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## Sanitary Surveys for Small Systems: What to Expect

*Greg DuMonthier, Field Inspector*

"You guys were just here!" "Nothing has changed!" "You already have all my information!" "What's this inspection all about?" "Glad to see you, safe water is important to my operation and I want to do things right." "Good timing, I have some questions for you."

Whether you're happy to see us or wish we would just go away, one thing is for certain, the Sanitary Survey (inspection) is here to stay. A Sanitary Survey is an on-site review of the water source, facilities, equipment, operation, and maintenance of a public water system. The intent of the inspection is to:

- reduce the risk of water borne disease;
- provide an opportunity to educate those responsible for the water system;
- identify water systems needing assistance;
- identify problems, and potential problem areas;
- act as a liaison between you and other DWP staff; and
- be available to answer questions and provide assistance in meeting your requirements as a public water system.

**How often are inspections required?** The answer depends on the public water system type. Community public water systems are inspected every three years, while Non-Transient, Non-Community and Transient public water systems are inspected every five years. New systems are inspected prior to operation, and water systems having difficulty can be inspected as needed. As a general rule, small water system inspections can be completed in one to two hours.

The Maine Drinking Water Program (DWP) has divided the State up into multiple field



*Field Inspector Greg DuMonthier inspects the well of a small water system during a sanitary survey*

districts, and assigned one or more Field Inspection Team (FIT) members to perform the inspections, depending on the water system type. The inspections are generally setup in advance via a letter, phone call, or e-mail. On rare occasions, FIT staff may simply drop in and ask if it's a good time to do an inspection. It's highly recommended that you get to know your assigned FIT inspector. If you don't know who your FIT inspector is, contact the DWP at 287-2070 or visit the DWP web site at [www.medwp.com](http://www.medwp.com), click on "DWP Services" and then click on "Field Inspection Team Contacts." You will find pictures of each one of us, along with the districts we are responsible for.

Although each inspector has their own style, core items of an inspection remain the same from inspector to inspector, and include the following:

- 1) Review and update database information:**
  - ✓ Contact names
  - ✓ Address information
  - ✓ Population of the system
  - ✓ Basic components of the system

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## Service Connection

### Director's Corner

#### Is it worth it?

We have heard from many public water system owners and operators who feel overwhelmed at times with the numerous requirements of the federal Safe Drinking Water Act. Even for transient water systems, which have the least regulatory requirements, compliance can seem elusive when a contaminant is found at unacceptable levels in the water.

The U.S. Environmental Protection Agency (EPA) has published many regulations for the approximately 90 contaminants regulated under the Safe Drinking Water Act. Knowing when, and where, to monitor for contaminants to meet the rule requirements can seem daunting. In an attempt to comply with one rule, public water systems may create challenges for complying with another rule. For some, it feels like not even Poseidon himself could identify the right treatment solutions for his water system to meet the water quality standards.

Water is safe only when it is regularly tested, contamination is kept out of the water source, and any necessary treatment is operating properly.

So is it worth it? Is it worth all the time, money and effort?

I hope that even at the most discouraging times, you are able to remember how important the work of providing safe drinking water is. The great news is that at any given time, almost all water systems in Maine are in compliance with the federal regulations. How fortunate we are to live in a state and country where safe drinking water is available almost everywhere you go.

So don't forget to celebrate the success of providing safe drinking water. And if there are times when you are unable to provide safe drinking water, be grateful you knew it and were able to convey that message to your customers. Compliance with the federal regulations tells you and your customers that you are providing safe drinking water. The staff at the Drinking Water Program is here to help you succeed as a public water system.

Yes, it is worth it. Our work is a fundamental public health service to our communities and customers. Congratulations on achieving this public health success.

Yours for Safe Drinking Water,

*Roger*



## Service Connection

### THE DRINKING WATER PROGRAM NEWSLETTER

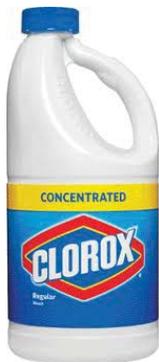
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## Important Information for Water Systems with Continuous Chlorination Disinfection Systems:



Clorox® has recently released a new product called Clorox® Concentrated. Clorox® Concentrated has a stronger concentration of sodium hypochlorite (the active ingredient to disinfect). The concentration of sodium hypochlorite in the new Clorox® Concentrated product is 8.5%, compared to 5.25% or 6% in Clorox® Regular and Clorox® Ultra, respectively. It is important that you **pay close attention to the labeling of the Clorox® bleach products you buy** to ensure that you know whether you are purchasing the higher concentrated Clorox® Concentrated product for use in your continuous chlorination disinfection system. If you use this new Clorox® Concentrated product in your continuous chlorination disinfection system, you will need to adjust the amount of bleach you use, **as less of this new product is needed to achieve the same strength as other Clorox® products**. The DWP has developed a guidance document to help you determine how much of the new Clorox® Concentrated should be used in place of Clorox® Ultra or Clorox® Regular. The guidance document can be found on the homepage of the DWP website.

## It All Boils Down to Providing Safe Drinking Water

*Nathan Saunders, Field Inspection Team Leader*



Sterlic via Flickr

Safe water: it's what public water systems work hard to provide. Much of the work done to design water systems properly and plan for unexpected events to ensure that water public systems are able to provide safe water to their customers. When unexpected events occur (such as a broken pipe draining the water out of a system or a well pump failing), a normally intact and pressurized water system can be depressurized and emptied rapidly. When water drains backwards out of a pipe, a vacuum can form that pulls contaminants into the water system.

Similarly, when a broken well pump is pulled and the pipe and pump are exposed to the ground or other contaminated surfaces, such as hands or gloves, these system components can later contaminate water that is intended for drinking.

Water systems are most commonly contaminated by microorganisms allowed to enter the piping or other physical components of the system. When contamination occurs, the U.S. Environmental Protection Agency (EPA) states: "Boiling is the surest method to make water safe to drink and kill disease-causing microorganisms...." The Drinking Water Program (DWP) follows guidance provided by the EPA for boiling water. In the past, EPA and DWP have recommended that water be boiled for 5 minutes; however, a few years ago, the recommendation changed from boiling water for five minutes to **boiling water for one minute at a rolling boil**. The new and added terminology helped resolve some common confusion from the past, like the following: "What point is considered boiling?" "When do we start the timer?" "How big do bubbles have to be to be considered boiling?"

During a Boil Water Order, public water system consumers should be directed to **boil all water for at least 1 minute at a rolling boil** before drinking, making ice cubes, washing foods, brushing teeth or in any other activity involving consumption of water.

Water systems issue Boil Water Orders to prevent people from consuming contaminated water. Boil Water Orders help protect public health, but they also create challenges for water systems and their consumers. These challenges are particularly difficult for businesses preparing food that must change their operating practices to accommodate the requirements of a Boil Water Order. With this understanding, EPA and the DWP have created guidance documents to assist water systems, consumers, and businesses to understand best practices while operating under a Boil Water Order. Documents available include the following: "Water Contamination: Guidance for Eating Establishments During a Boil Water Order or Advisory" and "What Public Water System Consumers Should Know about Boil Water Orders." Both guidance documents can be found by going to [www.medwp.com](http://www.medwp.com) and clicking on the "Public Water System Emergency Response Information" link.



# CCRs Can Now Be Distributed Electronically

*Carlton Gardner, Compliance & Enforcement Team Leader*

Every year, each community water system must produce a Consumer Confidence Report (CCR) and distribute it to their consumers by July 1st. Most public water systems in Maine mail or hand deliver CCRs to their consumers. Some systems serving less than 10,000 people (population) have requested a mailing waiver and can publish the entire CCR in a local newspaper serving the area.

**On January 3, 2013, EPA released a memo outlining ways that community water systems may now distribute their CCRs electronically.** Acceptable options for public water systems include the following:

- Post the CCR on a website. Water systems must provide a short URL (web address) that links directly to the system's CCR; or
- Attach the CCR to an e-mail; or
- Insert the CCR into the body of an e-mail.

If a community water system wants to use the electronic distribution option, they must inform all of their consumers that a copy will not be mailed out, unless a paper copy is requested. The electronic availability notification may be done by mail, but the water system must include the notice on every mailing (example: a statement on water bills). If a public water system sends the CCR via e-mail, then it must state that a paper copy will be provided upon request. Water utilities with auto-bill and auto-pay customers must send a dedicated e-mail, to inform customers of the availability of the CCR each year. Paper copies must be sent to any consumers without an e-mail address and to those consumers whose e-mails are returned or "bounced back."

**Electronic delivery methods that do not meet the CCR distribution requirements include:**

- A URL requiring navigation to another part of a web-site to find the CCR; or
- Use of social media like Facebook or Twitter to notify customers of the availability of the CCR; or
- Use of automated phone calls.

For certification purposes, if a community system decides to use an electronic delivery method, the system must provide the URL and include a copy of the notification that was provided to customers. If the CCR was distributed by e-mail, the system must provide an example of the e-mail containing the attachment or embedded CCR. In all cases, the system must provide a statement that paper copies were delivered upon request or to persons without e-mail. This certification must be submitted to the DWP by October 1st. If you have any questions, please consult your compliance officer.

Now available on DWP Website:  
www.medwp.com

**2012 Small System CCR Templates:** By providing your PWSID# in the box provided, a fillable form will be generated, based on your water system's test results from 2012.

**2013 Drinking Water Testing Requirements:** Enter a PWSID# to access the 2013 Required Testing Report for that Public Water System (PWS). Reports will also be mailed to the 'Sampler' on file for the PWS.

## Sustainability Efforts at the Yarmouth Water District

*Norm Lamie, Chief Engineer*

A unique and interesting Sustainability Effort is underway at the Yarmouth Water District (YWD). Bob McKinnon shared his story with the DWP about the District's latest efforts to evaluate and enhance its long-term sustainability. The YWD is working to serve high quality water in a responsible way to its employees, customers, and the environment, while securing the financial health of YWD.

of YWD operational practices related to the "10 attributes that are indicative of a well-run, highly productive, sustainable utility." The EUM program prepared a summary and full report, which included specific recommendations.

In 2010, the YWD developed a Sustainability Action Plan identifying major focus areas, which was adopted by the YWD Board of Trustees in August 2010. The focus areas identified in the Sustainability Action Plan were the following:

In 2012, YWD began working with consultant Drumlin Environmental, LLC, to implement four specific pilot initiatives:

- ✓ Energy & Greenhouse Gas Emissions;
- ✓ Water Use;
- ✓ Land Use and Water Quality Protection;
- ✓ Human Resource Developments; and,
- ✓ Communications.

1. Fleet energy reduction initiative;
2. Land conservation and stakeholder engagement initiative;
3. Staff development and training initiative; and,
4. Stakeholder communication website initiative.

The DWP's DWSRF Capacity Development Grant funded \$5,000 to YWD for the work completed in its 2012 project.

In 2011, YWD participated in the U.S. Environmental Protection Agency-sponsored Effective Utility Management (EUM) program, which included a review

Congratulations to Bob McKinnon and everyone involved in the Sustainability Efforts at the YWD.



*Continued from Cover...*

**2) Discuss violations (if any) and how they can be corrected.**

**3) Review Source:**

- ✓ Inspect the well head and cap;
- ✓ Identify contamination sources within 300 feet of the well; and
- ✓ Determine the distance from the well to the nearest property line.

**4) Review Sampling:**

- ✓ Determine if there is a raw-water sample tap;
- ✓ Create or review the sampling site plan;
- ✓ Evaluate sanitary conditions of the sampling location;
- ✓ Review sampling technique with the sampler; and
- ✓ Ensure that the water system understands their sampling requirements.

**5) Review Treatment (if any):**

- ✓ Evaluate NSF/ANSI 60 Certification for all chemicals;
- ✓ Evaluate NSF/ANSI 61 Certification of all materials in contact with drinking water;
- ✓ Create a schematic to identify treatment components and equipment;
- ✓ Check for hard piped bypasses around required treatment;
- ✓ Identify inactive treatment equipment, if present;
- ✓ Identify cross connections; and
- ✓ Review monthly operating reports.

**6) Inspect and identify all storage tanks** (bladder, hydro-pneumatic, atmospheric, contact).

**7) Evaluate the distribution system** (pipes, valves) and develop a schematic.

**8) Review Operations**

- ✓ Determine if the PWS has a written emergency response plan;
- ✓ Review management and operational practices, including record keeping;
- ✓ Discuss monitoring requirements;
- ✓ Identify potential security concerns; and
- ✓ If required, the inspector will review licensed operator responsibilities and requirements.

**9) Exit – Communication:**

- ✓ Suggest what could and may be done to enhance the water system and improve water quality;
- ✓ Review any issues that need correcting and when



*Field Inspector Greg DuMonthier takes notes while reviewing a treatment system during a sanitary survey*

- they must be corrected by; and
- ✓ Answer any questions which may have arisen during the inspection.

The next time your field inspector contacts you to perform an inspection, don't stress. Our intent, as I hope yours is, is for you to have safe water, and for your facility to be in compliance with state and federal rules and regulations. We look forward to seeing you in the future. Do your part by maintaining your water system and keeping up with rules and regulations.

Be sure to contact us when you plan to make changes to your system. Lastly, if you have problems or don't understand something, call us. We're here to help and guide you.



## NEW DWP STAFF



Jennifer Jamison joins the Drinking Water Program as the new Laboratory Certification Officer. Jen has a Master's Degree in Immunology and Molecular Biology from the University of Southern Maine. She has been employed in a Virology Lab, working primarily as an Electron Microscopist, performing research in bacteriophage studies, including the study of extremophiles. She has provided service for commercial and educational laboratories. In addition, Jen has taught science in multiple outreach programs over the past ten years. You can contact Jen at 287-1929 or [jennifer.jamison@maine.gov](mailto:jennifer.jamison@maine.gov).



# Water Operator Board News

Teresa Trott, Licensing Officer

## Renewal Update

The following table outlines the license status with corresponding actions required to maintain or reinstate the license, based on the dates below:

| Renewal Date            | License Status   | Action Needed  |
|-------------------------|--|--|
| 12/31/2013 & later      | Active.  | Training & \$75 renewal fee                          |
| 12/31/2012 & 12/31/2011 | <b>Inactive.</b> Cannot be in responsible charge of PWS. If operating, the operator may be charged with operating without a license. | Training & \$75 renewal fee + \$50 reinstatement fee |
| 12/31/2010 & earlier    | Expired.   | Retest & \$75 licensing fee                          |

## National Training Coming to Maine

Federal 2013 training funds were granted to the Environmental Finance Center Network (EFCN) and Texas Engineering Extension (TEEX) to provide free water operator training to all states.

- New England’s EFC is located at the University of Southern Maine (USM). Two classroom trainings will be provided at no cost: Energy Management at the USM Campus in Portland on April 9th; and Asset Management at the City Hall in Ellsworth on April 10th. For more information, and to sign up, visit <http://efcnetwork.org/>.
- TEEX will provide free training and site specific technical assistance for 8 days in June in western and eastern Maine. Training will vary from basic operations to more specific topics. In the coming months, a list of scheduled training sessions, detailed information on the time and location of each class, and the opportunity to register, will become available. To learn more about TEEX, visit [www.teex.org/safewater](http://www.teex.org/safewater).

Other websites and organizations awarded funding for training include: National Rural Water Association (NRWA) [www.nrwa.org](http://www.nrwa.org), Rural Community Assistance Partnership (RCAP) <http://www.rcapsolutions.org/>, <http://privatewellclass.org>, and [www.smallwatersupply.org](http://www.smallwatersupply.org).

For more information on these, or other trainings, review the Maine Operators Training Calendar on our website or contact Terry Trott at [teresa.trott@maine.gov](mailto:teresa.trott@maine.gov) or 287-7485.

## Con-tin-gen-cy

*a. An event that may occur but is not probable.*

*b. A possibility that should be prepared against.*

Have you reviewed your drought contingency plan lately? It may be time to dust it off and update some items.



Are your drinking water orders ready to go in the event of flooding? Is your emergency response plan ready to be tested? Have you heard about EPA’s popular website and webinars called "Climate Ready Water Utilities"?

Resources for planning are more accessible than ever. Templates, plans, and stories from lessons learned are easily obtained. One of the biggest questions utilities ask, is “Where do I start?” Start with what you have. Old plan? You can update it and build from there. If you don’t really have anything, you can start fresh. The DWP can provide emergency guidance and templates for all sizes of PWSs. The infrastructure of emergency preparedness planning of

any kind is the same: start early, collaborate, keep the plan moving forward (a regularly updated document), and have flexible options outlined and ready.

Weather-related events are bound to continue to occur. Working steadily on a plan for all types of emergencies is another way of building resiliency. This resiliency applies to the utility, the staff, and your ability to continue to provide safe drinking water (and water pressure) to your customers in the worst of times.

### *Some resources available include:*

#### **DWP's Emergency Response Resources & Documents**

<http://www.maine.gov/dhhs/mecdc/environmental-health/water/emergency-response.htm>

#### **U.S. Drought Monitor**

[http://droughtmonitor.unl.edu/dm\\_northeast.htm](http://droughtmonitor.unl.edu/dm_northeast.htm)

#### **EPA's Climate Ready Water Utilities**

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





## Enforcement Corner

### It Takes a Village to Regulate a Public Water System

*Tera Pare, J.D., Enforcement & Rulemaking Coordinator*

Maine's Water for Human Consumption Act authorizes the Drinking Water Program (DWP) to seek administrative remedies from public water systems in violation of drinking water regulations. But, what if an administrative order or penalty fails to resolve those violations? The public water system faces additional costs and headaches by facing the Maine court system, after the case is referred to the Maine Attorney General's Office. This route not only burdens the public water system but requires a great deal of time and effort from DWP staff. In order to shorten this often painful process, the DWP developed an effective alternative to this lone battle for compliance: reinforcements. Many of the almost 1,900 public water systems in Maine are regulated and licensed by other agencies and boards, so by coordinating our efforts, the process becomes streamlined and compliance may be achieved much earlier.

For a public water system restaurant, the DWP coordinates with the Health Inspection Program (HIP), which licenses restaurants. A condition of that HIP license to operate is that the restaurant complies with drinking water regulations. A restaurant may face delays in license issuance or renewal, if drinking water regulations remain outstanding. Another facility possibly subject to additional licensing is a daycare business, which is licensed by Maine's DHHS Child Care Licensing Unit. The daycare facility is a public water system if water is served from its own source to enough children, who represent a particularly sensitive population if exposed to various contaminants; therefore, both agencies take these violations very seriously. Water operators may contribute to drinking water violations by failing to collect samples or properly maintain a treatment system; therefore, their operator license may be in danger, if the Water Operator Board conducts an investigation and decides to take action. On a quarterly basis, the DWP provides a list to the Board of Licensure of Water System Operators which identifies those operators associated to public water systems with violations. A tavern or facility serving alcoholic beverages is licensed by the Maine Department of Public Safety's Liquor Licensing and Compliance Division. Licenses to serve liquor require that the facility, if it is regulated as public water system by the DWP, be in full compliance with drinking water regulations. Some of the fastest roads to drinking water compliance occurred after the State's Liquor Inspector tells a facility wanting to serve alcohol that they will not receive their license until they comply with drinking water regulations.

Another strong DWP ally continues to be the Manufactured Housing Board, which licenses mobile home communities. An owner of a mobile home community, out of compliance with drinking water regulations, may face both the Manufactured Housing Board and the DWP. Hearings, penalties, and license suspension are among the possible consequences.

So, remember: complying with drinking water regulations means less hassle and costs from not only the DWP but a myriad of other authorities.



## You Ask, We Answer: Your FAQs Answered

**Q:** *Am I allowed to use any laboratory for my water testing?*

**A:** The laboratory you use must be certified by the State of Maine for the required tests you want performed. A list of in-state and out-of-state laboratories, as well as which tests they are certified for, may be found at [www.medwp.com](http://www.medwp.com). Click on the "Laboratory Certification" link.

**Q:** *When is a Drinking Water Order (Boil Water Order, Do Not Drink Order, or Do Not Use Order) necessary?*

**A:** In general, an Order is issued if an event occurs which could introduce contaminants to the system (such as failure of chlorination equipment or increase in turbidity), or if the

presence of fecal coliform and/or E. coli is detected during recheck sampling. An Order may be voluntarily imposed by the public water system or issued by the DWP.

The DWP has a "Policy for Issuance and Removal of Drinking Water Orders" in place, to help both the DWP and public water systems make these important decisions.

The policy may be found on the DWP website at [www.medwp.com](http://www.medwp.com). Click on the "Public Water System Emergency Response Information" link.

*Have any questions you want answered? Send them to [erika.bonenfant@maine.gov](mailto:erika.bonenfant@maine.gov). Your question might even be featured in a future newsletter! If you don't know, just ask!*





Department of Health  
and Human Services

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## Service Connection

Newsletter of the Drinking Water Program

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# Maintaining Pipes & Storage Tanks

## A Guide for Public Water Systems

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### The Importance of Maintaining Pipes and Storage Tanks

Storage tanks and a network of piping (also known as a distribution system) is an integral part of a water system's ability to provide safe, clean water to consumers. If not regularly inspected and properly maintained, contaminants can enter the drinking water through the pipes and tanks or could result in an inability to maintain the pressure needed to deliver water to the tap. This document is intended to provide guidelines on how to make sure piping and storage tanks stay in good shape, so that you can continue to provide your consumers with safe drinking water.

### Pipes

#### Leaks and Pressure problems



A minimum of 20 psi should be maintained at all times and under all conditions throughout water system

Leaks not only cause water loss after you've invested in pumping and treating, but they also create a pathway for contaminants to enter the water system. Water losses create unnecessary stress to water sources and system infrastructure, so it is important to know some signs to look for that may indicate a leak. Common signs include an increased demand for water during a time when it is not expected, (such as the middle of the night or very early morning hours), or if there is pump cycling when no demand is expected.

Positive water pressure within a water system not only helps deliver water to the tap, but also helps keep contaminants out. When there is low or no pressure, contaminants can backflow into the water system. Ideally, standard service to your customers should be no less than 35 psi, and **a minimum of 20 psi should be maintained at all times and under all conditions.** If pressure falls below 20 psi in any part of the water system, the risk of contaminants backflowing into the water system is greatly increased. You should investigate and remedy all unexpected changes in pressure, either too low or too high. The operation of a pressure relief valve may indicate the pressure in a system is too high.

#### Cross Connections and Backflow Prevention

A cross connection is a physical connection between a source of potable water and a source that is unsafe, potentially unsafe, or undesirable to drink. Cross connections make it possible for potentially hazardous contaminants to enter, or backflow, into a drinking water supply.

Common examples include: lack of air gap between water feed line or hose used to fill a treatment solution tank and the tank itself; fire sprinkler systems connected to the potable water system; and unused equipment or an unapproved source connected into the water system.



A testable backflow prevention device on a treatment feed line

Identify, and eliminate all cross connections within your water system. If you can't eliminate a cross connection, then it should be protected with an appropriate backflow prevention device, depending on the type of hazard. Backflow prevention devices/valves are determined to be acceptable, based on the system characteristics (low hazard, high hazard, back siphonage, back pressure) and approved devices are certified by a recognized organization and permanently labeled on the device. For more information on determining the type of backflow needed to protect a specific type of cross connection, consult Table 6-2 of the Maine Internal Plumbing Code. Backflow prevention devices should be tested regularly, with a frequency of no less than once per year.

#### Keep Your Drinking Water Safe:

✓ Protect Your Source

✓ Take Your Samples

✓ Maintain Your Treatment

✓ Inspect Your Pipes & Tanks

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## Pipes (cont.)

### **Protection from Freezing**

Make sure your pipes have proper protection from freezing:

- ✓ Year-round outdoor piping should be buried and/or insulated adequately;
- ✓ Seasonal piping should be properly and safely dewatered when not being used;
- ✓ Indoor piping should be in a climate-controlled space (as simple as an insulated building with a space heater) or wrapped in insulation or heat tape.

## Tanks

### **General**

Storage tanks should be kept in good condition and inspected for structural issues on a regular basis. Consider the following:

- ✓ Look for signs of: rust (metal tanks), spalling concrete (concrete tanks), cracked foundation (elevated tanks);
- ✓ Ensure level controls are functioning properly;
- ✓ Check for (and remediate, if necessary) algal or other growth inside the tank;
- ✓ Check for sufficient storage to keep up with demands. Short pump cycling may indicate that insufficient storage is present;
- ✓ Check contact tanks (for chlorination disinfection) to make sure they do not have a bypass valve present; and
- ✓ Is your hydronuematic tank water logged? Possible signs include:
  - Very short pump cycling;
  - Tapping tank without any appreciable noise change from bottom (where water should be) to the top (where air should be);
  - Sweat line near the top; and
  - Sight glass almost or completely full of water (conventional hydronuematic tank only).

### **Overflows and Vents**



*Tank overflow with screening to prevent entry from animals*

If not properly maintained, tank overflows and vents can introduce contamination into a storage tank. For this reason, they should be inspected and maintained regularly. Look for evidence of insects or animals gaining entry into the tank. Ensure that vents are screened properly and that overflows are protected against animals or other contamination entering the pipe (e.g. screening or a flapper). Ensure that overflows are not draining directly into a sewer, storm drain, or submersed in a body of water.

### **Security**

Ensuring that your storage tanks are secure and will deter vandalism is an important part of protecting your water system and the health and safety of your water system's consumers. Bladder tanks should be kept inside a locked room, while other tanks should be fenced in with a locked gate. Security lighting and cameras add another layer of protection to both deter vandalism and determine when, or if, the security of a tank has been breached. Additionally, access hatches and ports should be locked and access ladders should have protections against unauthorized use (high off ground and locked with a restriction plate).



*Security fence with locked gate around storage tank*



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