

Massachusetts Department of Environmental Protection

Bureau of Resource Protection – Drinking Water Program

A. PWS Information

Consumer Confidence Report Certification

For calendar year 2023

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.





Important: When	Devens PWS	2019001								
filling out forms	PWS Name	PWS ID								
on the computer, use only the tab	Devens	7,500								
key to move your	City /Town	Max population								
cursor - do not	The community water system named above	Jim Moore								
use the return	hereby certifies that its Consumer Confidence	Name								
key.	Report (CCR) was distributed to customers,	Manager								
tah	appropriate agencies, and notices of availability	Title								
	have been given in compliance with 310 CMR	978-906-4588								
	22.16A. Furthermore, the system certifies that	Phone								
return	the information contained in the report is correct	jmoore@massdevelopment.com								
	and consistent with the compliance monitoring	E-Mail								
	data previously submitted to MassDEP.	6-17-24								
	I certify under penalty of law that I am the person	Data								
	authorized to fill out this form and the information	Moore								
	contained herein is true, accurate, and complete to the best of my knowledge and belief.	Signature of Owner/Responsible Party or Certified Operator								
	B. Public Notice Certification									
	B. I dono Notico Continuation									
VSS PWS note: if you deliver your CCR by newspaper	Is this system using this CCR to provide Tier 3 Public No.	otice to their customers?								
or postings, that method will not meet PN	The PN is for a: Violation UCMR Other	List other								
requirements. You must directly deliver		No Consultation date								
your PN by hand, land mail, or email.	The PN can be found on page of the CCR.	Date of PN Occurrence NON-Number								
	☐ I am reporting multiple Tier 3 PNs. I have listed the additional PN information at the end of this form.									
	The public water system indicated above hereby affirms within this CCR to consumers in accordance with 310 C requirements, notification deadlines, and that the public notifying new billing units and new customers of the violations.	MR 22.16(4) including: delivery, content, format water system will meet future requirements for								
If you did not sell water to another	C. For Systems Selling Water to Other Community Water Systems									
community PWS skip Section C.	My system delivered the applicable information required at 310 CMR 22.16A(3), to the buying system(s) no later than April 1st of this year, or by the mutually agreed upon date specifically included in a written contract between the parties.									
	D. Annual Cross Connection Education									
	Is this CCR being used for your system's annual cross-of If no, what methods did you use to meet your annual CC									

lf

ALL distribution E. Consumer Delivery Methods – Based on Population Served (posting, land mail, or e-For systems serving fewer than 500 persons: delivery, Date of delivery/publication: publication, and (Choose #1 or #2) good faith efforts) 1. My system used one or more of the following methods to notify customers that their CCR would must be not be mailed directly to them but is available to them upon request. (the notice is attached) completed on or before July 1st. Land-mail ☐ Door-to-door ☐ Newspaper □ eMail Posted notices Instructions for customers to Locations of posted notices request a hard copy must also 2. My system provided a CCR to each customer by the following method(s): be included in e-delivery. ☐ Published the full CCR in a local newspaper (the published report from newspaper is attached). Land-mailed or hand-delivered the CCR to consumers. When a URL is used it must be a e-Mailed with the CCR either embedded in the email or attached as a PDF. (e-mail is attached) direct link to the document; no other Posted the CCR on the web and sent the direct URL to customers by way of land-mail or email clicks allowed. (notice/postcard is attached). List URL For systems serving 500 to 9,999 persons: Date of delivery/publication: 06/13/2024 (Choose either #1 or #2) □ 1. My system provided a copy of the CCR to each customer by: □ Land-mail □ e-Mail with PDF of CCR e-Mail with embedded CCR Sent a notice (by land or e-mail) containing a direct URL to customers (copy is attached) List the URL if used. 2.My system provided the CCR to each customer by publishing the full report in a newspaper (a copy of the published CCR is attached) and provided notice to consumers of this action by either: Published a notice of this in a local newspaper Land mailed a notice of this to consumers. e-Mailed a notice of this to consumers. For systems serving 10,000 or more persons: mm/dd/year Date of delivery/publication: My system provided a copy of the CCR to each customer by: e-Mail with PDF e-Mail with embedded CCR Land mail Sent a notice (by land or e-mail) containing a *direct* URL to customers List the URL if used. For systems serving greater than 100,000 population: In addition to one of the delivery methods checked above, we have posted the CCR on a publicly accessible Internet site as required. ****\\\\\ List the URL used

F. Good Faith Delivery Methods (minimum of 3 is required for any sized systems)

Good Faith efforts are in addition to your primary method of delivery.

it.

are in addition to	addition to the required delivery:									
method of delivery.		under 100,000 population who did not use this method as their primary method) www.devenscommunity/com/live/								
		List the URL used.								
	_	Mailed the CCR to all postal patrons within the service area (list of zip codes used is attached).								
		Mailed a postcard listing the URL where the CCR can be found, to all postal patrons within the service area (list of zip codes used is attached).								
		WWW. List the URL used.								
		Advertised availability of the CCR in the following news media (the announcement is Radio Newspaper Television / cable Social media Dig	s attach): gital signboard							
		Published the CCR in local newspaper (attach the published CCR).								
	\boxtimes	Posted the CCR in public places i.e., post office, town hall, library (list of locations is attached).								
		Delivered multiple CCR copies to single-bill addresses serving several persons i.e., apartments, businesses, large private employers (list of locations is attached).								
☐ Delivered multiple CCR copies to community organizations (list of organizations is at										
	omplex (list of the									
		Deliver CCR to new residents when they move in.								
		Other								
All systems must	G.	Mandatory Agency Delivery Requirements								
submit CCR to these three agencies		 Local Board of Health Deliver 1 copy of CCR and the Certification Form (Contact your board of health as to whether they would prefer hardcopy or e-delivery of CCR.) 	6-18-24 Date completed							
Agencies and consumers must receive CCR on or before July 1.		2. MA Dept. of Public Health Deliver 1-copy of CCR and the Certification Form ☑ PDF emailed to: dph.ccr@massmail.state.ma.us or ☐ Hardcopy to: 250 Washington St.; Boston, MA 02108	6-18-24 Date completed							
For e-delivery, scan documents into one PDF file. Make sure Cert Form is first with CCR following it.	•	3. MassDEP Boston Office* Deliver 1 copy of CCR, the Certification Form, and all needed attachments ☑ PDF emailed to: Program.Director-DWP@Mass.gov. Label it [PWSID-PWS Name-year-CCR] Or in case of hardship:	6-18-24 Date completed							
*The preferred delivery method is		Hardcopy to: MassDEP-CCR Program, 100 Cambridge St. Ste 900; Boston, MA 02114								
email.		Do not send to MassDEP regional offices Only Boston is accepting CCRs								



2023 Report to Consumers on Water Quality

Devens, Massachusetts Public Water System #2019001

Dear Customer,

We are pleased to present a summary of the quality of the water provided to you during the past year. The Safe Drinking Water Act (SDWA) requires that all utilities issue an annual "Consumer Confidence" report to customers in addition to other notices that may be required by law. This report details where our water comes from, what it contains and the risks our water testing and treatment are designed to prevent. MassDevelopment is committed to providing you with the safest and most reliable water supply. Informed consumers are our best allies in maintaining safe drinking water. This report was prepared with the technical assistance provided by the American Water Works Association, MassDEP, and information provided by Veolia, the company that operates and maintains the Devens Water System under contract to MassDevelopment.

OVERVIEW

MassDevelopment provides high quality ground water to customers in the Devens Regional Enterprise Zone. The Devens water supply has a permit to pump up to 4.8 million gallons per day. Securing the quality and safety of this resource is extremely important to us.

WATER SOURCE AND TREATMENT

The Devens water system includes three active gravel-packed wells and the inactive well field at the Grove Pond pumping station. It also includes more than 50 miles of water mains and two 1-million-gallon storage tanks. Iron and manganese are often present in groundwater wells at levels that can discolor the water or cause it to take on unpleasant odors or tastes. Even though the water is still safe to drink, treatment is often desired. In 2023 the new Patton Well Water Treatment Plant was completed and in the following year, 2024, the new Shabokin Well Water Treatment Plant was completed. Both have now been placed into service. The new water treatment plants use greensand filtration media to remove iron and manganese from the water produced at the Patton and Shabokin Wells. The new treatment plants also consist of granular activated carbon and resin exchange filters to remove PFAS. At MacPherson Well a new water treatment plant was completed in 2022 that removes PFAS only using a granular activated charcoal filter vessel, as that well does not have high levels of iron and/or manganese. In addition to the treatment systems described above, each of our treatment plants consists of adding a blended phosphate solution to water. This results in a chemical reaction known as sequestration and helps prevent iron and manganese from forming nuisance particles. The phosphate treatment also provides a coating to water distribution mains that reduces corrosion. For additional corrosion control we use potassium hydroxide (KOH) to raise the pH of the water up to a less corrosive state that is neutral or slightly alkaline. All chemicals used for this process are approved for water treatment by one of the following organizations: National Sanitation Foundation (now known as NSF International) or UL. Both are accredited by the American National Standards Institute (ANSI). Chemicals also must meet standards established by the American Water Works Association. It is necessary to disinfect all reservoirs and some ground water sources to eliminate disease-carrying organisms. Nationally, EPA has found that these water sources contain numerous microorganisms, some of which can cause health problems if ingested. Disinfection destroys harmful organisms. Sterilization kills all microorganisms, even though most are not harmful, and is too costly to use on a routine basis. The Devens water system uses sodium hypochlorite (NaOCl) as its disinfectant. Chlorine destroys organisms by penetrating cell walls and reacting with enzymes. Disinfection with chlorine has proven to be effective at ensuring that water is safe to drink. MassDevelopment contracts the operations and maintenance of the water system to one of the world's largest O&M contractors of water systems, Veolia.

WATER QUALITY DATA TABLES

The following tables show the results of our water quality analysis during 2023 or during the most recent monitoring period for the water we supplied. Every regulated and unregulated contaminant that was detected in the water, even in the minutest traces, is listed here. All data below is from sampling of the water supplied by the MassDevelopment/Devens Water System.

Regulated Contaminants Inorganic Contaminants	Year Sampled	Highest Detect or Highest RAA	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Sources in Drinking Water
Arsenic (ppb)	2023	6	1-9	10		N	Erosion of natural deposits
Barium (ppm)	2021	0.02	NA	2	2	N	Erosion of natural deposits
Nitrate (ppm)	2023	0.58	0.06 -0 .60	10	10	N	Runoff from fertilizer use; erosion of natural deposits

Perchlorate (ppb)	2023	0.097	0.05 – 1.0	2		N	Rocket propellants, fireworks, munitions, flares, blasting agents
Regulated Contaminants	Year Sampled	Highest Detect or Highest RAA	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Sources in Drinking Water
Disinfectants & Disinfect	ion By-Products	s					
Chlorine (ppm)	Monthly in 2023	0.63*	0.55 – 0.72	4	4	N	Water additive to control microbes
Total Trihalomethanes (TTHMs) (ppb)	2023	26*		80		N	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	2023	3.6*		60		N	By-product of drinking water disinfection
PFOS, PFOA, PFNA, PFHxS, PFHpA, PFDA (ppt) (combined	2023	ND	ND	20		N	Man-made chemicals. Used as surfactants to make products stain or water resistant, in fire-fighting foam, for industrial purposes, and as a pesticide. Used in fluoropolymers (such as Teflon), cosmetics, greases and lubricants, paints, adhesives and photographic films.

^{*} Highest RAA = highest running annual average of four consecutive quarters.

Lead and Copper	Year Sampled	90 th Percentile*	Action Level (AL)	MCLG	# of Sites Sampled	# of Sites Above the AL	Possible Source of Contamination
Lead (ppb)	2023	3	15	0	80	2	Corrosion of interior plumbing materials
Copper (ppm)	2023	0.28	1.3	0	80	0	Corrosion of interior plumbing materials

^{*} Nine out of every 10 homes sampled were at or below this level. This number is then compared to the action level for each contaminant.

Secondary and Unregulated Contaminants	Year Sampled	Range Detected	Average	ORSG or Health Advisory	Possible Source of Contamination
Iron (ppb)	2023	0 -<100	<100	300*	Erosion of natural deposits
Manganese (ppb)	2023	2.4 - 420	83	300*	Erosion of natural deposits
Sodium (ppm)	2021	NA	12	20**	Natural sources; runoff from road salt
Sulfate (ppm)	2023	9 - 32	21		Natural sources
Perflurobutanesulfonic acid (PFBS) (ppt)	2023	0-2	ND	††	
Perfluorohexanoic acid (PFHxA) (ppt)	2023	0-2.3	0.20	++	

^{*} Manganese: Manganese is a naturally occurring mineral found in rocks, soil and groundwater, and surface water. Manganese is necessary for proper nutrition and is part of a healthy diet, but can have undesirable effects on certain sensitive populations at elevated concentrations. The United States Environmental Protection Agency (EPA) and MassDEP have set an aesthetics-based Secondary Maximum Contaminant Level (SMCL) for manganese of 50 ug/L(micrograms per liter), or 50 parts per billion. In addition, MassDEP's Office of Research and Standards (ORS) has set a

drinking water guideline for manganese (ORSG), which closely follows the EPA public health advisory for manganese. Drinking water may naturally have manganese and, when concentrations are greater than $50 \mu g/L$, the water may be discolored and taste bad. Over a lifetime, the EPA recommends that people drink water with manganese levels less than $300 \mu g/L$ and over the short term, EPA recommends that people limit their consumption of water with levels over $1000 \mu g/L$, primarily due to concerns about possible neurological effects. Children up to 1 year of age should not be given water with manganese concentrations over $300 \mu g/L$, nor should formula for infants be made with that water for longer than $10 \mu g/L$ days. The ORSG differs from the EPA's health advisory because it expands the age group to which a lower manganese concentration applies from children less than 6 months of age to children up to 1 year of age to address concerns about children's susceptibility to manganese toxicity. See:

EPA Drinking Water Health Advisory for Manganese

https://www.epa.gov/sites/production/files/2014-09/documents/support_cc1_magnese_dwreport_0.pdf and MassDEP Office of Research and Standards Guideline (ORSG) for Manganese https://www.mass.gov/files/documents/2016/08/nr/mangorsg.pdf

**Sodium-sensitive individuals, such as those experiencing hypertension, kidney failure, or congestive heart failure should be aware of the levels of sodium in their drinking water where exposures are being carefully controlled.

***In January 2020, MassDEP updated its PFAS6 Office of Research and Standards Guideline (ORSG) to 20 ng/L and in October 2020 the MCL was adopted.

For further information regarding MassDEP PFAS regulation development and consumer information refer to:

https://www.mass.gov/info-details/per-and-polyfluoroalkyl-substances-pfas

https://www.mass.gov/doc/massdep-fact-sheet-pfas-in-drinking-water-questions-and-answers-for-consumers/download

††There is no ORS Guideline for this compound

DEFINITIONS:

<u>Maximum Contaminant Level (MCL)</u>: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

ppm: Parts per million, or milligrams per liter (mg/l).

ppb: Parts per billion, or micrograms per liter (ug/l).

ppt: Parts per trillion, or nanograms per liter (ng/l).

pCi/l: Picocuries per liter (a measure of radioactivity).

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum Residual Disinfectant Level (MRDL): 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, chloride dioxide).

Maximum Residual Disinfectant Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Secondary Maximum Contaminant Level (SMCL): These standards are developed to protect the aesthetic qualities of drinking water and are not health related.

Unregulated Contaminants: 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.

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 likely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

SOURCE WATER ASSESSMENT & PROTECTION (SWAP) REPORT

In 2003, the Massachusetts Department of Environmental Protection (MassDEP) completed a SWAP report for the Devens Water System. The report is a planning tool to support local and state efforts to improve water supply protection. Your water sources are protected by the establishment of protective barriers known as Zone I and Zone II areas. The Devens susceptibility level is rated at High.

Source Protection Recommendations:

To better protect our sources for the future, MassDEP recommended that we:

Continue to inspect the Zone I's regularly and where possible, obtain complete ownership of the Zones.

Educate residents on ways they can help protect drinking water sources.

Work with emergency response teams to ensure they are aware of the storm water drainage in our Zone II and to cooperate on responding to spills and accidents.

Develop and implement a Wellhead Protection Plan.

The SWAP report may be viewed at the Devens Utilities office at 33 Andrews Parkway or online at www.mass.gov/eea/docs/dep/water/drinking/swap/cero/2019001.pdf

ADDITIONAL HEALTH INFORMATION

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

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. 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 (800-426-4791).

The 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 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses. Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than is 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 about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium or additional information on lead risks are available from the Safe Drinking Water Hotline (800-426-4791).

Lead: 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. Devens Public Water Supply 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. 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 www.epa.gov/safewater/lead.

PFAS Contaminants: Our system installed temporary PFAS treatment at the Shabokin and MacPherson Wells in July 2019 and at the Patton Well in January 2020. Subsequent PFAS6 levels in the drinking water have been below the MassDEP's MCL. The permanent treatment plant at MacPherson Well came online in June 2022. The temporary systems at the Patton and Shabokin Wells will remain in place until the permanent treatment plants are constructed.

RESIDENTIAL CROSS-CONNECTION EDUCATION

A cross connection is a connection between a drinking water pipe and a polluted source. The pollution can come from your own home, such as a fertilizer spray unit on your garden hose. If the water pressure drops because of fire hydrant use in town or a water main break, fertilizer may be sucked back into the drinking water pipes through the hose. To prevent this problem, the Devens PWS 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 the device at a hardware store or plumbing supply store. For additional information on the Devens cross-connection control program call (978) 784-2931.

Please call (978) 784-2931 if you have any specific topics you would like to have addressed at any of the residential meetings that MassDevelopment holds as needed. Additional copies of this report are available on request. This report can also be found on our website at www.devenscommunity.com. El informe contiene informacion importante sobre la calidad del agua en su comunidad. Traduzcalo o hable con alguien que lo entienda bien.