

| Regulated Compounds | | | | | | | |
|--------------------------------------|-------|---------------------|--|-------------------------------------|----------------------------|------------|--|
| Compound | Units | Highest Level Found | Range of Detections (low - high) | Highest Level Allowed (MCL or MRDL) | Ideal Goal (MCLG or MRDLG) | Violation? | How it gets in the water |
| Barium | ppb | 33 | 33 | 2000 | 2000 | NO | Erosion of natural mineral deposits |
| Chlorine (as monochloramine) | ppm | 2.3 | 0.5 - 3.9 | 4 | 4 | NO | Water disinfectant |
| Copper ^[1] | ppb | 39 | 2 - 53 (no homes exceeded the AL) | AL = 1300 | 0 | NO | Corrosion of household plumbing |
| Fluoride | ppm | 1.3 | 0.8 - 1.3 | 4 | 4 | NO | Added to water to promote strong teeth |
| Lead ^[1] | ppb | 5 | 0 - 31 (2 of 61 homes exceeded the AL) | AL = 15 | 0 | NO | Corrosion of household plumbing |
| Nitrate as Nitrogen | ppm | 0.66 | 0.26 - 0.66 | 10 | 10 | NO | Runoff from fertilizer use |
| Nitrite as Nitrogen | ppm | 0.16 | 0.0 - 0.16 | 1 | 1 | NO | Runoff from fertilizer use |
| Total Coliform | % | 1 | 0 - 1 | 5 | 0 | NO | Naturally present in the environment |
| Total Haloacetic Acids | ppb | 5.8 ^[2] | 2.9 - 11 ^[3] | 60 ^[4] | 0 | NO | Byproduct of water disinfection |
| Total Trihalomethanes ^[7] | ppb | 9.2 ^[2] | 4.9 - 14 ^[3] | 80 ^[4] | 0 | NO | Byproduct of water disinfection |
| Turbidity ^[5] | NTU | 0.16 | 0.05 - 0.16 | TT = 0.3 NTU | N/A | NO | Suspended matter from soil runoff |
| Secondary Compounds | | | | | | | |
| Sulfate | ppm | 28 | 28 | 250 | N/A | NO | Erosion of natural mineral deposits |
| Sodium | ppm | 72 | 72 | 20 ^[6] | N/A | NO | Road salt |

Notes

- 1: The Action Level (AL) and the highest level found are based on the 90th percentile of the samples. Most recent lead and copper results were obtained in 2011.
- 2: Highest level detected is based on average of four quarterly samples as required by regulation.
- 3: Highest value in range is based on individual samples, rather than averages.
- 4: Highest level allowed (MCL) for this substance is based on the average of four quarterly samples.
- 5: TT = Treatment Technique: Turbidity is a measure of treatment performance and is regulated as a treatment technique. 100% of samples met the TT requirement.
- 6: An 8 ounce glass of Cambridge water contains about 17 milligrams of sodium, well within the FDA's "very low sodium" category.
- 7: No other volatile organic compounds (VOCs) were detected other than trihalomethanes.

Terms & Abbreviations

- AL:** Action Level – The concentration of a contaminant that, if exceeded, triggers treatment or other requirements, which a water system must follow.
- MCL:** Maximum Contaminant Level – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- MCLG:** Maximum Contaminant Level Goal – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- MRDL:** Maximum Residual Disinfectant Level – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- MRDLG:** Maximum Residual Disinfectant Level Goal – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- N/A:** Not Available. An ideal goal has not been established by EPA or MassDEP for this compound.
- ND:** Not Detected
- NTU:** Nephelometric Turbidity Unit – A measure of the turbidity (or clarity) of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
- pCi/L:** Picocuries per liter. A measure of radiation.
- ppb:** Parts per Billion or micrograms per liter (ug/L)
- ppm:** Parts per Million or milligrams per liter (mg/L)
- TT:** Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water. Turbidity is a measure of treatment performance and is regulated as a treatment technique. 95% of our turbidity readings each month must be below 0.3 NTU.
- 90th Percentile:** 9 out of every 10 homes were at or below this level.

2012 Water Department Accomplishments

- Provided dozens of school programs, tours, open houses, Friends of Fresh Pond Reservation events, as well as presentations to colleges and universities and international visitors.
- Implemented an energy savings program that reduced demand charges by 20% and total electrical costs by 5.4% in one year.
- Rehabilitated more than 11,000 feet of water main and removed 11,300 feet of old 6-inch cast iron pipe that was not being used.
- Replaced 63 lead water services and 119 distribution system valves.
- Maintained a 99.9% in-service rating for fire hydrants.
- The Fresh Pond Reservation and Volunteer Stewardship Programs coordinated over 900 hours of volunteer work.
- Performed more than 62,000 water quality tests (that averages 170 tests every day!)
- Updated the Cambridge Watershed Hazardous Materials Emergency Response Atlas for Interstate 95 and Route 2 to make it more useful during emergency situations.