

IN THE MAIN

Ground Water Sources Subject to Flooding

By Isabel Collins
Southeast Regional Office

A sanitary survey is intended to protect ground water supply by identifying all potential threats to water supply wells. During a sanitary survey, particularly for small water systems, it is common to identify ground water sources that are subject to flooding.

Flood waters are vulnerable to contamination and often harbor bacteria; thus, they present a threat to the water supply.

As a vital part of a comprehensive inspection of a public water system, ground water sources must be viewed and inspected to determine compliance with the Massachusetts Drinking Water Regulations at 310 CMR 22.00. In some instances, it is difficult



Before: Wellhead under water



After: Wellcasing above grade

Photos by Scott Sayers

to make visual observations because the wellhead's casing is set below the ground surface, thus preventing surveyors from

inspecting the well as required by the regulations. Where this occurs, the well is considered to be subject to flooding.

[See "Flooding" on page 2](#)

Update: Manganese Initiative

By Margaret Finn

The Massachusetts Department of Environmental Protection (MassDEP) launched a new initiative in 2013 to address potential adverse health effects of elevated manganese in drinking water. The MassDEP Office of Research and Standards set a guidance level (ORSGL) for manganese of 0.30 mg/L. MassDEP recommends that people drink water with manganese levels less than 0.30 mg/L over

a lifetime and also recommends that people limit their consumption of water with levels over 1.0 mg/L, primarily to decrease the possibility of adverse neurological effects. Infants up to one year of age should not be given water with manganese over 0.30 mg/L, nor should formula for infants be made with that water for more than a total of 10 days throughout the year.

[See "Manganese" on page 2](#)

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Similarly, wells that are below grade or in a pit showing signs of flooding over the wellhead are also considered subject to flooding. Water supply wells that are subject to flooding are a major deficiency under the Ground Water Rule 310 CMR.22.26.

As part of the sanitary survey report, MassDEP lists the deficiencies - such as water supply wells subject to flooding - found during the surveys and provides enforceable deadlines for the system to return into compliance. If corrective actions are not completed by the deadline, or an alternative schedule to complete such actions is not proposed to the Department (along with the Sanitary Survey Compliance Plan Response Form for Table A&B) within the specified deadline, the deficiencies may escalate to higher enforcement.

The Ground Water Rule allows 120 days for corrective actions to be completed. An example of a corrective action may be to expose the active wellhead and construct a dewatering pit or extend the well casing at

least 18” above grade. Conducting corrective actions will prevent flooding and will help maintain the integrity of the water supply well, thus avoiding non-compliance with the Ground Water Rule.

Next time you are preparing to have a sanitary survey performed at your facility, keep in mind that your well could be in non-compliance with the Ground Water Rule, and be prepared to do some digging to keep your head above water.

Call your GWR contact for more information:

WERO Jim Bumgardner 413-755-2270

CERO Kellie Momberger 508-849-4023

NERO Jim Dillon 978-694-3231

SERO Scott Sayers 508-946-2780 ITM

“Manganese” continued from page 1

During the calendar year 2014, all public water systems (PWS) were required to begin sampling and reporting the manganese level at their source(s) of finished water (except for consecutive systems including vending machines). As of October 2014, approximately 80% of PWSs had submitted sampling results, and most of the samples collected showed manganese levels below the ORSGL (out of 3,485 samples collected, 3,185 were below the ORSGL). MassDEP has identified and is working with approximately 100 PWSs with levels of manganese above the ORSGL to address their elevated manganese concentrations. Some of these PWSs were able to lower their manganese level below the ORSGL by changing the blending ratio from various wells, turning off a well, or optimizing their treatment processes. A couple dozen PWSs with levels above the ORSGL have been required to issue public notices, submit long-term corrective action plans, and increase their monitoring. Most of the PWSs identified as having elevated levels of manganese were small TNC (transient non-community) water systems. Elevated levels of manganese were found at locations around the state. ITM

Awards Day 2015

Save the date of May 5, 2015 for the Public Water Systems Awards Day. It will be held in Gloucester this year. The tentative agenda is a re-dedication of the Gloucester Treatment Plant in the morning with a tour and TCHs. The Awards Ceremony will be held at 12:30 after a luncheon.

ITM



In The Main

Commonwealth of Massachusetts
Charles Baker, Governor

Executive Office of Energy & Environmental Affairs
Matthew Beaton, Secretary

Department of Environmental Protection
Martin Suuberg, Commissioner

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Calibrating Reagentless On-line Chlorine Analyzers

By Hilary Jean
Northeast Regional Office

During recent sanitary surveys, I have found a steady increase in the use of continuous residual chlorine analyzers that do not require reagents. These newer-technology analyzers are being installed for both process control and regulatory compliance.

In the past, MassDEP required that all on-line chlorine analyzers used for regulatory compliance utilize the same chemistry as methods referenced in 310 CMR 22.00 [see 22.26(4)(b)3.a and 22.20A(5)(a)2.]. The reagentless on-line chlorine residual analyzers do not comply with those requirements. However, any alternative method for on-line analysis of chlorine residual may be utilized provided that the public water system (PWS) utilizes a quality assurance/quality control procedure known as EPA Method 334.0.

Method 334.0 requires that the PWS calibrate what is called a Grab Sample Method [i.e., a method referenced in 310 CMR 22.20A(5)(a)2], then demonstrate that each person utilizing that Grab Sample Method can do so capably.

Then the PWS must collect data comparing the Grab Sample Method with the online analyzer results. If the results meet the specifications of Method 334.0, the PWS can then utilize the data from the on-line chlorine analyzer for regulatory reporting and compliance. The PWS will also need to continue to perform routine calibration checks of both the Grab Sample Method and the on-line analyzer.

The minimum essential data that the PWS must perform to demonstrate adherence to Method 334.0 are:

- **Initial Calibration for Chlorine Grab Sample Method.** For methods that do not require the preparation of a curve or that use an internal, factory-set calibration, compare the measured concentration of each standard to the expected value.
- **Initial Demonstration of Capability** that each field sampler can perform the Grab Sample Method (this demonstrates that each person utilizing that Grab Sample Method can do so capably.)

- **Initial demonstration that the on-line analyzer and the Grab Sample Method provide** the same readings for samples collected at least once a day over 14 consecutive days.
- **Routine calibration check of Grab Sample Method** (at least quarterly).
- **Routine calibration check for the online analyzer** (at least every seven days).
- Other data may be required if there are analytic outliers, adjustments, repairs, and maintenance of equipment.

During a Sanitary Survey or other inspections, the PWS may be required to provide documents demonstrating compliance with Method 334.0.

While the general strategy for Method 334 is pretty straightforward, like many lab methods there are exacting procedures, reagents, and standards that must be utilized to correctly comply with that method. The reader is encouraged to learn the details of the method at: http://www.epa.gov/safewater/methods/pdfs/methods/met334_0.pdf. ¶¶¶

Federal Funding for Watershed Protection

The EPA's online Catalog of Federal Funding Sources for Watershed Protection was updated in April 2014. The catalog includes the latest information about FY2014 federal funding allocations for programs focusing on watershed protection and restoration. The site houses an

easy-to-use, searchable database of 85 programs in which financial assistance, including grants, loans and cost-sharing, are available to fund a variety of watershed activities. Information about each funding source includes a program description, details on program contacts, funding history,

typical past award amounts, eligibility requirements, application deadlines, and matching funds/criteria requirements. Users can search by keyword, type of assistance, match requirement, and more at: <https://ofmpub.epa.gov/apex/watershedfunding/?p=fedfund:1>. ¶¶¶

Community Systems: Getting Ready to Prepare Your 2015 CCR

By Kelly Momberger and Liz Kotowski
Central Regional Office

By July 1 your annual Consumer Confidence Report (CCR) must be prepared and received by your customers. Your system – regardless of size – must complete three "good-faith" efforts to make your CCR available to others in your community. All of this must be documented on your signed certification form. That form, along with any supporting attachments and your CCR, must be received by your local board of health, the Massachusetts Department of Public Health, and MassDEP by July 1. Many systems now use electronic methods to ensure on-time delivery, provide more detailed information, and save money.

The process of preparing your report is easier if you start early and gather together the following documents:

- ☐ Your current MassDEP-issued sampling schedule and your schedule for the previous three-year monitoring period.
- ☐ The most recent lab reports and correspondence for the following regulated contaminants (going back as far as 5 years if necessary): Bacteria; VOCs; IOCs, SOCs; nitrate and nitrite; asbestos; radionuclides; lead and copper; turbidity; chlorine; DBPRs; and perchlorate
- ☐ Lab reports for unregulated contaminants, including those on the Unregulated Contaminant Monitoring Rule 3 list and those with state health guidelines, such as MTBE, radon, manganese, and sodium.
- ☐ Lab reports for any secondary contaminants that are on your sampling schedule, especially those with secondary maximum contaminant levels, such as iron and sulfate.
- ☐ Information about any monitoring waivers you have received from MassDEP.

☐ All drinking water enforcement documents issued or in effect during the previous calendar year (notice of non-compliances and administrative orders). Each CCR must include a compliance summary.

☐ Your last CCR (for reference).

☐ Updated water system contact information, as well as details about meetings and other ways customers can participate in decisions about their water.

☐ The most recent MassDEP guidance for CCRs, which addresses federal requirements and any additional state requirements.

☐ Your system's Source Water Assessment and Protection (SWAP) Report that was prepared by MassDEP. Info about report availability, your susceptibility ranking, identified threats, and the actions you are taking to protect your sources must still be included in all CCRs.

☐ Any deficiency reports for past CCRs that were audited by MassDEP. To avoid future enforcement action, make sure that any errors or issues raised in those deficiency reports have been corrected.

Other things you might want to include:

☐ A list of the changes and improvements you've made over the past year. Your CCR is an excellent place to communicate with customers and let them know about new water-related bylaws, rate changes, and other work you've done to provide safe water.

☐ Information for customers to fulfill your requirements for Tier 3 Public Notification (PN). If you choose to use your CCR for Tier 3 PN, you must deliver your CCR to customers within 12 months of the time your system first learned of the violation.



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Electronic delivery methods are acceptable for Tier 3 PN only when used in the CCR.

☐ Residential cross connection information to fulfill your annual education requirement. Additional information about your inspection program for industrial, commercial, and municipal cross connections is also valuable.

☐ A list of dos and don'ts to educate customers about water conservation and source protection.

Tips for looking your best

☐ Find someone to proofread your CCR for spelling, grammar, and accuracy.

☐ Ask non-technical people to read your draft report to be sure it's understandable.

☐ Add a photo or map. If you aren't able to do that, then use white space, lines, headings, and bullets to make your report more visually interesting.

Information for consecutive systems:

☐ If you purchase water from another system, the seller is required to provide you with final data about water quality, compliance, and source water by April 1 or by an alternate date agreed upon in writing by both of you. This requirement was established in the federal and state CCR regulations to ensure adequate time for consecutive community systems to prepare and distribute their own CCRs.

Still need help?

If you need advice or technical assistance in preparing your CCR, please contact the MassDEP Drinking Water Program at your Regional Office:

Western - Rick Larson, 413-755-2207

Central - Liz Kotowski, 508-767-2779

Southeast - Courtland Ridings, 508-946-2722

Northeast - Hilary Jean, 978-694-3229

Boston - Marie Tennant 617-292-5885 ITM

MassDEP Continues to Go Electronic: TNC CCRs Now Online

By Marie Tennant

Federal regulations mandate that community systems make and disseminate a CCR to their customers by July 1 every year.

This "right to know" what is in your drinking water doesn't stop at community systems in Massachusetts. MassDEP's Drinking Water Program has been printing and mailing out a water quality report for all TNC systems to post also known as a TNC CCR. In accordance with 310 CMR 22.16A (23) TNC

systems must post their TNC CCR in conspicuous places so that consumers who drink water from these systems may know what is in the water. (Note that TNC systems include vending machines.)

To save ink, paper, and postage costs, the TNC CCRs are now available online. Postcards were mailed out to all TNC systems notifying them that their CCR is now available online. TNC system owners must print, sign, and post these CCRs for consumers to read.

Any operator of a TNC system (or any consumer for that matter) can go to: <http://www.mass.gov/eea/agencies/massdep/water/drinking/tnc-consumer-confidence-report-query.html> to download a TNC CCR. Remember that the TNC CCR must be signed and posted to comply with the regulatory requirement. For further information please contact Marie.Tennant@state.ma.us. ITM



In The Main will be featuring a new question and answer column. Feel free to ask your questions. Remember that if you are thinking about it, chances are that others are also. Ask your questions!

Q. People like to walk their dogs near our drinking water reservoir. Does the Drinking Water Program have any advice about that?

A. Whether people walk dogs on their own property or on public or private property, it is important that they pick up their dog's waste. The average dog generates $\frac{3}{4}$ lb. of waste per day that contains billions of fecal coliform bacteria. Fecal coliform bacteria can contaminate public and private drinking water supplies and can make people sick. This happens when dog waste is left on the ground and washes down into ground water or flows

with stormwater into rivers and streams that enter public drinking water reservoirs. In addition to illness, this type of pollution includes nutrients that encourage weed growth and algae blooms that can result in taste and odor problems, decreased oxygen levels, and can create fish kills.

Dog waste left on the ground may contain hookworms, roundworms and other parasites that can be spread to adults and children walking barefoot or playing in the grass. Viruses can also spread among dogs in this way. Bagging dog waste and putting it in the trash is a better idea than leaving it on the ground. Massachusetts trash is sent either to a waste-to-energy facility where it is burned to produce energy or to landfills that have special liners that prevent pollutants from leaving the site.

The Drinking Water Program recommends posting the following messages in dog-walking areas:

- do not leave dog waste on the ground
- pick up dog waste with a bag and

put it in the trash

- do not dispose of dog waste in wetlands, storm drains, or compost piles.

It is not good practice to locate dog parks near public or private drinking water supplies. The Massachusetts Drinking Water Regulations, 310 CMR 22.00, prohibit domestic animals within 100 feet of a drinking water reservoir and its tributaries. Public water suppliers can adopt stricter setbacks or prohibit dogs (and, in fact, all public access) on water supply lands that they own or control.

The Drinking Water Program has a new dog waste factsheet which is available at <http://www.mass.gov/eea/docs/dep/water/drinking/alpha/i-thru-z/poo3.pdf>. Town clerks may be able to help you distribute the factsheet to dog owners who come in annually to renew their dog licenses. For more information about impacts to drinking water from dog waste, call MassDEP's Drinking Water Program at 617-292-5770 or e-mail program.director-dwp@state.ma.us. ITM

To submit a question to this new Q and A column, call MassDEP's Drinking Water Program at 617-292-5770 or e-mail program.director-dwp@state.ma.us.

WPI Students Helping with Important Drinking Water Issues

By Kathy Romero

Four student interns from Worcester Polytechnic Institute (WPI) recently completed a six-week MassDEP-sponsored project which looked at the vulnerability of public drinking water wells under the influence of surface

water when there is a blue-green algae (cyanobacteria) bloom in the surface water. The students developed recommendations and a factsheet for public water systems to use to improve communication and implement source water protection strategies.

Their outreach materials will be distributed as soon as they are finalized. Thank you to the WPI students, Cara Berner, Deanna Clark, Samuel Flibbert, and Kate Piotrowicz (and WPI), for their hard work and professional manner while conducting this project. ITM

The Safe Drinking Water Act Turned 40

By Peter Grevatt, Ph.D.

Director of EPA's Office of Groundwater and Drinking Water

As a child in Cleveland in the 1960's I grew used to seeing the signs of our bustling industrial city; flares on tall smokestacks just off the highway, the elegant Terminal Tower shrouded in haze and smog barely visible on a hot summer day, and the awful smells near "the Flats" by the Cuyahoga River. This was all just another part of living near the city. But like most kids, I was still eager to find new places to play outside, even downtown. One of these was Edgewater Beach on Lake Erie, right in downtown Cleveland.

Whether we were there to see the fireworks on the 4th of July or stopping by to get near the water on a hot Sunday afternoon, we were uneasy about taking a swim. Even as a 7-year old, I understood that something had to be really wrong when the Cuyahoga River caught fire. What I didn't understand was



that the water that I watched burning on the nightly news, flowed into the source of my drinking water.

Cities around the country faced similar source water challenges that impacted drinking water quality, and they are part of the reason the Safe Drinking Water Act was

passed in 1974. I didn't understand until much later the very important role that implementation of the Safe Drinking Water Act played in protecting the health of Americans by cleaning up Lake Erie and waters all across the US. This year marks the 40th anniversary of the law, which requires all public water systems to comply with strict drinking water quality standards.

Safe drinking water is central to our lives and to our health, but there are many continuing and emerging challenges to providing safe drinking water. To mark the 40th anniversary of the Safe Drinking Water Act, we will highlight stories and examples of the importance of drinking water to our economy, our health, and our environment. We will also share the efforts currently underway to address the challenges our drinking water supplies face. You can follow and share these stories by going to the <http://www2.epa.gov/safedrinkingwater40>. ITM

Links to More SDWA Information

2014 marks the 40th anniversary of the Safe Drinking Water Act (SDWA). The Act was passed in 1974 to protect public health by regulating the nation's public drinking water supply. We have made great progress over the past 40 years, but many challenges remain. EPA is committed to working with states, tribes, water-sector partners and the public to

meet the challenges ahead and protect public health.

Learn how EPA protects drinking water: <http://www2.epa.gov/safedrinkingwater40/safe-drinking-water-act-protecting-drinking-water-life>.

Take a look at the evolution of the Safe Drinking Water Act: <http://www2.epa.gov/safedrinkingwater40/evolution-safe-drinking-water-act>.

Resources/activities to teach students about drinking water: <http://www2.epa.gov/safedrinkingwater40/education-resources>.

A Look Back - SDWA 10th Anniversary: <http://www.awwa.org/publications/journalawwa/abstract/articleid/46499691/issueid/46498556.aspx?getfile=/documents/dcdfiles/46499691/jaw201408kimm.pdf>.

YouTube Presentation - Published on Mar 19, 2014 – MN Department of Health; 2014 marked the 40th anniversary of the passage of the federal SDWA, which established a set of national standards and regulations for all public water suppliers. <http://www.youtube.com/watch?v=inLZwGZSvSc>.

The SDWA on Wikipedia - The SDWA was one of several pieces of environmental legislation in the 1970s: http://en.wikipedia.org/wiki/Safe_Drinking_Water_Act. ITM

Extreme Weather Vulnerabilities and Water Utility Security: Are You Ready?



EPA has a newly released Flood Resilience Guide. It was based on some great engineering work conducted with the cooperation of the Berwick Water Utility in Maine and it has applicability for wastewater and drinking water utilities everywhere. Please find the guide at: water.epa.gov/infrastructure/watersecurity.

To view some of this resilience work on video, please go to:
Overview video - <https://www.youtube.com/watch?v=r25J-DJH2NQ&feature=youtu.be>
Step One - <https://www.youtube.com/watch?v=PhY5mP4ZJk&feature=youtu.be>
Step Two - <https://www.youtube.com/watch?v=eOIFPQA6POw&feature=youtu.be>
Step Three - <https://www.youtube.com/watch?v=Dj46VF113nY&feature=youtu.be>
Step Four - <https://www.youtube.com/watch?v=ETqHQ3ibclI&feature=youtu.be>



EPA Responds to Community Flood Concerns

By Bridget O'Grady
Association of State Drinking
Water Administrators -ASDWA
<http://wp.me/pSdQr-gs>

EPA's Office of Sustainable Communities recently released a report and a handy checklist that communities seeking to prepare for or recover from a major flood can use to assess whether their codes, policies, and regulations can help them withstand floods.

The report and checklist cover a wide range of activities. Not all of these activities will be appropriate

for each community. However, community leaders may want to consider them all and then choose the activities that work best for their local conditions and circumstances.

Here are some general steps communities can take to improve their flood resilience:

- Update and integrate community or comprehensive land use plans with hazard mitigation plans to ensure they are coordinated and that they prioritize planning for new growth in safer areas.

- Audit policies, regulations, and budgets to ensure consistency with flood-resilience goals outlined in community plans and hazard mitigation plans.

- Amend existing policies, regulations, and budgets or create new ones to help achieve the flood-resilience goals outlined in plans.

Here are some specific local land use policy options communities can consider:

- Conserve land and discourage development in particularly

"Flood" continued from previous page
vulnerable areas along river
corridors, such as flood plains and
wetlands.

- Where development already exists in flood-prone areas, take steps to protect people, buildings, and facilities from flooding risks.
- Plan for and encourage new development in areas that are less vulnerable to future floods.
- Manage stormwater using watershed-wide stormwater management and green infrastructure approaches to slow, spread, and infiltrate floodwater.

State agencies can also partner to support recovery and flood-resilience planning. Specific actions states can take to improve their

flood recovery and resilience efforts include:

- Auditing all state programs to determine how well they help communities achieve flood-resilience goals.
- Developing a comprehensive recovery plan before the next flood happens.
- Developing a personnel plan that delineates who will assist with post-disaster recovery.

The checklist and report come on the heels of President Obama's announcement in June 2014 of a new National Disaster Resilience Competition, which will provide nearly \$1 billion in funding from the U.S. Department of Housing and Urban Development's

Community Development Block Grant-Disaster Recovery funds to help communities that have experienced natural disasters rebuild and prepare for future disasters. The Notice of Funding Availability for the competition will be posted on www.hud.gov.

The Office of Sustainable Communities hosted webinars on smart growth approaches for flood-resilient communities with FEMA. Find details at <http://www.epa.gov/smartgrowth/webinars/index.html>.

ITM



MassDEP Staffer Receives the 2014 Harold Fletcher Award

By Jen Pederson, MWWA

The Harold Fletcher Award has been presented annually since 2004 to a Mass Water Works Association (MWWA) member who exemplifies Harold Fletcher's commitment to continuing education of water works professionals by participating as an instructor or in other ways supporting water works continuing education. The Education Committee was formed by Harold Fletcher

during his presidency in 1985. Daniel Laprade in the Western MassDEP office was nominated by the Education Committee for his participation as an instructor in MWWA courses and for his involvement with the MWWA Education Committee. Dan has been a member of MWWA since 2000. A few years ago, the Education Committee felt it was very important to have a regulator on the committee and with the support of his section chief, Dede Doherty, Dan did not hesitate to

get involved. While his workload keeps him busy, he finds time in his off hours to provide input to the committee and as a regulator he brings a unique perspective that is very valuable. Dan is always looking for ways to improve the content of courses so that drinking water operators will have the best educational opportunities. It is for these reasons that the association is pleased to recognize Dan for his efforts. The award was presented to Dan during MWWA's Annual Meeting on November 7, 2014.

ITM

A New Section 70 Member Appointed

By Kathy Romero

Congratulations to Paul McGovern who was appointed by MassDEP's Commissioner David Cash

to the Safe Drinking Water Act Assessment (Section 70) Committee. Paul has been in the water supply field for many years

and represents non-community public water systems on the Committee.

"Section 70" continued on next page

What's New on the MassDEP Web Pages

The following documents have been recently added/updated to the MassDEP web pages or have been mass-mailed to public water systems. If you have not as yet seen them, please visit the corresponding websites.

Date	Description	Web page	Type
7/14	Added new Compliance Schedule Approval content to Drinking Water Systems Operations	http://www.mass.gov/eea/agencies/massdep/water/drinking/water-systems-ops.html#13	New posting
7/30	Updated list of approved ice-making vending machines	http://www.mass.gov/eea/docs/dep/water/drinking/alpha/i-thru-z/newvendice.xls	Web update
10/1	Cross Connection Plan Questionnaire	http://www.mass.gov/eea/docs/dep/water/cccpques.doc	Web update
10/1	Basic Training for Drinking Water Board Members (NEWWA publication)	http://www.mass.gov/eea/docs/dep/water/drinking/alpha/i-thru-z/training-for-board-members-newwa.pdf	New posting
10/7	Annual SRF report	http://www.mass.gov/eea/agencies/massdep/water/grants/clean-water-state-revolving-fund.html	Web update
10/9	Updated Consumer Q&A for Manganese document	http://www.mass.gov/eea/docs/dep/water/drinking/alpha/i-thru-z/mangfactsheet.pdf	Web update
10/16	1,4-Dioxane Fact Sheets	http://www.mass.gov/eea/docs/toxics/stypes/dioxane-dep-fs.pdf	Web update
10/28	Revised CCR list to add new electronic delivery item	http://www.mass.gov/eea/agencies/massdep/water/drinking/water-systems-ops.html#7	Web update
10/29	Link – US EPA UCMR3 fact sheets & other related documents	http://www.mass.gov/eea/agencies/massdep/water/drinking/lead-and-other-contaminants-in-drinking-water.html	Web Update
10/29	UCMR 4 stakeholder presentations	http://www.mass.gov/eea/docs/dep/water/drinking/alpha/i-thru-z/UCMR4 Stakeholder Presentations.pdf	New posting
11/4	Added link to pamphlet about Corps of Engineers Emergency Power Facility Assessment Tool to Emergency Response Guidance Materials	http://www.mass.gov/eea/agencies/massdep/water/drinking/water-systems-ops.html#10	Web update
11/6	Updated SDWA rate-setting letter for FY2016 and SDWA Assessment Accomplishments CY2013	http://www.mass.gov/eea/agencies/massdep/water/drinking/water-systems-ops.html#30	Web update
12/4	Revisions to Water Resources contacts list to reflect retirements in DWM program	http://www.mass.gov/eea/agencies/massdep/about/contacts/water-wastewater-and-wetlands-contacts.html	Web update

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The Assessment funds staff in MassDEP's Drinking Water Program (DWP). In addition to cost saving programs for PWS, DWP staff delivers:

- one-to-one assistance to PWSs
- technical assistance and compliance assistance to PWSs
- no cost training for PWSs and

Training Contact Hours (TCHs) to maintain operator licenses

- regulations and programs that are developed based on the needs of Massachusetts PWSs
- pre-final regulation piloting of new requirements
- PWS opportunities to provide input on the development of regulations and programs.

More than half the PWSs in Massachusetts pay the minimum \$20.00 Assessment bill.

The Committee's public meetings, agendas, and their new brochure are posted at <http://www.mass.gov/eea/agencies/massdep/water/drinking/water-systems-ops.html#29>. 11/11/15

Intro to Fish Kills

Message from MA Fish and Game

What is a fish kill?

The sight of up to hundreds of dead and dying fish along the shores of your favorite pond or lake can be distressing and often lead to concerns about pollution. Fish do act as the "canary in the coal mine", so it's natural that someone would think a fish kill was the result of pollution. But in fact the exact opposite is true. The vast majority of the fish kills reported turn out to be natural events.

Natural fish kills are generally the result of low dissolved oxygen levels (anoxia), spawning stress, or fish diseases. Dissolved oxygen depletion is one of the most common causes of natural fish kills. This can be the case at any time of the year but generally occurs during severe winters or late spring/early summer.

Winter Fish Kills

During the winter, thick ice and heavy snow cover can result in low dissolved oxygen levels in ponds. Increasing ice and snow packs limit light penetration through the water column, altering chemical and biological processes such as photosynthesis and the decomposition of organic matter (dead plants). These conditions can frequently result in a winter fish kill. Shallow, weedy ponds of 25-30 feet in depth are particularly vulnerable. MassWildlife fisheries biologists routinely find low dissolved oxygen levels in ponds statewide during these kinds of

conditions. Reports of strong "rotten egg" odors are generally the first clue that a waterbody is experiencing anoxia. The odor is hydrogen sulfide gas which is a natural by-product occurring in lakes and ponds with low amounts of dissolved oxygen. This condition is natural and rarely the result of pollution such as illegal dumping, sewage, or a chemical spill. Oxygen levels become fully restored when the ice melts in the spring. It is at this point that winter fish kills often become visible to the public in the form of dead fish on the bottom of the pond or floating at the surface.

MassWildlife's Response to Fish Kills - Fish kill inspection

So how does MassWildlife know if a reported fish kill is a natural event or the result of pollution? As the lead agency in determining fish kill response, a Division fisheries biologist will review each call and through a series of questions, make a determination on whether the kill is natural or requires a site investigation. Generally, pollution impacts all kinds of aquatic life, therefore the most important piece of evidence for the biologists is knowing the number of fish species associated with the fish kill. Fish kills in which only one or two species are involved are almost always a natural event.



When it is likely that a fish kill is due to pollution, MassWildlife notifies the appropriate state agency, which takes the lead on a formal investigation including analysis of water and fish samples to determine the source of pollution. MassWildlife provides the investigating agency with technical assistance by identifying the kinds and numbers of fish involved. MassWildlife maintains a 40+ year database which helps track waters with a history of natural kills.

Reporting Fish Kills

To report a fish kill Monday through Friday between 8:00 am and 4:30 PM, contact Richard Hartley at 508-389-6330. After normal business hours or on holidays and weekends, contact the Environmental Police Radio Room at 1-800-632-8075. Between the 1st week of April through the 1st week of October, fish kills can also be reported via the MassWildlife's Fish Kill Response phone at 508-450-5869. For more information please go to: <http://www.mass.gov/eea/agencies/dfg/dfw/fish-wildlife-plants/fish/when-you-find-a-fish-kill.html>. TTM

SRF Corner

Grants for Clean Water (wastewater and stormwater) and Drinking Water Projects

The Division of Municipal Services (DMS) will be announcing the availability and accepting applications in 2015 from publicly-owned wastewater, stormwater, and drinking water systems for up to \$30,000 for technical assistance or planning grants. Massachusetts

Chapter 259 of the Acts of 2014 appropriated \$3,000,000 that will be targeted for an array of planning and technical assistance projects, with a concentration on the preparation of Asset Management Plans.

The grant program is in the early stages of development but will include asset management, technical assistance evaluations,

and green infrastructure planning needs. A team is presently developing ideas for the program and hoping to make the monies available starting in 2015. More information will be available through the state grants website and the COMPAS system.

For more information, please contact Pat Rogers at Patrick.Rogers@state.ma.us ITM

PN and CCR iWriters

EPA's PN iWriter and their CCR iWriter are currently hosted by a contractor on a non-EPA web site and server. EPA is moving all non-EPA hosted applications and tools to the EPA website; removing the applications and tools from non-EPA websites. The PN iWriter tool is no longer available. Use of the PN iWriter has declined significantly so EPA has decided that the most cost-effective approach was to take the site down rather than re-create it on

an EPA server. An email was sent to all registered PN iWriter users informing them that the tool is no longer available. In 2015, the PN Handbooks are being updated and an effort to make the associated PN templates interactive is being explored.

The CCR iWriter continues to be widely used. EPA is in the process of rebuilding the CCR iWriter on an EPA server. The contractor-hosted version of the

tool will remain available until EPA can rebuild the tool on an EPA server. A message will be shared with users with available email addresses warning of the transition when a final date is available. The new version of the CCR iWriter is expected to be available in early 2015 and it will include any past data entered by a CCR iWriter user.

If you have any additional questions, please contact Adrienne Harris (harris.adrienne@epa.gov/250-8793) or Jamie Harris (harris.jamie@epa.gov/564-6956).

ITM

Well Drillers' Registration Fees

Please be aware that the fee for Driller Registration renewals has increased from \$50 to \$100. The rigs are now assessed a registration fee of \$25 per rig. A number of Renewal Forms have been received with insufficient fees and cannot be processed.

Some renewal requests are being sent to MassDEP's office address rather than the PO Box listed in bold text on the front of the form.

To ensure that your registration is not lost or delayed, please be sure to send in the correct fee to the correct address.

Any questions on the renewal process can be directed to Steve Hallem at stephen.hallem@state.ma.us or 617-292-5681. ITM

Bureau of Water Resources

As of January 1, 2015 the Bureau of Resource Protection changed its name to the better reflect the water centered focus of the Bureau. It is now known as the Bureau of Water Resources.

EPA to Assist Water Utilities in Bolstering Climate Resilience and Readiness

WASHINGTON – The U.S. Environmental Protection Agency is providing up to \$600,000 in training and technical assistance to help water utilities in more than 20 communities bolster their climate change resilience and readiness.

"Climate change isn't a distant threat – it is already impacting communities across the country," said Ken Kopocis, deputy assistant administrator for EPA's Office of Water. "EPA is helping water utilities plan for and adapt to these challenges to ensure that they can continue to meet their public health and environmental missions no matter what circumstances may arise in the future."

Drinking water, wastewater and stormwater utilities will participate in a multi-year program to prepare for potential impacts from climate change. Challenges include droughts, more intense and frequent storms, flooding, sea-level rise and changes to water quality. Communities will receive technical assistance in using EPA's Climate Resilience Evaluation and Awareness Tool, software that helps users identify assets, threats and adaptation options to help reduce risk from climate change.

Communities receiving assistance from EPA include:

- Auburn, Alabama
- Austin, Texas
- Blair, Nebraska
- Bozeman, Montana
- Faribault, Minnesota
- Fredericktown, Missouri
- Haworth, New Jersey
- Helena, Montana



MassDEP

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Email the director at: Program.Director-DWP@state.ma.us

In The Main at: <http://www.mass.gov/eea/docs/dep/public/itm.pdf>

Drinking Water Program at:
<http://www.mass.gov/eea/agencies/massdep/water/drinking/>

MassDEP on Twitter: <http://twitter.com/MassDEP>

- Henryville, Indiana
- Hillsboro, Kansas
- Houston, Texas
- **Manchester-by-the-Sea, Massachusetts**
- Nome, Arkansas
- Norfolk, Virginia
- Portsmouth, New Hampshire
- Redwood Valley, California
- Sandpoint, Idaho
- Seminole Tribe of Florida, Florida

During each risk assessment, utilities will consider potential future climate-change impacts in an effort to build more climate-ready and resilient water services and infrastructure.

Such risk assessments will, for instance, help utilities:

- use adaptation options to better protect critical pump stations from projected precipitation events;
- use conservation measures to prepare for projected reduced snowpack or less-frequent rainfall events; and
- prepare infrastructure for increased salinity to deal with projected sea-level rise.

These examples illustrate the variety of adaptation options utilities can identify and build into planning based on their risk assessments.

More information: <http://water.epa.gov/infrastructure/watersecurity/climate/index.cfm>. ITM