

**Attachment 1A  
MEETING SUMMARY  
JOINT MEETING OF THE  
DIRECTORS OF UTILITIES COMMITTEE AND HEALTH DIRECTORS  
December 6, 2017  
Chesapeake**

**1. Summary of the November 1, 2017 Meeting of the Directors of Utilities Committee**

There were no comments on, or revisions to the summary of the November 1, 2017 Committee meeting.

**ACTION:** The summary of the November 1, 2017 meeting of the Directors of Utilities Committee was approved.

**2. Summary of the June 7, 2017 Joint Meeting of the Directors of Utilities Committee and Health Directors**

There were no comments on, or revisions to the summary of the June 7, 2017 joint meeting.

**ACTION:** The summary of the June 7, 2017 joint meeting of the Directors of Utilities Committee and Health Directors was approved.

**3. Public Comment**

There were no public comments.

**4. Norfolk Water Infrastructure Resiliency Planning**

Norfolk Public Utilities Engineering Manager Cheryl Barnett presented the utility's Water Infrastructure Resiliency Planning efforts (see Attachment 1C). Ms. Barnett's presentation included an overview of ongoing resiliency efforts throughout the City of Norfolk, followed by the utility's water system resiliency planning and the implementation of mitigation strategies to protect critical water system assets.

In 2015, Norfolk Utilities initiated a three-phase flood and wind vulnerability assessment for the City's two water treatment plants. Phase 1 was a climate analysis that identified three critical flood elevations for the risk-based evaluation: the 100-year storm elevation; the 100-year storm elevation plus 3 feet; and the hurricane storm surge from a Category 3 storm. Portions of both treatment plants were found to be vulnerable to flooding from a Category 3 storm.

Phase 2 was a vulnerability analysis that identified potential flood pathways, considered the vulnerability of equipment to flooding, and rated the criticality of assets at both treatment plants. Examples of "high criticality" assets include those that support

conveyance, disinfection, or power generation. Flood impacts to “moderate criticality” assets would reduce the level of service. Flooding of “low criticality” assets would have minor or no impact to processes.

Phase 3 was an adaptation analysis that provided recommendations to protect critical assets. This approach allows the utility to implement strategies based on the level of risk and the availability of funding. For example, the installation of a static barrier like stop logs to seal doorways effectively protects multiple assets at a moderate cost. To illustrate the recommendations, Ms. Barnett reviewed images of the treatment plants annotated with the recommended adaptation strategies followed by images of recommendations that have already been implemented at the Moores Bridges Water Treatment Plant, including a flood wall, stop logs, and storm surge placards posted throughout the facility. The placards were highlighted as an innovative and effective way to inform plant personnel of which assets need to be protected based on the predicted storm surge advisory.

Norfolk Utilities is undertaking other resiliency initiatives, including the integration of resiliency planning into the asset management program so that flood-proofing is incorporated into the design of replacement facilities. This approach helps ensure that resiliency adaptation balances infrastructure and public health protection against implementation and financial constraints.

Following the presentation, HRPDC Principal Water Resources Engineer Whitney Katchmark opened the floor for questions and discussion. Comments included appreciation for the overall approach for the vulnerability assessment, the use of three critical flood elevations for the flood risk evaluation, as well as the storm surge placards. Some utilities are evaluating flood impacts from extreme rainfall events and incorporating findings into resiliency planning. For utilities with facilities at higher elevations, wind is of greater concern than flooding. Utilities have identified their critical assets and have developed emergency operations plans. Ms. Katchmark noted the current Joint Land Use Study efforts in the region and commented on the value of sharing information on utility emergency and resiliency planning efforts with large customers such as the Navy, as it is helpful to the customer in completing their own vulnerability analyses.

The EPA’s [CREAT risk assessment application](#) was also suggested as a tool for water and wastewater utilities looking to adapt to extreme weather events. Norfolk Utilities completed this intensive modeling effort for the City’s water infrastructure and found that the results confirmed the findings of the three-phase vulnerability assessment.

**ACTION:** No action.

## 5. VDH Office of Drinking Water Regulatory Update

VDH Office of Drinking Water, Southeast Virginia Field Office Director Daniel Horne provided an update on administrative staff changes (see Attachment 1D). As of November 25, 2017 the new Office of Drinking Water director is Mr. Dwayne Roadcap; the deputy director position is in recruit. Former Director of Technical Services Susan Douglas has retired. In the Southeast Field Office, the senior environmental health manager position is vacant.

Mr. Horne provided an update on regulatory issues including the Fourth Unregulated Contaminant Monitoring Rule, the Lead and Copper Rule Long-Term Revisions, and the implementation of Virginia SB 1359 (see Attachment 1D).

The final [Fourth Unregulated Contaminant Monitoring Rule \(UCMR4\)](#) was published on December 20, 2016. The monitoring period is from 2018 to 2020. The EPA has asked VDH to remind waterworks to register in the SDWARS database. The EPA sent letters to waterworks in February 2017 with instructions and a database registration key. As UCMR4 is a direct implementation rule, all questions should be directed to the EPA.

The current status of the proposed Lead and Copper Rule (LCR) Long-Term Revisions (Part 1) is unknown. The rule was supposed to have been published in late 2017.

Virginia [SB1359 \(2017\)](#) amended the Code of Virginia by adding a section numbered 22.1-135.1 as follows:

[§ 22.1-135.1. Potable water; lead testing.](#) Each local school board shall develop and implement a plan to test and, if necessary, remediate potable water from sources identified by the U.S. Environmental Protection Agency as high priority for testing, including bubbler-style and cooler-style drinking fountains, cafeteria or kitchen taps, classroom combination sinks and drinking fountains, and sinks known to be or visibly used for consumption. The local school board shall give priority in the testing plan to schools whose school building was constructed, in whole or in part, before 1986.

School boards are charged with implementation. Mr. Horne noted that the VDH is cooperating with the boards to provide guidance on developing plans for testing and remediation, where needed, of facilities in schools identified by the EPA as high priority for testing. This section of the code applies to all public schools. The [Virginia Association of School Plant Managers](#), in consultation with VDH, developed a template plan for use by local school boards based on the EPA's [3Ts for reducing lead in drinking water](#) (training, testing, and telling approach) with modifications to incorporate the Lead and Copper Rule 1-liter sampling size and 15 parts per billion action level. The EPA is offering a webinar training series for schools (*schedule posted [here](#)*). Two webinars have been conducted to date:

- Reducing Lead in Drinking Water in Schools and Child Care Facilities – New York State Department of Health (Sept 20, 2017):  
<https://www.youtube.com/watch?v=hAv6lmKnSnw&feature=youtu.be>
- Reducing Lead in Drinking Water in Schools and Child Care Facilities – Denver, CO (June 21, 2017):  
<https://www.youtube.com/watch?v=Qs266x7FrGM&feature=youtu.be>

**ACTION:** No action.

## 6. Utility Directors and Health Directors Roundtable Discussion

The Utility Directors and Health Directors participated in a roundtable discussion of matters of mutual interest, including potential new water quality standards for coliphage in recreational waters; the Elizabeth River Project’s Septic System Task force; lead service line replacement projects funded through the Drinking Water State Revolving Fund Program; and the public health impacts of Detroit water shutoffs (see Attachment 1E).

Coliphage Criteria: The HRPDC staff summarized the EPA’s current effort to develop Clean Water Act Recreational Water Quality Criteria for coliphage, a viral indicator of human health threats related to contact recreation in surface water bodies. Although no timeline has been set for criteria development, the EPA could put forth criteria as early as 2018. The adoption of any new recreational water criteria would be dependent on the DEQ’s triennial review of water quality standards.

During the Committee’s roundtable discussion, it was clarified that coliphage monitoring could reduce the number of beach closures because it is a viral indicator and direct indicator of a human health threat. It was also clarified that the coliphage criteria would only apply to recreational waters and to not shellfish grounds, which are subject to USDA regulations.

Elizabeth River Project (ERP), Septic System Task Force: The HRPDC staff briefed the Committee on the ERP’s Septic System Task Force. The effort, which is funded by a National Fish and Wildlife Foundation grant, is aimed at reducing *Enterococcus* and improving overall water quality in the Eastern Branch of the Elizabeth River (Indian River and Broad Creek tributaries). ERP is coordinating with city and state agencies to establish a regional task force to track existing septic tanks, to enforce pump outs, and to consider incentives for conversions to sanitary sewer.

The group held its first two meetings in September and December 2017. Discussion focused on the question, “Is there a link between septic systems in the Eastern Branch and fecal pollution in the river?” The group expressed notable concerns with three potential study approaches outlined by HRSD (watershed approach; targeted septic study; and desktop modeling). The low density of septic systems in the area and the tidal conditions are of primary concern with the most accepted approach for

this type of investigation (watershed approach). Such a study does not appear to be feasible, and source tracking appears to be a better use of resources and time. For next meeting in March, ERP will look at the density of septic systems in the watershed, options to fund conversions to sanitary sewer, and costs to connect known clusters of septic systems to municipal systems.

During the roundtable discussion, it was agreed that customer connection fees are the primary obstacle to hooking up septic systems to sanitary sewer systems. The HRPDC staff will develop a summary of potential resources for funding sewer hookups. The City of Hampton's wastewater revolving fund may be a good cost share model for other utilities.

VDH Lead Service Line (LSL) Replacement Program: The HRPDC staff summarized the lead service line replacement projects that were funded in the [FY18 DWSRF Program Intended Use Plan](#). DWSRF Program funding is intended to provide up to \$5,000 in grant funds for the complete removal of the public and/or private portion of the LSLs up to and including a shut off valve (excludes the premise plumbing). VDH received applications for three LSL replacement projects; all three projects were funded. It was noted that the City of Richmond is still working on an implementation strategy for the City's LSL replacement project to address legal issues with work on the private portion of the line. Once developed, Richmond's program may provide a helpful example for other municipal utilities.

During the discussion, Mr. Horne suggested the [Lead Service Line Replacement Collaborative](#) as a resource for utilities, as well as other examples of LSL replacement programs:

- Milwaukee Water Works ([cost share to customer](#))
- Massachusetts Water Authority ([10-year zero-interest loan to locality](#)): Example locality programs include [Boston](#), [Framingham](#), and [Norwood](#).

Public Health Impacts of Detroit Water Shutoffs: Staff summarized the media coverage of a preliminary study on hospital patients in Detroit by the Henry Ford Health System's Global Health Initiative. The report correlates Detroit water shutoffs to water-related illnesses in hospital patients, including: a) skin and soft tissue infections, and b) water-borne bacterial infections. Media coverage of the report, with several articles describing Detroit's water shutoffs as a "public health crisis," peaked in July and August. Staff will continue to track the issue.

**ACTION:** No action.

### **BREAK (5 minutes)**

The joint meeting of the Directors of Utilities Committee and Health Directors concluded at the break. Upon reconvening, topics pertaining to the Utility Directors were discussed.

## 7. Legislative Issues

The Directors of Utilities Committee discussed legislative proposals for the 2018 General Assembly session, including:

- Draft legislation to implement 15-year groundwater withdrawal permit terms;
- Draft legislation to require developers of subdivisions of 30 or more lots to be supplied by private wells to apply for a nonbinding technical evaluation by DEQ;
- Draft legislation to require new non-agricultural irrigation wells to be constructed in the surficial aquifer; and
- Draft legislation to establish additional oversight mechanisms for the HRSD SWIFT groundwater replenishment project.
- Draft legislation to give additional priority for Virginia Drinking Water State Revolving Fund awards, among proposals located in the Eastern Virginia Groundwater Management Area, to projects for the development of alternative water sources; and
- Draft legislation for DEQ to hold an annual State of the Water Resources forum and to convene a Trading Workgroup to develop an aquifer storage and recovery banking system.

The Committee agreed in support for the following two items:

- Draft legislation to implement 15-year groundwater withdrawal permit terms; and
- Draft legislation to establish additional oversight mechanisms for the HRSD SWIFT groundwater replenishment project.

**ACTION:** Include the following items in the draft 2018 legislative package to be presented to the HRPDC:

- Draft legislation to implement 15-year groundwater withdrawal permit terms; and
- Draft legislation to establish additional oversight mechanisms for the HRSD SWIFT groundwater replenishment project.

## 8. HRSD Draft Revisions to the 2014 Memorandum of Agreement

HRSD provided draft revisions to the 2014 Memorandum of Agreement for the Committee's consideration. Revisions to the MOA are being proposed in coordination with the Integrated Plan/Regional Wet Weather Management Plan that was submitted to the EPA on September 29, 2017. A follow-up discussion will be scheduled for a future Committee meeting.

**9. Other Business**

There was no discussion of other business.