kitchen sink) ever been tested by a lab?

- Yes → How long ago was the water last tested? _____
- No
- Don't Know

19) Do you perform routine maintenance on your water treatment system?

- As recommended
- Less often
- Much less often
- Rarely or never
- I don't know

20) Please describe your treatment maintenance process. i.e. who performs the maintenance, what do they do, how often, and at what cost?

21) Please tell us how much you agree or disagree with each of the following statements about your well water (For each statement please circle one number)

	Disagree Strongly	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Agree Strongly
Households in this area often have arsenic-contaminated well water	1	2	3	4	5	6
Our household is at risk of drinking arsenic-contaminated well water	1	2	3	4	5	6

	Disagree Strongly	Disagree Moderately	Disagree Slightly	Agree Slightly	Agree Moderately	Agree Strongly
Household members are exposed to arsenic from our well water if left untreated	1	2	3	4	5	6
The number of years we drink our untreated well water increases our arsenic-related health risks	1	2	3	4	5	6
Arsenic-related health effects from our well water are likely to be serious	1	2	3	4	5	6
The health risks from arsenic are overblown	1	2	3	4	5	6
I am not concerned about my well water because I have been drinking it a long time with no problem	1	2	3	4	5	6
Drinking water quality is not a priority for me	1	2	3	4	5	6
Children and pregnant women are especially vulnerable to arsenic-related health risks	1	2	3	4	5	6