Cambridge Water Department
MA DEP PWS ID #3049000
250 Fresh Pond Parkway
Cambridge, MA 02138
www.cambridgema.gov/cwd

ECRWSS
Postal Customer
Cambridge, MA

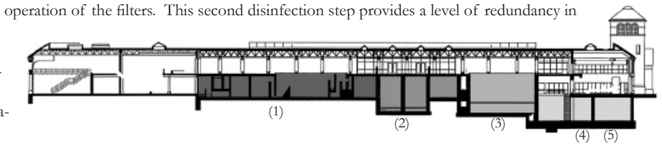
This report contains very important information about your drinking water. Please translate it, or speak with someone who understands it.

Este informe contiene information importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o heble con alguien que lo entienda.	Este relatorio contem informaçã muito importante sobre seu que bebendo água. Por favor traduza-o, ou fala com algué quem entende-o.	Questa relazione contiene delle informazioni molto impotaniti del suo che la bendo acqua. Per favore tradurrlo, o parlare con qualcuno che capisce esso.
이 보고서에는 귀하의 식수에 대한 중요한 내용이 실려있습니다. 그러므로 이 보고서를 이해할 수 있는 사람한테 번역해 달라고 부탁하시기 바랍니다.	Ce rapport contient des informations importantes à propos de votre eau potable. Demander à quelqu'un de traduire ces informations pour vous ou discuter avec une personne qui comprend ces informations.	此报告包含有关您的饮用水的重要信息。请人帮您翻译出来，或请看懂此报告的人将内容说给您听。

How do we treat your water?

The Walter J. Sullivan Water Purification Facility at Fresh Pond Reservation changes the incoming source waters of the Cambridge reservoir system into the drinking water that is delivered to your home or business. The raw water is treated to exceed State and Federal drinking water standards.

(1) Pretreatment: This includes the pre-oxidation with the application of ozone, rapid mix, coagulation and dissolved air flotation (DAF). These processes and a coagulant chemical, alum, remove: manganese, natural color, particles, algae, protozoa, viruses and bacteria from the water.
(2) Primary Ozone Disinfection: Fine bubbles of ozone are dissolved into the water and disinfect the water by killing bacteria, viruses, and protozoa. The ozone is generated in the plant and introduced into the water in a series of chambers that allow contact and mixing of the ozone with the water.
(3) Filtration using Granular Activated Carbon (GAC) Media: This step follows the ozone application to help remove any organic compounds by biological action in the filters and further polish the water by removing additional particles, color and protozoa.
(4) Chlorination/Chloramination: Kills bacteria that may develop during the normal operation of the filters. This second disinfection step provides a level of redundancy in the overall process and provides a constant disinfection level in the water in the distribution system.
(5) Post Treatment Chemical Addition: This includes the adjustment of pH for corrosion control and the addition of fluoride for dental health.
The water quality of our system is constantly monitored by CWD's State certified laboratory and by the DEP to determine the effectiveness of existing water treatment and to determine if any additional treatment is required.



Cross Connection Information

A cross connection is a connection between a drinking water pipe and a polluted source. The pollution can come from your own home. For instance, you're going to spray fertilizer on your lawn. You hook up your hose to the sprayer that contains the fertilizer. If the water pressure drops (say because of fire hydrant use in the City) when the hose is connected to the fertilizer, the fertilizer may be sucked back into the drinking water pipes through the hose. Using an attachment on your hose called a backflow-prevention device can prevent this problem.

The Cambridge Water Department recommends the installation of backflow prevention devices, such as a low cost hose bib vacuum breaker, for all inside and outside hose connections. You can purchase this at a hardware or plumbing supply store. This is a great way for you to help protect the water in your home as well as the drinking water system in our city!

For additional information on cross connections and on the status of our water system's cross connection program, please contact John Blouin, Cross Connection Supervisor, at the Cambridge Water Department at 617 349-4025 or jblouin@cambridgema.gov

Toilets run but they can't hide!

Automated Meter Reading (AMR) "High Read" Program

Let AMR "High-Read" help you find leaks and $ave money

The Cambridge Water Department's "High Read" notification program allows the Water Department to contact property owners soon after an incident of high usage is detected. Speedy notification will allow property owners to repair any leaks that may cause the high read, thus minimizing the impact on the Water and Sewer Bill.

The program needs customers to update contact information so the Water Department is able to contact property owners as soon as a "High Read" is detected. Please call Brian McCoy at 617-349-4737 or email him at HighReads@cambridgema.gov with your account number, phone number, mailing address and email address.

If you have any additional questions about your water supply, please contact Timothy W.D. MacDonald, Director of Water Operations at 617-349-4773

2011 Annual

Drinking Water Quality Report

City of Cambridge Water Department

Distributed - June 2012

To our Customers,

This report provides a summary of the quality of the drinking water that the Cambridge Water Department (CWD) produced in 2011. Included are the details about the drinking water sources, the content and quality of the water, and how Cambridge water compares to state and federal drinking water standards.

The most frequent question we receive after the release of this document is: "is Cambridge Water safe to drink?" The answer is simply YES; but if you haven't already, please try it, you will find that you like it.

I am please to provide this information and encourage you to contact the Water Department if you have any questions, comments or need further information about the City of Cambridge's drinking water.

Sincerely,

Stephen S. Corda (Sam)
Managing Director
Cambridge Water Department

2011 Water Department Accomplishments

- **CWD provided over 90 school programs, tours, open houses and Friends of Fresh Pond Reservation events.**
- **CWD produced over 4.7 billion gallons of high quality potable water to serve the City of Cambridge's needs in 2011.**
- **Rehabilitated over 5,000 feet of water main and eliminated approximately 5,000 feet of parallel old cast iron pipe.**
- **Replaced over 20 lead water services and repaired or replaced 50 distribution system valves.**
- **Recieved a $500,000 grant toward the purchase of Watershed lands.**
- **The Fresh Pond Stewardship Program coordinated over 700 hours of volunteer work.**
- **Completed the latest round of Lead and Copper Rule Sampling from 100 water user homes. Cambridge continues to be in compliance with the Rule.**

This 2011 Annual Drinking Water Report Includes

24 Hour Emergency/Customer Service Phone Number 617-349-4770

2011 Water Quality Data Summary

The water quality information presented in the table is from the most recent round of testing done in accordance with the regulations. All data shown was collected during the last calendar year unless otherwise noted in the table. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. The table below contains a summary of detected contaminants.

Contaminant	Highest Level Detected	Range	MCL	MCLG	Violation	How it gets in the water
Total Coliform	1 positive in two months	1 positive July 1 positive December	Greater than 5% in one month	zero	NO	Naturaly present in the environment
Turbidty	0.27	0.043 to 0.27	TT = 0.3 NTU	n/a	NO	Soil Runoff
	100% lower than MCL		TT=95% of samples <0.3		NO	
Disinfectant	**Highest Level Det.**		**MRDL**	**MRDLG**		
Chloramines (as Cl_2)	3.78	0.23 to 3.78	4 mg/l	4	NO	Water additive used to control microbes
Disinfection By-products	**Highest RAA**		**MCL**	**MCLG**		
Bromate	2	0 to 2.0	10 ppb	0	NO	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	8.9	0.76 to 8.9	80 ppb	n/a	NO	Byproduct of drinking water disinfection
Total Haloacetic Acids (THAA)	4.7	4.5 to 4.7	60 ppb	n/a	NO	Byproduct of drinking water disinfection
Inorganic Chemicals	**Highest Level Det.**	**Range**	**MCL**	**MCLG**		
Arsenic	0.3	0.3	10 ppb	0	NO	Erosion of natural deposits
Barium	0.035	0.035	2 mg/l	2	NO	Erosion of natural deposits
Chromium	2		100 ppb	100	NO	Erosion of natural deposits
Fluoride	1.27	0.91 to 1.27	4 mg/l	4	NO	Additive which promotes strong teeth
Nickel	1.000		100 ppb	n/a	NO	Erosion of natural deposits
Nitrate as Nitrogen	0.52	0.35 to 0.52	10 mg/l	10	NO	Runoff from fertilizer use.
Nitrite as Nitrogen	0.12	0 to 0.12	1 mg/l	1	NO	Runoff from fertilizer use.
Selenium	0.5		50 ppb	50	NO	Erosion of natural deposits
Sodium	76		n/a (mg/l)	n/a	NO	Road Salt
Unregulated Organic Chemicals	**Highest Level Det.**	**Range**	**Units**			
Bromoform	1	0.8 to 1.0	ppb	-	NO	Byproduct of drinking water disinfection
Bromodichloromethane	4	1.0 to 4.0	ppb	-	NO	Byproduct of drinking water disinfection
Chlorodibromomethane	5	1.0 to 5.0	ppb	-	NO	Byproduct of drinking water disinfection
Chloroform	4	0.6 to 4.0	ppb	-	NO	Byproduct of drinking water disinfection
Lead and Copper-2011 100 sites	**90% Value**	**Range**	**AL= 90% value**	**MCLG**		
Lead	5	0 - 31 (2 sites over the Action Level)	15 ppb	0	NO	Corrosion of household plumbing
Copper	0.039	0.002 - 0.053	1.3 mg/l	0	NO	Corrosion of household plumbing

Visit us on the Web at: www.cambridgema.gov/cwd

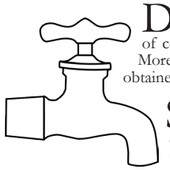
Important Information about sources of Drinking water and Drinking Water Contaminants from EPA & MassDEP

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, can be naturally-occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and farming.
- Pesticides and herbicides may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants include synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants can be naturally occurring or be the result of oil and gas production, and mining activities.

In order to ensure that tap water is safe to drink, MassDEP and US EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. FDA and the Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.



Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contamination. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791.)

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Cambridge Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested for free. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead. Home Lead Testing Kits are available for pick-up at 250 Fresh Pond Parkway for Cambridge residents.

Terms & Abbreviations

mg/l	Milligrams per liter or Parts per Million (ppm)
ppb	Parts per Billion or micrograms per liter (ug/l)
NTU	Nephelometric Turbidity Unit- the amount of light dispersed as it passes through the column of water. Turbidity is a measurement of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
TT	Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water. Filtration is a partical removal process. 95% of readings each month must be below the TT of 0.3 NTU, 100% compliance in 2011.
n/a	This compound does not have a range a detections because there was only one required sample
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 or: 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.
MRDG	Maximum Residual Disinfectant Level- The highest level of a disinfectant allowed in drinking water. There is convincing eveidence that the addition of a disinfectant is neccessary for control of microbial contaninants.
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 benifits of the use of disinfectants to control microbial contaminants.
AL	Action Level - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements, which a water system must follow.
90% Value	Out of every 10 homes, 9 were at or below this level
RAA	Running annual average

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.

Welcome Fresh Pond Reservation Volunteers!

We are in the midst of a major revitalization! Over the next few years we will be monitoring and maintaining newly restored areas and controlling invasive plants to make sure that native plants grow and spread. Free workshops on native and non-native invasive plants with the New England Wildflower Society are offered throughout the year on Monday nights to complement the many exciting events offered by the Friends of Fresh Pond Reservation.

Ways to volunteer your time at Fresh Pond Reservation:

Reservation Stewards: For those interested in helping out on a regular basis (once or twice a week, though occasional volunteers are welcome). Projects may include plant and wildlife monitoring, weeding, planting, installing bird boxes, monitoring and releasing beetles to control Purple Loosestrife, tree and plant inventories, monitoring for Asian Longhorn Beetle, and public outreach projects. Join us on Monday evenings 5:30 - 7:30 & Thursday mornings 10 - 12. Meet at the volunteer trailer in the parking lot in front of the Water Department front door. To join us contact Deb at 617. 349. 6489 or email fpr@cambridgema.gov.

Pond Partners: For large groups or individuals interested in helping out at Fresh Pond on a one-time basis or more, the Pond Partners program allows groups of volunteers to spend a day or several days on the Reservation helping with a specific task. Working directly with the Fresh Pond Reservation Ranger, Pond Partners help out with large scale projects such as landscaping, helping monitor and inventory natural resources, invasive species control, and trail maintenance. To schedule a workday, contact the Chief Ranger, Jean Rogers at 617.349.4793 or email: jrogers@cambridgema.gov

10 Things you can do to protect your water Supply

Don't dump oil or any other substances in street drains

Use organic, low phosphorus fertilizers sparingly, and never before rain

Wash your car at a commercial car wash where waste-water is treated instead of at home.

Avoid using pesticide, herbicide or other chemical treatments for your landscaping or gardening

Plant your yard with drought-tolerant native plants, not grass

Pick up after your pet

Do not flush old medication

Properly maintain your septic system

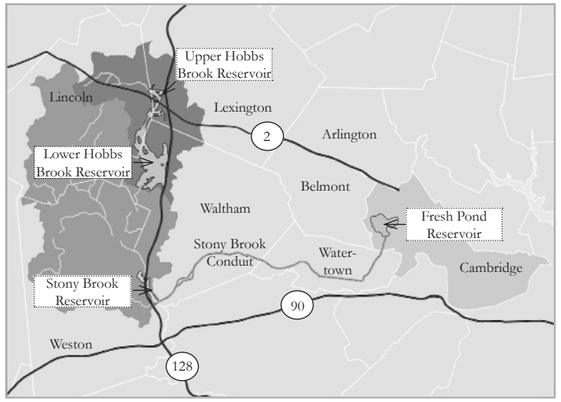
If deicing, use alternative deicers such as calcium magnesium acetate, avoid table or rock salt.

Don't litter and yes, this includes cigarette butts.

Where does your water come from?

Reservoirs

The Cambridge System extends across four towns and includes four bodies of water. The Hobbs Brook Upper Reservoir (PWS ID - 3049000-04S) flows into the Hobbs Brook Lower Reservoir (3049000-01S), and is combined with water from the Stony Brook Reservoir (3049000-03S). After this, the combined water flows to the Fresh Pond Reservoir (3049000-02S) via an underground aqueduct. The watershed for the Stony Brook Reservoir extends from Weston north into the town of Lincoln. The Hobbs Brook Reservoirs' watersheds include areas of Waltham, Lexington, and Lincoln. The functional watershed for the Fresh Pond Reservoir is now completely within the City of Cambridge, though it originally included areas of Watertown and Belmont. This smaller functional watershed is the result of storm water drainage modifications that divert street runoff away from the reservoir. The total capacity of the two up-country reservoirs is 3095 million gallons with and additional 1308 million gallons of water storage in Fresh Pond Reservoir. Our water supply is also backed up by distribution system interconnects with the Massachusetts Water Resource Authority (MWRA) water system. For a more detailed locus map of water sources and their protection areas please visit http://www.cambridgema.gov/cwd/depmaps.cfm



Watershed Protection

The City of Cambridge drinking water reservoirs drain highly urbanized areas which include several major highways. The watershed has a long history of transportation, commercial, industrial and residential land uses and has a high percentage of impervious surfaces. The reservoirs receive runoff carrying pollutants associated with developed land uses such as heavy metals, salt and other contaminants from roads and parking lots, untreated sewage from illicit connections, exposed soils from construction sites, nutrients from fertilizers, failed septic systems, and combustion byproducts, and a wide range of chemicals from motor oil to caffeine. Immediate water quality is threatened by potential spills of hazardous materials from transport trucks on heavily trafficked highways. These potential spills could temporarily cripple the water supply and render source waters unusable. Groundwater contamination from State-regulated 21E sites, landfills, and mobile dissolved pollutants like chloride also threaten source water quality. In some areas, wildlife and domestic pets contribute to erosion and pathogen loading.

As defined in the Source Water Assessment Program, susceptibility is a measure of a water supply's potential to become contaminated due to land uses and activities within its recharge area. A source's susceptibility to contamination does not imply poor water quality, but does require program planning and implementation to minimize threats. Due to the developed nature and types of land uses within the water supply watershed, source waters have a "High" susceptibility to contamination.

A copy of the Cambridge SWAP can be found on the MADEP website at http://www.mass.gov/dep/water/drinking/neroreps.htm or at the Cambridge Water Department.

Want to learn more?

Fresh Pond Walkabouts -May 21, July 30, and August 27 at 6-7:30pm
Chip Norton, Watershed Manager for the Cambridge Water Depertent, will give a two mile walking tour of recently restored and soon to be restored areas at Fresh Pond Reservation. He will answer your questions, and use maps and diagrams to help illustrate the goals of the various projects, both completed and ongoing, at the reservation.

Fresh Pond Plant Walk-June 25, and August 20 at 6-7:30pm
Ted Elliman, Vegetation Managment Coordinator at New England Wildflower Society, will lead a walk in the Reservation discussing plants commonly found at Fresh Pond.

Treatment Plant Tours - June 4, July 9, Aug. 6, Sept. 10, Oct. 15 and Nov. 5. Tours run from 6 - 7:30pm
Timothy MacDonald, Director of Water Operations, will lead monthly tours of the City's beautiful treatment facility. Participants will learn about the range of Water Department activities that are required to manage, treat and deliver water to our customers. Learn how water that falls as rain in the suburbs 10 miles west of Cambridge is transported to Fresh Pond and transformed into drinking water for our city.

All tours and walkabouts start at the Walter J. Sullivan Water Purification Facility, 250 Fresh Pond Parkway, Cambridge, MA

Get involved!

Volunteer at t1he Fresh Pond Reservation
- Contact the Watershed Assistant by phone at 617-349-6489 or fpr@cambridgema.gov and visit http://www.cambridgema.gov/CWD/freshpond.cfm for more information

Become a Friend of Fresh Pond
- http://www.friendsoffreshpond.org/

Join us for a Water Board Meeting
- Usually on the 2nd Tuesday of each month, from 5-6:30 pm at the Walter J. Sullivan Water Purification Facility at 250 Fresh Pond Parkway For more information about dates of upcoming meetings and to review minutes from previous meetings please visit the Water Departments website, www.cambridgema.gov/CWD

Visit the Water Department Website
- www.cambridgema.gov/CWD