MASSACHUSETTS WATER RESOURCES AUTHORITY
100 First Avenue, Charlestown Navy Yard, Boston, MA 02129

WATER QUALITY UPDATE

An Analysis of September 2003 Sampling Data

For more information, please contact MWRA at (617) 242-5323, or visit www.mwra.com.

MWRA WATER QUALITY UPDATE

September 2003 Highlights

•**MWRA achieved CT disinfection requirements for the month** at both Ware Disinfection Facility (WDF) and Cosgrove Disinfection Facility (CDF). Chlorine dose at CDF remained at 1.4 mg/L. Dose at Norumbega remained at 1.5 mg/L. The running annual averages for DBPs are higher this year as compared to last year. CT results appear on Page 5. No community samples violated the Total Coliform Rule criteria. See Page 6. DBP results appear on Page 7.
•**Somerville had 90 discolored water complaints from the 10th to the 11th** when MWRA staff replaced a pipeline gasket and the isolation of the line caused reverse flows to the area.
•**Bird harassment and observation at Wachusett Reservoir was initiated on the 22nd**. DCR staff continued activities that included observation and harassment Monday through Friday from 7:30 AM to 3:30 PM. Boat-based harassment has been effective in keeping waterfowl away from Cosgrove Intake. Fecal coliform numbers at Cosgrove are below the standard of 20 cfu/ 100mL. See Page 3 for details.
•**A decade of planning, design, and construction** for $1.7 billion in improvements to MWRA's water system is nearing completion. Between October 27 and November 3, the Cosgrove Tunnel will be shut down and water will be supplied through the rehabilitated Wachusett Aqueduct, the new MetroWest Water Supply Tunnel, and the new Norumbega Covered Storage Tanks. These major changes, plus temporary bypass and treatment facilities, will allow connections to the Walnut Hill Water Treatment Plant, which is scheduled to go on line in December 2004, to be made over the winter.
During the transition period, there may be some observable water quality changes:

- pH and Alkalinity – The addition of soda ash and carbon dioxide will be temporarily disrupted during these system changes. Temporary drops in both pH and alkalinity are possible, especially between October 27 and November 3.
- Chlorine Levels – With the use of new treatment facilities, there may be slight changes in chlorine levels.
- Taste and Odor – While every effort is being made to avoid any change in taste or odor, consumers may detect a slight chlorine taste or odor. This will not affect the quality or safety of the water during the transition.
- **From October 27th through mid November, please ensure that you check pH, alkalinity, and chlorine levels daily for water to be used with all dialysis patients and other sensitive users during this time period.**

For testing purposes, a low flow of water has been maintained in the Wachusett Aqueduct, and for parts of two days in September a small amount of water was fed into the drinking water system. This water is disinfected and monitored, and met standards.

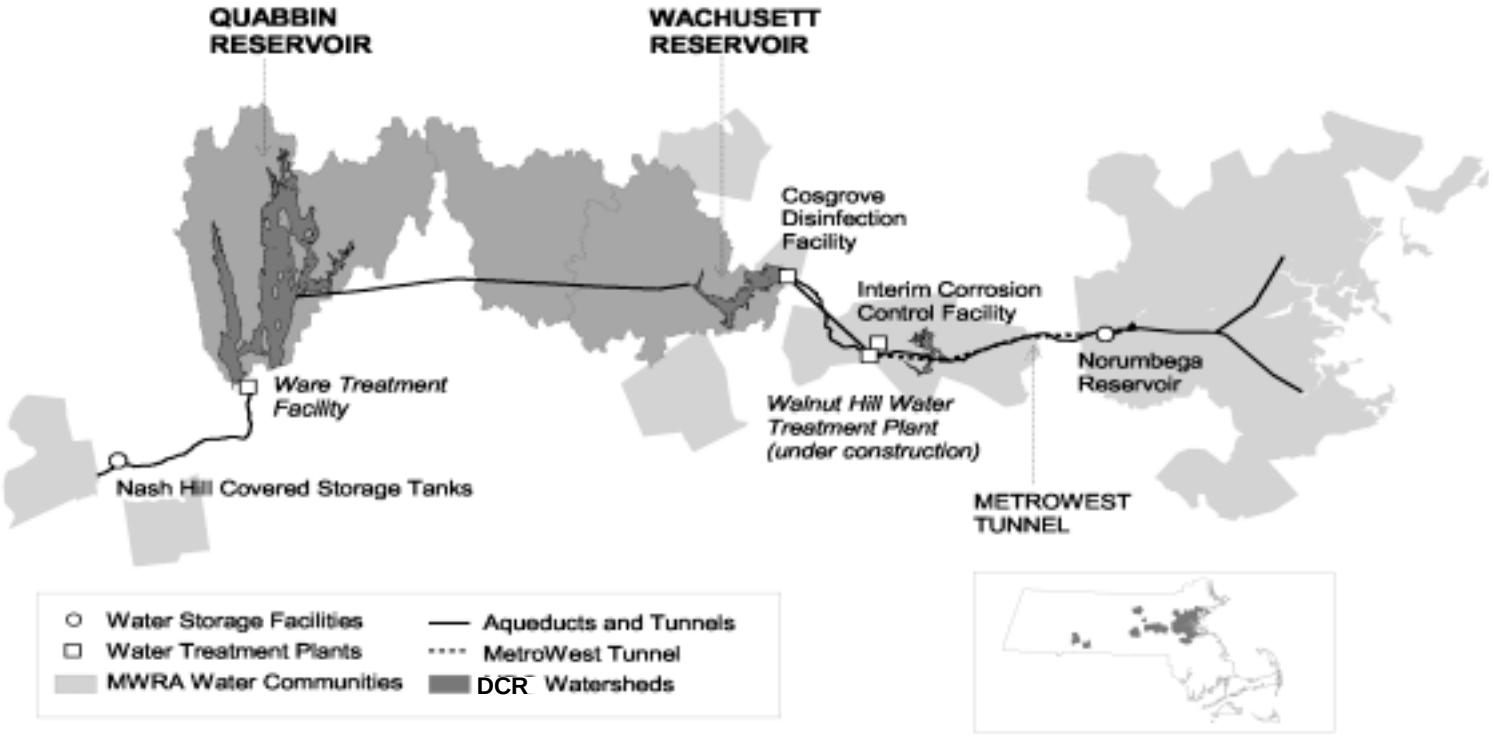
Release Date: October 20, 2003

Water Quality Update
This is a monthly report containing information about the quality of water supplied by MWRA. It provides a more detailed review of water quality than the annual water quality report that is mailed each June to customers in our service area. The report is available at www.mwra.com.

The Water System
MWRA provides about 250 million gallons of water each day to 46 cities and towns in Massachusetts. Each municipality is responsible for distributing the water within its own community. More than two million people are served by the MWRA water supply system.

Quabbin Reservoir is the primary source of water for our system and one of the country's largest water supply impoundments, with a capacity of 412 billion gallons. Quabbin water represents source water for the Chicopee Valley Aqueduct (CVA) system. Water is transferred from Quabbin Reservoir to the 65 billion gallon Wachusett Reservoir in Clinton via the Quabbin Aqueduct. Wachusett water represents source water for MetroWest and Metropolitan Boston communities. The watershed areas of the Quabbin and Wachusett Reservoirs total 401 square miles. The Department of Conservation and Recreation (DCR), which manages the watersheds, and MWRA are committed to protection of the water supply through aggressive watershed protection as the first line of defense against water contamination. Three-quarters of the watersheds are protected lands and over 80% are either forest or wetlands.

The map below indicates the location of reservoirs, treatment facilities, and service communities.



Indicators of Water Quality

Tests are conducted on water sampled at the source reservoirs (source or raw water) and also on water after treatment (treated water). MWRA routinely uses six general indicators of water quality: microbial, corrosiveness, disinfection by-products, turbidity and algae, disinfectant residual, and mineral analysis. Testing frequencies vary by parameter.

The Federal Safe Drinking Water Act (SDWA) sets standards for source and treated water quality. The standards relate to coliform, turbidity, watershed protection, disinfection and disinfection by-products, over 120 potential chemical contaminants, and waterborne disease outbreaks. MWRA monitors for these parameters on schedules ranging from daily to annually.

Customer communities must also meet certain standards under the SDWA concerning distribution of treated drinking water. The Total Coliform Rule (TCR) helps to alert communities to possible microbial contamination as well as the adequacy of residual disinfection within the local distribution system. MWRA tests over 1500 samples per month. Under the SDWA, a violation of the TCR occurs when greater than 5% of the samples in a community are positive for total coliform during a month.

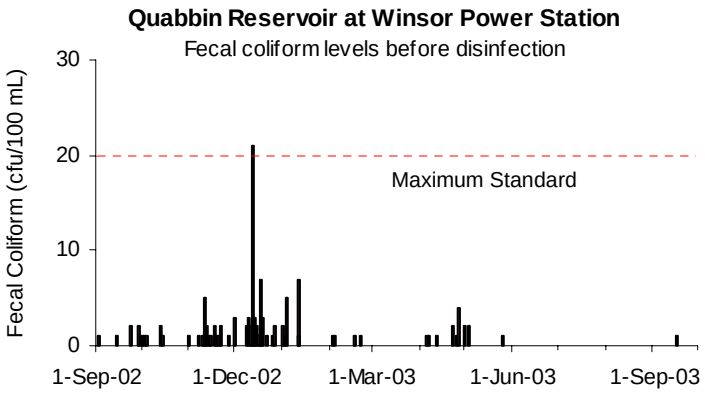
Source Water – Microbial Results
September 2003

Source Water - Microbial Results

Total coliform bacteria are monitored in both source and treated water to provide an indication of overall bacteriological activity. Most coliforms are harmless. Fecal coliform is a subclass of the coliform group which are identified by their growth at temperatures comparable to those in the intestinal tract of mammals. They act as indicators of possible fecal contamination. The Surface Water Treatment Rule for unfiltered supplies requires that no more than 10% of source water samples prior to disinfection over any six-month period have over 20 fecal coliforms per 100ml.

Sample Site: Quabbin Reservoir
Quabbin Reservoir water is sampled at Winsor Dam before entering the CVA system. MWRA met the six-month running average standard for fecal coliform continuously at this location over the last year.

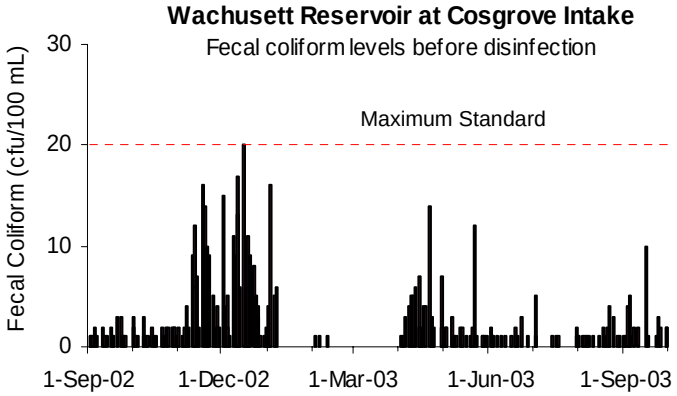
One of the 30 samples were positive during September. Colony count was in the single digits.



Sample Site: Wachusett Reservoir
Wachusett Reservoir water is sampled at Cosgrove Intake before entering the MetroWest and Metropolitan Boston systems. MWRA met the six-month running average standard for fecal coliform continuously at this location over the last year.

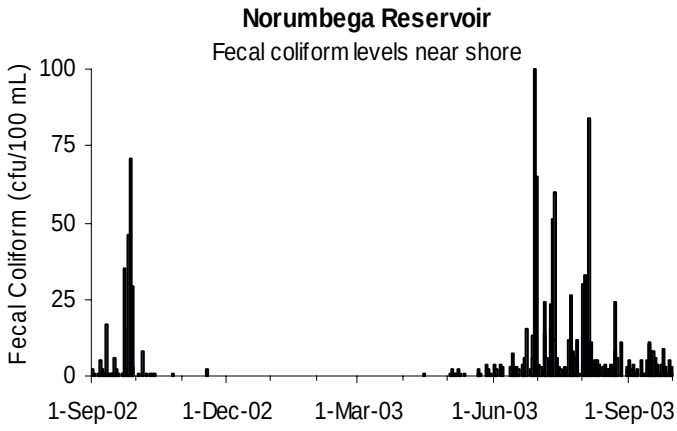
Fecal coliform levels tend to increase during the winter, because, when water bodies near Wachusett ice over, waterfowl seek open water. Many roost at Wachusett, which tends to freeze later in the year than smaller ponds nearby. The DCR has an active bird harassment program to move the birds away from the intake area.

Fourteen of the 22 samples were positive during September. Colony counts were below the standard of 20 cfu/ 100ml.



Sample Site: Norumbega Reservoir
Norumbega Reservoir in Weston receives flows from Wachusett for temporary storage each day during low demand hours, which are then discharged during high demand. Norumbega water is sampled from the shore near the gatehouse before disinfection. Coliform levels are elevated periodically, partly because samples collected from the shore of this small reservoir are more susceptible to local disturbances. Covered storage is scheduled to replace this open reservoir in 2004.

Twenty-three of the 30 samples from water taken along the shore were positive for fecal coliform during September. Seasonally, coliform levels tend to increase due to rain, warm temperatures, wind direction, and birds.

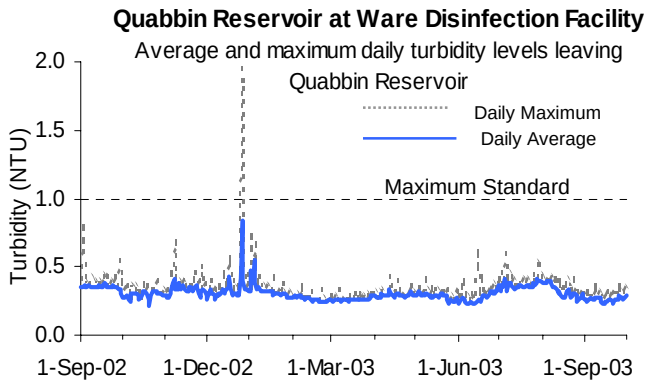


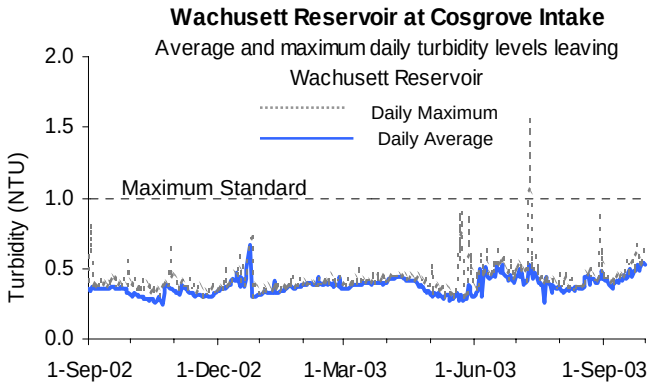
Source Water – Turbidity and Algae Results
September 2003

Source Water – Turbidity Results

Turbidity is a measure of suspended and colloidal particles including clay, silt, organic and inorganic matter, algae and microorganisms. The effects of turbidity depend on the nature of the matter that causes the turbidity. High levels of particulate matter may have a higher chlorine demand or may protect bacteria from the disinfectant effects of chlorine, thereby interfering with the disinfectant residual throughout the distribution system.

Samples for turbidity from Quabbin Reservoir are collected at the Ware Disinfection Facility before chlorination. Samples from Wachusett Reservoir are taken at Cosgrove Intake before chlorination. The Massachusetts Department of Environmental Protection standard for source water turbidity for unfiltered water supply systems is a maximum of 1.0 NTU; the EPA standard is a maximum of 5.0 NTU. Maximum turbidity results at Wachusett and Quabbin Reservoir were within DEP standards for the month.

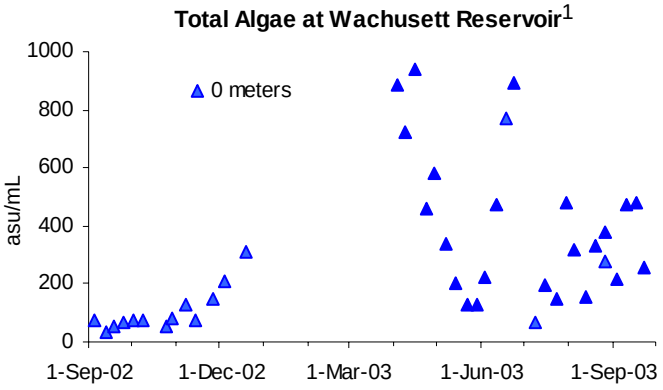


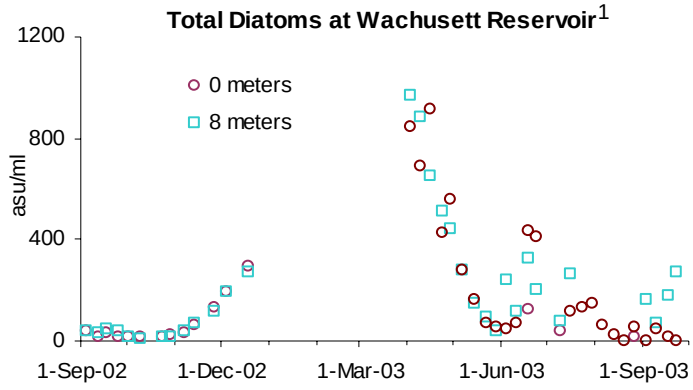


Source Water – Algae Results

Algal levels in reservoirs are monitored by DCR and MWRA. These results, along with taste and odor complaints, are used to make decisions on source water treatment for algae control. Most taste and odor complaints at the tap are due to algae, which originate in source reservoirs, typically in trace amounts. Occasionally, a particular species grows rapidly, increasing its concentration in water. When *Synura, Anabaena*, or other nuisance alga blooms, MWRA may treat the reservoirs with copper sulfate, an algaecide.

Of 273 complaints received during September from local water departments, three concerned taste and odor that may be due to algae.





1. Algae samples collected between 0 to 3 meters represent the same area of water column and are generally equivalent. These samples will be shown in the graphs as 0 meters.

Treated Water – Disinfection and pH Results
September 2003

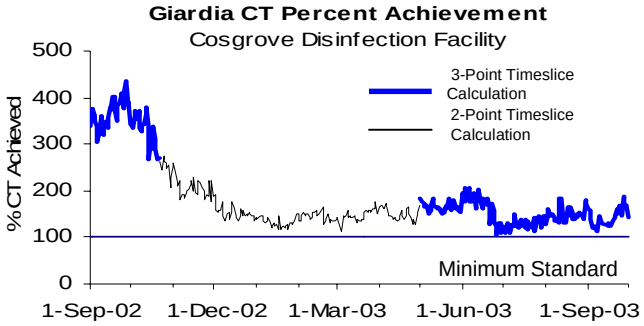
Treated Water - Primary Disinfection

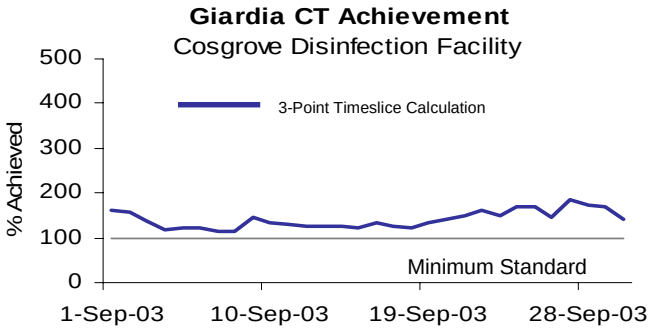
MWRA provides disinfection adequate to achieve EPA's requirement of 99.9% inactivation of *Giardia* cysts and 99.99% inactivation of viruses in drinking water using a calculation based on three sample points that DEP approved in June, 1999. The two-point timeslice, three-point timeslice, or integrated methods are alternative calculation methods which can also be used to comply with CT regulations.

CT achievement for *Giardia* assures CT achievement for viruses, which have a lower CT requirement. The concentration (C) of the disinfectant in the water over time (T) yields a measure of the effectiveness of disinfection, CT. The required CT varies with disinfectant type, water temperature, pH, and other factors. MWRA calculates daily CT inactivation rates at maximum flow, as specified by EPA regulations.

Wachusett Reservoir at Cosgrove Disinfection Facility (MetroBoston Supply):

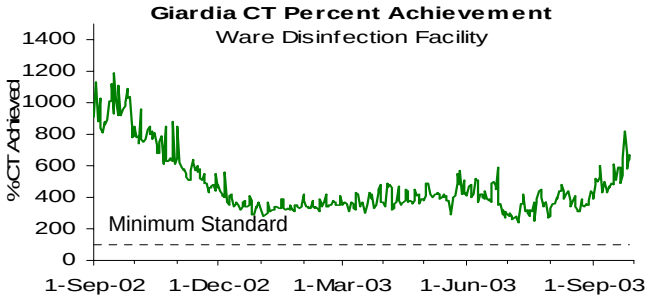
Chlorine dose remains at 1.4 mg/L. CT was met each day in September, as well as every day for the last year.

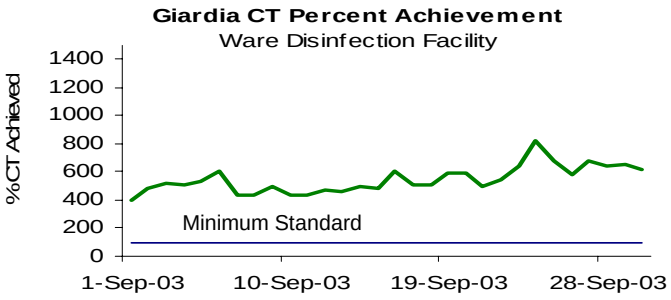




Quabbin Reservoir at Ware Disinfection Facility (CVA Supply):

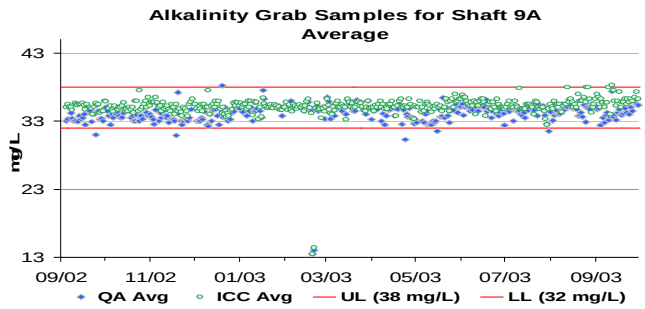
Chlorine dose remains at 1.3 mg/L . CT was met each day in September, as well as every day for the last year.

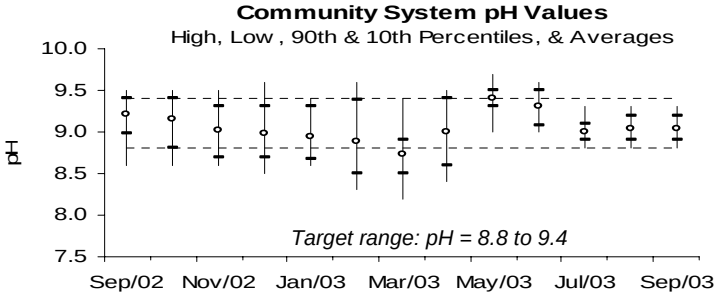




Treated Water – pH and Alkalinity Results

MWRA adjusts the alkalinity and pH of Wachusett water to reduce its corrosivity in order to minimize the leaching of lead and copper from service lines and home plumbing systems into the water. MWRA's target for distribution system pH is 9.1 and alkalinity is 35 mg/L. MWRA's goal is to have 80% of distribution system pH samples fall between 8.8 and 9.4. MWRA staff collects and analyzes samples for pH from 28 community locations on a biweekly schedule to measure pH levels. In September, 100% of the samples were within the target range.





Bacteria & Chlorine Residual Results for Communities in MWRA Testing Program
September 2003

Background

While all communities collect bacteria samples for the Total Coliform Rule (TCR), 36 cities and towns (including Westboro State Hospital) use the MWRA Laboratory for Total Coliform Rule compliance testing. These communities collect samples for bacteriological analysis and measure water temperature and chlorine residual at the time of collection. Cambridge conducts their own monitoring. The other 9 MWRA customer communities have their samples tested elsewhere and these towns should be contacted directly for their monthly results.

There are 144 sampling locations for which the MWRA is required to report TCR results. This includes a subset of the community TCR locations as well as sites along the MWRA transmission system, water storage tanks and pumping stations.

The SDWA requires that no more than 5% of all samples may be total coliform positive in a month (or that no more than 1 sample be positive when less than 40 samples are collected each month). Public notification is required if this standard is exceeded.

Escherichia coli (*E.coli*) is a specific coliform species that is almost always present in fecal material and whose presence indicates likely bacterial contamination of fecal origin. If *E. coli* are detected in a drinking water sample, this is considered evidence of a critical public health concern. Additional testing is conducted immediately and joint corrective action by DEP, MWRA, and the community is undertaken. Public notification is required if follow-up tests confirm the presence of *E. coli* or total coliform. MWRA considers a disinfectant residual of 0.2 mg/L a minimum target level at all points in the distribution system.

Highlights

Three of the 1844 community samples (0.16% system-wide) tested positive for confirmed total coliform during the month of September. No samples tested positive for *E. coli*. Three of the 726 MWRA samples (0.41%) tested positive for confirmed total coliform. No samples tested positive for *E. coli*. No towns failed the TCR rule for the month.

All thirty-six communities that submitted chlorine residual data maintained an average disinfectant residual of at least 0.2 mg/L. 2.4% of the community samples had a disinfectant residual lower than 0.2 mg/L.

TCR results by Community

Town	Samples Tested for Coliform (a)	Total Coliform # (%) Positive	E.coli % Positive	Public Notification Required?	September 2003 Minimum Chlorine Residual (mg/L)	September 2002 Minimum Chlorine Residual (mg/L)	September 2003 Average Chlorine Residual (mg/L)	September 2002 Average Chlorine Residual (mg/L)
ARLINGTON	55	0 (0%)			0.03	0.03	0.67	0.80
BELMONT	40	0 (0%)			0.10	0.06	0.78	0.78
BOSTON	252	0 (0%)			0.37	0.41	1.23	1.36
BROOKLINE	85	0 (0%)			1.02	0.84	1.30	1.45
CHELSEA	40	0 (0%)			0.22	0.03	1.12	1.07
EVERETT	50	0 (0%)			0.18	0.00	0.81	1.08
FRAMINGHAM (c)	76	1 (1.32%)		no	0.21	0.03	1.23	1.26
LEXINGTON	45	0 (0%)			0.11	0.30	1.17	1.35
LYNNFIELD	6	0 (0%)			0.34	0.40	0.69	1.13
MALDEN	75	0 (0%)			0.82	0.07	0.94	0.93
MARBLEHEAD	24	0 (0%)			0.29	0.31	1.05	1.18
MARLBOROUGH (b)(c)	59	2 (3.39%)		no	0.23	0.14	1.10	1.31
MEDFORD	85	0 (0%)			0.29	0.06	0.93	0.88
MELROSE	45	0 (0%)			0.03	0.02	0.49	0.71
MILTON	32	0 (0%)			0.05	0.40	0.96	1.11
NAHANT	10	0 (0%)			0.06	0.05	0.65	0.70
NEEDHAM (b)	50	0 (0%)			0.03	0.03	0.63	0.71
NEWTON	87	0 (0%)			0.38	1.03	0.98	1.45
NORTHBOROUGH	13	0 (0%)			1.06	0.62	1.84	1.32
NORWOOD	45	0 (0%)			0.02	0.01	0.72	0.90
QUINCY	103	0 (0%)			0.28	0.08	1.06	1.14
REVERE	52	0 (0%)			0.60	0.20	1.07	1.26
SAUGUS	40	0 (0%)			0.98	1.04	1.17	1.35
SOMERVILLE	80	0 (0%)			0.04	0.04	0.91	0.98
SOUTHBOROUGH (c)	16 *	0 (0%) *			0.07	0.16	0.76	0.94
STONEHAM	28	0 (0%)			0.58	0.77	1.22	1.18
SWAMPSCOTT	18	0 (0%)			1.11	0.25	1.16	1.20
WAKEFIELD (b)	44	0 (0%)			0.29	0.11	0.77	0.90
WALTHAM	68	0 (0%)			0.48	0.03	1.22	1.13
WATERTOWN	40	0 (0%)			0.06	0.11	0.55	1.01
WELLESLEY (b)	36	0 (0%)			0.02	0.05	0.44	0.43
WESTBORO HOSPITAL	5	0 (0%)			0.02	0.08	0.33	1.22
WESTON (c)	16	0 (0%)			0.11	0.95	0.71	1.54
WINCHESTER (b)	25	0 (0%)			0.11	0.12	0.61	0.86
WINTHROP	24	0 (0%)			0.12	0.34	0.96	1.16
WOBURN (b)	75	0 (0%)			0.05	0.06	0.67	0.64
Total:	1828	3 (0.16%)						
MASS. WATER RESOURCES AUTHORITY (d)	726	3 (0.41%)		no	0.06	0.03	1.12	1.24

(a) The number of samples collected depends on the population served and the number of repeat samples required.

(b) These communities are partially supplied, and may mix their chlorinated supply with MWRA chloraminated supply.

(c) These communities locally chloraminate.

(d) MWRA sampling program includes a subset of community TCR sites as well as sites along the transmission system, tanks and pumping stations.

* Southborough had two positive total coliform samples which were subsequently found by DEP to not be representative of the system due to local plumbing problems. The DEP has invalidated these results, therefore, Southborough does not violate the TCR Rule.*

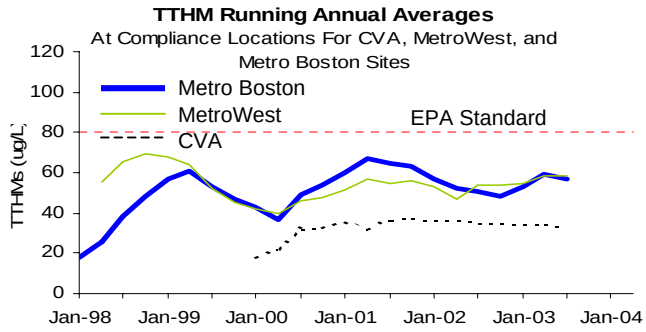
Treated Water - Disinfection By-Product (DBP) Levels in Communities

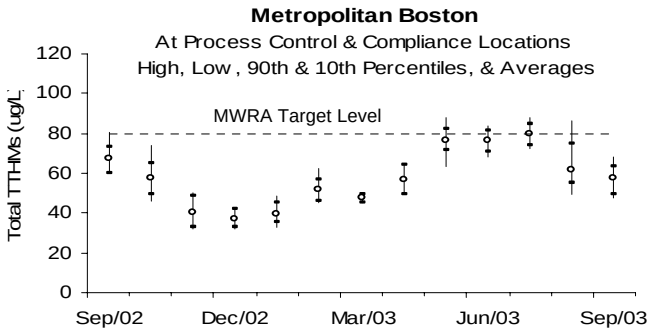
September 2003

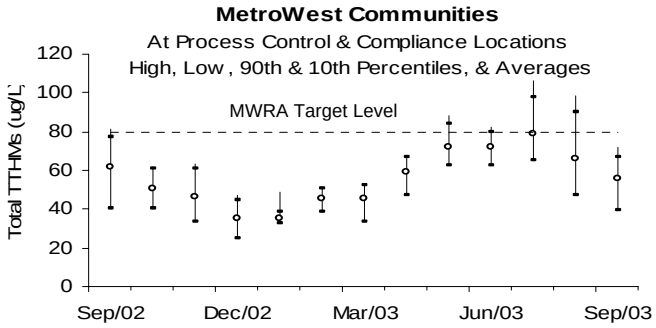
Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAAs) are by-products of disinfection treatment with chlorine. Chlorination levels, the presence of organic precursors, pH levels, the contact time of water with chlorine used for disinfection, and temperature all affect TTHM and HAA levels. DBPs are of concern due to their potential adverse health effects at high levels. The EPA running annual average standards are 80 ug/L for TTHMs and 60 ug/L for HAA 5. DEP requires that compliance samples be collected quarterly. MWRA samples weekly at some locations, monthly and quarterly at others. **Metro Boston numbers are used for compliance purposes;** results presented below from CVA and MetroWest sampling sites enable MWRA staff to monitor control of MWRA treatment processes. Individual CVA and MetroWest communities are responsible for their own compliance monitoring and reporting. They must be contacted directly for their results.

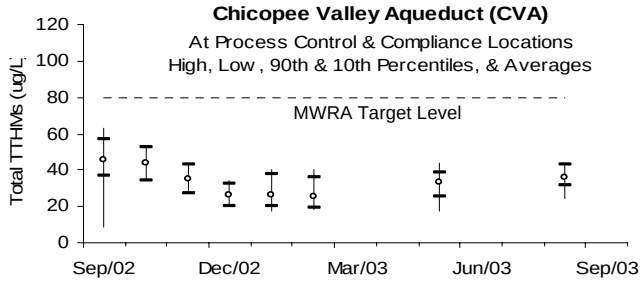
The running annual average for TTHMs and HAA5s at compliance locations, represented in the graphs at the top of the page, remained below current standards. Average monthly HAA5 levels at all process control sampling locations for the MetroWest and Metropolitan Boston communities are are slightly higher than those of last year while the TTHM levels are lower. The CVA system monitoring has been reduced from monthly to quarterly per DEP requirements.

TOTAL TRIHALOMETHANES

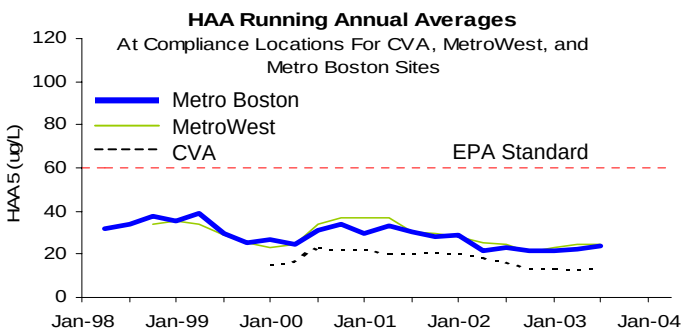


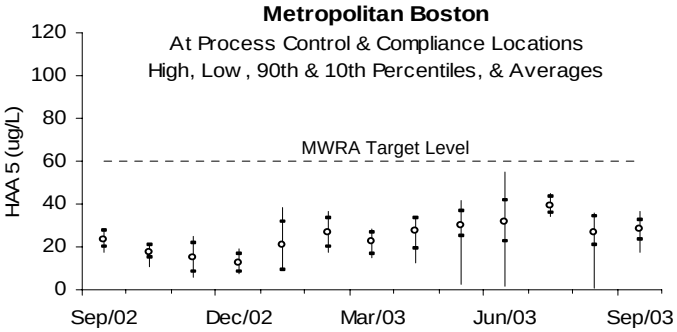


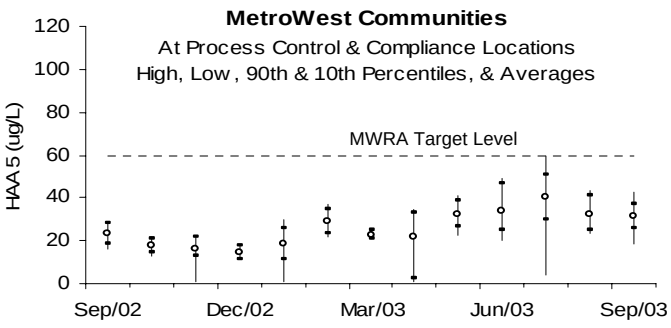


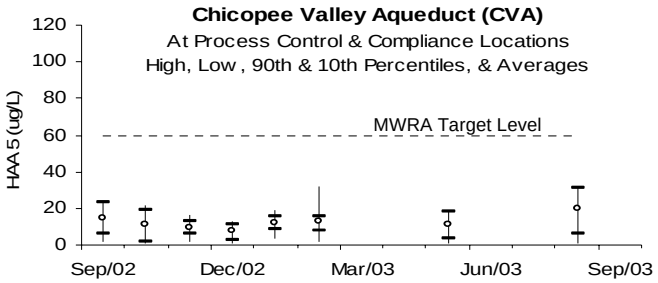


HALOACETIC ACIDS









MWRA Monthly Water Quality Analysis
September 2003

This page provides information on water quality at six locations in the MWRA transmission system. Results reflect a "snapshot" in time and may not represent typical conditions. Elevated levels of a particular parameter may occur from time to time. MWRA staff review these numbers carefully and follow-up unusual results by re-analyzing samples, collecting new samples, or auditing sample sites. More rigorous daily or weekly monitoring of select parameters at these and other locations provides a better overall picture of water quality and is reported for some parameters elsewhere in this document. Monitoring for a number of parameters in this table will be reduced to quarterly, if they either (1) have minimal variability or (2) are always below detection levels. *Third Quarter results are from July 2003.*

CVA System | Metropolitan Boston → | Standards →

Component	Quabbin Reservoir at Ware Disinfection Facility (Raw)	Ludlow Monitoring Station (Treated)	Wachusett Reservoir at Cosgrove Intake (Raw)	ICC Marlboro (Treated)	Comm Ave., Newton (Treated)	Shaft 9A, Malden (Treated)	Standard	Units	Exceedance
Alkalinity	3.7	3.5	5.04	34.8	34.1	33.5		MG/L	
Aluminum	< ***15.0***	***24.0***	***19.5***	***20.8***	***22.5***	***23.8***	50-200 (d)	UG/L	NO
Ammonia-N	0.008	0.019	0.032	0.010	0.273	0.217		MG/L	
Antimony	< ***0.9***	< ***0.9***	< ***0.9***	< ***0.9***	< ***0.9***	< ***0.9***	6 (a)	UG/L	NO
Arsenic	< ***0.8***	< ***0.8***	< ***0.8***	< ***0.8***	< ***0.8***	< ***0.8***	50 (a)	UG/L	NO
Barium	***6.0***	***5.6***	9.88	9.86	9.91	10.2	2000 (a)	UG/L	NO
Beryllium	< ***0.2***	< ***0.2***	< ***0.2***	< ***0.2***	< ***0.2***	< ***0.2***	4 (a)	UG/L	NO
Bromate	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	2.5	10 (a)	UG/L	NO
Bromide	11.8	2.86	17.4	7.9	6.8	5.8		UG/L	
Cadmium	< ***0.2***	< ***0.2***	< ***0.2***	< ***0.2***	< ***0.2***	< ***0.2***	5 (a)	UG/L	NO
Calcium	***2220***	***2260***	4200	4420	4540	4570		UG/L	
Chloride	6.8	***8.4***	18.3	20.8	22.4	22.2	250 (d)	MG/L	NO
Chlorine, Free	NS	0.74	NS	0.18	NS	0.19		MG/L	
Chlorine, Total	NS	NS	NS	0.38	1.67	1.53		MG/L	
Chromium	< ***0.1***	< ***0.1***	< ***0.1***	< ***0.1***	< ***0.1***	< ***0.1***	100 (a)	UG/L	NO
Coliform, Fecal, MF Method	0	NS	2	NS	NS	NS	20 (b)	CFU/100 mL	NO
Coliform, Total, MF Method (e)	33	0	0	0	0	0	100 (b) 0 (c)	CFU/100 mL	NO
Copper **	< 0.9	< 1.13	***1.1***	***3.2***	< ***0.9***	***6.2***	1300 (a)	UG/L	NO
Cyanide	< ***0.01***	< ***0.01***	< ***0.01***	< ***0.01***	< ***0.01***	< ***0.01***	0.2 (a)	MG/L	NO
Fluoride	***0.05***	***0.02***	< 0.02	1.03	1.11	1.04	4 (a)	MG/L	NO
Hardness	***7.7***	***7.8***	13.9	14.5	14.9	15		MG/L	
Iron **	***6.3***	***6.1***	***29.7***	***33.2***	***35.7***	***33.9***	300 (d)	UG/L	NO
Lead	< ***1.2***	< ***1.2***	< ***1.2***	< ***1.2***	< ***1.2***	< ***1.2***	15 (a)	UG/L	NO
Magnesium	***530***	***521***	818	852	858	865		UG/L	
Manganese	***2.3***	***2.2***	9.3	9.4	9.7	9.8	50 (d)	UG/L	NO
Mercury	< ***0.01***	< ***0.01***	< ***0.01***	< ***0.01***	< ***0.01***	< ***0.01***	2 (a)	UG/L	NO
Nickel	< ***1.0***	< ***1.0***	< ***1.0***	< ***1.0***	< ***1.0***	< ***1.0***		UG/L	
Nitrate-N	< ***0.005***	< ***0.005***	***0.169***	***0.156***	0.084	***0.152***	10 (a)	MG/L	NO
Nitrate+Nitrite - N	< 0.005	0.009	0.089	0.086	0.094	0.112			
Nitrite	< ***0.005***	< ***0.005***	< ***0.005***	< ***0.005***	< 0.005	< ***0.005***	1 (a)	MG/L	NO
Orthophosphate	< ***0.003***	< ***0.003***	***0.005***	***0.009***	***0.010***	***0.009***		MG/L	
pH	6.5	7.1	6.4	6.6	9.0	9.0		S.U.	
Potassium	***469***	***446***	835	880	915	895		UG/L	
Selenium	< ***0.9***	< ***0.9***	< ***0.9***	< ***0.9***	< ***0.9***	< ***0.9***	50 (a)	UG/L	NO
Silica (SiO2)	***1310***	***1330***	2140	2620	2630	2600		UG/L	
Silver	< ***0.4***	< ***0.4***	< ***0.4***	< ***0.4***	< ***0.4***	< ***0.4***	100 (d)	UG/L	NO
Sodium	***4.4***	***5.4***	11.6	28.9	29.4	29.3		MG/L	
Specific Conductance	45	***50***	96	162	***200***	***200***		UMHO/cm	
Standard Plate Count, HPC (48 Hrs @ 35C)	NS	NS	72	330	5	6	500 (c)	CFU/mL	NO
Sulfate (SO4)	***5.2***	***5.2***	6.5	6.6	6.7	6.7		MG/L	
Thallium	< ***1.0***	< ***1.0***	< ***1.0***	< ***1.0***	< ***1.0***	< ***1.0***	2 (a)	UG/L	NO
Total Dissolved Solids	38	48	84	120	119	117		MG/L	
Total Organic Carbon	2.2	***1.9***	2.7	2.8	3.2	2.9		MG/L	
Total Phosphorus	0.006	0.006	0.007	0.008	0.009	0.008		MG/L	
UV-254	0.024	0.018	0.058	0.048	0.055	0.055		A	
Zinc **	***1.2***	***1.3***	2.0	1.3	1.7	1.64	5000 (d)	UG/L	NO

(a) = Primary MCL standard (health related). DEP "Drinking Water Regulations", 310CMR 22.00.

(b) = Primary MCL standard (health related), applies to source (raw) water only. DEP "Drinking Water Regulations", 310CMR 22.00.

(c) = Primary MCL standard (health related). DEP "Drinking Water Regulations", 310CMR 22.00. Applies to samples of treated water downstream of Wachusett and Quabbin Reservoirs.

(d) = Secondary MCL standard (aesthetic related). DEP "Drinking Water Regulations", 310CMR 22.00.

(e) - Confirmed results only are reported

MCL = Maximum Contaminant Level

CFU = Colony Forming Unit

S.U. = Standard Units

UG/L = micrograms per liter = parts per billion

NS = No sample

NTU = Nephelometric Turbidity Unit

MG/L = milligrams per liter = parts per million

< = less than method detection limit

HPC = Heterotrophic Plate Count

Inv Res = Invalid sample result

** = Metal results may be elevated due to local plumbing at the sample tap.

Bold Italics = Quarterly Samples

Most results are based on single grab samples collected on September 8th, 2003 and analyzed by MWRA and contract laboratories.

NOTE: MWRA tests for cadmium and mercury are more sensitive than the EPA-set levels of detection and reporting. For cadmium any level below 1.0 ug/L and for mercury any level below 0.2 ug/L are under the EPA minimum detection limits. MWRA will continue to report any result below these detection limits here in the monthly report but will follow EPA reporting requirements and not report them in the EPA-regulated annual Consumer Confidence Report.