TREATMENT TECHNIQUES IN USE
TABLE II (CONTINUED)

| Unregulated Contaminants are those for which the 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. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unregulated Inorganic Contaminants | $\begin{aligned} & \text { Date(s) } \\ & \text { Collected } \end{aligned}$ | Range Detected | Average <br> Detected | SMCL | ORSG | Possible Source(s) <br> of Contamination |
| Sodium (ppm) | 05/21/09 | 8.7 .49 | 30.3 | N/A | 20 | Naturally occurring; runoff from use of salt on roadways; by-product of reatment process |
| Sulfate (Ppm) | 09/01/09 | 16.30 | 22 | 250 | N/A | Natural sources |
| Unregulated Organic Contaminants | Date(s) Collected | Range Detected | Average <br> Detected | SMCL | ORSG | Possible Source(s) of Contamination |
| Bromodichloromethane (ppb) | 01/20/09 | N/D.6.8 | 0.90 | N/A | N/A | Byproduct of drinking water chorination |
| Chlorform (ppb) | 01/20/09 | N/D.9.50 | 1.49 | N/A | n/A | B.producte of drinking water chlorination |
| Secondary Contaminants are non-mandatory water quality standards. The EPA does not enforce "secondary maximum contamination levels" or SMCL. They are established only as guidelines to assist public water systems in managing their drinking water for aesthetic considerations such as taste, color and odor. These contaminants are not considered to present a risk to human health at the SMCL. |  |  |  |  |  |  |
| Secondary <br> Contaminant | Date(s) Collected | Highest Detect | $\begin{gathered} \text { Range } \\ \text { Detected } \end{gathered}$ | Average <br> Detected | SMCL | Noticeable Effects Above the Secondary MCL |
| Alkalinity (ppm) | 09/01/09 | 150 | 45-150 | 82 | N/A | Not applicable (no SMCL) |
| Calcium (ppm) | 09/01/09 | ${ }^{78.4}$ | 16.78.4 | 33.7 | N/A | Noorapplicable (no SMCL) |
| Chloride (ppm) | 09/01/09 | 77 | N/D.77 | 44 | 250 | Salty taste |
| Copper (ppm) | 09/01/09 | 0.042 | N/D.0.042 | 0.02 | 1 | Meallic taste; bluegreen staining |
| Hardness (ppm) | 09/1/09 | 238 | 52.9.238 | 108 | N/A | Notapplicable (no SMCL) |
| Iron (ppm) | 09/01/09 | 0.220 | N/D.0.220 | 0.006 | ${ }^{0.3}$ | Rusty color; sediment; metallic taste; reddish or orange staining reddish or orange staining |
| Magnesium (ppm) | 09/01/09 | 10.1 | 3.1410 .1 | 5.7 | N/A | Notapplicable (no SMCL) |
| Manganese (ppm) | 09/01/09 | 0.72 | N/D-0.72 | 0.02 | 0.05 | Black to brown color; black staining; bitter metallic taste |
| pH | 09/01/09 | 8 | 72.-8 | 7.59 | 6.5.8.5 | Low pH : bitter metallic taste corrosion. High pH: slippery feel; soda taste, deposits |
| Potassium (ppm) | 09/01/09 | 25 | 2.6 .25 | 8.49 | N/A | Noor applicable (no SMCL) |
| Total Dissolved Solids (ppm) | 09/01/09 | 370 | 150.370 | 240 | 500 | Hardness; deposits; colored water; staining; salty taste staining; salty taste |
| Turbidity (NTU) | 09/01/09 | 1.30 | 0.9-1.30 | 1.05 | N/A | Measurement of cloudiness in water |
| Maximum Contamination Level (MCI): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using <br> MCLs are set as close to the MCLGs as feas the best available treatment technology. <br> Maximum Residual Disinfectant (MRDL): <br> 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 (ex. chlorine, chloramines, chlorine dioxide) <br> Maximum Contamination Level Goal (MCLG): The <br>  allow for a margin of safey |  | Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectan below which there is no known of expected risk tohealth. MRDLGs do not reflect the benefits of the use health. MRDLGs do not reflect the benefits of the us ppb: parts per billion, or micrograms per liter (ug/l). ppm: parts per million, or milligrams per liter ( $\mathrm{mg} / \mathrm{l}$ ) NTU: Nephelometric Turbidity Units N/A: Not Applicable N/D: None Detected$\qquad$ which if exceeded, triggers treatment or other m must follow. |  |  | Lead and Copper 90th Percentile: Nine out of every 10 homes samples were at or below this leve. Secondary Maximum Contamination Level (SMCL): These standards are developed to protect the aesthetic qual health based. <br> Massachusetts Office of Research and Standards Guideline (ORSG): This is the concentration of a chemical in drinking water, at or below which, adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action. further action. |  |









POSTAL CUSTOMER
SUDBURY, MA 01776

MANDATORY WATE
RESTICTIONS
EVEL 1
LEVEL 1
Outdor watering fol
oddeven schedule for
 period of three ho


.rrigation and syerinkleress of form are prohibited at chis level
following an odd $/$ even schedule for maximu
LEVEL 3
Outdoor wat
by the use of So the use of of winate
confusion during



 or your home, contact 1
office at $98.43-660$.

AWN IRRIGATION BY-LAW










 related manner which is incidenal thereto and reperesenss a customaryy and necessary use in raising such productes.
WATER RATES
For the purpose of
For che purpose of calculating water bills, there is a base charge per billing cycle of 5.00 . Above this base charge, the water rate for
each incremenal amountis




2009 WATER QUALITY REPORT LETTER FROM YOUR BOARD OF WATER COMMISSIONERS
 The quality of the water being delivered to your home i sexellent and the
Oolowiny report and accompanying tabless demonstrate his point The rimary


 extensive and consists of neutralization for pH correction, chlorination far





 Dour water commissioners invite your comments and questions regarding the te Board of Water Commissioness of the Sudbury Water District Robert t. Sheldon, Chairma
Wilimm J Cossart

CONTACTING THE DISTRIC Sadoury Water Districi is staffed by fye field personnel and
Hee office safff all of whom are dedicateded to bringing iniol

 also veilable during regular business hours. Arrangementst od iscuss materts
 chnican on-c.lll, 3 SS dadss

communication ane effort to maintain a direct and immediate line of
Communication with our customers, the District continual
 to customers who have registerere a a a semail susabe imberibers
 Water qualify eststs frequently asked questions and explanations of the rulus and
 did mail address. Beause our mail messages are forwarted in buik, it it is ssential

BI-WEEKLY COMMISSIONERS' MEETINGS
he Bard of water ommissioners meets every oher weck iss p.m. at he Distret Ienzi keeps the Commisisioners up-t.d.date on current projects and developing

 NNUAL MEETING
NNUAL MEETIN



 lhe morning and doseseat $7 \%$ clock in the e evening.
Commis sionerss rae elected to stangered threever




## 2009 WATER QUALITY REPORT

 prinipipal place of residence is within the geographical confnes of the Sudbury
Water District (iii) with said property bengs sevicied by the District For purposes


 must be repre
meetings.
The offcial District Warrants are distributed droughout Sudbury at the end of
April Notices of the meetings are posted in a t least three pulbic places within the
 Dall newspapers. Oure email subscribers are also e lectronically mailed 2 notice of
the Annual District Meeting. Qualifed members of the District unale to attend the Annual or Special District
election for reasons of illness or schededuling conficts can obtain an application for
 absente ballotes at hhe District offcic. Contact hhe District during
operation for furthe instructions concerning absente ballots.
THE SYSTEM
The District currently services 5.887 homes and businesses. 927 hydrants and
740,914 feet of water main, all of which increase every year: Our water is obtained





WATER QUALITY TESTING PROGRAM
The Sudbury Water District maintains an extensive








CONTAMINANTS THAT MAY BE PRESENT
CONTAMINANTS THAT M
IN YOUR SOURCE WATER








| Contaminant | Umber |  |
| :---: | :---: | :---: |
| Bacteria | 358 |  |
| Nitrate | 6 |  |
| Trihalomethanes | 16 |  |
| Syrntecicic Organic Compounds | 10 |  |
| Volatile organic Compounds | ${ }^{13}$ |  |
| Fluoride | 10 |  |
| Lead \& Copper | 34 |  |
| Haloaceicic Acids | 10 |  |
| Total Suspended Solids | 80 |  |
| Sodium | 3 |  |
| Secondary Contaminants | 6 |  |
| Inorganics | 5 |  |
| Miscellaneous | 30 |  |
| Toral | ${ }^{581}$ |  |

TREATMENT
Because there are variations in the water quality among our nine sources, treatment
 posenen ar each stere Foliowing
for distribution to your home.




FURTHER EDUCATION
FURTHER EDUCATIONAL INFORMATION
CONCERNING CONTAMINANTS
In order to ensure chat tap water is saf to dodrink, the U.S. Environmental Protection
Agency (EPA) prestribes fegulations that limit the amount of certain contaminants





Some people may be more vulnerable to contamininnts in drinking water than the
general population Immunocompromised persons such as ersons with cancer




SOURCE WATER ASSESSMENT PROGRAM
our water supply source(s). This report a asessed the susceptibility of publid water

Massach husets Drinking Water Regulations (310 CMR 22.00 Drinking Water)
require pullic water supppliers to o own or control the Zone I throusha conservation





 agriculure, commercial. light industry and mining. The District plans on corrective
actions by continuing to work with local and state offices for the promotion of
good





MINIMIZING LEAD EXPOSURE
If present, elevated levels of lead can cause serious heallh problems, especially for
pregnant women and





help prevent backflow contamination A cross connection is a connection between a dranking water pipe and anon-
approved source. Did y yu know hat contananination can ocme from your own home? For instance, yourte going to to spray fertilizer on y your lawn and yyou youtach
yourt $b$.



 FINAL WORD
In closing, it is our hope y yu have found dhis latest report and a acompanying
table(s) informative, allowing you the opportunity to become faniliar with your tablecs(s) informatives, aliowing you the opportunity to become familiar with our
public water supply Your Commissoners sand District emplovees strive to achieve
 Questions, concerns or
calling 978 -443-662

TABLE I(GRAVEL PACKED WELLS)

| Type of Treatment | G.P. <br> Well 2 A | G.P. <br> Well 3A | G.P. <br> Well 4 | G.P. <br> Well 5 | G.P. <br> W.ell 6 | G.P. <br> WWell 7 | G.P. <br> Weell 8 | G.P. <br> Well 9 | G.P. <br> W.ll 10 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Chlorination | $* \checkmark$ | $* \checkmark$ | $* \checkmark$ | $* \checkmark$ | $* \checkmark$ | $* \checkmark$ | $* \checkmark$ | $* \checkmark$ | $* \checkmark$ |
| Neutralization | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Air Stripping | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |  |
| Greensand Filtration | $\checkmark$ |  |  |  | $p$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Fluoridation | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

## Required By DEP $\checkmark$ : Installed P: Planned

##  Greensand Filtaraion is ateatenent process to remove mangnese

TABLE II
The following table lists all drinking water contaminants that were detected in your treated water during the 2009 calendar year or during the most recent sampling



| Regulated Inorganic Contaminants | $\begin{aligned} & \text { Date(s) } \\ & \text { Collected } \end{aligned}$ | Highest Detect | $\begin{gathered} \text { Range } \\ \text { Detected } \end{gathered}$ | MCL or <br> MRDL | MCLG or MRDLG | $\begin{aligned} & \text { Violation } \\ & \text { (Yes/No) } \end{aligned}$ | Possible Source(s) of Contamination |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{\text {Arsenic (ppb) }}$ | 05/21/09 | 2 | N/D.2 | 10 | N/A | No | Discharge from fire retardants; ceramics; electronics; solder |
| Barium (ppm) | 05/21/09 | 0.048 | 0.0066 .0 .048 | 2 | 2 | No | Discharge of drilling wastess dischargef from metal refineries; erosion of natural deposits |
| Cadmium (ppb) | 05/21/09 | ${ }^{0.3}$ | N/D-0.3 | 5 | 5 | No | Corrosion of galvanized dipes erosion of natural deposist discharge and from metal refineries; run waste batteries and paints |
| Fluoride (ppm) | 05/21/09 | 1.4 | 1.1-1.4 | $2^{(1)}$ | 4 | No | Water additive which promotes strong teeth |
| Nitrate (ppm) | 10/66/09 | 4.5 | 4.5 | 10 | 10 | No | off from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits |
| Perchlorate (ppb) | 09/01/09 | 0.31 | ${ }^{0.12-0.31}$ | 2.0 | n/A | No | Rocket propellants, freworks, munitions, flares, blasting agents |
| Selenium (ppb) | 05/21/09 | 3 | 2.3 | 50 | 50 | No | Discharge from meat refineries; <br> $\begin{array}{l}\text { erosion of fratural depesits; } \\ \text { discharge from mines }\end{array}$ |
| Regulated Lead \& Copper Contaminants | Date(s) Collected <br> Collected | $\begin{aligned} & \text { 90th } \\ & \text { Percentile } \end{aligned}$ | $\begin{aligned} & \text { Action } \\ & \text { Level } \end{aligned}$ | MCLG | No. of Sites Sampled | No. of Sites Above Action Level | Possible Source(s) of Contamination |
| *Lead (ppb) | $\begin{gathered} 09 / 10 \cdot \\ 09 / 15 / 09 \end{gathered}$ | 6 | 15 | 0 | 30 | 0 | Corrosion of household plumbing ystems; erosion of natural deposit |
| *Copper (ppm) | $\begin{aligned} & 099 / 10-1 \\ & 09 / 15 / 09 \end{aligned}$ | 0.180 | 1.3 | 1.3 | 30 | 0 |  |



| Regulated Disinfection By-Products | $\begin{gathered} \text { Date(s) } \\ \text { Collected } \end{gathered}$ | Highest Quarterly Average | $\begin{aligned} & \text { Range } \\ & \text { Detected } \end{aligned}$ | MCL or MRDL | MCLG or MRDLG | $\begin{aligned} & \text { Violation } \\ & (\text { Yes/No) } \end{aligned}$ | Possible Source(s) of Contamination |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Tribalomethanes (ppb) | Quarterly-09 | 24.1 | 3.3-50.3 | 80 | N/A | No | Byproduct of drinking water chlorination |
| Haloacetic Acids (ppb) | Quarterly-09 | 6.69 | N/D.16.8 | 60 | N/A | No | By-product of drinking water disinfection |
| Chlorine (ppm) | Monthly-09 | ${ }^{0.25}$ | ${ }^{0.0 .094}$ | 4 | 4 | No | Water additive used to control microbes |

