

**Montana Rural Water Systems, Inc.**  
**2019 Fall/Winter Edition**

**H2O-News-4-You**

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## *Article Table of Contents*

2019 Fall /Winter Edition—Front Page	4
National Director's Report (Al Kelm—MRWS)	4
Training Desk (Julie Allen—MRWS)	5
Dotting Legal I's and Crossing Legal T's (Bobbie Shular—MRWS)	7
From the Desk of John Camden, MRWS Executive Director	11
Flow Means Flow (Roger Skogen—MRWS)	13
DNRC News (DNRC Staff)	15
Cyber Security (Dan Kramer—MRWS)	19
AWIA—New Requirements for DW Utilities (Kristi Kline—MRWS)	21
Emerging Contaminants: PFAS (Erin Wall—MRWS)	24
Martha Anne Dow Award Announcement	27
Certification Corner (Jen VandenBos—DEQ/Operator Certification)	29
Customer Leaks Hurt! (Nick Clos—MRWS)	32
A Quick Tip Guide for Sanitary Surveys (Tahnee Praiswater—MRWS)	34

## We Appreciate our Advertisers...Thanks for Your Support!

A+ Electric Motor, Inc.	6
AE2S Engineering	37
Ambient H2O	23
American Leak Detection	25
American Structures	30
Anderson-Montgomery Consulting Engineers	20
Bitterroot Utilities	10
Black Mountain	10
CA Bio Logical Solutions, Inc.	14 & 31
Chemical MT	23
Core & Main	12
DGR Engineering	28
Dorsey & Whitney	23
DOWL	36
DPC Industries, Inc.	31
Edward Jones—David Foscue	23
Energy Laboratories	31
Fuse It Pipe & Supply, LLC	22
Great West Engineering	26
Hawkins, Inc.	22
HDR Engineering	20
Interstate Engineering	37
iSiWest	33
KLJ Engineering	12
Licini's Print Shop	31
Maguire Iron	14
ME Lab	23
Morrison-Maierle Engineering	39
NCI Engineering	28
NorMont Equipment Co	14
Northwest Pipe Fittings, Inc.	26
Pipe & Tanks LLC	31
Pittsburg Tank & Tower Maintenance Co., Inc.	6
Robert Peccia & Associates	2
Sanderson Stewart Engineering	20
Stahly Engineering & Associates	33
Straight Flush Drain Solutions	30
TC Sales and Service	31
TD&H Engineering	6
USA BlueBook	40
Wendy J. Weissman, CPA	23
Xylem	18
Yellowstone Water Works	23

## Front Page...Going to Great Heights!

MRWS has been offering technical assistance and training to certified operators, water boards, utilities management and clerks around the state for 40 years. We've helped small systems and utilities find their way through the mountains of rules and regulations, paperwork, source water protection plans, and emergency response plans and emerge on the summit of success for their communities. Montanans have always been aware of our pristine waters. We're helping Montana realize that without proper protection of both our surface and ground water sources, those pristine waters will become endangered. As Montana grows, so does MRWS and we intend to be right there, helping small systems make it to the top and successfully overcoming the difficulties and steep roads they have to navigate day after day!

*Cover photo: The Beartooth Photo taken by Julie Allen*

## National Director's Report—Al Kelm

As your newly appointed Montana NRWA National Director I get the privilege/opportunity to represent Montana on the National Rural Water Association level.

After being appointed by the MRWS Board of Directors I was sent to Duncan, OK for training, which is the headquarters for NRWA. Upon arriving at the NRWA Headquarters I was surprised by the unassuming and quaint NRWA sign and steel office building. I met with the NRWA staff that handles the day to day business. A couple of things that were observed were the friendliness of the staff and that every available space was utilized for the staff. After meeting the staff, I was given the NRWA New Board Member Orientation along with three other new board members. This training entailed going through the NRWA organizational charts, by-laws, policy manual, Federal Programs and Long-Range Planning, to name a few. After the day and a half orientation we were declared "Duncanized".

The 2019 Water Pro Conference in September started with attending Committee meetings. I sat in several of these to get familiar with their functions and importance to NRWA and State Organizations. NRWA President Mr. Watson will assign the committees I will be serving on. There are 14 different committees, and I could be sitting on one or two committees to start with. The 2019 Board Meeting was a huge eyeopener for everything that NRWA is doing for small systems nationwide. Listed below are a few examples that come to mind and most of them are saving small systems time and money:

- Perchlorate Rule – Urging EPA to NOT make final decisions on this rule for 4 different reasons. (Save public water systems 10.2 Million annually)
- PFAS – Oppose House Legislation to expose water utilities to Superfund liability for PFAS. (put this back on the companies that produced PFAS)
- Nutrient Trading – Support EPA's Nutrient Trading Policy.
- PFAS – Oppose MCL for PFAS (support PAS assistance policies)
- Consolidation – Oppose EPA "Mandatory Consolidation" authority.
- VA's – Requirement to update Vulnerability Assessments. (Risk Resiliency Assessments) NRWA is planning on developing a free RRA tool for small communities which could save upwards of \$50,000,000 compared to a federal mandate for a specific assessment that would require a consultant or professional certification.
- Expand WIFIA to SRF's
- Providing the means for technical assistance, source water protection, and training.
- Also, NRWA has purchased a mobile Emergency Response Trailer and equipment to help communities with disaster situations.

Continued on page 9

### *About this Newsletter*

**Montana H2O-NEWS-4-You** is the official publication of Montana Rural Water Systems, Inc. It is published 2 times per year for distribution to representatives of rural and municipal water and wastewater systems. Articles, news items, and photographs are welcome. Submit to MRWS at 525 Central Ave M6, Great Falls, MT 59401. Statements of fact or opinion are the responsibility of the author and do not necessarily reflect the opinion of Montana Rural Water Systems, Inc. All rights reserved. This is a non-profit bulk mailing permit at Great Falls, MT.

*Compilation, Editing, & Layout completed by Julie Allen & Staff.*



## From Julie Allen's Desk

MRWS Training Specialist

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### What We've Done and Where We're Going

The 2019 MRWS training year has wound down and we're getting ready to jump into 2020 with both feet! We've had some outstanding presenters from some of our Associate members for 2019---Hymax, ME Labs, Chemical Montana, AE2S and more---and we'll see more of them in 2020. MRWS believes that well-trained and well-informed operators, clerks, and utility managers make for smooth running systems. Along with our great technical assistance team, we provide some excellent opportunities to get that training not just for CECs but to stay on top of what's new in our business, rules and regulations, and emergency preparedness.

This fall's workshops on Leak Detection, Water Audits, and Water Loss, an Aging Infrastructure and Corrosion were, as always great informational events. The technological improvements and advances that are new in leak detection equipment are amazing. Keeping track of water use not only shows where there could be leaks but also helps save money! A drip can be worth a lot of dollars but an unknown hook-up to the system can be a loss of hundreds of dollars! Water loss and our aging infrastructure are both hot topics these days. We have infrastructure in our water and wastewater systems that are 50+ years old---some are pushing 100 years. Those systems are expensive to replace and often difficult to explain to councils and boards, but if we don't deal with them, we will have failing water systems across Montana.

The 14<sup>th</sup> Annual Nat'l Park Service and Small System Operators Training offered a variety of topics from flexible pipe and public relations to safety, hydrants, and security. We had great weather this year, too! You should put this training on your calendar for next year!

Remember that we've moved the annual MRWS Conference to **March 25-27** in 2020. Call for Papers is out there for conference presentations. The 2020 training schedule is set!! Remember, the CEC period ends, May 31, 2020!! If you have any questions about training, becoming certified, or just want to say hello, give me a call or drop me an email!

### Just a Peek at What's Coming Up

- |   |
|---|
| • Watch for the new calendar of training on MRWS.org                |
| • VA/ERP Training & Safety for Water/Wastewater Operators           |
| • Chlorine and Other Disinfection                                   |
| • Small System & Colony Training/Operator Certification Exam Review |
| • 41 <sup>st</sup> Annual MRWS Conference – MARCH 25-27, 2020       |

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# Dotting the Legal I's and Crossing the Lawful T's and System Sustainability

By Bobbie Shular, MRWS Circuit Rider

Many of the systems I have visited have a new board, new administrative personnel, or both. New people mean new perspectives and new ideas as they review procedures both for operating and board meetings. The goal of a system is to provide safe drinking water, or to discharge water that enhances environmental protection. Both sides of a system must meet DEQ standards. A successful system has one or more skilled operators. But how does a system acquire and keep a skilled operator? By having a board that is focused on system sustainability.

One of the first steps to meeting system sustainability is ensuring all legal requirements are met regarding the board, meeting procedures, and by-laws. There are many minute details that quite often go unnoticed in the day to day and monthly operation of a system but contribute to a collective migraine for the system if they are not met.

As I visit with systems many of the conversations circle back to required forms, agendas, meeting format, minutes, and the process people are going through in learning the "ropes" of their position. Often, the reason the subject comes up is because the community has been discovered either by individuals or developers that are exploring the feasibility of building businesses or housing. Many communities are discovering the financial and operational impact of having a population that is only in residence for a few weeks and the possible legal and financial impacts that goes with this type of growth. One of the most valuable assets a district has is their personnel and the service they provide to the system. Whether the "personnel" serves as a board member, general manager, operator, or secretary/clerk, each position plays a crucial role in the successful sustainability of the system. The less legal migraines a system experiences, the more sustainable it becomes in its finances, management, and operations.

In the exploration of these communities for development, attention naturally turns to existing water and sewer districts and their ability to provide water and wastewater services to a growing population. As the personnel in these systems examine their abilities to expand, attention also needs to be focused on existing by-laws, meeting procedures, and eligibility of board members. There have been many changes to Montana law in the last decade a system may be unaware of.

One area of change is how and when board members are elected. When I first began my career with my local water system election of board members coincided with election day on the 2<sup>nd</sup> Tuesday of November. That changed in 2015. Water and sewer district board members are now elected on the 2<sup>nd</sup> Tuesday of May. Filing for the position now begins in December preceding election day in May and closes in February. For the exact dates that filing is open for a board position contact your county election office.

Another change is how a person files for election. They still must be a registered voter and either own property or reside in the district they are filing for, but they no longer need the signatures of registered voters who own property or reside within the boundaries of their district. All that is required now is to pay the filing fee and complete the form to become a candidate for a board position.

Elections are only held if more candidates than board positions file for election. Otherwise, the county will send a letter to the district appointing the candidate(s) to the open board positions. Board position terms now begin June 1<sup>st</sup> following the election in May and end after four years on May 31.



Continued on next page



Water and sewer board members are required to take an oath of office, the same as any other elected official in the state, even if they are appointed by the county or by existing board members. The oath of office can either be administered by the elections department in their county or by a board member that is already serving on the board. If the board member chooses to have the oath of office administered by another board member a signed copy of the oath of office by the board member needs to be sent to their county election office. The oath of office is contained in Article III, Section 3 of the constitution of Montana and reads as follows:

"I do solemnly swear (or affirm) that I will support, protect and defend the constitution of the United States, and the constitution of the state of Montana, and that I will discharge the duties of my office with fidelity (so help me God)."

What if nobody has filed to be elected to an open board position? Can the people serving in those positions just continue to hold the position? The answer to that would be no. They either need to be re-appointed by a quorum of qualified board members or by their county. There are three ways a person can become a board member of a water and sewer district: 1) file for election and be elected to the position, 2) if not enough candidates file to hold an election they can be appointed by the county, 3) they can be appointed by existing board members to fill an open position until that position comes up for election at its appointed time. The county election office or county attorney are a great source of information for elected positions.

Another area that may need review is meeting procedures and proper notification of the public of a meeting. Most small water and sewer districts have an established day of the month that the board meets. The district may want to include on their billing the place, day, and time a set meeting is held. New customers, especially first-time homeowners, may be unfamiliar with how a water and sewer district functions and may be unaware that the system operates with by-laws, an elected board, and that there are regular meetings they can attend.

Formal publication of a regular monthly meeting in the local paper is not required but posting the agenda in the window of the district office, or a public area is required. The agenda must be posted at least 48 hours before the meeting. The Board can only make formal motions on items that were included on the agenda for two consecutive meetings.

Because water and sewer district meetings are public, the general public can attend the meetings and request copies of the minutes, though the district may charge a fee for locating and copying the information. Once minutes have been approved and signed by the President and a witness (the witness is traditionally the secretary/clerk, or general manager), a copy of the minutes is to be sent to the county clerk and recorder.

Two items of business on an agenda that do require publication in the local paper in the legal section are: 1) a special public meeting for rate changes of more than 5% and 2) changes to the by-laws. The MSU local government extension office offers many publications and classes on proper meeting procedure for small utilities. Most of the laws that are applicable to the governing and managing of a water and sewer district can be found in Title 7, chapter 13 of the Montana Code Annotated.

Continued on next page

What if an individual or a company was exploring the community for development? Do the system by-laws or policies meet requirements set forth in Montana law to give enough guidance to a board or employees to make decisions that can withstand a legal challenge? When reviewing the by-laws and policies of a system, do they address the following questions: Do they detail required equipment that the system will allow to be installed for new connections? Do they include provisions for connection fees and included equipment, if any, with that fee? Do the by-laws require district personnel to do the installation and what the charges for installation are or does the customer have to hire their own contractor? Does that contractor have to meet minimum insurance liability standards to expose and work on system mains? Are there other requirements a contractor needs to meet? If this information is included in the by-laws, when was the last time it was updated to reflect current costs of installation? Do the by-laws require new construction to conform to state plumbing standards and fire flow standards? What if developers request service to parcels of land that border the district? Do the by-laws specify how new services can be annexed into the system? Do the by-laws have provisions for providing water and sewer services to consecutive systems? All the above questions need to be addressed in the by-laws or policies if the community begins to experience growth and development or preferably before the community is discovered and becomes the focus of growth and development. When a system reviews and updates their by-laws, it may be a good idea to have legal counsel review proposed changes to ensure Montana Law is properly followed and implemented.

Lastly, several items that a water and sewer district may want to have copies of for easy review are recorded easements for water and sewer lines, certificate of incorporation, maps showing the boundaries of the system, by-laws, and the legal description of the water and sewer district.

Montana truly is the last best place and our local water and sewer districts and the people who work and serve in them are a large part of what makes our state such a great place to work and live. I am always available to help systems with required water sampling, or help troubleshoot problems, leak detection, development of budgets, or rate analysis, and I am always happy to assist in review and editing of policies and by-laws. Please feel free to contact me at 406-899-5924 or email me at [bshular@mrws.com](mailto:bshular@mrws.com).



#### **National Director's Report—continued from page 4**

The NRWA Credit Union is making great strides in getting finalized from the Federal Government (More to come as this develops).

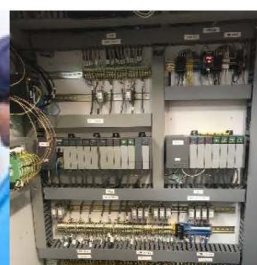
Every year there is a February board meeting in Washington D.C. called the Rural Water Rally that I will again attend. After the board meeting, the Rally will consist of all State associations sending their Directors and Delegates to D.C. to have meetings with their Senators, Congressmen and their staff. We meet with those available to carry our message, let them know what we are doing in our state and ask for their continued support of the NRWA programs which trickle down to each State Associations programs.

I have been to D.C. a few times and do firmly believe that a face to face with our elected officials and staff to tell our story is why we have their support to fund the bills for NRWA. When you see our elected officials and staff back home, please thank them for supporting NRWA and Montana Rural Water Systems.

NRWA is now being invited to sit in on more and more meetings pertaining to rulemaking for reference because of their expertise in the water industry. I would like to think this shows the integrity of NRWA and State organizations.

I would like to thank Mr. Jim Magone from Deer Lodge, the previous Montana National Director, for introducing me to key people within the NRWA organization and other State Associations during our conferences. His foresight was very welcoming and helped make the transition go smoother than some of the other new directors. Thank You Jim.

In closing I am honored to be your NRWA National Director and will learn and represent Montana to the best of my ability. Thank You.



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# From the Desk of John Camden—Executive Director of MRWS

## **MRWS Membership Fee Increase for 2020**

Dear Members & Associates,

Montana Rural Water Systems will be implementing a fee increase to our members starting January 2020. Depending upon which month you paid your dues in 2019, it will be pro-rated for January 2020. We will no longer be billing by the month.

The current fees were set-up about 20 years ago and have not kept up with the cost of doing business and inflation. Our membership fee to National Rural Water has increased from \$6,000 to \$23,000 per year which is a 380% increase to the organization in the past 7 years. We know that you will understand the need to increase our Member and Associate fees. Below is the new fee schedule...

### Membership –

Individual membership - \$50/yr	New to the program
Transient systems - \$50/yr	No increase
Non-transient systems - \$75/year	\$25 increase
1 – 49 service connections - \$150/yr	\$50 increase
50 – 149 service connections - \$200/yr	\$50 increase
150 – 299 service connection - \$250/yr	\$50 increase
300 – 499 service connections - \$300/yr	\$100 increase
500 or more service connections - \$350/yr	\$100 increase

### Associate Membership –

Current fee is \$200/yr – new rate \$300/yr	\$100 increase
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If you have any questions, please contact the MRWS office at (406) 454-1151 and ask for Tanya Shadrack or me...thanks!

John W. Camden  
Executive Director



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## **SANITARY SEWER OVERFLOWS**

By Roger Skogen, Wastewater Technician

What exactly defines a Sanitary Sewer Overflow (SSO)? EPA defines an SSO as “A release of untreated or partially treated sewage from a municipal sanitary sewer.” My definition is quite broad. IF YOUR SYSTEMS SEWAGE ISN'T WHERE IT'S SUPPOSED TO BE; YOU'RE MOST LIKELY DEALING WITH A SANITARY SEWER OVERFLOW.

I realize this covers a lot of area, but any time sewage is not in the collection system or in the wastewater treatment facility, this may be a possible SSO. If you have doubts that you are dealing with an SSO, then contact Montana DEQ. You are better to be safe than sorry!

What are some possible causes of SSO's? It's a fairly long list that includes blockages, improper cleaning of mains, spills from vacuum trucks, power failures that lead to lift station failures, and leaky sewer mains that are subjected to massive amounts of inflow and infiltration. This may lead to an over-loaded collection system which in turn may lead to overflowing manholes, resulting in a sanitary sewer overflow.

You may ask: Why is a little sewage on the ground a problem?

The Answer: As we all know in dealing with sewage on a day to day basis, sewage carries bacteria and viruses that may cause extreme illness or death in humans. The diseases associated with raw sewage may include many gastrointestinal ailments such as cholera, and dysentery. SSO's may also cause contamination onto private property and into homes that may lead to costly cleanup and lawsuits.

How may we then avoid these costly Sanitary Sewer Overflows? Maintaining and cleaning your sewer collection system is a great way to start. Reducing inflow and infiltration can eliminate that sudden surge of stormwater from entering into your collection system and possibly causing an overflow. Enlarging your collection system if it is undersized may help to eliminate overflows. Keep your lift stations in proper working order. This includes having and maintaining backup generators for these lift stations.

How do we respond to an SSO? Make sure that plans for SSO are in your emergency response plan or create your own Sanitary Sewer Overflow response plan. Create procedures for different SSO circumstances. For example, make sure you cover lift station failure, obstructed or plugged sewer collection system including sewer manhole overflow, vacuum truck leakage or spill, storm events, or any other possible conditions that may occur for your system. If the spill or overflow is severe enough, you may want to notify residents, block off an area, or put up warning signs. You also need to notify proper authorities. Depending upon the severity of the overflow, you may want to contact the local health department and/or the local Disaster and Emergency Services. YOU MUST NOTIFY MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY! This should be done no later than 24 hours after the incident. There is a sanitary sewer overflow form to complete and send in to DEQ. This form is due 5 days after the oral notification to DEQ. Remember, DEQ may be able to assist you with any questions or issues concerning the overflow. They are there to help you!

To contact DEQ concerning an SSO you may call Lisa-kay Keen:(406) 431-9577, Chris Romankiewicz:(406) 475-2138, Jay Smith:(406) 444-5338, or one of the other compliance inspectors.

If you have any problems contacting one of them you may call the Water Protection Bureau at: (406) 444-5546.

As always if you have any questions you may call or text me: Roger Skogen at 406-788-2089. You may also email me at [rskogen@mrws.org](mailto:rskogen@mrws.org).

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## Department of Natural Resources and Conservation Newsletter for Montana Rural Water Fall 2019

The Department of Natural Resources and Conservation (DNRC) is ready for infrastructure to be built in Montana communities. The Conservation and Resource Developments Division (CARDD) is working with communities, engineers and bond counsels to coordinate projects. The passage of HB 652 means another \$5,000,000 in funding can be spent on water, wastewater and renewable resource projects. HB 6 was passed and it also has almost \$5,000,000 for these same types of projects. HB 6 also has funds for planning, emergencies and water shed projects. We have some new staff members in CARDD. We hope you will meet them during the Montana Rural Water Conference in March 2020.

### **Revolving Fund Loan Program**

The Revolving Fund Loan Program was affected by HB 652, the infrastructure bill passed by the 66<sup>th</sup> Legislature. There are additional funds for water and wastewater projects in grants. Because of the grant funds, the program is seeing additional loan requests. In fiscal year 2019, water project loans were at \$25,000,000. Wastewater projects loans totaled \$41,000,000. Projects were located in all areas of the state.

Absarokee water lines replaced.  
Emerald Heights water tank replacement.  
Laurel water plant improvements.

Anaconda rehabbed the WWTP  
Highwood lagoon liner replaced  
Shelby Storm water pipe installed  
Sidney WWT plant upgrades installed



*Anaconda Deer Lodge County South Lagoon Cell*

The State Revolving Fund financial and engineering staff are working on twice as many projects as usual because of the passage of HB 652. But we are excited to see communities tackle issues and look for solutions that are efficient and economical for their water and sewer systems.

These solutions help communities stay safe, healthy and move into the future, meeting state and federal standards.

### **Renewable Resource Grant and Loan Program**

The 2019 Montana Legislature appropriated \$11,340,000 for the Montana Department of Natural Resources and Conservation (DNRC) grant programs in House Bills (HB) 6 and 652. Applications in these programs conserve, develop, manage, and conserve renewable resources. Revenues related to funding these programs came in higher than expected due to bonding and have supported the following grant programs.

The following grant program funding will be available as revenue allows.

- Renewable Resource Grant and Loan program (RRGL) - \$6,350,000. The program funds diverse projects which manage, conserve, develop, or preserve a renewable resource. This program provides funding is essential to local governments for water and wastewater projects. Funding has been provided for all 76 project grant applications. The program has contracted 20 HB 652 depending based on project schedules. Funding is available for the remaining 16 contracts based on the projects timelines. HB 6 projects ranked 1 through 15 are contracted and future contracts will be available based on revenue projections.
- RRGL Planning Grant (RPG) program - \$1,100,000. The planning grants lead to project applications to fund drinking water and wastewater projects in Montana. The program has contracted 13 applications for \$185,000 and has received 39 planning grant applications in October 2019 requesting \$515,000 in funding. The program is planning to announce a round opening 11/11/2019 and closing 01/31/2020.

Continued on next page

### It's never too early to start planning your next project!

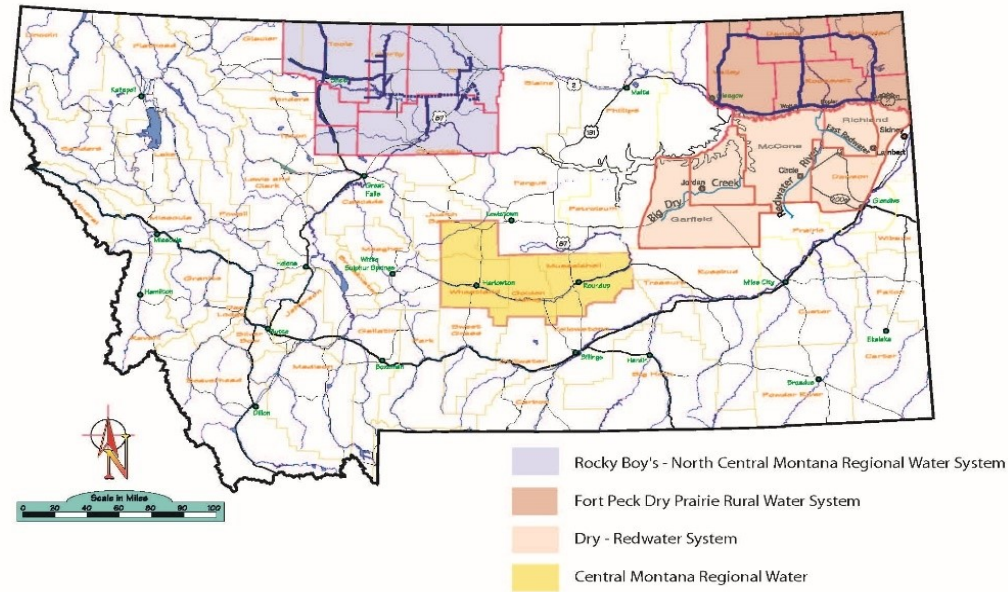
- o Emergency Grants - \$100,000. This program funds projects which are immediate projects necessary to address qualified emergencies. Of this, \$10,000 has been contracted.
- o Watershed Management Grants - \$300,000. This program is for the development and implementation of locally led watershed related planning and capacity building activities. The next cycle will begin the winter of 2020.
- o Private Grants - \$75,000. This program funds water projects funded by private entities. Of this, \$5,000 has been contracted.
- o Irrigation Development Grants - \$300,000. This program funds projects which increase the value of irrigated crops while preserving resources. Of this, \$88,335 has been contracted.

### Regional Water Program

- **Dry Prairie** – Dry Prairie has begun construction of transmission mains for the Scobey-Flaxville Mainline Project, with the contract awarded early in 2019, and work begun in May. Plans and specification for construction of the Plentywood-to-Westby have been approved by Montana DEQ; the project has recently been bid and is scheduled for an early 2020 construction start. **Fort Peck Tribes** – The new pre-oxidation and pre-sedimentation basins/structures at the regional water treatment plant (WTP) were removing significant sediment loads from the raw water after the recent heavy snows in the upper Missouri Basin earlier in October. The contractor achieved Substantial Completion prior to winter shutdown. Branch line installation work continues in various areas of the Reservation. There are at least four phases of branch line construction taking place. Construction on the R-Y Road north-south transmission main, started in 2017, is substantially complete. This forms the third and final point of interconnection between the Tribal and Dry Prairie systems.
- **North Central Montana Authority** – The Shelby North project segment, with interim service water from Shelby's wellfield, will supply Oilmont CWD and the new Nine Mile CWD by autumn 2020. Water main construction began in mid-2018 and proceeded through the summer of 2019. The successful bidder for the standpipe, booster pump stations (BPS) and metering stations began work in late spring. Upgrades to Shelby's wellfield are in progress, with approval recently granted by Montana DEQ for upgrades to several existing wells and drilling of at least 2 new wells. That work is to be completed before the end of 2019. Proposed upgrades to the City's ultraviolet disinfection array are currently under review and approval of plans and specifications is expected in the near future. **Chippewa-Cree Tribe** – The Tribe sought sufficient Federal funding in order to bid and build the first phase of the WTP, with initial capacity of up to 11 MGD. That facility was bid earlier in 2019, with Sletten Construction of Great Falls the low bidder. Notice to Proceed is pending final details, and Sletten intends to start site work in early December. Construction will require at least two complete years.
- **Dry-Redwater:** The most recent waterline and **BPS** project, Sidney Circle, achieved Final Completion in mid-2019. Plans for the design and construction of the Authority's next project segment, extension of sanitary sewer lines to the same subdivision area southwest of Sidney in cooperation with Richland County government, are currently under development.

Continued on next page

## AREAS TO BE SERVED BY REGIONAL WATER SYSTEMS



- **Central Montana** (Musselshell-Judith project): Phase 1 construction planning, to bring Madison Aquifer water from the Authority's wellfield northwest of Judith Gap to Harlowton, is progressing. Currently under design, the project could be ready for start-up upon Congressional approval. Bid earlier in 2019, drilling of a second production well at the wellfield is approaching completion, with a total depth of 2850 feet and estimated production capacity exceeding 1,000 gpm.
- The Clean Water for Rural Communities Act, introduced in 2017, to authorize the Musselshell-Judith Project and complete Reclamation's feasibility study phase on the Dry-Redwater Project, but did not see action past Senate Committee review. However, the reintroduced legislation, sponsored by Senators Daines and Tester, has been recently referred out of the Senate Energy and Natural Resources Committee in the 116<sup>th</sup> Congress.



If you have questions, call (406) 444-6668.

**Anna Miller – Revolving Fund Loans**  
**Rick Duncan - Regional Water**  
**Lindsay Volpe – Renewable Resource Grant (RRG) Program**

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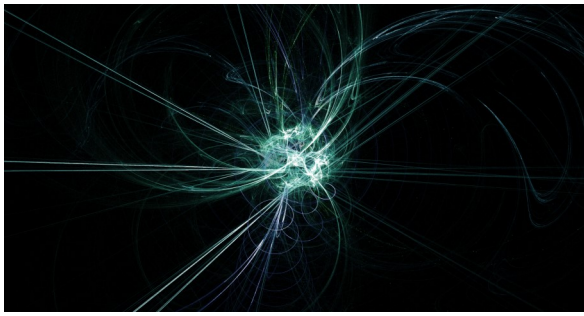
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# Cyber Security

By  
Dan Kramer,  
MRWS Circuit Rider

**Cyber Security** is a mysterious but an important part of our lives every day.

What is cyber security? What forms does it take? Should I be concerned? How does it affect me, your business or your day to day life? Who or what can I do about it? How is it done and who is responsible for my information or the utility?

Cyber security is a means to restrict information where it can be shared or viewed and not shared or viewed. Every year information is stolen and used to either hurt someone or country and steal information for personal gain. Whether it is a stolen product or damage someone's personal right to exist. Every day we are exposed to information data acquisition by what we do, what we say, and how we respond. This information is collected on you to create a master file or plainly a profile. That profile is used to destroy you, or take your assets, money you have collected or saved, or education and skill sets you have in your Toolbox. Are you a threat, or do you have something a cybercriminal wants? That cybercriminal is going to use it for their own personal gain. A cybercriminal can use your name and credit history to get loans, credit cards, and make you pay for it. Cybercriminal can create hardships by destroying your honor and integrity by miss information and twisting the truth.

So how can you prevent this problem?

- 1) Create a council or group for the utility that works together as a team to secure that information. It can be the human resource director, operations manager, or IT. They all have a part in the responsibility for how that information is viewed and or shared.
- 2) Determine what security access for individuals, how information is shared and moved within network. Are data files shared, scanned or checked for viruses and malware that can compromise your network?
- 3) Is the network visible and to who. Separate networks that are only visible internally.
- 4) (Cell phones, USB jump drives) big data hack can be had without protection.
- 5) Get networked into security sector to get the latest's patches and fixes. That being IP addresses to block networks and emails that are hacks. Some email hacks originate from cell phones by robo calls or something I shouldn't have clicked on. Train people or staff on this behavior. Do not click or be had by a hack. Remember if you have a phone you can be tracked and profile for every movement and even what you say or text. Hacks use that information to profile you and go after your weaknesses and likes.
- 6) Plan and train and work together to fight the good fight and safeguard your information and your way of life. Things are changing quickly.
- 7) Here is the EPA website on the 10 steps to build a Cyber Security Plan.  
<https://www.epa.gov/waterriskassessment/water-sector-cybersecurity-brief-states>

***So, what is in your toolbox of life and your utility. Protect your Utility***

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## 2018 America's Water Infrastructure Act (AWIA) New requirements for Drinking Water Utilities

*Kristi Kline, Source Water Protection Specialist*

Is your system classified as a Community Water System? Does your system serve 3,301 or more people?

If you have answered **yes** to both of these questions, the **2018 American Water Infrastructure Act (AWIA)** **pertains to you!**

**Section 2013** of the **AWIA** *requires community water systems that serve more than 3,300 people to complete or update a risk and resilience assessment (aka Vulnerability Assessment) and develop or update an emergency response plan (ERP). **Certification of completion of the Risk Assessment and ERP must be sent to EPA by a specific deadline which is defined by the population served. (refer to Certification Deadlines table)***

Risks today for a utility may be different than 3 or 5 years ago. Evaluating threat probability, vulnerabilities of adverse success, and consequences such as public health impacts or economics may have new impacts for your system.

The first component of Section 2013 of AWIA is to **evaluate current potential risks**. Natural disasters or malevolent acts are the defined types of threats to evaluate. Examples of these threats may include:

- |                       |                   |                 |
|-----------------------|-------------------|-----------------|
| - Flooding            | - Cyber Intrusion | - Winter storms |
| - Contamination event | - Tornadoes       | - Vandalism     |
| - Wildfires           | - Active Shooter  | - Drought       |

Once you have identified your system's current risks, the next step is to **evaluate your system's resilience to those identified risks**. Resilience of a system's critical assets to those risks include evaluating *pipes and constructed conveyances, physical barriers, source water, water collection and intake, pretreatment, treatment, storage and distribution facilities, electronic, computer, or other automated systems (including the security of such systems) which are utilized by the system, monitoring practices of the system, financial infrastructure of the system, use, storage, or handling of various chemicals by the system, and finally, operation and maintenance of the system.*

EPA has developed a Vulnerability Self-Assessment Tool (VSAT 2.0) to assist with the risk assessments. Information on this can be found at: <https://www.epa.gov/waterriskassessment/conduct-drinking-water-or-wastewater-utility-risk-assessment>

The second component of Section 2013 of the AWIA is to develop an **Emergency Response Plan**. The ERP is the "defense plan" against identified threats that may impede the ability of the community water system to deliver safe drinking water. ERP's contain strategies and resources to improve the resilience of the system, lessen impacts of the threats and aid in the detection of threats.

Several tools are available including templates and guides to assist you through EPA's website at: <https://www.epa.gov/waterresilience>

### **Important Note:**

**Certification of completion is required to be sent to EPA** – No copies of assessments or plans are to be sent to EPA, only **certification** that they have been completed. Utilities must use the EPA certification form.

Refer to EPA website for information: <https://www.epa.gov/waterresilience/how-certify-your-risk-and-resilience-assessment-or-emergency-response-plan>

Certification of completion can be submitted through 3 options:

1. Electronic submission (EPA preferred way) fillable on-line form
2. Email
3. Regular Mail (USPS)
  - a. If using either Option 2 and 3 - Must download pdf form to fill out by hand to send in

EPA requires a PWS contact person be identified for this certification process.

Continued on next page

## Certification Deadlines

Population Served	Risk Assessment	Emergency Response Plan*
≥100,000	March 31, 2020	September 30, 2020
50,000-99,999	December 31, 2020	June 30, 2021
3,301-49,999	June 30, 2021	December 30, 2021

## Recertification

Copies of Risk Assessments and ERP plans must be kept for 5 years. Section 2013 of the 2018 AWIA, states that **every 5 years**, utilities must review and revise if necessary, their Risk and Resilience Assessment and then within 6 months, review and revise their Emergency Response Plan. Re-certification notification must be sent to EPA that both of these actions have been completed.

In addition to on-site staff assistance, MRWS will be holding several training workshops throughout the next year to assist with completing a Risk Assessment and ERP planning. Look for upcoming workshops on this new rule to be held around the state including a presentation at the 41<sup>st</sup> MRWS Annual Conference to be held March 25-27, 2020 in Great Falls.

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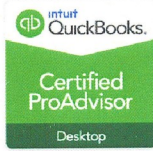
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## Emerging Contaminants: PFAS

Erin Wall, Source Water Protection Specialist

Every so often, a new substance garners attention from scientists and government agencies. When these substances are found in the environment and are not commonly monitored but have the potential to cause adverse health effects, they are referred to as emerging contaminants. The most common types of emerging contaminant are pharmaceuticals, pesticides, industrial chemicals, surfactants and personal care products.

Below are some FAQs to help you understand PFAS, one of the new emerging contaminants that is being talked about on a global scale.

### **What exactly is PFAS?**

PFAS refers to a family of man-made chemicals called per- or polyfluoroalkyl substances, previously referred to as PFCs, FCs, or fluorocarbons. Over 5,000 varieties of PFAS have been manufactured and used in various industries since the 1940s. The most commonly known PFAS chemicals are PFOA (Perfluorooctanoic acid), PFOS (Perfluorooctanesulfonic acid), and GenX. PFOA and PFOS are the most extensively studied of the PFAS chemicals and have been phased out by U.S. manufacturers. GenX chemicals were developed as a replacement for PFOA.

### **Where does it come from?**

PFOS was once used to make Scotchguard, and PFOA was once used to make Teflon.

PFAS can be found in:

- **Food** packaged in PFAS-containing materials, processed with equipment that used PFAS, or grown in PFAS-contaminated soil or water.
- **Commercial household products**, including stain- and water-repellent fabrics, nonstick products (e.g., Teflon), polishes, waxes, paints, cleaning products, and fire-fighting foams (a major source of groundwater contamination at airports and military bases where firefighting training occurs).
- **Workplace**, including production facilities or industries (e.g., chrome plating, electronics manufacturing or oil recovery) that use PFAS.
- **Drinking water**, typically localized and associated with a specific facility (e.g., manufacturer, landfill, wastewater treatment plant, firefighter training facility).
- **Living organisms**, including fish, animals and humans, where PFAS have the ability to build up and persist over time.

### **If it has been around since the 1940s, why is it only recently a concern?**

Scientists have discovered that PFAS are similar to PCBs and DDT in that they are very persistent in the environment and the human body, which means that they do not break down and can accumulate over time. There is also evidence that PFAS exposure can lead to adverse health effects. Studies have shown that high concentrations of PFOA and PFOS can cause reproductive, developmental, liver and kidney, and immunological effects and tumors in laboratory animals. Findings from human studies consistently show increased cholesterol levels. Less common findings from human studies show effects on infant birth weights and the immune system, cancer (for PFOA), and thyroid hormone effects (for PFOS).

### **What is currently going on with PFAS?**

The EPA has developed a PFAS Action Plan to address PFAS and protect public health that involves using a cross-agency approach to assist states, tribes, and communities. The three main goals of the PFAS Action Plan is to:

- Provide both short term solutions and long term strategies to address PFAS
- Provide a multimedia, multi-program, national research and risk communication plan
- Respond to public input from the PFAS National Leadership Summit, multiple community engagements, and through the public docket.

Continued on next page

Specifically, the EPA has established a non-enforceable health advisory level of 70 parts per trillion (ppt) for the sum of PFOA and PFOS. However, the EPA is moving towards developing a Maximum Contaminant Level (MCL) for PFOA and PFOS through the Safe Drinking Water Act process.

The EPA plans to propose nationwide drinking water monitoring for PFAS under the next UCMR monitoring cycle to help inform regulatory action. By uncovering the prevalence of PFAS, improving detection and measurement methods, expanding treatment and remediation methods, and uncovering more information about the potential toxicity of PFAS will help the EPA, states, and others manage the risks of PFAS better.

The Center for Disease Control (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR) are currently involved with various sites nationwide with PFAS contamination connected to production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used. The CDC and ATSDR announced on September 23, 2019 that a new study will take place in seven states to examine the human health effects of exposures to PFAS and compare different levels of PFAS exposure.

#### Where has it been found in Montana?

The EPA sampled medium sized public water systems in Montana between 2013 and 2015 for six PFAS chemicals: PFOS, PFOA, perfluorononanoic acid (PFNA), perfluorohexanesulfonic acid (PFHxS), perfluoroheptanoic acid (PFHpA), and perfluorobutanesulfonic acid (PFBS). No detections were found above the laboratory reporting limits.

PFAS have been detected in soil, groundwater, and surface water (storm water outfalls) above screening levels at two active military installations in Montana: the Montana Air National Guard and Malmstrom Air Force Base in Great Falls. PFAS have also been detected above groundwater screening levels at Fort Harrison in Helena and at the former Glasgow Air Force Base in Saint Marie. Further investigation is ongoing.

For more information about PFAS in Montana, visit : <http://deq.mt.gov/DEQAdmin/PFAS>



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## Marth Anne Dow Award Announcement

Dr. Dow spent her lifetime helping others learn and achieve to their fullest potential, while also serving her fellow citizens by improving health and the environment. Thus, this award was established as a way for METC to honor those who have provided education in the environmental science and public health fields in Montana as professionally, as earnestly and as sincerely as Dr. Martha Anne Dow.



The METC Steering Committee has selected Joni Emrick to receive this annual "Martha Anne Dow Award" as an acknowledgement of all her hard work and dedication at the City of Kalispell's WWTP and also for her Support of Environmental and Public Health training through various METC Water & Wastewater workshops across Montana! Joni you have always been and are a mentor, colleague and a friend to many. **Martha Anne would've told you a "Job Well Done"!**



A piece of history was recently found under the streets of Portland.

Pictured here is a section of a wooden water main, aka a hollowed out log. Firefighters would have to dig a hole to reach the pipe, then drill through the wooden pipe to intentionally create a leak. The hole would fill with water so the fire engines could pump it out.

This brings an all new meaning to the term "Shoveling hydrants"!

After the incident the firefighters would seal the hole with a wooden plug, hence the term "fire plug".

Photo ctsy Portland Water Dist.

Thank you Chuck Weihe for this interesting tidbit!

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## CERTIFICATION CORNER

(List of new operators in Montana)

### Helena Spring School

Jeffrey Abelin	4AB
Andrew Cadman	3C
James Walker	3A
Samuel Pilch	4AB
Ronald Boeckman	4AB

### In-Office Exams April-October

Gregory Wegner	4AB
Kyle Renaker	3C
Chevonne Hall	4AB
Eleanor Summers	2A, 3B
Chance Collins	1B
Barton Kluck	1B
Ricky Coyle	3A
Douglas Dezort	1B
Christina Eggensperger	4AB
John Kuchtyan	1B
Shannon Burdick	4AB
Isaac Barlow	4AB
Samuel Klepzig	1A
Troy Kollross	1C
Andrew Brown	1C
Norman Stamper	1C
Benjamin Johnson	2A
Justin Nelson	1C
David Fansher	4AB
Andrew Rinaldi	3A, 3B
Forrest Kramer	4AB
Jacob Carey	1C
Donald Wilson	3B
Dana Woodward	4AB
Tanner Marsh	3A

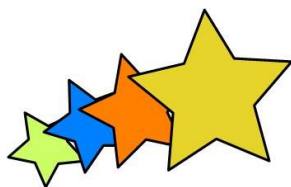
### Bozeman Fall Water School

Justin Brechtelsbauer	3B
Kyle Renaker	3A
Raymond Emeline	1C
Josh Lockie	4AB
Shawn Hickman	1B
Anthony Hebert	3C
James South	3A, 3B
Daniel Nauman	1B
Trae Pruttis	1B
Lewis Day	3B
Preson Toenyas	2A
Daniel Williams	1A, 3B
Michael Johnson	1A
Michael Gribbon	1C
Dylan Martin	3A
Michael Arnold	3A, 3B
Joshua Krupp	1A, 3B
Paul Trush	3B
Richard Handran	2B
Ryan Townsend	3B
Gretchen Hussey	4AB
Ole Ruud	3A, 3B
Bret Hellyer	4AB
Justin Blake	4AB
Kyle Kors	1A
William Crawford	2A, 3B
Sean Williams	4AB
Beth Campbell	4AB

**A** = WATER DISTRIBUTION  
**B** = WATER TREATMENT  
**C** = WASTEWATER SYSTEMS  
**D** = INDUSTRIAL WASTEWATER  
**E** = ON-SITE WASTEWATER

Information provided by Jen VandenBos – DEQ/PWS  
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## Customer Leaks Hurt!

Nick Clos, Circuit Rider

An estimated 70% of water customers are unaware of their responsibility to the waterline or the water meters. Systems with meter pits have received the call that the water bill is outrageous, there's something wrong with the meter or utilities with meters in the building receive calls with loss in water pressure, complete water loss or water running down the street. No matter how the customer discovers the leak and the excessive bill they are about to be responsible for "hurts". And most homeowner's insurance policies don't cover waterlines, leaks or sewer lines but 85% of homeowners think they are covered.

ServLine is a new and unique insurance program that will cover water lost with no deductible, repair or replace a customer's water and sewer line in a timely fashion. ServLine is a full-service program backed by Hanover Insurance Company and is not a warranty program. The difference is warranty programs only provide water line and sewer line repair products and no leak adjustments.

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I would recommend this to older communities with copper lines that don't agree with the soils, galvanized lines, lead lines and any other water line problems the systems might have.



Learning about Rate Structure at a Pablo workshop.



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# A Quick Tip Guide for a Sanitary Survey

Tahnee Praiswater, Technical Assistance

It's common to feel unprepared or unaware of what goes on during a sanitary survey. Here is a quick tip guide informing you of what is required, inspected and evaluated when it's time for your survey. All community water systems will be getting a visit every three years from DEQ or a representative of DEQ that has been deemed qualified to conduct a sanitary survey. Non-transient non-community and transient non-community surveys take place at least every five years. The purpose of a sanitary survey is to protect public health by ensuring a water system can consistently and reliably deliver an adequate quality and quantity of safe drinking water to the consumer and to maintain compliance with regulations.

The Eight Key Elements of a Sanitary Survey to be evaluated:

- Source
- Treatment
- Distribution system
- Finished water storage
- Pumps, pump facilities, and controls
- Monitoring, reporting, and data verification
- System management and operation
- Operator compliance with state requirements

When a surveyor arrives on site to conduct a routine sanitary survey, they will request to review your system records with you. You can help prepare for the inspection by gathering, reviewing, and organizing these records to easily share them with the surveyor.

Technical assistance can be provided during the survey visit. This is an opportunity for you to clarify proper monitoring and sampling requirements or procedures and be informed of any upcoming changes in regulations. Take advantage of the opportunity to discuss anything you need clarification on when they are on-site.

When the surveyor arrives to conduct a routine sanitary survey, the first thing they will do is go over the water system records with you. This includes discussion and review of:

**Monitoring, reporting and data verification:** A review of the water facilities inventory and records is done to make sure all the information listed for your water system is correct. This includes information on primary contacts, population served, number of connections, and storage capacity. The surveyor will note the changes directly on the form and return it to DEQ to update the computer records. An accurate water facilities inventory and record is critical to properly classify a water system and to provide DEQ with emergency contact information. Have available for review your coliform monitoring history and plan, and sampling procedures and latest results of any bacteriologic samples taken within the last two years.

**Inventory Plans and Maps, Distribution System:** The surveyor will want to look at your distribution system plans and maps to see how often the maps are updated and if locations of the lines, valves, meters, tanks, sources, sampling sites, and treatment facility locations are accurate. Good things to have on a map are the size of the main line, the type of pipe installed, depth of bury, and when the pipe was installed.

**Pumps and Controls:** A review of your routine operation and maintenance records for the necessary practices that will ensure your system can supply safe and reliable water.

**Source and Finished Water Storage:** A review of your source and finished water quality monitoring history and waiver status of sampling procedures and latest results of any samples taken within the last five years, including bacteriologic, lead/copper, inorganic, organic (VOC/SOC), radionuclide, and trihalomethanes. Depending on the complexity of the water system, the surveyor may ask about additional components, such as the status of other management, operation, and maintenance documents. After the water system records have been discussed and reviewed, the surveyor will then take a tour of the water system.

Continued on next page

They will conduct a tour which will include an inspection of the:

- drinking water source and source protection area
- treatment equipment
- pumps, pumping facilities, and controls
- finished water storage
- distribution system.

Be sure to arrange for system personnel to be available on the survey date so they can show the surveyor around the system. The surveyor will look at each drinking water source and source protection area, including emergency or seasonal sources, to see that they are properly secured.

#### **Drinking water source and source protection area:**

1. The surveyor is looking to ensure the components of your water system are protected from possible sources of chemical or biological contamination. On the wellhead they will check for several items, such as: the well casing is 18 inches above the floor or pad; a sanitary seal or cap on the wellhead; a source sampling tap; and an inverted screened vent. They will also look for any obvious holes into the wellhead for mice or bugs to crawl into and/or fall into the well and contaminate the water and that your wellhead is locked and secured.

2. Next they will look at your treatment equipment, including chlorination. They will check that your equipment is working properly, check dosage rate calculations, and go over required chlorination reporting, including the daily residual readings and how they are taken and recorded.

3. They will look at pumps, pumping facilities, and controls to make sure they are in good working order and the facilities are clean.

4. Each finished water storage tank is looked at individually for structural soundness (interior and exterior damage and rust), access hatch lids are properly gasketed and secured, vents are adequately screened, the overflow and drain pipes are screened with a proper air gap, and area is properly secured. If these are not protected, birds, bats, insects, rainwater, and dust can enter and contaminate the stored water.

5. Finally, they will tour the distribution system to better understand the system layout, the pressure zones, elevations, and dead ends.

Regulators must be allowed access to all portions of the drinking water system: Have keys needed to open buildings, gates, well enclosures, hatches, etc. Special tools may be needed to open manholes or heavy lids. Clear brush or other vegetation around wells or buildings. Have available documentation of the last time elevated storage tank hatches, vents, and overflow screens and gaskets were checked, so the surveyor can verify there are no unprotected openings.

Sanitary surveys can sometimes seem overwhelming, MRWS is here to help, we can visit your system and assist you with any of the areas you feel could use another set of eyes. MRWS can help you remediate any potential issues prior to your inspection and better prepare your system for the next sanitary survey. Remember, we are non-regulatory and here to help you!



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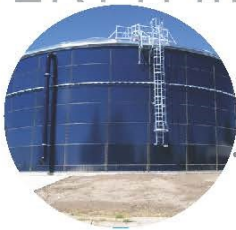
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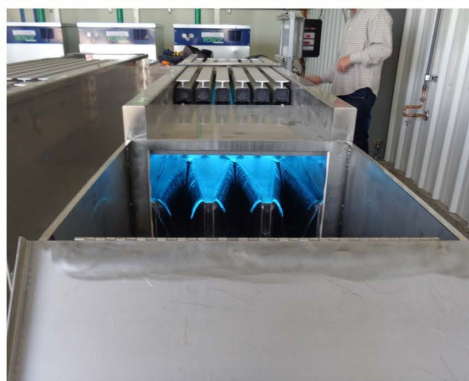
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