

Waterworks Advisory Committee (WAC)  
**DRAFT Meeting Summary**  
March 15, 2018

Members Present: Dwayne Roadcap, VDH (chair); David Van Gelder, Hanover Public Utilities (vice-chair); Skip Harper, DHCD; Roger Cronin, ACEC; Bailey Davis, DCLS; Mark Estes, VRWA; Chris McDonald, VACO; Drew Hammond, DEQ; Jesse Royal, Sydnor Hydro; Ignatius Mutoti, VSPE; Tim Mitchell, VA AWWA; Eric Lassalle, Virginia Manufacturers Association.

Guests in Attendance: Jeff Wells, VDH; Bob Edelman, VDH; Jim Moore, VDH; Roy Soto, VDH; Joanne Vivas, VDH; Ike Eisenhart, VDH; John Aulbach, Aqua Virginia; Robert Payne, VDH.

Meeting convened at 9:00 AM with quorum. There was no public comment and meeting minutes from the last meeting will be reviewed at the next meeting.

**Agenda Item: Office of Drinking Water (ODW) Plans and Priorities for 2018**

Roadcap reported the following priorities for 2018:

- Focus on customer service, team development, and accountability.
- Need to fill 12 to 15 vacancies with ODW. All positions advertised, some have offers, some are being filled, but ODW is having difficulty filling the Deputy Director position.
- Develop a cohesive training for onboarding new ODW staff and orientation of various programs.
- Present draft Waterworks Regulations to the Board of Health by December 2018. Need to complete draft regulations review process with stakeholders by June, 2018 so EPA will have time to review regulations before presentation to Board of Health.
- Post Drinking Water Watch, which is a web-based public interface for waterworks to check sample results and sampling frequencies.
- Improve response time of computers and software for ODW staff in field offices, especially Culpeper Field Office.
- Align employee work profiles so everyone is pushing toward the same goals. Ensure employee performance evaluated with consistent language and measures across field offices.
- Create and use technical manuals and standards of practice manuals instead of working memos. The goal is to place technical manuals on the website so stakeholders and staff will not need to remember and search for working memos. There are currently about 300 working memos in use.
- Pilot an Auto Dialer system to improve on-time sampling response from small waterworks.
- Create a better data story and use data visualization on the website. Staff will start with lead in drinking water.

- Create a dashboard for metrics: metrics will include samples on time; inspections on time; percent of facilities with up-to-date permit; time to issue a construction permit; percent of community waterworks with a health violation; reduce the number of waterworks with a health violation per year by 10%.
- Update and enhance QA/QC procedures to focus on process of review.
- Address aging infrastructure. Work with waterworks to use data and develop strategic partnerships, including Va Tech.

**Bills of interest at the 2018 General Assembly session:**

- HJ94 – Lead in drinking water. Did not pass, but ODW will develop a report to address this topic by December, 2018.
- HB771– Sustainable water initiative for tomorrow. Did not pass.
- HB979- Change lead action level. Did not pass.
- HB1035 – Revise Drinking Water State Revolving Fund (DWSRF) to address projects located within the Eastern Groundwater Management Area (EVGMA). Passed. The bill does not affect projects in other areas of the Commonwealth.
- HB1217- Review impact of neighboring properties. Did not pass.
- HB1574 – Lead testing in schools. Did not pass.
- HB192 – Rainwater in commercial facilities/car wash facility. Passed.
- HB211 – 15 year permit withdrawal in EVGMA. Passed.
- HB297 – Comment period for guidance documents. Passed.
- HB1234 – Change definition for human consumption. Did not pass.

**Agenda Item: Draft Regulations Review/Issues/Discussion**

HB1234 highlighted concerns about sampling requirements for small businesses, including the cost to sample quarterly for bacteriological, yearly for nitrate, and more frequent initial sampling to assess “groundwater under the direct influence” (GUDI) from surface water. Based on these concerns, ODW plans to use a reduced sampling frequency (quarterly to yearly) with an increased inspection frequency (from every 2 or 3 years to yearly). Currently, most transient non-community systems (TNC) perform quarterly sampling with a yearly nitrate sample. The Notice of Intended Regulatory Action (NOIRA) that closed in November, 2017, is broad enough to allow reduced, annual sampling with an annual inspection, provided historical sampling is proper and shows no violations for bacteriological or nitrate and that the well is not subject to surface water influence. This rule change would require EPA to review and approve before presentation to the Board of Health. ODW can allow the WAC or the Regulatory Action Panel (RAP) review the rule change; however, the rule change would implement an optional sampling and inspection frequency based on federal regulations. Any regulatory change must be as stringent as the federal requirements.

Some members expressed concern that VDH would not have adequate resources to implement an enhanced inspection frequency, especially with the current vacancy rate in ODW. ODW will evaluate this issue going forward as part of the regulatory adoption process. ODW is looking at greater programmatic efficiency through general permitting, piloting an auto-dialer, and using drinking water watch, which might also help. Ultimately, if the Board of Health can review the draft regulations at its December, 2018, meeting, there would be an executive branch review of the regulations before a 60-day public comment period. Upon conclusion of the 60-day public comment period, ODW would likely form another RAP to review public comments and edit the proposed regulation as initially approved by EPA and the Board of Health. Upon review by the Board of Health and EPA following changes after the 60-day comment period, there would be another executive branch review of the regulations before a 30-day final notice period began. Given the extensive regulatory review that still remains, ODW will have plenty of time to work with stakeholders on concerns about adequate resources for annual inspections.

Some members expressed concern that ODW might have changed text of the draft regulations since the last RAP concluded, and possibly without sufficient stakeholder feedback. The RAP asked ODW to reform the RAP, and invite members from the last RAP to participate. Roadcap observed that the RAP should have 18 or less members to ensure effective facilitation and opportunity to comment.

The members approved the following motion: *ODW should convene another RAP to review the entire draft regulations. ODW should invite members of the prior RAP to participate.*

Upon additional discussion, members did not believe ODW needed to hire a facilitator for the follow-up RAP meetings. Most members thought a 1-day meeting to review the prior text would be sufficient. Members did not necessarily want to start from square one; however, they did want time to look for inconsistencies and text changes. Following a 1-day meeting to review old text from prior RAP meetings, members thought ODW could focus on issues of controversy. Members remembered an email from Robert Payne in July, 2018, that could be used to invite participants for the follow-up RAP meetings.

#### **Discussion of Topics of Interest in the Draft Regulations:**

1. Membrane filtration: ODW staff indicated that Working Memo 880 would be placed into the draft regulations. There is a toolbox for additional crypto log treatment. The original language described challenge tests, which was a duplicative effort because it is in LT2 toolbox. Section 882 describes turbidity, direct integrity, alarm, set values, attractiveness for membrane, source and membrane, and when a facility would need full-time operator. Some of this text was reorganized from the original RAP meetings.

Some members wondered whether reverse osmosis (RO) should be included in the membrane section. Some thought that RO, especially for reducing dissolved solids, was

not included in the text and should be. Since members could not find RO in the regulatory text and changes, and because RO is a membrane (nano-filtration is different), then RO facilities that used RO technology to address total dissolved solids, salt, TOC removal, should not fall under the membrane section of the regulations. Some members suggested that ODW create a section in the regulations that specifically addressed RO treatment to describe how to use the technology. Others responded that RO technology is quite expensive, not used very often, and that it requires operator attendance. In response, some members thought operator section of the regulations addressed membrane requirements.

Some members thought ODW should refer to AWWA standards for membranes. There are a lot of AWWA standards already referenced in the draft regulations, so why not include it for membranes. Some people stated that ODW's regulatory program used EPA's membrane guidance manual and that the AWWA standards for membranes were relatively newer. Bound by the LT2 rule, AWWA says to meet regulatory standards with brackish groundwater. RO must always meet AWWA standards and some members thought staff should include this type of text into the regulations. The LT2 Rule, also known as the Long-term 2 Surface Water Enhancement Rule, addresses how surface water systems are required to conduct source water monitoring for *Cryptosporidium*, *E. coli*, and turbidity.

When you use RO for crypto or acute health standards, then the RO standards are much stronger than if you were just using RO to remove dissolved solids. These members did not want RO to be swept up into the other membrane regulatory topics, especially when RO was used for aesthetic issues, not health issues. Ultimately, members suggested that the regulations include AWWA standards, an RO section, and a description for nanofiltration.

2. UV Light Disinfection: Staff reported that Working Memo 839 would be Section 1005 of the draft regulations. In 2013, staff updated the working memo to incorporate and recognize as part of the LT2 rule. The most recent version of the rule provides more detail and allows UV credit for virus inactivation, primarily for groundwater. Some facilities voluntarily install UV light disinfection and staff uses NSF 61 and 55 certified to accept. Members noted that UV disinfection treatment also has an AWWA standard. While it is a relatively new standard, from 2012, one member thought that the AWWA standard should be included in the regulation. Members pointed out that if the regulation referred to the AWWA standard, then the regulation would need to incorporate those documents by reference. One member pointed out that transmissivity and transmission could give false low readings. Other times the test results could show compliance even if not present from application and daily operation checks. Utilities would not want to be dinged for transmissivity. While an operator could use a handheld to compensate or check for sensor errors, this would also not necessarily be correct.
3. Fluoride--Section 930: Staff noted that the fluoride section in the current regulation is outdated. Staff updated and clarified to show that the Board of Health recommends

optimally fluoridated water. There is a notice provision in the event a water provider chooses to stop fluoridating. The idea is to give VDH time to intervene and provide current information on fluoridation before it is stopped. One member thought fluoridation should include the word “shall” to make it more clear what is expected. One member pointed out that fluoride is an additive, not treatment. Fluoride is a primary drinking water standard but is not required. Some members wanted to update language so that there was a range for fluoridation feed systems. Operators cannot usually hit a specific target and a range would provide greater flexibility on expectations. Utilities can rarely operate at the optimal condition 24-7. Other members noted that the fluoridation section describes design of a feed system, not an operational requirement. Fluoride is very controversial, if 0.65, that's not optimal so a range would be better to help manage expectations. Another person suggested language, such as, "designed to deliver" to provide additional flexibility. Most members expressed a desire for a range regarding fluoridation feed system design and operation.

4. Cross-connection: DHCD concurred with most comments from the backflow association. One member thought that ODW should use the language from the 2015 RAP instead of the current regulatory text. The building code requirements would not apply to issues at the meter box at the street. One person suggested that in section 580.B, "shall install....or auxillary water system is known to exist, unless safeguarded," to reinstate paragraph C from original RAP recommendation: “owner shall not install...” ODW indicated they would ask Hugh Eggborn, Field Director for the Culpeper Field Office, to look at these comments.
5. Service Lines and meters: Section 1230 of the regulations states that all community systems must be metered. All new service connections must have meters. Some members wondered what paragraph B meant when it said "all applicable codes." The issue, as understood by some members, was the difference between a water main and the meter connection. This issue would not necessarily be associated with the building code. Instead, it would fall to the utility standard. Some members indicated "applicable standards" could refer to AWWA standards and that the regulations need more clarity about complying with “all applicable standards.”

Most members thought ODW could remove section B. In Section 700, for annual reporting, the average daily withdraw during any single month is of interest. DEQ is opening up its regulations for groundwater withdraw permitting for periodic review. DEQ wants consistency and refers its permitting as greater than or equal to 300,000 in any single month. Most members thought metering should be required. One member observed that a community waterworks, with as few as 25-50 service connections, would need metering to perform necessary calculations for unaccounted water production or water loss. This person thought all community, TNC, and NTNC should have a meter. Looking at total waste stream, eliminating meters is not a good practice. For systems with chlorination and manganese removal, meters allow the operator to adjust chemical feeds. Without meters, the operator would be operating blind. DEQ stated that metering makes it easier to address permitting requirements for withdraws.

Other persons thought for TNC systems, there is a substantial cost to install a meter, especially for a small restaurant or church. Looking at HB1234, concerns raised about quarterly sampling so requiring a meter, at a possible cost of \$300, would probably also be viewed as too burdensome. Another person observed that a meter would be required if a chlorinator were used.

Several members requested ODW look at AWWA guidelines (standards) for the following:

- Section 1005 of Regulations Ultraviolet light – WM829 – 2013 rewrite AWWA has new standard for UV.
- Section 930, Fluoride – A. – nothing changes H. – in newspaper, they would stop fluoridation. This is a change in #. Change should to shall look at range instead of .7.
- Section 580 – Cross Connection – containment device is located in building. Email to group comments – Jeff will do this. Working memo 801 suggest words be back in that were taken from RAP. (Roger Cronin – ACEC).
- Section 1230 – Service lines and meters –
  - A. All new service connections in community waterworks shall be metered.
  - B. What codes between water main and service connection does not have a code.
- Section 700- Total water production  $\geq$  300,000 gallons per month, suggest NC be included too, not just community and nontransient noncommunity waterworks. How do you know how much you are using if you do not have a meter. All community waterworks need to be metered.