

WATERWORKS ADVISORY COMMITTEE MEETING

Sydnor Hydro, Inc., 2111 Magnolia St, Richmond, Virginia 23223

Wednesday, December 11, 2019

8:30 AM – 12:30 PM

AGENDA

Subject	Time
Meet and Greet with Stakeholders	8:30 – 9:00 AM
Call to Order Meeting Overview Adoption of Minutes from the October 16, 2019 Meeting	9:00 – 9:10 AM
Public Comment Period	9:10 – 9:20 AM
ODW Updates	9:20 – 10:00 AM
Break	
EPA Updates	10:10 – 11:00 AM
Data Management	11:00 – 11:30 AM
Working Lunch –Fire Hydrant Weep Holes	11:30 AM – 12:15 PM
Other Business, Plan for Meetings in 2020	12:15 – 12:30 PM

Waterworks Advisory Committee (WAC) Meeting Summary

Sydnor Hydro, Inc., 2111 Magnolia St, Richmond, Virginia 23223
Wednesday, December 11, 2019

Final

Members Present: Dwayne Roadcap, (ODW) Chair; Jesse L. Royall, Jr. PE, Sydnor; Bailey Davis, DCLS; Skip Harper, DHCD; David F. Van Gelder, Water Operator; Steven Herzog, PE, VWEA; Eric Lasalle, NTNC

Guests in Attendance: ODW staff – Robert Edelman, Christine Latino, Nelson Daniel, Dan Horne, Jeff Wells, Jeremy Hull, Tony Singh, James Reynolds, Aaron Moses, Kelly Ward, Jarrett Talley

Russ Navratil, AWWA; Tom Fauber, VA ABPA; Paul Nyffeler, Aqua Law PLC; Steven Edgeman, Fairfax Water; Laura Bauer, VA American Water Company; Kelly Ryan, VA American Water Company; Paul Saunders, DPOR; Vincent Day, Cardno; Mike Nannery, Chesterfield Utilities; Keith Chambers, Chesterfield Fire & EMS

Meeting Overview and Agenda

Dwayne Roadcap, Office of Drinking Water Director, chaired the meeting. He introduced Kelly Ward, FCAP director, and Jarrett Talley, Non-Community Sustainability Coordinator in the Division of Training, Capacity Development and Outreach. He also provided an overview of the meeting agenda. David VanGelder requested to add an update on operator training/coordination with DPOR (discussed at the October 16, 2019 meeting).

Adoption of Minutes from October 16, 2019 Meeting

WAC members voted unanimously to approve and adopt the draft minutes from the October 16, 2019 meeting. ODW will post the minutes as final on Town Hall.

Public Comment Period

No public comments

ODW Updates

Guidance on Water Main Breaks and Responses

ODW staff responded to three comments they received during the 30-day public comment period beginning September 30, 2019. The effective date of the guidance is October 30, 2019. A copy of ODW's response to commenters is included with the meeting materials. ODW posted the guidance on Town Hall and the ODW website.

Source Water Manual

ODW staff received and responded to comments from Mission H2O. The effective date of the guidance is October 30, 2019. A copy of ODW's response to Mission H2O is included with the meeting materials. ODW posted the Manual on Town Hall and the ODW website.

Waterworks Regulations

The Proposed Amendments to the Waterworks Regulations were published in the November 11, 2019 edition of the *Virginia Register* and are open for public comment until January 10, 2020. The public may submit comments via Town Hall, in writing to ODW, and/or at a public hearing at the Monroe Building on Jan 7, 2020. After the public comment period ends, ODW will use the comments to inform decisions regarding the final amendments, and present them to the Board of Health for approval. The Board meets in March, June, September, and December 2020. Depending on the number and nature of comments ODW receives, staff are working to have a final draft of the amended regulations ready for the June or, more likely, September Board meeting. If the Board approves the final amendments, ODW estimates the effective date would be sometime early to mid-2021 (following executive branch review and a 30-day public comment period).

Fee Regulations

ODW is still in the process of forming a stakeholder workgroup. ODW intends to get this started soon. Activities related to the General Assembly may affect staff ability to address this issue.

WIIN Grant for testing for lead in water at schools and day care centers

ODW submitted its application in August. EPA approved the work plan, and is in the process of approving funding. ODW will hold a kickoff meeting with stakeholders after EPA approves the funding. ODW plans to work with the Department of Social Services, Department of Education, and universities (Old Dominion University, University of Virginia, and Virginia Tech). The WIIN grant is focused on facilities serving younger children (ages 6 and under), underserved and low-income communities, and facilities that are older and more likely to contain lead plumbing (i.e., buildings constructed in whole or in part prior to 1986). ODW requested WAC members provide information on recent experience from lead sampling at some large school systems in their service areas.

Lead Sampling at Virginia Beach Schools

Dan Horne, Southeast Virginia Field Office (SEVFO) Director, briefed the WAC on recent sampling in Virginia Beach public schools. Lead sampling at schools is required by Va. Code 22.2-135.1.

Virginia Beach hired a contractor to perform lead sampling in its schools, starting this past summer. The results indicated lead levels above 15 parts per billion (ppb) at 60 outlets used for drinking water in 33 schools. The results lead to questions about interpretation, health effects, corrective actions, remediation and how to prioritize, and communicating with students, teachers, parents, and the public. ODW SEVFO and others (Epidemiology, Local Health Department, university officials, etc.) are working with the Virginia Beach public school officials and utilities department on these issues.

Sixth field office

James Reynolds, Richmond Field Office (RFO) Director, briefed the WAC. Three inspector positions came open due to internal promotions and RFO is working to fill the positions. RFO plans to make offers soon with start dates in January 2020. RFO is also working to fill the Deputy Field Director position and a data entry position (wage).

Workload balancing

Dr. Tony Singh briefed the WAC. With six field offices, ODW plans to redistribute work areas among the field offices and assign some counties to a different field office. VDH leadership has approved the proposed changes and the field directors are in the process of meeting with local health directors to explain changes and get their feedback. In January 2020, ODW expects to start reaching out to affected waterworks. In February 2020, ODW expects to begin data migration as needed. The transition is scheduled to begin in March 2020, with goal of completion by April 1, 2020.

One WAC member expressed concern about location of the RFO and would like a more convenient location than downtown Richmond. ODW acknowledged the concern, but responded that there are budget implications and benefits to having the RFO located in the same space as the central office. Three things that will influence the decision about the location of the RFO are:

- (1) VDH leadership is reviewing the agency's Richmond area building assets/workspace allocation;
- (2) The Department of General Services, which manages the Madison Building (where ODW and RFO are currently located) is planning HVAC upgrades in the upper and lower basement of the building, which will require RFO to move out of its current office space at some point; and
- (3) ODW's objective is to use its current space as efficiently as possible. To this end, ODW is allowing some employees to telework.

WAC members noted the lack of parking near the Madison Building, poor conditions in current RFO workspace, and some difficulties reaching ODW employees that telework. RFO leadership is working on these issues and asked that stakeholders contact the field director if they are not able to reach employees that telework.

Dwayne Roadcap also discussed moving to electronic records and access to information in a cloud environment. This will facilitate getting rid of unneeded paper files and free up space office space.

EPA Updates

Lead and Copper Rule Revisions (LCRR)

Bob Edelman, Director, Division of Technical Services, provided a briefing and facilitated a discussion with the WAC on specific topics in the LCRR. Refer to the PowerPoint for background.

Timeline: ODW is now in the public comment period; it is scheduled to end January 13, 2020. EPA may possibly grant a 30-day extension. Three years after final rule is published in Federal Register, community water systems (CWS) and nontransient non-community (NTNC) systems must comply.

ODW Activity – ODW's Lead & Copper Rule committee is drafting a letter to EPA to address specific questions from EPA related to the LCRR and document specific Virginia comments and concerns. WAC members asked to see a draft of the letter before ODW submits it to EPA. ODW agreed to email a draft of the letter to the WAC members. ODW is also working with the Association of State Drinking Water Administrators (ASDWA) on its comment letter to EPA. ASDWA's comments represent the combined views of the state drinking water programs and may be different from individual states.

Regarding specific requirements in the proposed rule:

A new 90th percentile (P90) trigger level of > 10 µg/L < 15 µg/L will require waterworks to undertake additional planning, monitoring and treatment requirements.

Q: Is the trigger level of P90 > 10 µg/L too low or high? [WAC responses and comments are in italics.]

- *It is as good as any other arbitrary number.*

Q: Are the required actions under the trigger level appropriate?

- *Concern about requirement to re-optimize corrosion control treatment (CCT) could be required repeatedly, and coming up with the same result.*
- *Trigger Lead Service Line replacement at greater than 15 µg/L, not 10 µg/L.*

Q: Small Water System Compliance Flexibility – Should EPA provide different options?

- *The options lack off-ramps if the facts or situation changes. For example, if a small groundwater CWS installs corrosion control treatment (CCT), but later connects to wholesaler using treated surface water with CCT, the small groundwater system should be released from the requirement for installing and operating CCT.*
- *Likewise, if a small system starts lead service line (LSL) replacement, goes a couple of years, then changes the water source there is no provision to stop LSL program.*

Q: Replacement of lead bearing plumbing (NTNC) period is 1 year. Is this sufficient?

- *One year is not sufficient for NTNCs to complete replacement of lead bearing plumbing in larger facilities.*

Definition of Lead Service Line: (ODW highlighted sections for discussion)

Lead service line means a service line made of lead, which connects the water main to the building inlet. A lead service line may be owned by the water system, owned by the property owner, or both. For the purposes of this subpart, **a galvanized service line is considered a lead service line if it ever was or is currently downstream of any lead service line or service line of unknown material. If the only lead piping serving the home or building is a lead gooseneck, pigtail, or connector, and it is not a galvanized service line that is considered an LSL the service line is not a lead service line.**

- *Concern about considering a galvanized service line (SL) as a LSL if it ever was or is currently downstream of any lead service line or service line of unknown material. Consider a galvanized line to a house, installed pre-1986. The utility replaces the galvanized service line on their side, but does not replace the customer side. The Utility does not have records of service replacements from the 70's, 80's, etc. and has no records of the original SL material. The utility does their LSL inventory and finds a copper SL on the utility side and a galvanized line on the customer side. By the definition, this is a LSL and this is a problem.*
- *Concern that galvanized service lines will become de facto LSLs that must be replaced.*
- *Concern about excluding goosenecks, pigtails, etc. – counter intuitive to say that they are not a lead source.*
- *WW shouldn't focus on private side, focus should be on public side*
- *WW should focus on CCT*
- *Object to EPA mandating action on private property, unless the WW has owner consent*

LSL inventory requirement:

- *This will be tough.*
- *Concern that if you trigger or submit the inventory to the State, the LSL inventory is locked-in. If the Utility gets new or better information, it should be able to update the original LSL inventory.*
- *Concern about what is satisfactory inventory report. Guidance and clarification is needed. WW may be able to keep some SLs off the list of unknowns based on date of installation (post-1986). If unknown, assume Pb – there is then incentive to move to known. Is it arbitrary to assume that an unknown is Pb? Is it acceptable to do a survey sampling some homes in a neighborhood instead of checking every individual home/connection?*

- *To convert unknowns to knowns, the utility must take action to verify SL materials, must have information specific to the SL.*

Q: Is 3 years from the LCRR publication date reasonable to complete the LSL Inventory?

- *Will be harder for some utilities than others.*
- *Probably doable for the utility side of SLs.*
- *Customer sides of SLs will have many unknowns.*

Q: How good are your SL Records?

- *Utility records for specific SLs are incomplete or do not exist.*
- *Utility does not know if the customer replaced SL on their side because this is not in utility records.*
- *Inventory of private side is problematic because utility has no records and no way to learn the private side material without digging up SL or entering the home, both of which require staff to enter private property and gain homeowner permission. This does not seem doable for some utilities.*

Q: Should EPA require systems to distribute public education materials to customers with unknown SLs?

- *Notification requirements for LSLs go beyond the CCR – meaning another notice to consumers. Concern that it will cause undue alarm... Hanover will look at construction dates, everyone before '86 will be "unknown" and receive information.*

LSL Replacement Plan:

- *Concern with the pitcher filters that would be required when systems shut off customers with LSLs for nonpayment – the cost of the filters will be passed on to customers in the required payment to restore service. Concern that the cost of the pitcher filter program would drive up the cost to restore service after shutoff after nonpayment.*

[Post-meeting note: Pitcher filters/cartridges would not be required for a shut off. Here is the proposed language: Water systems that cause disturbance to a lead service line that results in the water being shut off, and without conducting a partial or full lead service line replacement, must provide the consumer with information about the potential for elevated lead in drinking water a result of the disturbance as well as a flushing procedure to remove particulate lead.]

Q: Is 45 days sufficient for the water system to replace the system-owned LSL when customer notifies the water system of intent to replace the customer portion of the LSL?

- *45 days is not long enough for the WW to replace LSL on utility side if consumer notifies that they are going to replace on the private side. WAC says "within a reasonable timeframe, consistent with the LSL replacement plan" or say, within a year or within a budget cycle. All of this is going to drive up rates, passing the burden on to consumers... need to comment on affordability*

Recordkeeping requirements – significant increase in recordkeeping requirements if a WW exceeds trigger level... for WW under the trigger level, some new requirements – LSL inventory, etc.

- *Additional cost to provide more information to consumers,*

- *Implications of shutting off water to a house – provide a pitcher filter, information, etc. (cost, admin requirements)*

Reporting for trigger level exceedance

- *adds reporting requirements (same comments as recordkeeping)*

Reporting for action level exceedance

- *lots of moving parts (same comments recordkeeping – it all goes hand-in-hand)*

Schools and child care centers – requirement to sample 20% of facilities in service area each year:

- *Concern about inconsistencies with 3Ts (5 locations vs. all drinking water sources).*
- *Concern about WWs becoming 3Ts experts, which are not the same as LCR/LCRR (this has happened in VA in some cases already).*
- *Who manages this program – ODW, WW, schools?*
- *WW does not have legal authority over sampling in schools/daycares.*
- *Will be very challenging for WW to be able to ultimately sample at every school/daycare.*

ODW is looking at what it will cost to implement rule. Dwayne Roadcap suggested WW look at what it will cost to implement the rule – provide that as part of cost-benefit analysis.

Q from WAC – Is drinking water a significant source of lead poisoning in VA? ODW responded, generally, no, limited to about 20% of all lead exposure. However, for some populations, lead in drinking water can be a greater source (such as lead-contaminated water used in mixing formula)

Weep Holes in Fire Hydrants (12VAC5-590-1170)

Mike Nannery, Chesterfield Utilities, provided thoughts on the proposed amendments to the Waterworks Regulations: *We believe that plugging weep holes is a bad idea. Pumping out fire hydrants is a best practice, but does not always happen due to human error. We have concerns about frozen hydrants. This is more of a concern away from the coast. We have a hydrant meter program, which means that we have issued hydrant meters to companies that obtain water from fire hydrants, usually to fill a tank truck or for water use at a construction site. The problem is that we don't know which hydrants are actually used by the companies. We want to keep the current policy and regulations.*

Asst. Chief Keith Chambers, Chesterfield Fire & EMS provided perspective from Emergency Services: *The number one user of fire hydrants is the fire service. We have three major concerns with the proposal to require plugging of weep holes in certain locations.*

1. *We have problems with frozen hydrants in the winter even now. We are concerned about the potential increase in number of frozen hydrants and increase of property damage.*
2. *We were not engaged in this regulatory change. We will need to engage colleagues.*
3. *Was there a risk versus benefit analysis? Is there a documented health protection benefit for avoiding contamination? Frozen hydrants have a documented significant increase of property damage.*

Virginia Fire Chiefs Association is main point of contact for the stakeholders (fire departments).

Skip Harper stated that his agency already addressed the weep hole problem with yard hydrants, in the plumbing code. *He will reach out to the manufacturers to get more info and share with the group.*

Jeff Wells (Danville Field Office Director) pointed out the section in question is in Part 3 of the *Waterworks Regulations* and would apply to new construction only. This is not in the cross connection section of the *Regulations*.

Tom Fauber explained that he brought this up at the convention of the Virginia Chapter of the American Backflow Prevention Association. The gain in health protection from plugging the weep holes does not outweigh the risk of frozen hydrants and increased property damage if a fire were to occur. Weep holes are a necessary evil. Tom agrees that sanitary yard hydrants should not have weep holes.

Dwayne Roadcap stated that ODW will work with stakeholder community to get the word out, examine current regulations and policy, and consider comments to the WAC and any public comments received.

Skip Harper stated that the yard hydrant policy is already in the building code.

Data Management Update

Aaron Moses, ODW Field Services Engineer, briefed the WAC on data management projects. The project to replace ODW's MS Access interface applications is proceeding with proprietary software from Global Environmental Consulting (GEC). The Virginia Information Technologies Agency (VITA) review is underway – ODW expects VITA to finish in February 2020. Following VITA review, ODW expects to establish a contract with GEC (approximately March 2020). ODW is migrating data from the MS Access interface application to SDWIS to the extent possible, with a goal of October 2020 completion. ODW is currently working on migrating remaining Lead and Copper Rule data. This will facilitate use of more SDWIS automation features.

ODW has implemented electronic submission of lab sample results through the Compliance Monitoring Data Portal as a pilot project with a few certified laboratories. One lab completed the test phase and is ready to begin reporting to the SDWIS production environment.

ODW plans to require all laboratories to submit compliance monitoring results through CMDP and stop accepting paper and other forms of results, beginning September 1, 2020. This is required for future versions of SDWIS and for compliance with EPA's Cross Media Electronic Reporting Rule. Electronic reporting will reduce data errors and improve customer service to waterworks. As a result, this will reduce ODW staff time spent on data entry and error resolution.

ODW plans to use grant funds from EPA to help laboratories transition to CMDP by providing training and support. The grant funds expire August 2020. ODW will notify labs in writing and follow up by telephone.

GEC is working on vulnerabilities in their version of Drinking Water Watch (DWW) and plans to develop a customized version for ODW. To address stakeholders' concerns about being able to ensure water quality results are correct, ODW is planning to build in a 30-day delay on public access. The 30-day period will give ODW time to provide waterworks owners notice of alleged violations and waterworks owners time to contact ODW to address potential errors or violations.

ODW provided mockups of the next sample due report and compliance determination tables. WAC commented: *With mockups – would be good to define acronyms.*

See the PowerPoint presentation and example reports (mock-ups for future Drinking Water Watch).

Other Business

ODW will follow up with Barry Mathews regarding coordination between DPOR and Virginia Tech for operator training. David VanGelder volunteered to help if ODW involves outside stakeholders.

WAC members reviewed a draft letter to send to the Commissioner supporting the formation of a stakeholder workgroup that will review the waterworks operation fees (12VAC5-600). WAC Vice Chair David VanGelder will revise the letter as suggested by members and send it to the Commissioner on behalf of the WAC.

General Assembly 2020 session – SB106 would ban fracking in the Eastern Virginia Groundwater Management Area. ODW also saw some discussion of PFOA/PFOS in a potential bill. ODW expects a bill on lead testing in schools and day care facilities. ODW will communicate with stakeholders as needed – starting with an email and/or call to WAC members. ODW will take stakeholder input and include it in our analysis of the bill.

Dates for next year: WAC members considered a proposal to meet 5 times during 2020:

- Wednesday, February 19, 2020 – Perimeter Center
- Wednesday, April 15, 2020 – Perimeter Center
- Wednesday, July 15, 2020 – Sydnor Hydro
- Wednesday, September 16, 2020 – Sydnor Hydro
- Wednesday, December 16, 2020 – Perimeter Center

The WAC accepted the proposed schedule for next year without a formal vote or action.

The meeting adjourned at 1:17 pm.

WAC Meeting

December 11, 2019

Attachments
and
PowerPoint Presentations

Waterworks Advisory Committee (WAC) Meeting Summary

Sydnor Hydro, Inc., 2111 Magnolia St, Richmond, Virginia 23223
Wednesday, October 16, 2019

Final

Members Present: Geneva Hudgins, AWWA; Jesse L. Royall, Jr. PE, Sydnor; Andy Crocker, SERCAP; Ryan Greer (sub for Scott Kudlas), DEQ; Bailey Davis, DCLS; Skip Harper, DHCD; Mark Estes, VRWA; David F. Van Gelder, Water Operator; Ignatius Mutoti, VSPE; Steven Herzog, PE, VWEA

Guest in Attendance: Robert Edelman, Christine Latino, Nelson Daniel, Dan Horne, Jeff Wells, Jeremy Hull, Barry Matthews, Tony Singh, James Reynolds, Aaron Moses, Jeanette Bowman

Russ Navratil, AWWA; Tom Fauber, VA ABPA; Paul Nyffeler, Aqua Law PLC; Steven Edgeman, Fairfax Water; Katie Krueger, Hampton Roads Planning District; Laura Bauer, VA American Water Company; Jerry Peaks, Bowman Consulting; Vincent Day, Cardno, Inc; Chris Harbin, City of Norfolk; Paul Saunders, DPOR; Katrina Cooke, Air Water & Soil Labs; JP Verheul, Air Water & Soil Labs

Meeting Overview

Tony Singh, VDH Office of Drinking Water Deputy Director chaired the meeting.

Adoption of Minutes from July 31, 2019 Meeting

WAC members voted unanimously to approve and adopt the draft minutes from the July 31, 2019 meeting. ODW will post the minutes as final on Town Hall.

Public Comment Period

No public comments

ODW Updates

Guidance on Water Main Breaks and when to issue Boil Water Advisories

ODW staff posted the Guidance on Town Hall for a 30-day public comment period beginning September 30, 2019. It will become effective October 30, 2019. Copies of the guidance and Town Hall notice are included with the meeting materials.

Source Water Manual

The Source Water Manual is the first of 9 planned technical manuals. The technical manuals will compile ODW's Working Memos into manuals (The Source Water Manual replaces Working Memos 777, 840, 852, and 878). ODW staff posted the manual on Town Hall for a 30-day public comment period beginning September 30, 2019. It will become effective October 30, 2019. A Copy of the Town Hall notice is included with the meeting materials.

Waterworks Regulations

The Governor's Office completed their review of the Proposed Amendments to the Waterworks Regulations and approved them on October 15, 2019. VDH submitted the proposed amendments to the Registrar's Office for review and publication in the November 11, 2019 edition of the Virginia Register.

Publication will start the 60-day public comment period. Members of the public may submit comments through the Town Hall website beginning on November 11.

WIIN Grants

EPA is reviewing Virginia's work plan for the Lead Testing in Schools and Child Care Programs grant, provided under the Water Infrastructure Improvements for the Nation (WIIN) Act of 2016. Staff expect EPA to approve the work plan and provide funds to Virginia later this year. ODW is starting to get more information about the Small and Disadvantaged Communities Drinking Water Grant (WIIN Act amendments to section 1459A of the Safe Drinking Water Act).

FCAP

The new FCAP director is Kelly Ward. Her start date is November 10, 2019.

Richmond Field Office

Tony Singh explained that ODW leadership analyzed the current workload in each field office (number of waterworks, distance between field offices and waterworks, and the ratio of engineers/inspectors working with waterworks) to find ways to balance the workload more evenly between field offices. To provide more uniformity, ODW will begin the process of shifting responsibility for waterworks in some counties from one field office to another field office. The transition involves: 1) identifying stakeholders, 2) transferring data from one field office to another, 3) transitioning staff and resources, 4) communicating with stakeholders (waterworks, local health districts, other state agencies), 5) training staff as required, and 6) working to revise emergency preparedness plans.

WAC member's suggestions/comments/questions related to this transition: 1) please post information about which District Engineer is responsible for waterworks in each county, 2) consider emails for counties instead of individual persons (i.e., odw_caroline county@vdh.virginia.gov), 3) asked if PWSID numbers would change as waterworks move from one field office to another, 4) need to ensure uniformity across field offices, 5) suggested the time line for the transition from one field office to another be longer than 1 month, 6) location of the Richmond Field Office – benefits and costs to being located in downtown Richmond. (A copy of the staff presentation is included with the meeting materials.)

EPA Updates:

PFOA/PFAS

PFOA/PFAS is a family of manmade chemicals originating in the 1940's. This non-degradable family of chemicals is being linked to cancer and other health concerns and has been determined that it can easily get into the food chain through fish and crops. The EPA issued a Health Advisory in 2016 and a PFAS action plan in 2019. Dan Horne gave an overview of PFOA/PFAS in a Power point presentation, "PFAS 101". (A copy is included with the meeting materials.)

Lead and Copper Rule Revisions

The EPA has proposed several changes to the Lead and Copper Rule. Bob Edelman provided an overview of the proposed revisions with a PowerPoint presentation titled, "Lead and Copper Rule Long Term Revisions." He also shared a handout, "Reference Guide for Public Water Systems Lead and Copper Rule Proposal Comparison," to help understand the proposed changes. (The presentation and handout are included with the meeting materials.)

Proposed Perchlorate Rule

The EPA has proposed the Perchlorate Rule. Bob Edelman presented a PowerPoint presentation titled, "Perchlorate Briefing". A copy is included with the meeting materials, along with a letter to Mr. Samuel Hernandez at EPA, transmitting ODW's comments on the proposed rule.

Capacity Development

Barry Matthews updated the WAC Committee on changes and additions to the Division of Training, Capacity Development and Outreach.

Additions to the Division of Training, Capacity Development and Outreach:

- A Capacity Development Supervisor, Julie Floyd
- A new Sustainability Coordinator, Tamara Anderson
- A new TNC Coordinator (hiring in process)

Other updates:

- Jason Yetter is working on operator certification
- Content review of all VT/VDH trainings (planned)
- Sanitary Survey training has been initiated
- New Employee Orientation training twice yearly for all new hires
- Development of a Staff Training Policy and Procedures Manual
- All Staff Meeting to educate and promote moral

With the new training, ODW is working on better consistency throughout the central and field offices.

Barry and WAC members also discussed scheduling operator certification testing so that it is immediately after the Virginia Tech Short School.

Data Management

Aaron Moses discussed updates to Data Management at ODW. The WAC requested he provide an example report identifying sampling requirements at the next meeting. WAC members raised questions about data accuracy, notice, and sample schedules when ODW updates Drinking Water Watch (a website with information about waterworks). (The presentation is included with the meeting materials.)

Fluoridation

Jeanette Bowman discussed the fluoridation program briefly and provided an analysis of the JAMA Pediatrics article, "Association Between Maternal Fluoride Exposure during Pregnancy and IQ Scores in Offspring in Canada." (The article and presentation are included with the meeting materials.)

Waterworks Regulations and Fees

Nelson Daniel presented a Power point titled "Waterworks Operation Fees" to begin the discussion and consideration involving waterworks operation fees and how to adjust the fee structure to increase revenue and ensure fairness among all waterworks.

Things to consider:

- Maximum waterworks fees for large systems
- NTNCs and TNCs

- Wholesalers
- Maximum connection fees
- Technical assistance used per waterworks
- Funding sources and needs
- Financial challenges faced from year to year
- ODW new/increased expenses:
 - 6th field office
 - salaries
 - drinking water database management/digitization

Stakeholders group should include:

- Large, medium and small community waterworks (Hanover County would like to participate)
- NTNCs - which includes churches and schools
- SERCAP
- TNCs (restaurant association?)

Consider – representative for wineries, breweries, and distilleries (TNCs)

Suggested meeting time:

- Assemble stakeholder group in November - December
- Meet beginning in January
- Finish report by May (to be able to meet the schedule for submitting proposals for the agency/governor's legislative initiatives)

WAC moved and approved a statement to the Commissioner that the committee supports a forming a workgroup to study the fee regulations.

Conclusion

The WAC Committee will meet on Wednesday, December 11, 2019 for the final meeting of this calendar year.



COMMONWEALTH of VIRGINIA

M. Norman Oliver, MD, MA
State Health Commissioner

Department of Health
P O BOX 2448
RICHMOND, VA 23218

TTY 7-1-1 OR
1-800-828-1120

November 25, 2019

VIA ELECTRONIC MAIL
Through the Regulatory Town Hall

David VanGelder
Miguel Gonzalez
David Jurgens

RE: Office of Drinking Water Guidelines for Water Main Breaks, WTR-2019-02

Gentlemen:

Thank you for submitting comments on the Office of Drinking Water's (ODW) Guidance for Water Main Breaks, WTR-2019-02. ODW staff have reviewed the comments and made revisions to the guidance document as detailed below. The comments do not suggest the Guidance for Water Main Breaks (Guidance) is contrary to state law or regulation, or that the document should not be exempted from the provisions of the Administrative Process Act, Code of Virginia §§ 2.2-4000 et seq., so the effective date for the Guidance is October 30, 2019.

Your comments are in *italics*. ODW's responses are in [blue](#).

1. Commenter: David Van Gelder, 10/17/2019 at 11:44 am
Thank you all for your efforts on this document. Just one comment: concerning a type 2 break - collecting a bacteriological sample should be optional - small diameter pipes it most likely won't be necessary - with large diameter pipes it makes more sense. This should be BPJ - thank you!

During the development of this guidance, ODW considered whether a bacteriological sample should be collected for Type 2 breaks. After discussion with stakeholders, we decided that bacteriological sampling remain as a part of the Type 2 response due to the distribution system being compromised during the repair.

2. Comenter: Miguel Gonzalez, 10/28/2019 at 2:16 pm
Boil Water Advisory is; spelled out, accompanied by acronym (BWA), or BWA stands alone. For consistency, once "Boil Water Advisory (BWA) is spelled out once, henceforth it should be BWA.

ODW designed the table so that waterworks owners and operators will read it from the top down, based on the type of waterline break. Based on this and your comment, we spelled out "Boil Water Advisory" at the first location it is used in each column. For Type 3 breaks, we changed the first instance to "Boil Water Advisory" and used BWA for subsequent references. This is consistent with other columns.

3. Commenter: David Jurgens, City of Chesapeake, 10/30/2019 at 2:14 pm
There is no reference to the time of the repair or partial/full pressure loss. I assume this is intentional, but there often are such references in this type guidance.

Note #1 references timeliness of the repair as a factor for consideration in deciding if a BWA is necessary. If waterworks are unsure how to proceed, Note #5 advises that they contact their Field Office for guidance.

Type 2 add: *"Provide Customer Notice" under cell with "Maintains pit water level below break."*

ODW modified the cell by adding *“,notify affected customers”*

Type 3 and 4, add:

- *Notify fire department of loss of pressure in the area*
- *Notify local VDH office of any break that will disrupt service to medical, school, food service, day care, large industrial or similar facility.*

Note # 4 advises waterworks to contact Field Office for additional guidance. ODW did not change the Guidance based on this comment.

Type 4 add:

- *Notify VDH*
- *Include conservation message, if needed*
- *Notify media and public as needed*

Note # 4 advises waterworks to contact Field Office for additional guidance. ODW did not change the Guidance based on this comment.

If you have any questions, or wish to discuss this matter further, please feel free to contact me at (434) 836-8416.

Sincerely,



Jeffrey S. Wells, P.E.
Engineering Field Director

cc: Waterworks Advisory Committee



COMMONWEALTH of VIRGINIA

M. Norman Oliver, MD, MA
State Health Commissioner

Department of Health
P O BOX 2448
RICHMOND, VA 23218

TTY 7-1-1 OR
1-800-828-1120

November 20, 2019

VIA ELECTRONIC MAIL

Andrea W. Wortzel, Esq.
1001 Haxall Point
15th Floor
Richmond, VA 23219
andrea.wortzel@troutman.com

RE: Office of Drinking Water Source Water Manual, WTR-2019-01

Dear Ms. Wortzel:

Thank you for submitting comments on behalf of Mission H20 regarding the Office of Drinking Water's (ODW) Source Water Manual, WTR-2019-01. ODW staff have reviewed the comments and made revisions to the guidance document as detailed below. The comments do not suggest the Source Water Manual (Manual) is contrary to state law or regulation, or that the document should not be exempted from the provisions of the Administrative Process Act, Code of Virginia §§ 2.2-4000 et seq., so the effective date for the Manual is October 30, 2019.

Mission H20's comments are in italics. ODW's responses are in blue.

General Comments

The guidance includes multiple links to information that is only available to VDH staff and is not publicly accessible. While we understand that the Manual is intended for VDH staff use, it also serves as a useful resource to water suppliers. Accordingly, VDH should make the supporting information and references publicly available by updating the links so that the public can access them.

- The Manual is available to the public on the Virginia Regulatory Town Hall website. Whenever possible, ODW added links to the Manual to publicly available information.

Additionally, information collected by VDH on potential sources of contamination should be made available to waterworks upon their request.

- Information ODW collects about potential sources of contamination is available to waterworks upon request. Waterworks should contact the ODW field office that provides regulatory oversight to request information.

The Manual also includes disclaimers for some chapters stating that this is an agency guidance document and not legally enforceable. However, the language for this disclaimer appears to vary from chapter to chapter and is missing from some chapters, including Chapters 2 and 3. While portions of these chapters merely compile references to regulations, the chapters also contain substantive guidance or references to other guidance documents. VDH should consider putting the disclaimer at the front of the Manual and noting its application to the entire document rather than just specific chapters.

- ODW revised the Manual so that there is one disclaimer at the beginning of the document.

Chapter Specific Comments

Definitions: The definition for "Groundwater Under Direct Influence of Surface Water" is the same as that included in the federal regulations, but, for purposes of this guidance, appears unnecessarily specific. A more general definition explaining that "Groundwater Under Direct Influence of Surface Water" refers to the fact that a groundwater source is located close enough to nearby surface water to receive direct surface water recharge, and thus may be at risk of contamination from sources not normally found in true groundwater, would be more appropriate for this guidance.

- Due to the presence of complex fractured rock and karst geology in Virginia, GUDI sources are often located substantial distances for surface water sources. Because GUDI sources are defined by the physical and biological characteristics of the water, we believe that it is best to retain the regulatory definition of this term.

The definition for "sensitivity" is unnecessary. The Manual explains that all source waters are "sensitive" to potential contamination with the exception of a Class II B (or better) well constructed in accordance with VDH regulations and withdrawing water from a confined aquifer. Based on the use of the term in the manual, there do not appear to be any gradations of sensitivity. Additionally, the "sensitivity" determination appears to apply only to groundwater. Similarly, the definition of "susceptibility to contamination" should remove the reference to "sensitivity," so that the first sentence of the definition reads "The classification determined by ODW of the susceptibility of a source water to contamination."

- ODW made these change.

Chapter 1:

The guidance lays out VDH's Office of Drinking Water ("ODW") approach to source water assessments from start to finish. However, for many waterworks, developing or updating protection measures may be part of an ongoing source water protection program. In order to make the Manual the most beneficial to waterworks, VDH should encourage active engagement in source water protection activities and implementation measures rather than preparing assessment reports. This is particularly important given the difficulty of maintaining and keeping current assessment inventory information for intakes located within large watersheds, especially for watersheds that cross jurisdictional or state boundaries.

- The Manual addresses a variety of topics and covers encouragement of active engagement in source water protection activities in other chapters.

Chapter 4:

Mission H2O members are interested in ensuring the quality of their water is not impacted by cyanotoxins and harmful algae blooms ("HABs"). Chapter 4 of the Manual includes a detailed approach to monitoring and responding to HABs as well as several caveats regarding the voluntary nature of this approach. There is no National Primary Drinking Water standard for cyanotoxins and approaches to identification and management of HABs vary. Many waterworks are already developing and are implementing plans to identify and address HABs. We appreciate that VDH has included language emphasizing the voluntary nature of this portion of the guidance, which does not enforce any statutory or regulatory requirement. Hence the chapter is rightly referenced as an "informational source" and the Manual appropriately states that the suggestions and recommendations may not be appropriate for all situations. Although the Manual includes consideration of the issuance of a "Do Not Drink" notice when one or more of EPA's health advisory levels are exceeded, the Manual should be updated to include similar language to EPA's Guidance "Recommendations for Public Water Systems to Manage Cyanotoxins in Drinking Water" (June 2015). Regarding communications, EPA's guidance states that waterworks "are not required to notify their customers of any bloom or cyanotoxin occurrence and are not required to include detections as part of a system's Consumer Confidence Report under any National Primary Drinking Water Regulations." EPA Guidance, at 25. EPA's Guidance is included as a reference to Chapter 4, but making this distinction clear in the Manual is preferable.

- ODW added language from the EPA guidance specified in the comment. Although the Waterworks Regulations do not require owners to notify consumers of any bloom or cyanotoxin occurrence and are not required to include detections as part of the waterworks' Consumer Confidence Report, ODW recommends owners communicate with their consumers if cyanotoxins in finished water are confirmed in additional samples.

In Section 3.3 of Chapter 4, VDH appears to have inverted EPA's 10-day drinking water health advisory levels for Cylindrospermopsin and Microcystins. The EPA health advisory for "bottle-fed infants and pre-school children" for Cylindrospermopsin is 0.7 ug/L and for "school-age children and adults" is 3.0 ug/L. Likewise, for Microcystins, EPA's health advisory levels are 0.3 ug/L and 1.6 ug/L for these respective categories. Table 4 in the Manual should be updated to accurately reflect EPA's health advisory levels.

- ODW made these change.

Chapter 5:

This chapter includes ODW steps to respond to reported source water contamination events. There are many important and additional logistical steps involved in the contamination event response process, such as identifying and tracking the contaminant, controlling the source, protecting drinking water sources and deciding when to declare the "end of an event." These steps should be acknowledged in the chapter.

- ODW will consider making these changes to the Manual in a future revision.

VDH has a unique and important role in communicating with other local, state and federal agencies, particularly in liaison with Incident Command Structure ("ICS") or Unified Command ("UC") established during an event. VDH needs to emphasize the importance of the drinking water sources, the limitations faced by waterworks, and that not all contaminants are treatable by the water treatment process as part of the ICS or UC event structure.

- ODW will consider making these changes to the Manual in a future revision.

Additionally, which the chapter periodically references that waterworks will be notified of certain situations, there is little information about how response activities will be coordinated with waterworks. Many of the waterworks systems in Virginia are sophisticated operations with their own contamination response plans. Coordination of the efforts of waterworks with those of VDH are critical to eliminate confusion and duplication of effort.

- ODW relies on the knowledge of our field office staff and their relationships with waterworks, local health departments, and local emergency managers to determine how to best coordinate response activities. Additionally, in emergency events, ODW coordinates through the Virginia Emergency Operations Center and utilizes their resources and procedures to communicate with waterworks, emergency service providers, and other parties. ODW has intentionally not provided more detail in the guidance to avoid conflict with or confusion about statewide policies.

Chapter 6:

This chapter describes the types of permits that the Virginia Department of Environmental Quality has the authority to issue. It is unclear how this chapter relates to source water protection. The discussion of interagency review in Chapter 3 (page 25) explains that participation in interagency review enables ODW to identify projects that may affect public water supplies through the source water. But this is not explained further in Chapter 3, and Chapter 6 similarly does not explain how the coordination with DEQ is used for this purpose.

The chapter explains what permits ODW receives to comment upon, and the timeline for doing so, but does not describe the criteria for ODW comments, or how ODW uses information from the permits to inform source water protection. Additionally, this chapter does not discuss how users of a water source are informed of a potential permitting action that could affect the water source.

- The manual addresses source water as a whole and not source water protection *only*. Chapter 6 of the Manual is the most appropriate place to address permits issued by the DEQ.

If you have any questions, or wish to discuss this matter further, please feel free to contact me at (804) 864-7492.

Sincerely,



Aaron Moses, PE
Field Services Engineer
Office of Drinking Water
Virginia Department of Health

cc: Waterworks Advisory Committee

Lead and Copper Rule Revisions

December 11, 2019

Timeline

- October 10, 2019 – Signed Proposal
- November 13, 2019 – Published Proposal in Federal Register – comment period opens
- January 13, 2020 – comment period ends
- February 13, 2020 – possible 30 day extension
- [three years after publication of the final rule in FR] – CWS and NTNC must comply

ODW Activity

- Lead and Copper Rule Committee is meeting
 - Representatives of 6 Field Offices and Central Office
 - Review and understand what's new and different in the LCRR
 - Comment letter to EPA
 - Specific questions from EPA
 - VDH ODW specific comments and concerns
- ASDWA LCRR Workgroup
 - Three ODW staff are participating (3 subcommittees)
 - Comment letter to EPA

10 µg/L Trigger Level

- A new trigger level of $P90 > 10 \text{ µg/L}$ that triggers additional planning, monitoring and treatment requirements **$P90 > 10$ to 15 µg/L** :
 - Monitor annually at the standard number of sites.
 - No CCT: CCT study, if required by state
 - Have CCT: Must re-optimize
 - Implement LSLR with goals for 2 consecutive 1-year monitoring periods
- Is the new trigger level of $P90 > 10 \text{ µg/L}$ too high or low?
- Are the required actions appropriate?

Small Water System Compliance Flexibility

Small Systems ($\leq 10,000$ persons) exceed Pb AL:

- LSL Replacement within 15 years even if P90 is $<AL$
- Install or re-optimize CCT even if P90 is $<AL$
- POU Devices
- Replacement of lead bearing plumbing (NTNC)
 - Is this flexibility needed for systems serving 3,301 – 10,000?
 - Different flexibility options?

Lead Service Line Definition

Lead service line means a service line made of lead, which connects the water main to the building inlet. A lead service line may be owned by the water system, owned by the property owner, or both. For the purposes of this subpart, a galvanized service line is considered a lead service line if it ever was or is currently downstream of any lead service line or service line of unknown material. If the only lead piping serving the home or building is a lead gooseneck, pigtail, or connector, and it is not a galvanized service line that is considered an LSL the service line is not a lead service line.

Lead Service Lines



FOCUS

- All systems must develop an LSL inventory or demonstrate absence of LSLs within 3 years of final rule
- LSL inventory updated annually
- All systems with known or possible LSL (“unknown material”) must develop a LSL Replacement Plan
- P90 > 10 to 15 µg/L triggers LSLR Program
- P90 > 15 µg/L triggers LSLR Program with specific goals
- Annually, provide customers with LSLs and Unknown SLs with education materials (health effects, how to reduce exposure to lead, how to identify a LSL).

Lead Service Line Inventory

- Is 3 years from the LCRR publication date reasonable?
- How good are your SL records:
 - Utility side?
 - Customer side? If a customer replaced their SL, would you know?
- Should EPA require systems to distribute Public Education materials to customers with unknown SLs?

(b) LSL Replacement Plan

- All water systems with LSLs **or SLs of unknown material*** in their distribution system shall by 3 years after effective date submit a LSL RP and LSL Inventory to the State. LSLRP must include:
 - Procedures to conduct a full LSL Replacement
 - Strategy for informing customers before replacement
 - LSL replacement goal rate in event of trigger level exceedance
 - Pitcher filter tracking and maintenance system
 - Customer flushing procedures for service line and premise plumbing
 - Sample 3-6 months after LSLR
 - Funding strategy for LSL replacements

*Note that red text is in the preamble but not the proposed rule.

LSR Replacement Plan

- Comments about Pitcher filters and related programs?
- Full LSL Replacement is required to count toward goals.
 - Will homeowners really be able to replace their LSLs?
- Funding strategy for LSL replacements: Replacing both the utility and customer sides is necessary for full LSLR.
 - Is this really feasible and how?
- When a water system is notified by the customer of intent to replace the customer portion of the LSL, the water System has 45 days to replace system owned LSL.
 - Is this enough time?

Record Keeping & Reporting Requirements

- VDH ODW is concerned about the record keeping and reporting requirements of the LCRR.
- For systems under the lead trigger level, there is limited additional requirements, however, the amount of record keeping increases substantially if the trigger or action levels are exceeded.

Reporting for P90 < TL

- Annual LSL inventory update
- Annual report on schools and child care facilities testing
 - Must certify a good deal of information- ODW can create a certification sheet
- WQP monitoring (if applicable)
- LSL Education delivered to all LSL and unknown SL customers
 - Certification to the State
 - Must all deliver education if there are planned or unplanned disruptions that may temporarily cause lead to be present in greater concentrations.

Reporting for Trigger Level Exceedance

- LSLR Plan to be implemented
 - Verify goal rate met, or consumer outreach completed
 - Certify consumer notification and LSL education delivered
- Find-and-Fix WQP, follow up monitoring, and activity information
- Corrosion Control Treatment Study- new or for re-optimization

Reporting for Action Level Exceedance

- Report # of LSLs, and plan to replace 3% annually
- Find-and-Fix WQP, follow up monitoring, and activity information
- Annually must certify:
 - Report 3% replaced in previous year and CN completed
 - LSL Education performed
- Annually to the State:
 - # LSLs scheduled to be replaced in the current year
 - Location of each LSL replaced
 - Certify residents notified of LSL replacement at least 45 days in advance
 - Certify LSL education materials distributed
 - Certify follow-up monitoring delivered to consumers in a timely manner
- Corrosion Control Treatment Study- new or for re-optimization

Schools and Child Care Facilities

- VDH ODW is concerned that the Rule may lead schools and CCFs to think of waterworks staff as 3T experts.
- What are the opinions of the WAC in delivering 3Ts information, and collecting samples in accordance with 3Ts guidance?

Comments and Questions?

Plugging of Fire Hydrant Weep Holes

**Waterworks Advisory Committee Meeting
December 11, 2019**

**Dwayne Roadcap
Director, Office of Drinking Water**

Regulation:

12VAC5-590-1170 Hydrants:

Current Regulations state:

- A. Where hydrant drains are not plugged, they shall be drained to the ground surface or to dry wells provided exclusively for this purpose.
- B. Hydrant drains shall not be connected to sanitary sewers or storm drains.
- C. Fire hydrants shall be connected only to water systems adequately designed for fire flows in addition to domestic flow.

Regulation:

12VAC5-590-1170 Hydrants:

Proposed Amendments, section 170 will be:

- A. Where hydrant drains are not plugged, they shall be drained to the ground surface or to dry wells provided exclusively for this purpose in a matter that will avoid contamination of the hydrant or water main from high groundwater, surface flooding and ponding, and contaminant or pollutant spills.
- B. Hydrant drains shall not be connected to sanitary sewers or storm drains.
- C. Fire hydrants shall be connected only to water ~~systems~~ mains adequately designed for fire flows ~~in addition to domestic flow~~ in accordance with the requirements of 12VAC5-590-1120 B.

Data Management Update

Aaron Moses, PE
Field Services Engineer
December 11, 2019

GEC Software and MS Access Replacement

- GEC Software
 - VITA cloud review underway – ~Feb 2020
 - Contract – ~March 2020
- Data MS Access to SDWIS
 - High level plan for Oct 2020 completion
 - Migration of remaining LCR data underway
 - Facilitates SDWIS automation features

CMDP Pilot Program

- CROMER compliant electronic lab reporting
- ~\$180k EPA grant, expires Aug 2020
- Seeking temp ODW employee to assist
- Primary challenge - lack of incentive for laboratories

CMDP Requirement

Why?

- Required for future versions of SDWIS and CROMER compliance
- Reduce errors – improve customer service to waterworks
- Reduce ODW staff time
 - Data entry
 - Error resolution

CMDP Requirement

What?

- Plan to quit accepting other forms of sample results

When?

- Planning for Sept 1, 2020 – immediately after end of grant

How?

- Notifying labs in writing and by phone

GEC's Drinking Water Watch

- Addressing security “vulnerabilities”
- Discussing initial customization
 - Sample result delay for public view
 - “Customer Service” Contact
 - Next Sample Due Page
 - Compliance Determinations
 - Minor formatting changes for clarity

Drinking Water Watch Customization Mockups

Surface Water - Next Chemical Sample Due

RTCR Samples - Facility ID: DS001, Facility Name: DISTRIBUTION SYSTEM						
Analyte Name	Sample Count	Sample Points	Last Sample Collected	Frequency	Next Sample Required	Comments
COLIFORM (TCR)	10	TCR01	9/23/2019	MN	10/1/2019 - 10/30/2019	

Non-RTCR Samples - Facility ID: DS001, Facility Name: DISTRIBUTION SYSTEM						
Analyte Name	Sample Count	Sample Points	Last Sample Collected	Frequency	Next Sample Required	Comments
PBCU	20	LCR27 - 3904A TATE SPRINGS RD, MICHAEL GILLEY LCR02 - 1514 WILLOW ST., GARY SEXTON LCR16 - 2800 EGAN RD, JUDY BLAKE GILLIAM LCR18 - VALLEY UTILITY BLDGS, 5661 POWELL VALLEY LCR20 - 5400 SKEENS RIDGE RD, GREG CANTRELL LCR31 - 2481 EGAN RD, C E WARF LCR48 - 505 EAST 5TH ST TOWN HALL LCR49 - 6124 LAKE RD JUDY HALL LCR51 - 2106 ALTO ST KAREN FURGUSON LCR52 - 304 EAT 5TH ST THE LANE GROUP LCR53 - 106 EAST 28TH ST S GLEN BISHOP LCR54 - 106 EAST 28TH ST S GLEN BISHOP LCR55 - 502 MAPLE AVE CHARLES BURKE JR LCR60 - 2930 5TH AVE STEVE LOVELL LCR26 - 2904 SPENCER LANE, JAMES HILL LCR44 - 5935 ABSHER RD, CHARLES ABSHER LCR07 - US HWY 23 & RT 615, SUBWAY LCR09 - 618 WOOD AVE, GILLIAM FUNERAL HOME LCR13 - 334 MAPLE AVE E, EARL MUMPOWER LCR25 - 5701 STURGILL RD, JR LIGHT	9/3/2019	3Y	6/1/2022 - 9/30/2022	
TTHM/HAA5	2	DBP02 - LONESOME PINE HOSPITAL DBP03 - LONESOME PINE COUNTRY CLUB	10/9/2019	QT	10/8/2019 - 10/14/2019	Due the 2nd week of Oct, Jan, April & July

Non-RTCR Samples - Facility ID: EP001, Facility Name: ENTRY POINT						
Analyte Name	Sample Count	Sample Points	Last Sample Collected	Frequency	Next Sample Required	Comments
CYANIDE	1	EP001 - WTP - ENTRY POINT	7/12/2016	9Y	1/1/2020 - 12/31/2028	Conditional
FREE FLUORIDE SPLIT	1	EP001 - WTP - ENTRY POINT	10/21/2019	MN	11/1/2019 - 11/30/2019	
INO_METALS COMBO	1	EP001 - WTP - ENTRY POINT	5/7/2019	YR	1/1/2020 - 3/31/2020	
NITRATE + NITRITE	1	EP001 - WTP - ENTRY POINT	3/6/2019	YR	1/1/2020 - 12/31/2020	
RAD ALPHA	1	EP001 - WTP - ENTRY POINT	1/14/2015	6Y	1/1/2017 - 12/31/2022	1/28/02 - Grandfather sample
VOC	1	EP001 - WTP - ENTRY POINT	8/6/2019	YR	1/1/2020 - 3/31/2020	

Drinking Water Watch Customization Mockups

Non-RTCR Samples - Facility ID: IN001, Facility Name: SOUTH FORK LAUREL RIVER						
Analyte Name	Sample Count	Sample Points	Last Sample Collected	Frequency	Next Sample Required	Comments
TOC_ALK	1	RW001 - RAW WATER TAP	4/10/2018	QT	7/1/2019 - 9/31/2019	

Non-RTCR Samples - Facility ID: TP002, Facility Name: BIG STONE GAP WTP						
Analyte Name	Sample Count	Sample Points	Last Sample Collected	Frequency	Next Sample Required	Comments
CARBON_TOTAL	1	UP001 - COMBINED FILTER EFFL	7/9/2019	QT	10/1/2019 - 12/31/2019	

Monitoring Waivers	
Waiver	Date
CYANIDE2019	1/1/2011 - 12/31/2019
CYANIDE2028	1/1/2020 - 12/31/2028
SOC-CAH2019	1/1/2017 - 12/31/2019
SOC-CAH2022	1/1/2020 - 12/31/2022
SOC-CAR2019	1/1/2017 - 12/31/2019
SOC-CAR2022	1/1/2020 - 12/31/2022
SOC-DIQ2019	1/1/2017 - 12/31/2019
SOC-DIQ2022	1/1/2020 - 12/31/2022
SOC-SEMI2019	1/1/2017 - 12/31/2019
SOC-SEMI2022	1/1/2020 - 12/31/2022
SOC-VOL2019	1/1/2017 - 12/31/2019
SOC-VOL2022	1/1/2020 - 12/31/2022

Drinking Water Watch Customization Mockups

Groundwater - Next Chemical Sample Due

RTCR Samples - Facility ID: DS001, Facility Name: DISTRIBUTION SYSTEM						
Analyte Name	Sample Count	Sample Points	Last Sample Collected	Frequency	Next Sample Required	Comments
COLIFORM (TCR)	1	TCR01	10/24/2019	MN	11/1/2019 - 11/30/2019	

Non-RTCR Samples - Facility ID: DS001, Facility Name: DISTRIBUTION SYSTEM						
Analyte Name	Sample Count	Sample Points	Last Sample Collected	Frequency	Next Sample Required	Comments
PBCU	5	LCR01 - LOT 10 LCR02 - LOT 24 LCR03 - LOT 38 LCR04 - LOT 45 LCR05 - LOT 6	9/3/2019	3Y	6/1/2022 - 9/30/2022	
TTHM/HAA5	1	DBP01 - LOT 14	9/25/2017	3Y	7/1/2020 - 9/30/2020	Reduced-Triennial

Non-RTCR Samples - Facility ID: EP002, Facility Name: ENTRY POINT - WELL NO.2						
Analyte Name	Sample Count	Sample Points	Last Sample Collected	Frequency	Next Sample Required	Comments
CYANIDE	1	EP002 - TAP AT WELL HEAD	7/12/2016	9Y	1/1/2020 - 12/31/2028	
INO_METALS COMBO	1	EP002 - TAP AT WELL HEAD	10/21/2019	3Y	1/1/2019 - 12/31/2019	
NITRATE + NITRITE	1	EP002 - TAP AT WELL HEAD	5/7/2019	YR	10/1/2020 - 12/31/2020	Must sample 4th quarter.
RAD ALPHA	1	EP002 - TAP AT WELL HEAD	3/6/2019	6Y	1/1/2017 - 12/31/2022	
VOC	1	EP002 - TAP AT WELL HEAD	1/14/2015	YR	10/1/2020 - 12/31/2020	Must sample 4th Qtr 1/9/19 VOC sample collected did not meet monitoring requirements NOV issued FTM 2018

Non-RTCR Samples - Facility ID: WL002, Facility Name: WELL NO 2						
Analyte Name	Sample Count	Sample Points	Last Sample Collected	Frequency	Next Sample Required	Comments
COLIFORM (PRE-TCR)	1	RW2 - WELL NO. 2	7/10/2019	QT	10/1/2019 - 12/31/2019	

Drinking Water Watch Customization Mockups

Monitoring Waivers	
Waiver	Begin Date
CYANIDE2019_B	1/1/2011 - 12/31/2019
CYANIDE2028	1/1/2020 - 12/31/2028
SOC-CAH2019_B	1/1/2017 - 12/31/2019
SOC-CAH2022	1/1/2020 - 12/31/2022
SOC-CAR2019_B	1/1/2017 - 12/31/2019
SOC-CAR2022	1/1/2020 - 12/31/2022
SOC-DIQ2019_B	1/1/2017 - 12/31/2019
SOC-DIQ2022	1/1/2020 - 12/31/2022
SOC-SEMI2019_B	1/1/2017 - 12/31/2019
SOC-SEMI2022	1/1/2020 - 12/31/2022
SOC-VOL2019_B	1/1/2017 - 12/31/2019
SOC-VOL2022	1/1/2020 - 12/31/2022

Drinking Water Watch Customization Mockups

Compliance Determination Example

TTHM Locational Running Annual Average					
Site	Monitoring Period	Average	Locational Running Annual Avg. (MCL = 80 ug/L)	Operational Evaluation Level	Samples
DBP01 - Turkey Creek	10-01-2009 to 12-31-2009	95.0 ug/L	88.3 ug/L	99.5 ug/L	1
	07-01-2009 to 09-30-2009	135.0 ug/L	84.5 ug/L	98.3 ug/L	1
	04-01-2009 to 06-30-2009	73.0 ug/L	80.8 ug/L	69.0 ug/L	1
	01-01-2009 to 03-31-2009	50.0 ug/L	75.0 ug/L	75.0 ug/L	1
	10-01-2008 to 12-31-2008	80.0 ug/L	67.5 ug/L	82.5 ug/L	1
	07-01-2008 to 09-30-2008	120.0 ug/L	57.5 ug/L	77.5 ug/L	1
	04-01-2008 to 06-30-2008	50.0 ug/L	55.0 ug/L	40.0 ug/L	1
DBP02 - Prospect	10-01-2009 to 12-31-2009	75.0 ug/L	73.3 ug/L	82.0 ug/L	1
	07-01-2009 to 09-30-2009	110.0 ug/L	74.5 ug/L	82.0 ug/L	1
	04-01-2009 to 06-30-2009	68.0 ug/L	74.5 ug/L	64.0 ug/L	1
	01-01-2009 to 03-31-2009	40.0 ug/L	69.5 ug/L	67.5 ug/L	1
	10-01-2008 to 12-31-2008	80.0 ug/L	65.0 ug/L	79.5 ug/L	1
	07-01-2008 to 09-30-2008	110.0 ug/L	53.8 ug/L	72.5 ug/L	1
	04-01-2008 to 06-30-2008	48.0 ug/L	51.3 ug/L	38.3 ug/L	1

Proposed Meeting Dates 2020

**Waterworks Advisory Committee Meeting
December 11, 2019**

**Dwayne Roadcap
Director, Office of Drinking Water**

Proposed Meeting Dates 2020

Wednesday, February 19, 2020 – Perimeter Center

Wednesday, April 15, 2020 – Perimeter Center

Wednesday, July 15, 2020 – Sydnor Hydro

Wednesday, September 16, 2020 – Sydnor Hydro

Wednesday, December 16, 2020 – Perimeter Center

Perimeter Center, 9960 Mayland Dr., Richmond, 23233

Sydnor Hydro, 2111 Magnolia St, Richmond, 23223

