AFTER-ACTION REPORT: HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES' RESPONSE TO THE RICHMOND WATER CRISIS

Prepared for: County of Henrico, Virginia



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1. EXECUTIVE SUMMARY

The purpose of this report is to provide a detailed timeline of events and a narrative of actions by the Henrico County Department of Public Utilities ("Henrico DPU") in response to the Richmond Water Crisis from Monday, January 6, through Saturday, January 11, 2025. This is one element of honoring the commitment by Henrico County leaders for a prompt afteraction review to provide transparency and insight into the crisis. Detailed information regarding the design and operation of the Henrico water system and options for future system improvements are being developed separately by an engineering firm.

Sometime before 7:00 AM Monday, January 6, during Winter Storm Blair, water production at the Richmond Water Treatment Facility ("Richmond WTF") stopped. Richmond DPU staff coordinated with Henrico DPU staff for a temporary reduction in Henrico's draw, as had occurred on prior occasions. It was not until 2:30 to 3:00 PM, however, that the Richmond DPU Director broke the news to the Henrico DPU Director, the Virginia Department of Health ("VDH"), and others that the Richmond WTF might not come back online that day at all. By 4:30 PM Richmond was under a Boil Water Advisory, and by 7:00 PM its primary feed to the east end of Henrico ran dry.

On Monday, Henrico DPU launched an aggressive response. The utility's strategy for minimizing service impacts was to carefully manage water already stored in tanks in central and eastern Henrico, increase water production at the Henrico WTF in western Henrico, pump water produced at the Henrico WTF to eastern Henrico to the maximum extent possible, and buy time for the Richmond WTF to come back online. Henrico DPU employees worked day and night, including field crews working in freezing cold temperatures, to try to make it work.

By Tuesday morning, there was lower pressure and flow in the central and eastern areas, but some service was expected to be restored by Richmond later that morning. Restarting the Richmond WTF proved difficult. Henrico DPU received multiple reports of good progress and expected restart times throughout the crisis, only to see them superseded by setbacks and delays. At the time of Henrico's 11:30 AM Tuesday press conference, the latest information available indicated service should begin returning that afternoon. Unfortunately, the Richmond WTF restart suffered more delay and slipped into Wednesday.

Meanwhile, a line break had occurred in the Highland Springs area of eastern Henrico, which was believed to have resulted in a major draw from the system. That repair was completed Tuesday afternoon. Significantly, Henrico DPU discovered Tuesday afternoon that water was draining out of the Henrico system into the depressurized Richmond system at metered interconnections along the boundary line. Henrico DPU worked to close the boundary line valves beginning with the largest lines. Efforts continued Tuesday night and into Wednesday to keep the water in the Henrico system and convey it to the east.

Late morning Wednesday, VDH informed Henrico DPU that it would require a Boil Water Advisory due to the extent of the outage in eastern Henrico, the number of customers impacted, and the duration. Also, by mid-day Wednesday, it was becoming apparent that the ability to serve more residents was restricted by the combination of stored water depletion, the high volume of water needed to refill the now empty network of water lines, limited water line capacity for conveying supplemental water to the east, and delays in restoring water production at the Richmond WTF.

At 3:30 PM Wednesday, Henrico held a press conference to provide a comprehensive update. Henrico DPU had managed to restore service to almost 6,000 residents overnight, but approximately 23,000 residents remained without water. The Richmond WTF supply was then coming back online, and Henrico expected that within 24 to 48 hours Henrico residents would see more normal service. At this time, Henrico announced a Boil Water Advisory applicable to the entire county due to the interconnected nature of the water system.

On Wednesday afternoon, Richmond reenergized its system and began providing water to eastern Henrico. Henrico DPU staff worked through the night to reenergize its water system, including field crews working in frigid temperatures again to open hydrants to purge air and measure pressure.

By Friday morning, Henrico DPU had restored water service to central and eastern Henrico. By late Friday afternoon, pressure reached a level that allowed Henrico DPU to begin water quality sampling and testing necessary to obtain VDH's approval to lift the Boil Water Advisory. By noon Saturday, Henrico DPU had clean test results and VDH gave its approval. Henrico immediately lifted the Boil Water Advisory.

2. SCOPE & METHODOLOGY

A. Scope of Review

AquaLaw PLC was engaged on January 17, 2025, by the Office of the County Attorney of the County of Henrico, Virginia to prepare this report on the response by the Henrico County Department of Public Utilities ("Henrico DPU") to the Richmond water crisis from Monday, January 6, 2025 through Saturday, January 11, 2025 ("Richmond Water Crisis"). A letter from the Henrico County Attorney to AquaLaw defining the scope of our engagement and agreeing to certain terms and conditions required by AquaLaw (described below) is set forth in Appendix A.

The scope of this report is a presentation of the timeline of events and a narrative of actions by the Henrico DPU in response to the Richmond Water Crisis. This report was prepared on an accelerated timeline of less than 30 days to meet the commitment immediately promised by Henrico County leaders to the citizens to a prompt after-action review for the purpose of providing transparency and insight into the crisis and Henrico DPU's response.

The scope of this report is limited to the collection and publication of historical factual information, which by definition is typically available to interested parties upon informal request to Henrico County staff, by formal request pursuant to the Virginia Freedom of Information Act, or by other open proceedings or established processes.

As a report of historical facts, this report (a) is not legal work product (despite its preparation by a law firm), (b) does not provide legal analysis, opinions, or advice (and should not be relied upon as such by any person or entity), (c) does not disclose any information that could be classified as a privileged and confidential attorney-client communication or attorney work product, and (d) does not waive such privileges as to any information that would be within the scope of such privileges outside of this report or but for this report.

Consistent with the defined scope of this report and notwithstanding its mention of the existence of a long-term contract between Richmond and Henrico for the delivery by Richmond to Henrico of drinking water (the 1994 Water Contract) or any of its terms and conditions, this report expressly does not provide legal analysis, opinions, or advice concerning the rights and obligations of the parties generally or in the context of the Richmond Water Crisis specifically.

This report is not intended to provide a review or analysis of the managerial or technical aspects of the Henrico DPU's response or any recommendations for future improvements to Henrico's water system, as these subjects are also outside of our scope of this report. We understand that Henrico has engaged the engineering firm of Whitman, Requardt and Associates to conduct a technical review and water system improvement options.

Finally, this report (including any enclosures and attachments) has been prepared for the exclusive use and benefit of Henrico County and solely for the purpose for which it is provided consistent with the limitations set forth above. Unless AquaLaw PLC provides express prior written consent, no part of this report may be relied upon by any third party, and we disclaim and do not accept any liability if this report is used by any third party.

B. Staff Cooperation & Access to Factual Information

As a condition of our engagement, AquaLaw required, and Henrico agreed, that AquaLaw would receive unrestricted access to and the full cooperation of Henrico staff, as well as unrestricted access to relevant factual information. At all times during our engagement, Henrico staff were fully cooperative and responsive.

C. Information Considered

For general background on the origin of the Richmond Water Crisis, this report relies upon the factual assertions of the responsible state regulatory agency, the Virginia Department of Health ("VDH"), as set forth in VDH's Notice of Alleged Violation to the City of Richmond dated January 23, 2025 ("VDH NOAV") and attached as <u>Appendix B</u>. This report makes no representation as to the accuracy of the assertions set forth in the VDH NOAV. We have not investigated, nor have we attempted to ascertain, the cause of the Richmond Water Treatment Facility's ("Richmond WTF") failure. This report focuses on Henrico DPU's response to the ensuing crisis.

At our request, Henrico DPU provided various system maps and graphs to aid in understanding the design, operation, and performance of Henrico's large water distribution system, to the extent necessary to understanding the response activities of Henrico DPU. A map of the Henrico water system is provided at <u>Appendix C</u>. A graph of Greater Eubank Pressure (1/7/25 through 1/9/25) is provided at <u>Appendix D</u>. We understand the engineering firm's report will contain additional helpful maps and graphs.

We reviewed videos of Henrico press conferences, press releases, and website and social media posts by Henrico (<u>Appendix E</u>), as well as select press releases and website posts by Richmond (<u>Appendix F</u>), which of course are already widely available in the public domain. Referenced examples are provided in chronological order in the respective appendix.

Significantly, we interviewed selected Henrico DPU staff to the extent we deemed doing so useful to understand Henrico DPU's response or document key aspects of it. A list of employees interviewed is set forth in <u>Appendix G</u>.

A major aspect of our effort was review of contemporaneous emails to or from select Henrico DPU staff, various other Henrico employees, or third parties including but not limited to employees of Richmond and VDH. We have catalogued the cited emails in <u>Appendix H</u> in chronological order. To a lesser degree, we reviewed and relied upon the

Henrico DPU Director's cell phone call log (<u>Appendix I</u>) and various text messages (<u>Appendix J</u>).

D. Independent Control of Report Contents

As a condition of our engagement, AquaLaw required, and Henrico agreed, that AquaLaw have full control over the entire content of the final report. Having now completed the report, we note that at all times Henrico complied with this condition to our full satisfaction. Accordingly, we express no qualification or reservation as to the degree of independence we were allowed.

We have made an extensive effort in the limited time available for our investigation to provide an accurate presentation of the historical facts of Henrico DPU's response to the Richmond Water Crisis. As a related condition of our engagement, AquaLaw requested, and Henrico agreed, to have Henrico staff briefly review a draft of this report while in development for the purpose of commenting on its factual accuracy and avoiding errors in our reporting of historical facts. We did obtain staff review, which resulted in only limited comments for which we are appreciative.

It is anticipated that this may be the first publicly released after-action report prepared for a governmental body that covers any major aspect of the Richmond Water Crisis. We anticipate and welcome the fact that additional after-action reports are anticipated to be completed by other parties over more extended timeframes. Hopefully, this report will be helpful toward these further reviews. We also recognize the possibility that other reviewers, with the benefit of additional time and resources, might identify other historical facts relevant to the overall response. As mentioned above, we have made extensive efforts to ensure the accuracy of our report and to avoid if not eliminate discrepancies, though it is conceivable that other details might be identified with the benefit of more time and further investigation. We are keenly aware of Henrico's commitment to accurately reporting Henrico DPU's response to the Richmond Water Crisis and, if any discrepancies were later discovered, we remain available to amend or supplement this report as warranted.

3. THE HENRICO WATER SYSTEM

Henrico DPU provides water service to over 100,000 customer accounts and 300,000 people throughout Henrico County. Henrico's source of water is the James River. Raw water from the James River is treated at two separate water treatment facilities, the Richmond WTF and the Henrico WTF.

The Henrico WTF was placed in service in April 2004 and it currently has permitted treatment capacity of 80 million gallons per day ("MGD"). The facility is located near the intersection of Three Chopt Road and Gaskins Road in western Henrico. The water it produces is mostly

used in the western half of the County, although a limited amount is routinely conveyed to the central Laburnum Azalea ("LAZ") pressure zone impacted by the Richmond WTF outage.

The Richmond WTF is located in the City of Richmond on the north bank of the James River. Under the 1994 Water Agreement between the City of Richmond and Henrico County ("1994 Water Agreement") by which Henrico purchased 80 MGD of Richmond's water rights in the James River for the new Henrico WTF, 1 Henrico agreed to purchase a minimum of 5.8 million centum cubic feet annually (this equates to an annual average of 11.9 MGD), and Richmond agreed to supply Henrico with up to 35 MGD of water for peak day demands and up to 40 MGD for peak hour demands. 2 Richmond delivers the water to Henrico at 39 metered connections generally near the jurisdictional boundary line. This water is used to serve all of eastern Henrico (the Greater Eubank zone, or "GEU"), all of central Henrico (LAZ), and areas of western Henrico close to the city line (the West Broad, Three Chopt High, and River Road zones).

Approximately two-thirds of Henrico's water is currently produced at the Henrico WTF (23 MGD in FY 2023) and one-third is produced at the Richmond WTF (11 MGD in FY 2023).³ To deliver the water, Henrico DPU owns, operates, and maintains almost 1,800 miles of water distribution mains and with more than 39,000 valves and 14,000 fire hydrants.⁴

4. THE RICHMOND WATER TREATMENT FACILITY FAILURE

This report is not an investigation of the events at the Richmond WTF, the cause of the facility's failure, or the efforts Richmond undertook to restore service. As context for understanding Henrico DPU's response, however, it is necessary to provide basic background information. For this limited purpose, the following factual assertions made by VDH are provided. For avoidance of confusion, this report makes no representation as to the truth or accuracy of VDH's assertions, which are set forth in the remainder of this section.

According to Richmond personnel, on Monday, January 6 during Winter Storm Blair, power at the Richmond WTF supplied by Dominion Energy went offline, requiring operation of the facility's two back-up diesel generators. At the time of the power outage, three waterworks operators were managing operations at the WTF; no other staff were present at that time, such as electricians, instrumentation specialists, or maintenance specialists.

¹ 1994 Water Agreement, para. 3.

² 1994 Water Agreement, para. 3.

³ Henrico DPU, *Annual Water Quality Report (2023)*, available at https://henrico.gov/assets/VA000096 WR.pdf

⁴ Henrico DPU, *Annual Water Quality Report (2023)*, available at https://henrico.gov/assets/DPU-Overview_web.pdf.

⁵ VDH NOAV, p. 2, paras. 3, 5.

⁶ VDH NOAV, p. 2, para. 5.

The back-up generators required manual transfer of the WTF to auxiliary power, which the WTF operators could not or did not perform. The plant's uninterrupted power supplies ('UPSs") did not keep the WTF operational. The three operators did not or could not manually operate valves to prevent flooding event inside the WTF after the other back-up systems did not function as needed to prevent the flooding event.

The flooding submerged critical pumps not designed to be under water. The flooding also submerged electrical components not designed to be under water such as filter actuator valves and filter rate of flow transmitters and indicators. The facility's Supervisory Control and Data Acquisition ("SCADA") system failed and required several hours of effort to return it to normal function. The WTF was unable to produce and distribute water until the pumps and filter components were repaired. The facility could not meet water demand until enough filters and pumps were repaired to allow increased water production. Without a functioning SCADA system, waterworks operators were without a central location to see critical information such as water flow, disinfectant residual, and filter performance and required manual operation of the WTF, which increased the amount of manpower and labor needed to operate the WTF.

Richmond did not inform the VDH Office of Drinking Water of the critical nature of operations until the afternoon of January 6, 2025 (2:30 to 3:00 PM), even though a critical system failure happened early in the morning that same day, perhaps before 7:00 AM. ¹⁵ Communities that experienced water outages included the entire City of Richmond and portions of Henrico County and Hanover County. ¹⁶

The Richmond WTF, which normally produces 50 to 55 MGD to meet normal customer demand during January, completely stopped water production on the morning of Monday, January 6.¹⁷ On January 6, at approximately 4:30 PM, Richmond issued a Boil Water Advisory.¹⁸

The WTF's SCADA system did not work effectively after the flooding, but Richmond's contractor fixed the SCADA system's operation by the early morning of Tuesday, January 7.¹⁹

⁷ VDH NOAV, p. 2, para. 5.

⁸ VDH NOAV, p. 2, para. 5.

⁹ VDH NOAV, p. 2, para. 6.

¹⁰ VDH NOAV, p. 3, para. 6.

¹¹ VDH NOAV, p. 3, para. 6.

¹² VDH NOAV, p. 3, para. 6.

¹³ VDH NOAV, p. 3, para. 6.

¹⁴ VDH NOAV, p. 3, para. 6.

¹⁵ VDH NOAV, p. 3, para. 7.

¹⁶ VDH NOAV, p. 3, para. 7.

¹⁷ VDH NOAV, p. 3, para. 8.

¹⁸ VDH NOAV, p. 3, para. 9.

¹⁹ VDH NOAV, p. 3, para. 10.

Later that day, the SCADA system temporarily went offline again but was returned to normal operation within one to three hours.²⁰

Significant impacts occurred throughout the water crisis.²¹ Customers began to experience low water pressure, followed by no water service, for several days.²² By Wednesday, January 8, Richmond WTF's production was about 10 MGD to 14 MGD.²³ Normal water pressure started to return by Thursday, January 9, and the distribution system was fully pressurized by Friday, January 10.²⁴ Following sampling to confirm suitable drinking water without microbial contamination, Richmond and other localities lifted Boil Water Advisories on Saturday, January 11.²⁵

5. TIMELINE OF HENRICO DPU'S RESPONSE

A. Monday, January 6

Early Monday morning, Henrico DPU Division Directors addressed a Sunday evening email that DPU Director Chan had sent in anticipation of the arrival of Winter Storm Blair. Chan had inquired regarding utility storm preparedness and operational status and requested to be informed of any "unmet needs" in the utility.

At 6:44 AM, Henrico DPU Water Treatment Facility Division Director Adkins reported that the Henrico WTF had power with no issues, but that the Raw Water Pump Station for conveying James River water to the Henrico WTF had lost power (Dominion) earlier, switched to backup generator power, and, as of this 6:44 AM report, restored power and resumed normal operation (i.e., off generator).²⁶

At 6:54 AM, Henrico DPU Operations Division Director Simukonde similarly reported the water operations were normal and confirmed "no unmet needs." As Henrico DPU later learned of the severe problem at the Richmond WTF, the Operations Division would play a major role in mounting Henrico's response.

²⁰ VDH NOAV, p. 3, para. 10.

²¹ VDH NOAV, p. 3, para. 12.

²² VDH NOAV, p. 3, para. 12.

²³ VDH NOAV, p. 3, para. 11.

²⁴ VDH NOAV, p. 4, para. 13.

²⁵ VDH NOAV, p. 4, para. 13.

²⁶ 1/6/25 6:44 AM Email from Adkins.

²⁷ 1/6/25 6:54 AM Email from Simukonde.

At 6:59 AM, Chan replied to Simukonde's report with a request to be informed if there were any issues at pump stations and if there were any water distribution or wastewater collection system repairs occurring.²⁸ At 7:03 AM, Simukonde promptly replied to acknowledge.²⁹

Meanwhile, at 7:01 AM Monday, Henrico DPU Operations Division-Pumping Section Utility Superintendent II Jeff Sullard received a phone call from the Richmond WTF operations staff advising that the Richmond WTF was having trouble filtering and requested that Henrico DPU back off on its draw from Richmond.³⁰ Sullard agreed that Henrico DPU would temporarily cease its normal draw at the Three Chopt Water Pump Station (WPS).³¹

The Three Chopt WPS reduction was typically a preferred option when Richmond wished for Henrico to reduce its draw because it provided a large reduction (approximately 3 to 3.5 MGD) and straightforward accommodation by Henrico DPU increasing production at the nearby Henrico WTF.³² This type of coordination between the two utilities to adjust Henrico DPU's Three Chopt WPS draw at Richmond DPU's request was not uncommon.³³ Similar adjustments have occurred approximately three times per year to accommodate Richmond WTF's water production feeding the Richmond and Henrico distribution systems.³⁴

During the 7:01 AM call from Richmond WTF staff, Sullard inquired about the east end and was advised that the east end operation was okay, and no change was requested. ³⁵ Sullard was not informed of the severity of the situation at the Richmond WTF and was left with the impression that the Richmond WTF would soon be back to normal operation, as usual. ³⁶

Sullard immediately called Henrico DPU Operations Division-Pumping Section Instrumentation Specialist Senior Stacy Glenn, who was the on-call superintendent.³⁷ Sullard directed Glenn to report to the Public Utilities Operations Center, which houses Henrico DPU's SCADA system used to control water pumping, among other things, and take the Three Chopt WPS offline at Richmond DPU had requested.³⁸ Sullard also directed Glenn to notify Henrico WTF staff for its water production purposes.³⁹

By approximately 7:30 AM, Glenn arrived at the Operations Center and undertook and completed the tasks assigned by Sullard.⁴⁰ At 7:50 AM and 7:54 AM, Glenn checked in with

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²⁸ 1/6/25 6:59 AM Email from Chan.

²⁹ 1/6/25 7:03 AM Email from Simukonde.

³⁰ Sullard Interview.

³¹ Sullard Interview.

³² Christian Interview; Sullard Interview.

³³ Chan Interview; Christian Interview.

³⁴ Christian Interview; Sullard Interview.

³⁵ Sullard Interview.

³⁶ Sullard Interview.

³⁷ Sullard Interview.

³⁸ Sullard Interview; Glenn Interview.

³⁹ Sullard Interview; Glenn Interview.

⁴⁰ Glenn Interview.

Richmond WTF staff, who continued to advise they were working on the problem and encouraged him to check back again later.⁴¹

At 7:56 AM, also in response to Sullard's directive, Glenn called Sullard and reported the status of Henrico DPU's key water facilities in the east end as normal, specifically the Len Avenue and Elko Water Tanks were both full and the Robin Water Tank was low after normal pumping.⁴² The three tanks rotate in a three-day cycle (Pump-Wait-Fill) for water quality purposes.⁴³

Meanwhile, at 7:43 AM, Simukonde emailed numerous DPU staff with directives following up on Chan's 6:59 AM request for additional information.⁴⁴ Simukonde directed on-call Pumping Section staff to make the necessary checks on pumping facilities and report any impacts (power failures, access impacts, tree falls) or operational issues. He directed distribution/collection on-call staff to report water or sewer line breaks and repairs being undertaken and any other operational issues including customer emergency and non-emergency situations. Simukonde requested reports by 11:00 AM in advance of a planned 12:00 PM storm meeting.

At approximately 9:00 AM, Simukonde separately called two contacts at Richmond DPU. Staff at the Richmond WTF informed Simukonde that the facility was having water production issues and Richmond DPU was diligently working to resolve them. ⁴⁵ Similarly, Richmond DPU staff responsible for water distribution informed Simukonde that there were issues at the Richmond WTF, but the distribution system was looking okay. ⁴⁶ Like Sullard and Glenn earlier, Simukonde was not informed of the severity of the situation at the Richmond WTF, understood that the east end was not affected by the situation, and was left with the impression that the Richmond WTF would soon be back to normal operation, as usual. ⁴⁷

At 9:18 AM, Simukonde emailed Chan and others that the Richmond WTF was down (lost Dominion power feed, which disrupted the plant and resulted in flooding of filters), that Henrico DPU pumping staff had coordinated with Richmond and reacted to reduce Henrico's draw from Richmond at Richmond's request, and that Henrico DPU was increasing water production at the Henrico WTF. 48 Specifically, Henrico ceased drawing water from Richmond at the Three Chopt WPS in western Henrico and also reduced drawing water from Richmond at the Shurm Pressure Reducing Station ("PRS") in eastern Henrico. 49

⁴² Sullard Interview; Glenn Interview.

⁴¹ Glenn Interview.

⁴³ Sullard Interview; Forehand Interview.

⁴⁴ 1/6/25 7:43 AM Email from Simukonde.

⁴⁵ Simukonde Interview.

⁴⁶ Simukonde Interview.

⁴⁷ Simukonde Interview.

⁴⁸ 1/6/25 9:18 AM Email from Simukonde.

⁴⁹ 1/6/25 9:18 AM Email from Simukonde.

Simukonde further reported that Richmond DPU staff advised that Richmond DPU was evaluating the situation and working to resume water production as soon as possible but could not provide a specific time by which that would occur. Richmond DPU was relying on its finished water storage to supply customers at the time. ⁵⁰

In addition to increasing Henrico WTF production, Simukonde reported that as a proactive measure, Henrico DPU began working on increasing water flow to the east end of Henrico (which is normally supplied by the Richmond WTF) by redirecting water from the west end (which is normally supplied by the Henrico WTF).⁵¹

The Henrico distribution system was stable and operating normally at that time. Henrico DPU Pumping Section staff planned to continue coordinating with Richmond WTF staff for ongoing situational awareness.⁵²

By mid-to-late morning, several hours after the first communication from the Richmond WTF requesting the Three Chopt WPS reduction, there was increasing concern by Henrico DPU Pumping Section staff about the still unresolved production outage at the Richmond WTF and the possible implications for Henrico.⁵³

With the uncertainty over Richmond WTF's timeline to resume water production, by approximately 11:00 AM Henrico DPU had fully opened the Wilkinson ("PRV") to increase water from the eastern boundary of the Greater Hermitage ("GHM") pressure zone through a 16" line east into the LAZ pressure zone and replace water that would normally be provided by Richmond DPU.⁵⁴

At 11:52 AM, Simukonde provided an update to Chan indicating that the 9:18 AM situation at Richmond WTF water production and supply to Henrico was still unresolved (i.e., the Richmond WTF was still down), that Henrico DPU's on-call pumping staff were monitoring Henrico's system distribution supply capacity, and that the Henrico system remained stable and operating normally.⁵⁵

At 1:26 PM, Chan emailed Henrico DPU senior staff requesting operational updates and overnight plans prior to the next EOC call scheduled for 4:00 PM.⁵⁶

At 1:46 PM, Henrico DPU Operations Division Assistant Director Marcello Forehand reported that Henrico DPU staff was sustaining the east end water system while slowly increasing

⁵⁰ 1/6/25 9:18 AM Email from Simukonde.

⁵¹ 1/6/25 9:18 AM Email from Simukonde.

 $^{52 \}frac{1}{6}$ 1/6/25 9:18 AM Email from Simukonde.

⁵³ Sullard Interview; Glenn Interview.

⁵⁴ Forehand Interview.

 $^{^{55}}$ 1/6/25 11:52 AM Email from Simukonde.

⁵⁶ 1/6/25 1:26 PM Email from Chan.

water storage in the Robin Avenue Water Tank and that the Richmond WTF issue (i.e., no water production) was still in effect.⁵⁷

At 2:05 PM, Chan attempted to contact other utility directors by phone in Hanover County, which is also supplied by Richmond (Hanover DPU Director Matt Longshore at 2:13 PM) and in Richmond (DPU Director April Bingham at 2:14 PM, Deputy Director Eric Whitehurst at 2:19 PM, and Program and Operations Supervisor Rodney Munford at 2:21 PM).⁵⁸

At 2:29 PM, Simukonde scheduled an internal meeting with senior Henrico DPU Operations Division staff to discuss the Richmond WTF situation at 2:40 PM. ⁵⁹

At 2:31 PM, Chan reached Chesterfield County Utilities Department Director George Hayes by phone and learned that Hayes was unaware the Richmond WTF was down at this time. The limited information available to Hayes at that time was only that at approximately 7:00 AM Richmond WTF staff had informed Chesterfield Utilities staff of the power outage and soon thereafter Bingham had communicated directly to Hayes that the power had been restored, which indicated to him that the problem had been resolved.⁶⁰

At 2:34 PM, Bingham returned Chan's call and spoke with him for the first time about the Richmond WTF outage. ⁶¹ This call included Munford and came in on Munford's line. ⁶² Bingham informed Chan that the Richmond WTF was down and, critically, that it might not even be able to restart that day. ⁶³

The 2:34 PM phone call appears to be the first disclosure by Richmond DPU to Henrico DPU that the Richmond WTF might not actually be back in service on Monday. This aligns with the timeline reported by VDH in the VDH NOAV, which indicates that it was at approximately 2:30 to 3:00 PM that Richmond DPU disclosed the critical nature of the problem to VDH.⁶⁴

During the 2:34 PM call, Bingham requested that Chan organize a call for Richmond DPU with its regional partners (i.e., Chesterfield, Hanover, and Henrico).⁶⁵

At 2:40 PM, Simukonde opened the previously planned Teams virtual meeting among senior Henrico DPU Operations Division staff to monitor the situation. ⁶⁶ In this meeting, Henrico DPU Operations Division staff were monitoring tank levels in the east end, exchanging

 $^{^{57}}$ 1/6/25 1:46 PM Email from Forehand.

⁵⁸ Chan Interview; 1/6/25 Chan Cell Phone Call Log.

⁵⁹ 1/6/25 2:29 PM "Discuss City Water Situation" Teams Meeting Invitation from Simukonde.

⁶⁰ Chan Interview; 1/6/25 Chan Cell Phone Call Log.

⁶¹ Chan Interview; 1/6/25 Chan Cell Phone Call Log.

⁶² Chan Interview; 1/6/25 Chan Cell Phone Call Log.

⁶³ Chan Interview.

⁶⁴ VDH NOAV, p.3, para. 8.

⁶⁵ Chan Interview.

⁶⁶ 1/6/25 2:40 PM Teams Meeting Attendance Report.

information, discussing contingencies, and brainstorming ideas to support water service in the east end.⁶⁷

At 2:43 PM, Chan issued an invitation to a 2:45 PM virtual meeting to numerous utility leaders representing Richmond, Henrico, Hanover, and Chesterfield. Fig. 2:45 PM regional meeting was held as planned and attended by utility leaders representing all four named jurisdictions. Fig. Richmond DPU explained that the Richmond WTF had been down all day and was not expected back online today, and that Richmond DPU would be out of water soon. Given the information shared by Richmond in this meeting, representatives from the County DPUs encouraged Richmond to inform the public of the situation immediately. DPUs

At 3:05 PM, Chan issued an invitation for a follow-up virtual meeting among the regional utility leaders at 4:30 PM. ⁷¹

At 3:06 PM, Simukonde emailed the regional utility leaders that he had requested Henrico DPU staff to lower pressure by reducing its pumping in the east end of Henrico to a minimum level that Henrico can sustain above VDH's required 20 psi.⁷² The purpose of lowering the pressure was to conserve water and continue service by reducing usage.⁷³

At 3:32 PM, Chan expanded the 4:30 PM Teams meeting invitation among the regional utility leaders to include James Reynolds of VDH.⁷⁴ At 3:34 PM, Henrico DPU Assistant Director Alvin Christian informed Chan that he had just received a phone call from Randy Morrissette of VDH related to Richmond WTF's loss of production, that he had informed Morrissette of Henrico DPU's efforts and regional coordination, and that Morrissette and Reynolds would like to be added to the coordination call among regional utility leaders at 4:30 PM.⁷⁵

At 3:36 PM, Chan expanded the 4:30 PM Teams meeting invitation again to add Morrissette and Jessica Coughlin also of VDH (Reynolds was already included).⁷⁶

By 3:45 pm, to further increase the flow of Henrico WTF water to the east, Henrico DPU staff were working to open another large valve at the boundary of the GHM and LAZ pressure zones (the Brook Road I-95 Valve).⁷⁷ This was completed late afternoon Monday.⁷⁸ The concept was that once the Henrico WTF water supplied sufficient water to the LAZ zone, the

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⁶⁷ Simukonde Interview; Forehand Interview.

^{68 1/6/25 2:43} PM "Drinking Water Coordination" Teams Meeting Invitation from Chan.

^{69 1/6/25 2:45} PM Teams Meeting Attendance Report.

⁷⁰ Chan Interview.

⁷¹ 1/6/25 3:05 PM "Drinking Water Coordination Follow Up" Teams Meeting Invitation from Chan.

⁷² 1/6/25 3:06 PM Email from Simukonde; Simukonde Interview.

⁷³ Chan Interview.

⁷⁴ 1/6/25 3:32 PM "Drinking Water Coordination Follow Up" Teams Meeting Invitation from Chan.

⁷⁵ 1/6/25 3:34 PM Email from Christian.

⁷⁶ 1/6/25 3:36 PM "Drinking Water Coordination Follow Up" Teams Meeting Invitation from Chan.

 $^{^{77}}$ 1/6/25 3:26 PM Email from McDonald; 1/6/25 3:29 PM and 3:45 PM Emails from Forehand.

⁷⁸ Forehand Interview.

Len Avenue WPS could be used to convey Henrico WTF water further east into the GEU zone.⁷⁹

At 3:49 PM, in an email to VDH and the utility directors of Chesterfield, Henrico, and Hanover, Richmond DPU requested review of its draft of a planned Boil Water Advisory. The draft stated that it "comes after a loss of power that impacted the City's water reservoir system, causing a loss of water and pressure" and purported to apply to Chesterfield, Henrico, and Hanover in addition to Richmond.⁸⁰

At 4:18 PM, Chan emailed the County Manager explaining that at that time VDH had Richmond under a Boil Water Advisory, that Richmond estimated it could resume very limited production later that night, that Henrico DPU had made adjustments to Henrico's system to bring water from the Henrico WTF to supplement needs in the central (i.e., LAZ zone) and eastern (i.e., GEU zone) areas normally served by Richmond, and that Henrico has storage and infrastructure to provide for the entire county area in the interim without any need for boiling water while the City works to restore service. Chan concluded the email by indicating that staff would provide updates as the situation develops and if there are any impacts as restoration occurs.⁸¹

At 4:19 PM, Simukonde emailed Chan and other Henrico DPU senior staff regarding pumping operations and the east end water supply, noting that staff was filling all storage tanks to maximum capacity, that if the Richmond supply were lost then GEU pressure would be reduced to a minimum sustainable level to extend the supply as much as possible, and that further pressure reductions in low-elevation residential areas may be implemented by throttling valves.⁸²

At 4:26 PM, a Richmond DPU email reported Richmond's recently announced immediate Boil Water Advisory. The final advisory noted that in regional cooperation Chesterfield, Henrico, and Hanover had removed themselves from Richmond's water supply and transferred to other supplies and that residents in the counties were not impacted by Richmond's Boil Water Advisory.⁸³

The 4:30 PM regional meeting was held as planned and attended by VDH and utility leaders representing all four jurisdictions. 84 At the 4:30 PM meeting, there was extensive discussion of the evolving crisis at Richmond WTF, details on exactly what had happened, an initial

⁷⁹ Chan Interview; Simukonde Interview.

^{80 1/6/25 3:49} PM Email from Rhonda Johnson of Richmond DPU.

^{81 1/6/25 4:18} PM Email from Chan.

^{82 1/6/25 4:19} PM Email from Simukonde.

^{83 1/6/25 4:26} PM Email from Richmond DPU Commications.

^{84 1/6/25 4:30} PM Teams Meeting Attendance Report.

assessment of required repairs, various other response actions, and offers from county utilities to assist. 85 Henrico DPU was not required to issue a Boil Water Advisory at this time. 86

At 5:12 PM, Richmond leadership informed Chesterfield, Hanover, and Henrico leadership that water production was anticipated to start around 9:00 PM to 10:00 PM that day. 87

At approximately 6:00 PM, Henrico issued its first press release and social media announcements noting that a boil water advisory was not in effect in Henrico, that Henrico disconnected from Richmond's system, that Henrico customers were receiving water from the Henrico WTF, and that customers might experience changes in water pressure from the re-routing. At this time, Henrico DPU considered the County to have sufficient capacity to meet its customers' needs for some time. 88 Henrico did not request its customers to make special water conversation efforts because Richmond had indicated that water production was expected to resume around 9:00 PM to 10:00 PM and Henrico DPU had sufficient water stored in its system. 89

Meanwhile, Henrico DPU had been working to provide service to St. Mary's Hospital, which is located near the jurisdictional boundary line and normally served by Richmond. 90 By 6:36 PM, Henrico DPU was able to open a valve that restored water to most of the hospital's campus at reduced pressure. 91 By 7:44 PM, Henrico DPU was able to open a second valve supplying fairly normal pressure and flow to the hospital. 92

At 6:48 PM, the incoming water pressure on Richmond's primary feed to Henrico's GEU pressure zone at the Shurm PRS dropped to 12 psi. 93 At this point, the incoming Richmond supply was out. Henrico DPU closed the Shurm Valve to conserve water by preventing backflow through the Shurm PRS that could have resulted from higher pressure in GEU. 94 Henrico DPU was suddenly confronted with the extraordinary implications of the catastrophic failure of the Richmond WTF.

Past tabletop disaster planning exercises had covered the scenario where the entire region lost its water supplies (e.g., as could occur with an extreme contamination event rendering the James River unusable). Here, Henrico DPU faced the hybrid situation of the temporary loss of one supply (Richmond WTF) but continued availability of another (Henrico WTF).

86 Chan Interview.

⁸⁵ Chan Interview.

^{87 1/6/25 5:12} PM Text from Sabrina Joy-Hogg of Richmond.

⁸⁸ See, e.g., 1/6/25 6:14 PM Henrico Social Media Post; 1/6/25 Henrico Press Release.

⁸⁹ Chan Interview.

⁹⁰ Sossong Interview.

⁹¹ 1/6/25 6:36 PM Text from Chan.

^{92 1/6/25 7:44} PM Text from Chan.

⁹³ Simukonde Interview; Graph: "Greater Eubank Pressure 1/7/2025 through 1/9/2025" (provided by Simukonde).

⁹⁴ Glenn Interview.

⁹⁵ Chan Interview.

Optimizing use of current Water Tank storage is a conventional utility response. Here, Henrico DPU seized an additional, albeit imperfect, opportunity and challenge to use the Henrico WTF to attempt to maintain service until the Richmond WTF could resume water production and delivery. 96

At 8:27 PM, Bingham texted the three county DPU Directors reporting a problem with Richmond WTF's SCADA system and requesting a recommendation on who to bring in to fix it. The Chesterfield DPU Director quickly responded. Chan did not respond; he was not receiving Bingham's text messages because she was using Chan's desk phone number (a land line that does not receive text messages) rather than his cell phone number.⁹⁷

At 9:47 PM, in a call with Henrico Emergency Management, Chan reported that presently the pressure in Henrico's system was lower but that service was still expected to be mostly normal. 98

Henrico DPU was also able to supply two smaller pressures zones that are normally supplied with Richmond WTF water. The West Broad zone was supplied from the adjoining Three Chopt High zone through the Monument PRV, and the River Road zone was supplied from the Three Chopt Central zone through the Ridge and River PRVs. 99 Water production at the Henrico WTF increased from 18.3 MGD on Sunday to 21.5 MGD on Monday. 100

B. Tuesday, January 7

Henrico WTF water production increased to 27.6 MGD on Tuesday. ¹⁰¹ Henrico DPU staff worked through the night in the freezing cold to try to provide supplemental water to central and eastern Henrico. ¹⁰² Overnight temperatures dropped as low as 22 degrees and would only rise to 34 degrees during the day.

As 12:03 AM, Chan and Simukonde conferred on Henrico DPU's next steps to adjust to the Richmond WTF outage and extend Henrico's supply as long as possible. 103

At 1:38 AM, Bingham texted the three county DPU Directors to report that the Richmond WTF's SCADA system was finally back up and the Richmond WTF was attempting to start

⁹⁶ Chan Interview.

⁹⁷ Chan Interview.

⁹⁸ Chan Interview; 1/7/25 Chan Cell Phone Call Log.

⁹⁹ Simukonde Interview.

 $^{^{100}}$ 1/24/25 4:12 PM Email from Adkins.

¹⁰¹ 1/24/25 4:12 PM Email from Adkins.

 $^{^{102}}$ See, e.g., 1/7/25 Emails and Teams Meeting Link between 12:41 AM and 2:48 AM.

^{103 1/7/25} Change Cell Phone Log.

backwashing and then produce water. 104 Again, Chan did not receive the text message due to use of the phone wrong number, as explained above. 105

At 2:48 AM, Simukonde updated Chan and numerous other Henrico DPU managers by reporting Henrico DPU had implemented measures to hopefully extend the supply of water in the east end, including the reduction of supply pressure across the entire GEU zone and manual operation of pumping facilities to manage supply. The email indicated that customer reports of low pressure and fire alarms could be expected. Finally, this report expressed the hope that rationing water supply to the east end at low pressure in this manner would maintain supply until Richmond could resume water production and supply Henrico. ¹⁰⁶

At 3:11 AM, Richmond leadership informed Chesterfield, Hanover, and Henrico leadership that Richmond was still not producing water but should start production at approximately 5:00 AM with distribution increasing throughout the morning.¹⁰⁷

At 3:45 AM, Henrico County Chief of Emergency Management and Workplace Safety Rob Rowley called Chan to report that a fire station in the east end (Henrico Fire Station No. 7) lacked sufficient pressure to flush tankless toilets. At 3:52 AM, Chan spoke with Simukonde, who confirmed the pressure problem.

At 4:59 AM, Bingham texted (or attempted to text in the case of Chan) the three county DPU Directors asking if they could supply electricians at daybreak, to which the Chesterfield and Hanover DPU Directors responded recommending the same contractor, whom Bingham called in. 110 Again, Chan could not respond because he did not receive the message (wrong number). 111

By 6:14 AM, Richmond Emergency Management advised Henrico Emergency Management that the Richmond WTF's pumps were operating and that pressurization of the water system would happen around noon that day. 112

At 6:31 AM, Richmond leadership informed Chesterfield, Hanover, and Henrico leadership that water production had not yet been restored but was expected within the hour, though it would not be enough to distribute.¹¹³

¹⁰⁴ 1/7/25 1:38 AM Text from Bingham.

¹⁰⁵ Chan Interview.

¹⁰⁶ 1/7/25 2:48 AM Email from Simukonde.

¹⁰⁷ 1/7/25 3:11 AM Text from Joy-Hogg.

¹⁰⁸ Chan Interview; 1/7/25 Chan Cell Phone Call Log.

¹⁰⁹ Chan Interview; 1/7/25 Chan Cell Phone Call Log.

¹¹⁰ 1/7/25 4:59 AM Text from Bingham.

¹¹¹ Chan Interview.

¹¹² 1/7/25 6:14 AM Text from Rowley.

¹¹³ 1/7/25 6:31 AM Text from Joy-Hogg.

At 7:28 AM, Reynolds of VDH emailed Chan noting a message that a fire station in Henrico was experiencing low pressure and asking for status update on how Henrico was holding up, if there were pressure issues, and how long Henrico could operate without the Richmond supply. 114 Chan updated VDH staff that morning in a call on his office land line. 115

At 8:05 AM, Chan emailed an update to County leadership reporting that there was lower pressure and flow in the eastern and central areas of Henrico and that Henrico DPU staff were working to adjust Henrico's system for water produced at the Henrico WTF to supplement these areas. The email indicated Chan's current understanding that some service was expected to be available from Richmond later this morning. 116

At 8:22 AM, Henrico leadership informed Richmond leadership that Henrico was sending Henrico DPU staff to the Richmond WTF to assist Richmond DPU.¹¹⁷

At 8:36 AM, Chan emailed an additional update to County leadership reporting an overnight main break in the Highland Springs area, ¹¹⁸ which was believed to have resulted in a major draw from the system. Chan estimated that with the upcoming repair of the main break, and with the other system adjustments and valve openings, that restoration of service at a lower pressure should return later in the morning. ¹¹⁹ (This line break was referred to as the Highland Springs, Sandston, or Rollingview Drive line break at various times.)

At 9:20 AM, Richmond posted an announcement that as of 9:00 AM the Richmond "water plant systems were stabilizing" and were "likely to progress to water production early afternoon." 120

Tuesday morning, Sullard and Glenn took initial steps necessary to return three inactive but functional east end groundwater wells to service (Old Williamsburg, Elko, and White Oak) if possible. They flushed approximately 10,000 to 12,000 gallons from each well, collected water samples for bacteria testing, and transported the samples to the laboratory by approximately 12:00 PM that day. On Wednesday, they collected and delivered another round of samples to the laboratory again at approximately 12:00 PM. The results of these 24-hour long tests would later come back clean (i.e., negative for the presence of bacteria). However, the wells (using chlorine disinfection) were determined to be

¹¹⁴ 1/7/25 7:28 AM Email from Reynolds.

¹¹⁵ Chan Interview.

¹¹⁶ 1/7/25 8:05 AM Email from Chan.

¹¹⁷ 1/7/25 8:22 AM Text from Vithoulkas.

¹¹⁸ 1/7/25 8:36 AM Email from Chan.

¹¹⁹ 1/7/25 8:36 AM Email from Chan.

^{120 1/7/25 9:20} AM Richmond Press Release.

¹²¹ Sullard Interview; Glenn Interview.

¹²² Sullard Interview; Glenn Interview.

¹²³ Sullard Interview; Glenn Interview.

¹²⁴ Sullard Interview.

unusable and disallowable by VDH because the Henrico WTF and Richmond WTF use a different, incompatible disinfectant (chloramines). 125

At 11:30 AM, Henrico held a press conference providing a comprehensive update covering many aspects of this very fluid situation with evolving water system problems and Richmond's and Henrico's ongoing responses. Relative to Henrico DPU's response, this briefing touched on the Richmond WTF failure, delayed notice to Henrico of the nature and extent of the Richmond WTF's problem, Henrico's efforts to use Henrico WTF water to supplement areas usually served by Richmond DPU east of I-95, the complication of the overnight water line break in Highland Springs (with a repair in progress and expected to be completed shortly), the intent to begin repressurizing the system, and the hope of starting to see pressure increases this afternoon. ¹²⁶

Mid-day Tuesday, Richmond continued to report good news on progress. These communications were very encouraging at the time, but in retrospect only raised false hopes. 127

At 12:08 PM, Richmond leadership informed Chesterfield, Hanover, and Henrico leadership that water production had begun, and distribution was expected to start at approximately 3:00 to 4:00 PM. 128 Similarly, at 12:30 PM, Richmond issued a press release announcing that as of 12:00 PM water production had been restored, while cautioning that it would take at least several hours for pressure to build so that distribution could occur. 129

By 12:44 PM, Henrico DPU staff began investigating the theory that Henrico might be losing water from its system to the Richmond system by water flowing opposite the normal direction through the meters at the interconnection points where water normally enters the Henrico system. Henrico DPU field staff manually measured water pressure at numerous locations throughout the LAZ and GHM pressure zones from 12:50 PM to 2:42 PM. Midafternoon, Chan met with Henrico DPU Design Division Director Marchelle Sossong about this investigation and received a related map identifying interconnection points and meters at the boundary. The staff of the system of the syst

By 2:16 PM, a separate minor malfunction involving Henrico's Raw Water Pump Station at the James River was identified. Staff at the Henrico WTF had lost the communication link that allows for automatic operation of the pumps in the station. Staff switched to operating the pumps manually, investigated, and determined the cause was the failure of an

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¹²⁵ Sossong Interview; 1/7/25 12:44 PM Email from Sossong.

^{126 1/7/25 11:30} AM Henrico Press Conference, available at https://youtube.com/live/BiWXsJTKqpc.

¹²⁷ Chan Interview.

¹²⁸ 1/7/25 12:08 PM Text from Joy-Hogg.

¹²⁹ 1/7/2025 12:30 PM Richmond Press Announcement.

¹³⁰ 1/7/25 12:44 PM Email from Sossong.

¹³¹ Forehand Interview.

¹³² Chan Interview.

Uninterruptible Power Supply (UPS) unit. ¹³³ Communications were restored by 5:15 PM by temporarily bypassing the UPS and plugging directly into the main electric system, with a plan to install a new UPS and restore the normal power supply configuration the next morning. ¹³⁴ This event did not affect water production at the Henrico WTF, which increased production by 6.1 MGD over the prior day. ¹³⁵

By 2:30 PM, the Highland Springs water main break had been repaired, and Henrico DPU was working on opening related valves and still expected to have water back that afternoon. ¹³⁶ This line break contributed to the loss of water service in eastern Henrico combined with the already low pressure due to loss of the Richmond supply. ¹³⁷

At 4:01 PM, Richmond leadership informed Chesterfield, Hanover, and Henrico leadership that an electrical panel had blown out, which resulted in partial flooding of the Richmond WTF and required the facility to be pumped out and was expected to delay the previously stated timeline for distribution by an hour (which would mean approximately 5:00 PM). 138

At 4:10 PM, Chan and VDH representatives discussed the situation by phone and the potential for issuing a Boil Water Advisory. ¹³⁹ At 4:33 PM, Reynolds emailed Chan a copy of VDH's guidance for assessing four types of water line breaks that may or may not warrant an advisory. The same guidance also addressed uncontrolled distribution system pressure decreases below 20 psi and instructed the user to contact the VDH ODW Field Office as to whether an advisory should be issued. ¹⁴⁰

At 5:31 PM, Chan replied to VDH's 4:33 PM email thanking the VDH representatives for the 4:10 PM call. Chan's email reply stated that Henrico DPU will work on completing and returning the checklist, explained that the Type 1 and Type 2 line break types apply given efforts to maintain positive pressure (line break repair), and referred to the controlled dial back of system pressure to sustain Henrico's supply while taking offline the Richmond feeds, and closed with the expressed hope of wider restoration of normal service at lowered pressure to eastern Henrico in the next several hours with flushing and checks/samples.¹⁴¹

At 6:01 PM, Chan conferred with Simukonde on the theory of water loss from the Henrico system draining into Richmond's now empty system. Simukonde advised there are two main points to close to help stop this phenomenon, the valves at large city meters at

¹³³ 1/7/25 5:20 PM Email from Adkins.

¹³⁴ 1/7/25 5:20 PM Email from Adkins.

¹³⁵ 1/24/25 4:12 PM Email from Adkins.

¹³⁶ 1/7/25 4:21 PM Henrico Social Media Post; see also 1/7/25 2:35 PM Email from Christian.

¹³⁷ 1/7/25 4:21 PM Henrico Social Media Post.

¹³⁸ 1/7/25 4:01 PM Text from Joy-Hogg.

¹³⁹ Chan Interview; 1/7/25 Chan Cell Phone Call Log.

¹⁴⁰ 1/7/25 4:33 PM Email from Reynolds.

¹⁴¹ 1/7/25 5:31 PM Email from Chan.

¹⁴² Chan Interview; 1/7/25 Chan Cell Phone Call Log.

Laburnum Avenue (24") and Mechanicsville Turnpike (12"). 143 Chan then ordered the valves to be closed. 144

At 6:15 PM, Richmond issued a media advisory about that afternoon's electric panel failure. The advisory stated that initially it was thought the electric panel failure would not significantly impact the restoration process, but through additional analysis and investigation it was determined that this development would further extend the restoration timeline.¹⁴⁵

At 6:26 PM, Forehand relayed Chan's order to have a field crew close the Laburnum Avenue 24" valve and provided a map displaying the location of meter. At 6:44 PM, Forehand did the same for the Mechanicsville Turnpike 12" valve. Valve.

As of 7:47 PM, the field work was in progress. ¹⁴⁸ The crew first attempted to close the valve on the Henrico side of Richmond's Laburnum Avenue 24" meter; however, the never-used valve was rusted and would not turn. ¹⁴⁹ Chan directed that the crew proceed to Richmond's Mechanicsville Turnpike 12" meter, where the crew successfully closed a valve on the Henrico side of this meter. ¹⁵⁰ The crew then returned to the Laburnum Avenue 24" meter and successfully closed a valve on the Richmond side of the meter. ¹⁵¹ This was completed by approximately 11:00 PM. ¹⁵²

At 9:00 PM, Richmond reported on its website that six filters and one pump were available, with 9 MGD of water flowing into Richmond homes. (For comparison, more typical production of 50 MGD requires a minimum of 12 filters and four pumps.)¹⁵³

At 9:27 PM, Reynolds replied to Chan, thanked him for his email reporting on the line break and system depressurization, and stated that it would be great if Chan could submit the completed checklist and documentation to VDH the next morning (Wednesday, January 8). 154

Even as temperatures dropped to about 20 degrees, Henrico DPU field crews worked throughout the evening and overnight to manipulate the water system and track flow and

¹⁴³ Chan Interview.

¹⁴⁴ Chan Interview; 1/7/25 6:27 PM and 6:44 PM Emails from Forehand.

¹⁴⁵ 1/7/25 6:20 PM Richmond Press Release.

¹⁴⁶ 1/7/25 6:26 PM Email from Forehand.

¹⁴⁷ 1/7/25 6:44 PM Email from Forehand.

¹⁴⁸ 1/7/25 7:47 PM Text from Chan.

¹⁴⁹ Chan Interview.

¹⁵⁰ Chan Interview.

¹⁵¹ Chan Interview.

¹⁵² 1/7/25 11:09 PM Text from Chan.

¹⁵³ 1/9/25 Richmond Website Post.

 $^{^{154}}$ 1/7/25 9:27 PM Email from Reynolds.

pressure across the LAZ zone by attaching portable gauges to fire hydrants. ¹⁵⁵ Difficulty was encountered getting water pressure down E. Laburnum Avenue, which required a special investigation that resulted in finding and opening a closed valve. ¹⁵⁶

Henrico employees also assisted at the Richmond WTF into the early morning hours. These included Deputy County Manager Steve Yob, Class I Water Plant Operator Vince Lofton, and Instrumentation Specialist Patrick Dillon. 157

C. Wednesday, January 8

At 2:27 AM, Yob reported from the Richmond WTF that the facility had nine of 22 filters running on the north side of the WTF, had just restarted the south side of the WTF, was producing approximately 32 MGD of which over 20 MGD was being pumped into the distribution system (some water was filling WTF storage), and had just received bypass pumps that should increase the amount closer to 30 MGD.¹⁵⁸

At 4:30 AM and 5:30 AM, Richmond announced that 12 filters and three pumps were now operational, and 42 MGD was flowing and building system pressure. 159

At 7:24 AM, Reynolds emailed Chan expressing appreciation for Henrico DPU's effort and asking if he would be able to email to VDH a quick status update on restoring pressure in the east end before 8:30 AM if possible. 160

At 7:47 AM, Simukonde emailed Henrico DPU Operations Division Assistant Director Elizabeth McDonald with a high-priority assignment to close nine additional valves at Richmond meters using all available Henrico DPU field staff to do so as early as possible this morning (eventually Henrico DPU would close a total of 16 valves at boundary line meters). ¹⁶¹

At 8:03 AM, Chan replied to Reynolds reporting on the completed closure of the two large valves (the Laburnum Avenue 24" and the Mechanicsville Turnpike 12") to help with conveyance from the Azalea/Richmond Henrico Turnpike area into south Laburnum/west Mechanicsville Turnpike, ongoing efforts to stabilize this area Wednesday morning with additional valve closures at smaller Richmond meters, the objective of bringing water to east of Mechanicsville Turnpike and then into the Len Avenue WPS to refill tanks to move water further east, and the VDH checklist in progress for intended delivery later this morning. 162

¹⁵⁵ Chan Interview.

¹⁵⁶ Chan Interview; 1/7/25 11:35 PM Email from McDonald.

¹⁵⁷ Chan Interview.

¹⁵⁸ 1/8/25 2:27 AM Email from Yob.

 $^{^{159}}$ 1/8/25 4:30 AM and 5:30 AM Richmond Press Releases.

¹⁶⁰ 1/8/25 7:24 AM Email from Reynolds.

¹⁶¹ 1/8/25 7:47 AM Email from Simukonde; Chan Interview.

¹⁶² 1/8/25 8:03 AM Email from Chan; see also 1/8/25 Henrico News Release.

At 8:18 AM, Chan requested assistance from Henrico DPU Design Division staff in providing demographic information required by VDH's "Information Requirements for BWA Event Communication with VDH ODW" form (i.e., connection and population data). 163 Christian also conferred with Davis of VDH at Chan's request about the outage and potential for a Boil Water Advisory. 164

At 10:45 AM, Chan spoke by phone with Matt Frame of VDH regarding the extent of the outage and restoration progress.¹⁶⁵

By 10:46 AM, the targeted additional nine valves had been closed. ¹⁶⁶ The feeds from GHM continued to supply the LAZ pressure zone. Though every third day GHM normally supplements Richmond water serving the LAZ zone, there had never before been any need to deliver such a high volume of Henrico WTF water from the GHM zone to the LAZ (or GEU) zone. ¹⁶⁷ The all-out effort by Henrico DPU to convey as much water as possible from the Henrico WTF eastward to offset losses from the Richmond WTF was successful in restoring water to approximately 6,000 residents in the LAZ zone (and Fire Station #7 mentioned above).

At 10:52 AM, Reynolds emailed Chan that despite the Highland Springs line break being managed in a controlled manner, VDH would require a Boil Water Advisory to be issued to customers impacted by loss of pressure and service in eastern Henrico due to the extent of the outage, the number of customers impacted, and the duration. Reynolds provided a draft template for the advisory for Henrico DPU's review and revision as necessary and subsequently for VDH's further review. ¹⁶⁸

By mid-day Wednesday, it was becoming apparent that the ability to serve more residents was limited by the capacity of the existing infrastructure and outage-related conditions including the extended timeline for restoring water production at the Richmond WTF, the loss of water through Richmond boundary line valves (which are always open to provide normal service), and the volume of water needed to fill already empty lines in the LAZ zone before needed pressure could rise. ¹⁶⁹

By this time, Wednesday, Henrico DPU was acting on VDH's request and preparing to announce the Boil Water Advisory, including appropriate further coordination with VDH. At 12:07 PM and 12:12 PM, Chan spoke by phone with Davis of VDH regarding implementation of the required Boil Water Advisory. 170 At 12:29 PM, Henrico DPU Design Division staff

¹⁶⁵ 1/8/25 Chan Cell Phone Call Log; Chan Interview.

¹⁶³ 1/8/25 8:18 AM Email from Chan.

¹⁶⁴ Chan Interview.

¹⁶⁶ 1/8/25 10:46 AM Email from McDonald.

¹⁶⁷ 1/8/25 Henrico News Release.

¹⁶⁸ 1/8/25 10:52 AM Email from Reynolds.

¹⁶⁹ Chan Interview.

^{170 1/8/25} Chan Cell Phone Call Log; Chan Interview.

provided Chan with the requested demographic information required for the VDH form.¹⁷¹ From 12:30 PM to 1:46 PM, Chan had three additional phone calls with Frame of VDH regarding the extent of the outage and restoration progress.¹⁷²

By 3:15 PM, Richmond had reenergized its Church Hill Water Tank and was starting to provide water to eastern Henrico through the Shurm PRS. 173

At 3:30 PM, Henrico held a press conference providing a comprehensive update on Henrico's efforts to assist Richmond DPU in restoring the Richmond WTF to service and the associated status of water service in Henrico. 174 At that point, although Henrico DPU had been successful in restoring service to almost 6,000 residents overnight, approximately 23,000 Henrico residents remained without water. 175 With the Richmond WTF supply coming back online, Henrico expected that within 24 to 48 hours Henrico residents would see more normal service. 176 At this time, Henrico announced a Boil Water Advisory would be in effect for the entire county. 177 It was also announced that Richmond had initiated the first of two water quality tests necessary to have its Boil Water Advisory lifted. 178 Similar testing would be required in Henrico once pressure was restored.

Henrico DPU continued to coordinate with VDH, including calls between Chan and Frame at 4:45 PM and between Chan and Davis at 4:56 PM. 179 Also, at 6:24 PM, Chan emailed the completed form to VDH as requested, although the Boil Water Advisory was already in effect. 180

By 7:15 PM, DPU Operations staff had opened the Shurm PRS Valve to allow Richmond water to enter Henrico's GEU pressure zone. Although Richmond had initially limited Henrico's withdrawal at Shurm PRS to 0.5 MGD, Richmond agreed to allow 0.7 MGD of flow because that was the smallest increment that the valve could be opened.¹⁸¹

At 8:00 PM, Henrico DPU staff opened the gravity flow valve at Len Avenue PS to allow water from the LAZ pressure zone to flow via gravity into the GEU zone. The valve was opened to 40% and allowed 0.35 MGD to flow through this additional entry point. 182

¹⁷¹ 1/8/25 12:29 PM Email from Kramer.

¹⁷² 1/8/25 Chan Cell Phone Call Log; Chan Interview.

¹⁷³1/8/25 3:30 PM Henrico Press Conference, available at https://www.youtube.com/live/8oVjrk3ezmw.

¹⁷⁴1/8/25 3:30 PM Henrico Press Conference, available at https://www.youtube.com/live/8oVjrk3ezmw.

^{1751/8/25 3:30} PM Henrico Press Conference, available at https://www.youtube.com/live/8oVjrk3ezmw.

¹⁷⁶1/8/25 3:30 PM Henrico Press Conference, available at https://www.youtube.com/live/8oVjrk3ezmw.

¹⁷⁷ 1/8/25 Henrico Social Media Post.

¹⁷⁸ 1/8/25 Henrico Press Conference, available at https://youtube.com/live/8oVirk3ezmw.

¹⁷⁹ 1/8/25 Chan Cell Phone Call Log.

¹⁸⁰ 1/8/25 6:24 PM Email from Chan.

¹⁸¹ 1/9/25 12:56 AM Email from McDonald.

¹⁸² 1/9/25 12:56 AM Email from McDonald.

At 9:00 PM, Henrico DPU Operations Division staff contacted Richmond to request an increase in flow at the Shurm PRS. Richmond approved an increased flow rate of 1.6 MGD. 183

Similar steps toward normal service would continue over the next couple of days.

D. Thursday, January 9

The overnight temperature dropped to 22 degrees. Once again, Henrico DPU staff worked throughout the night, now managing the work of re-energizing the water system, which required measuring pressure readings throughout the system and opening hydrants to purge air. ¹⁸⁴

By 12:49 AM, the Shurm PRS Valve was 2.9% open with a flow rate of 1.8 MGD.¹⁸⁵ The gravity valve at Len Avenue PS was 40% open with a flow rate of 0.54 MGD.¹⁸⁶

As of 1:00 AM, the Eubank Tank began recording pressure readings, meaning that water was progressing through the system, and steadily increased throughout the night.¹⁸⁷

By 4:51 AM, flow into the GEU zone from the Shurm PRS had increased to 4.9 MGD and Henrico DPU field crews had begun opening fire hydrants and flushing lines in strategic locations. This process increased capacity, protected water quality, and reduced the risk of water main breaks during system re-energization. 189

Shortly after 5:00 AM, Henrico DPU discovered a dramatic drop in pressure at the Shurm PRS, with pressure dropping from 60 psi to 14 psi during that period. Henrico DPU immediately notified Richmond, Richmond dispatched a technician to its Church Hill Water Storage Tank/Church Hill PS, and the technician restarted the pump and the pressure at the Shurm PRS was restored. Henrico DPU's overnight tracking report showed low pressure on the Richmond side of the Shurm PRS (37 psi at 5:30 AM, 37 psi at 6:00 AM, and 38 psi at 6:30 AM) and no water flow at that time. By 7:00 AM, pressure had returned to 68 psi and flow was up to 2.3 MGD and increasing.

 $^{^{183}}$ 1/9/25 12:56 AM Email from McDonald.

¹⁸⁴ See, e.g., 1/9/25 1:14 AM, 2:07 AM, 3:10 AM, 4:30 AM, 5:00 AM, and 6:08 AM Emails from Pruden; 1/9/25 12:56 AM, 2:42 AM, 3:50 AM, 4:51 AM, and 5:29 AM Emails from McDonald.

¹⁸⁵ 1/9/25 12:56 AM Email from McDonald.

¹⁸⁶ 1/9/25 12:56 AM Email from McDonald.

¹⁸⁷ 1/9/25 1:14 AM Email from Pruden.

¹⁸⁸ 1/9/25 9:00 AM, 9:11 AM, and 10:52 AM Emails from Smith.

¹⁸⁹ 1/9/25 4:51 AM Email from McDonald.

¹⁹⁰ Chan Interview.

¹⁹¹ Chan Interview.

¹⁹² 1/9/25 7:59 AM Email from Pruden with tracking report.

¹⁹³ 1/9/25 7:59 AM Email from Pruden with tracking report.

By 8:54 AM, Henrico was receiving 6.2 MGD at the Shurm PRS. The Elko and Robin Avenue Water Tanks in the GEU zone were being slowly filled as the pressure increased. DPU was not running booster pumps in the GEU zone yet. Henrico DPU needed to continuously assess the system, coordinate with Richmond DPU, adjust the water supply upwards as appropriate, and start booster pumps to increase pressure when the system was stable. ¹⁹⁴ Different parts of Henrico's east end were expected to see the return of water or increasing pressure at different times due to different elevations. ¹⁹⁵ The LAZ zone was seeing increasing pressure but it was yet to reach the acceptable threshold. Henrico DPU planned to open valves there to allow supply through the meters along the zone boundary with Richmond in a careful manner based on monitored zone hydraulic conditions and the need for air release through hydrants. ¹⁹⁶ Other parts of Henrico supplied by Richmond were expected to receive increased pressure at this time. ¹⁹⁷

By 11:00 AM on Thursday, Richmond had repressurized its system to the required minimum threshold of 20 psi. ¹⁹⁸ In an 11:37 AM social media post, Henrico advised residents affected by the outage that they would likely start seeing their water flow slowly return. ¹⁹⁹

Henrico also continued to communicate with VDH staff, keeping VDH apprised of improving pressure in the system and Henrico DPU's plans to collect samples for water quality testing needed to lift the Boil Water Advisory.²⁰⁰ By 4:17 PM, VDH had approved the sampling locations.²⁰¹

By 4:18 PM, a pressure of 20 psi had been achieved at all locations within the LAZ and GEU pressure zones, which allowed Henrico DPU to begin water quality sampling.²⁰²

At 11:08 PM, Chan updated VDH on water quality testing. The first round of samples had been collected and the total residual chlorine testing completed, with all results favorable and in line with average concentrations historically observed during routine monthly monitoring at the same sampling locations. The bacteria testing results (a 24-hour test) were still pending. Plans were in place for second round sampling on Friday. ²⁰³

¹⁹⁴ 1/9/25 8:54 AM Email from Simukonde.

¹⁹⁵ 1/9/25 8:54 AM Email from Simukonde.

¹⁹⁶ 1/9/25 8:54 AM Email from Simukonde.

¹⁹⁷ 1/9/25 8:54 AM Email from Simukonde.

¹⁹⁸ 1/9/25 Richmond Press Release.

¹⁹⁹ 1/9/25 11:37 AM Henrico Social Media Post.

²⁰⁰ 1/9/25 11:10 AM, 3:55 PM, and 11:08 PM Emails from Chan.

²⁰¹ 1/9/25 3:53 PM Email from Reynolds; 1/9/25 4:17 PM Email from Davis.

²⁰² Chan Interview.

²⁰³ 1/9/25 11:08 PM Email from Chan; 1/9/25 10:40 PM Henrico Press Release.

E. Friday, January 10

Throughout the night, Henrico DPU staff tracked the increasing pressure in the system while filling Water Tanks.²⁰⁴

By 10:00 AM, Henrico DPU had restored water service to central and eastern Henrico and residents were advised that they should continue to notice increasing water pressure throughout the day as the system returned to normal operations.²⁰⁵

Throughout Friday, Henrico DPU undertook various water utility preparations in anticipation of another winter storm forecasted for that weekend. Among other things, Chan was communicating with the other regional DPU Directors to ensure adequate staffing. Henrico DPU, Chesterfield DPU, and Appomattox River Water Authority (ARWA) agreed to provide supplemental staff to the Richmond WTF over the weekend. At 2:30 PM, Henrico DPU specifically offered to supply three staff, including a plant operator and an electrician. Henrico also arranged with Chesterfield for a standby water main repair crew.²⁰⁶

At 2:42 PM, Chan again updated VDH on water quality testing. The second round of samples had been collected and the total residual chlorine testing completed, again with all results favorable and in line with average concentrations historically observed during routine monthly monitoring at the same sampling locations. First round bacteria testing results were expected late afternoon that day. Second round bacteria tests were placed in the test incubator at 11:15 AM on Friday, which meant that results were expected at 11:15 AM Saturday.²⁰⁷

At 5:31 PM, Reynolds emailed the DPU Directors for Richmond and for Hanover, Henrico, Chesterfield, and Goochland Counties to solicit input on how lifting the boil water advisory might impact their distribution systems in light of the potential spike in demand due to customers flushing their internal plumbing. Chan had spoken with Reynolds a short while earlier. Chan expected pressure would build slowly and somewhat unpredictably as water service returned and customers resumed use, but overnight Henrico DPU planned to fill its Water Tanks to buffer surges in use. Chesterfield responded that it did not see a likely impact because the public had been informed that it was not included in the Boil Water

²⁰⁴ See, e.g., 1/9/25 11:25 PM Email from Pruden; 1/10/25 3:06 AM Email from Spain; 3:09 AM Email from Simukonde; 5:10 AM Email from Spain.

²⁰⁵ 1/10/25 9:38 AM Henrico Social Media Post.

²⁰⁶ 1/10/25 11:33 AM Email from Hayes; 1/10/25 2:30 PM Email from Chan.

²⁰⁷ 1/10/25 2:42 PM Email from Chan.

²⁰⁸ 1/10/25 5:31 PM Email from Reynolds.

²⁰⁹ 1/10/25 Chan Cell Phone Call Log (2:44 PM).

²¹⁰ 1/9/25 Henrico Press Release (discussing water tanks and surges in use).

Advisory.²¹¹ Hanover responded that it was in a good spot to weather potential high system demands.²¹²

At 9:23 PM, Chan reported to VDH that the first round bacteria testing results were absent for bacteria (i.e., favorable results). He stated he would report again Saturday morning with the second round bacteria testing results.²¹³

F. Saturday, January 11

Henrico DPU continuously monitored pressure in the water distribution system and shared data across the department, including throughout the night.²¹⁴

Meanwhile, Henrico DPU crews completed the second, larger phase of repairing a water main break at Monument Avenue and Bremo Road, which entailed replacing 35 feet of 12" waterline. This job was completed at approximately 2:00 AM.²¹⁵

At 11:17 AM, Chan reported to VDH that the second round bacteria testing results were also absent for bacteria (i.e., favorable results again) and stated Henrico would issue a public notice lifting the Boil Water Advisory upon concurrence from VDH.²¹⁶

At 11:19 AM, VDH concurred and authorized Henrico to rescind the Boil Water Advisory. 217

At 11:30 AM, Henrico lifted the Boil Water Advisory. 218

At 12:00 PM, Henrico leadership held a press conference to share the good news, recap the community-wide effort, thank Henrico residents for their patience and understanding, and assure residents that the water system would be made stronger and more resilient.²¹⁹

²¹¹ 1/10/25 5:37 PM Email from Hayes.

²¹² 1/10/25 5:41 PM Email from Longshore.

²¹³ 1/10/25 9:23 PM Email from Chan.

²¹⁴ 1/10/25 6:19 PM, 9:05 PM, 10:40 PM, 11:28 PM, 11:57 PM Emails from Spain; 1/11/25 12:46 AM Email from Simukonde; 1/11/25 2:16 AM, 5:13 AM, and 8:13 AM Emails from Pruden; 1/11/25 11:26 AM Email from Sullard; 1/11/25 12:03 PM Email from Simukonde.

 $^{^{215}}$ 1/11/25 12:35 AM and 2:14 AM Emails from Valenzuela.

²¹⁶ 1/1/25 11:17 AM Email from Chan.

²¹⁷ 1/11/25 11:19 AM Email from Reynolds.

²¹⁸ 1/11/25 11:30 AM Henrico Press release.

²¹⁹ 1/11/25 Henrico Water Update, available at https://youtube.com/live/H6qgMmcH4-Q.

6. SUMMARIES OF KEY ASPECTS OF HENRICO DPU'S RESPONSE

The purpose of this report is to present a factual timeline of events and actions by Henrico DPU in response to the Richmond Water Crisis for public transparency and insight. While the report therefore is not an evaluation of the events that occurred or the actions taken, there are certain overarching factual themes that warrant highlighting.

A. Interjurisdictional DPU Communications

Henrico DPU's response appears to have been materially delayed and hindered by poor communications from Richmond DPU about the severity of the problem at the Richmond WTF and the time when water production and distribution would resume. On a positive note, there was early initial outreach at the operator-to-operator level at approximately 7:00 AM Monday, January 6, which enabled Henrico DPU to take some preliminary steps including relieving the Richmond WTF of supplying Henrico's Three Chopt WPS. However, the lack of clear and timely communication about the severity of the problems at the Richmond WTF and the associated time that would be required to remedy it left Henrico DPU without critical information that would have allowed it to act sooner. Significantly, Richmond DPU did not initiate communications at the DPU Director level, which was obviously more than warranted given the gravity of the unfolding situation. Only after the Henrico DPU Director initiated contact with the Richmond DPU Director was the extreme nature of the problem disclosed to Henrico DPU Director. Even after this initial contact, basic communications problems persisted, for example, with the Richmond DPU Director not realizing that her text messages to the Henrico DPU Director were misdirected to his desk phone and thus not answered.

B. Efforts to Offset Richmond WTF's Outage

Henrico DPU mounted a Herculean effort to attempt to outlast the Richmond WTF outage using all of Henrico's available resources, including managing and using water stored in the system in central and eastern Henrico and water produced at the Henrico WTF and pumped to the maximum extent possible from west to east.

The benefit of the effort was limited by many factors, including:

- the delayed response start due to external communications issues (see above) and repeatedly optimistic estimates for and setbacks to the time when the Richmond WTF would restart (e.g., especially on Tuesday morning when Richmond estimated restarting by mid-afternoon);
- the inherent difficulty of manipulating the Henrico distribution system to do what it was not designed to do (i.e., deliver large volumes of water from the Henrico WTF to central and eastern Henrico); and

• the reverse flow of water from Henrico into Richmond at boundary line meters after the Richmond system depressurized (including the time required to locate and close numerous boundary line valves are always left open for water to flow).

While the benefits of Henrico DPU's response effort were limited by these factors, there were also significant successes. These included:

- restoring service to approximately 6,000 residents in central Henrico (LAZ pressure zone);
- maintaining three other pressure zones nearer to the Henrico WTF but normally served by the Richmond WTF (the West Broad, Three Chopt High, and River Road zones); and
- transferring St. Mary's Hospital from Richmond to Henrico water service in the midst of the crisis to keep the hospital running.

It should not be overlooked that but for the existence of the Henrico WTF (and similar additional facilities in Chesterfield County), the Richmond WTF outage would have had an even larger adverse regional impact.

C. Mutual Aid & Support

Once the various DPU Directors (and VDH) came together, the resulting coordination and cooperation benefited the localities individually and collectively and thus the citizens of the region. For example, this was accomplished by sharing information and expertise, maximizing the use of available alternative water supplies, and sharing staff to ensure adequate coverage.

7. LIST OF APPENDICES

- A. Request for After-Action Review
- B. VDH Notice of Alleged Violation
- C. Map of Henrico Water System
- D. Graph of GEU Pressure 1/725 through 1/9/25
- E. Henrico Press Releases & Website & Social Media Posts
- F. Richmond Press Releases & Website & Social Media Posts
- G. List of Henrico DPU Employees Interviewed
- H. Emails (Including Meeting Invitations & Attendance Reports)
- I. Cell Phone Call Log of Henrico DPU Director
- J. Text Messages

AFTER-ACTION REPORT: HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES' RESPONSE TO THE RICHMOND WATER CRISIS APPENDICES

Prepared for: County of Henrico, Virginia



Prepared by: AquaLaw PLC



Submitted: February 11, 2025

AFTER-ACTION REPORT: HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES' RESPONSE TO THE RICHMOND WATER CRISIS APPENDIX A

REQUEST FOR AFTER-ACTION REVIEW

COMMONWEALTH OF VIRGINIA



COUNTY OF HENRICO

OFFICE OF THE COUNTY ATTORNEY

ANDREW R. NEWBY COUNTY ATTORNEY

January 17, 2025

BY EMAIL (CHRIS@AQUALAW.COM)
Christopher D. Pomeroy, Esq.
AQUALAW
6 South 5th Street
Richmond, Virginia 23219

Re: Response by Henrico Department of Public Utilities to the Richmond Water Crisis

Dear Mr. Pomeroy:

Thank you for agreeing to draft a report on the response by the Henrico County Department of Public Utilities to the Richmond water crisis from January 6 through 11 (the "Richmond Water Crisis"). As agreed, you will prepare the report for release to the public on February 11 and review with the Board of Supervisors at a public meeting on the same day.

I understand the scope of your report will include a factual review of the timeline and a narrative of actions by the Department of Public Utilities in response to the Richmond Water Crisis. I understand the purpose of the report is not to give legal advice. Any legal advice related to the Richmond Water Crisis will be given in a separate manner to preserve the attorney-client privilege between you and the County. I further understand that your report will not include a review or analysis of the technical aspects of the response or recommendations for future technical actions for the County's water system. As you know, the County has engaged an engineering firm to conduct that technical review.

Finally, I understand that full cooperation by County staff is absolutely necessary for you to complete your report in an independent and timely fashion. The County will provide you with access to staff and records at your request. I further understand that, if the County does not provide you with the necessary access, you may choose not to complete the report or to note in the report that the County failed to fulfill its commitment to cooperate. Likewise, I acknowledge and agree that County staff may review a draft of the report to comment on its factual accuracy, but that you have full control over the content of the final report, including any conclusions or analysis offered in the report.

Thank you again for agreeing to undertake this important matter for the County and its residents. We look forward to the results of your investigation.

Sincerely,

Andrew R. Newby

4301 East Parham Road, Henrico, Virginia 23228-2752 ~ P.O. Box 90775, Henrico, Virginia 23273-0775 (804) 501-4342 ~ Fax: (804) 501-4140

AFTER-ACTION REPORT: HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES' RESPONSE TO THE RICHMOND WATER CRISIS APPENDIX B

VDH NOTICE OF ALLEGED VIOLATION



Department of Health

Karen Shelton, MD State Health Commissioner P O BOX 2448 RICHMOND, VA 23218 TTY 7-1-1 OR 1-800-828-1120

January 23, 2025

Via Electronic Mail

RVAMayor@rva.gov

The Honorable Danny Avula, Mayor, City of Richmond

Scott.Morris@rva.gov

Scott Morris, Interim Director

Richmond Department of Public Utilities 900 E. Broad Street Room 115 Richmond, Virginia 23219

Re: City of Richmond Water Crisis, January 6, 2025 – January 11, 2025

City of Richmond Waterworks, Public Water System Identification (PWSID)

#4760100

Dear Mayor Avula and Interim Director Morris:

The City of Richmond waterworks lost system-wide water pressure on January 6, 2025, resulting in a boil water advisory until January 11, 2025 (hereinafter described as the "water crisis"). From January 6 through January 11, 2025, the Virginia Department of Health (VDH), Office of Drinking Water (ODW) remained onsite at the City of Richmond's water treatment plant (WTP), to monitor response actions, promptly address regulatory needs, and provide technical assistance during the water crisis.

Based on observations and assessments during the water crisis while ODW staff were physically present at the WTP from January 6 through January 11, 2025, VDH has reason to believe that the City of Richmond may have violated the Virginia Public Water Supplies Law, Va. Code § 32.1-167 *et seq.*, and the Waterworks Regulations, 12VAC5-590-10 *et seq.* Enclosed is a Notice of Alleged Violation ("Notice"), which is based on ODW's observations during the water crisis while present at the WTP. The Notice shares ODW's concerns, initial impressions and expectations, and seeks the City's commitment to work together to prevent another water crisis.

Additionally, at the direction of Governor Glenn Youngkin, ODW is performing a

The Honorable Danny Avula Interim Director Scott Morris Page 2 of 2

comprehensive investigation and root cause analysis to understand what happened, what did not happen or should have happened, a timeline of events, best practices and operating procedures, communication strengths or failures, and necessary corrective actions. See Attachment A for additional resources being sought to assist ODW's investigation. Depending upon the findings of ODW's comprehensive investigation, an additional Notice of Alleged Violation may be issued.

If you have questions, you may reach me directly at <u>James.Reynolds@vdh.virginia.gov</u> or (757) 406-1252. You can also contact Dwayne Roadcap, Office Director, at (804) 338-0371 or <u>Dwayne.Roadcap@vdh.virginia.gov</u>.

Sincerely

James Reynolds, PE

Field Director, Richmond Field Office

Attachment Enclosure

ec: Dr. Elaine Perry, Health Director, Richmond Henrico Health District

Dr. Thomas Franck, Health Director, Chickahominy Health District

Mr. Dwayne Roadcap, Director, Office of Drinking Water



Department of Health

Karen Shelton, MD State Health Commissioner P O BOX 2448 RICHMOND, VA 23218 TTY 7-1-1 OR 1-800-828-1120

January 23, 2025

NOTICE OF ALLEGED VIOLATION

Via Electronic Mail

RVAMayor@rva.gov

The Honorable Danny Avula, Mayor, City of Richmond

Scott.Morris@rva.gov

Scott Morris, Interim Director

Richmond Department of Public Utilities 900 E. Broad Street Room 115 Richmond, Virginia 23219

Re: City of Richmond Water Crisis, January 6, 2025 – January 11, 2025

City of Richmond Waterworks, Public Water System Identification (PWSID)

#4760100

Dear Mayor Avula and Interim Director Morris:

The City of Richmond waterworks lost system-wide water pressure on January 6, 2025, resulting in a boil water advisory until January 11, 2025 (hereinafter described as the "water crisis"). From January 6 through January 11, 2025, the Virginia Department of Health (VDH), Office of Drinking Water (ODW) remained onsite at the City of Richmond's water treatment plant (WTP), located at 3920 Douglasdale Road in Richmond, to monitor response actions, promptly address regulatory needs, and provide technical assistance during the water crisis.

Based on observations and assessments during the water crisis while ODW staff were physically present at the WTP from January 6 through January 11, 2025, VDH has reason to believe that the City of Richmond may have violated the Virginia Public Water Supplies Law, Va. Code § 32.1-167 *et seq.*, and the Waterworks Regulations, 12VAC5-590-10 *et seq.*

The Honorable Danny Avula Interim Director Scott Morris Page 2 of 8

This Notice of Alleged Violation ("Notice"), which is based on ODW staff observations during the water crisis while present at the WTP, shares concerns, initial impressions and expectations, and seeks the City's commitment to work together to prevent another water crisis.

Observations and Legal Requirements

Based on ODW's understanding as of the date of this Notice, and before a comprehensive investigation has concluded, ODW represents and shares the following observations, initial reflections, and regulatory requirements:

- 1. The City of Richmond owns, and holds a permit to operate (PWSID #4760100), the City of Richmond waterworks. The City of Richmond waterworks serves over 250,000 consumers and provides wholesale water to neighboring jurisdictions (Chesterfield, Goochland, Hanover, and Henrico counties). The City of Richmond is the "owner" of the waterworks as defined by Va. Code \struct 32.1-167 and 12VAC5-590-10 of the Waterworks Regulations. The City of Richmond holds a waterworks operation permit pursuant to 12VAC5-590-260.
- 2. On or about January 1, 2025, news reports started surfacing of a likely winter weather event. On January 3, 2025, Governor Glenn Youngkin declared a state of emergency for the Commonwealth of Virginia in advance of the expected winter storm. On January 4, 2025, the National Weather Service in Wakefield, Virginia, issued a Winter Storm Warning that included the City of Richmond with predictions of 3-6 inches of snow and 0.1-0.25 inches of ice in the Richmond metropolitan area beginning on January 5, 2025, and ending late on January 6, 2025.
- 3. The WTP has two main substation power supplies from Virginia Dominion Energy. The WTP has two diesel back-up generators, Uninterrupted Power Supplies (UPSs), and employees consisting of WTP operators, electricians, maintenance experts, instrumentation specialists, and others with specialized expertise to ensure the WTP can operate without interruption and effectively respond to needs, such as a power failure, in accordance with standard operating procedures (SOPs).
- 4. As standard practice at waterworks of similar size to the City of Richmond waterworks, SOPs are established and proper training is provided to ensure every operator and other employees with specialized experience at the WTP follow consistent and correct procedures in a timely manner to comply with applicable regulations. SOPs help new employees learn critical procedures quickly and accurately. A waterworks' operation and maintenance manual, asset management program, and emergency response plan ensure staff understand and can quickly respond to a power outage.
- 5. On January 6, 2025, during the storm event, City of Richmond personnel at the WTP shared that power at the WTP supplied by Dominion Energy went offline, requiring operation of the back-up diesel generators. At the time of the power outage, three waterworks operators were managing operations at the WTP; no other staff were present

at that time, such as electricians, instrumentation specialists, or maintenance specialists. The back-up generators required manual transfer of the WTP to auxiliary power, which the WTP operators could not or did not perform. The UPSs did not keep the WTP operational. The three operators did not or could not manually operate valves to prevent the flooding event inside the WTP after the other back-up systems did not function as needed to prevent the flooding event.

- 6. The flooding submerged critical pumps not designed to be under water. The flooding also submerged electrical components not designed to be under water such as filter actuator valves and filter rate of flow transmitters and indicators. The WTP's Supervisory Control and Data Acquisition (SCADA) system failed and required several hours of effort to return it to normal function. The WTP was unable to produce and distribute water until the pumps and filter components were repaired. The WTP could not meet water demand until enough filters and pumps were repaired to allow increased water production. Without a functioning SCADA system, waterworks operators were without a central location to see critical information such as water flow, disinfectant residual, filter performance and required manual operation of the plant, which increased the amount of manpower and labor needed to operate the WTP.
- 7. The City of Richmond did not inform ODW of the critical nature of operations until the afternoon of January 6, 2025 (2:30 to 3 p.m.), even though a critical system failure happened early in the morning that same day, perhaps before 7 a.m. Communities that experienced water outages included the entire City of Richmond and portions of Henrico County and Hanover County.
- 8. The WTP, which normally produces 50 to 55 million gallons per day (MGD) to meet normal customer demand during January, completely stopped water production on the morning of January 6.
- 9. On January 6, 2025, at approximately 4:30 p.m., the City of Richmond issued a boil water advisory for customers of the City of Richmond waterworks.
- 10. The WTP's SCADA system did not work effectively after the flooding, but the City of Richmond's contractor fixed the SCADA system's operation by the early morning of January 7. Later that day, the SCADA system temporarily went offline again but was returned to normal operation within 1-3 hours.
- 11. By January 8, 2025, the WTP's production was about 10 MGD to 14 MGD. By January 9, 2025, the WTP's production had returned to normal.
- 12. Significant impacts occurred throughout the water crisis. Customers began to experience low water pressure, followed by no water service, for several days. Hospitals and healthcare facilities began various planning and operational changes to sustain operations. Businesses closed. Quick action by the Virginia Department of Emergency

The Honorable Danny Avula Interim Director Scott Morris Page 4 of 8

Management, local health departments, the Virginia Emergency Support Team, and Medical Reserve Corps allowed the community to receive bottled water.

- 13. Normal water pressure started to return by January 9, 2025, and the distribution system was fully pressurized by January 10, 2025. Following sampling to confirm suitable drinking water without microbial contamination, the City of Richmond and other localities lifted boil water advisories on January 11, 2025.
- 14. The National Primary Drinking Water Regulations (40 CFR Part 141), the Public Water Supplies Law (Va. Code § 32.1-167, et seq.), and the Waterworks Regulations (12VAC5-590) establish standards for drinking water quality, drinking water infrastructure, and oversight of the drinking water program.
- 15. The Waterworks Regulations at 12VAC-590-350.A state, "Frequent assessments shall be made by the [waterworks] owner of the water supply and waterworks to locate and identify health hazards to the waterworks. The manner and frequency of making these assessments, and the rate at which discovered health hazards are to be removed, shall be the responsibility of the owner. Every effort shall be made by the owner, to the extent of his jurisdiction, to prevent the degradation of the quality of water supplies."
- 16. The Waterworks Regulations at 12VAC5-590-360.A state, "The [waterworks] owner shall provide and maintain conditions throughout the entirety of the waterworks in a manner that will assure a high degree of capability and reliability to comply with Part II (12VAC5-590-340 et seq.) of [the Waterworks Regulations]. This requirement shall pertain to the source water, transmission, treatment, storage, and distribution system facilities and the operation thereof. The owner shall identify and evaluate factors with the potential for impairing the quality of the water delivered to the consumers. Preventative control measures identified in Part II of [the Waterworks Regulations] shall be promptly implemented to protect public health."
- 17. The Waterworks Regulations at 12VAC5-590-450 state, "Waterworks operation comprises the constant oversight and management of the facilities and personnel. Consideration shall be given to such factors as the competency of personnel; water quality, including drinking water standards; water treatment plant maintenance and cleanliness; analytical laboratory control; and the operation and maintenance of the facilities, including water treatment plant equipment, distribution system equipment, and piping. As the complexity of the waterworks increases, so does the expertise and skill required of the operating staff."
- 18. The Waterworks Regulations at 12VAC5-590-461.8 state, in part, "Operator requirements. The operation of all waterworks must rest in the hands of qualified staff. The number and qualifications of persons constituting the operating staff at a waterworks depend principally upon the capacity of the waterworks, the number of persons served by the waterworks, and the complexity of the treatment process or processes... 1. The operator attendance requirements specified in subsection C of this section are a minimum

- to protect the health of the consumer and safety of the operating staff. [VDH] may increase the required operating attendance when appropriate to protect human health."
- 19. The Waterworks Regulations at <u>12VAC5-590-470</u> state, "The waterworks shall be maintained in a clean and orderly condition."
- 20. The Waterworks Regulations at 12VAC5-590-480.E state, in part, "Process control instruments, monitors, gauges, and controllers, including reading, recording, and alarm features, required in Part III, Manual of Practice (12VAC5-590-640 et seq.), shall be maintained fully operational and calibrated in accordance with the manufacturer instructions."
- 21. The Waterworks Regulations at 12VAC5-590-505.A B state, "A. The owner of a community waterworks (including consecutive waterworks) shall develop and maintain an emergency management plan for extended power outages. B. The plan shall be kept current and shall be retained at a location that is readily accessible to the owner in the event of an extended power outage."
- 22. The Waterworks Regulations at <u>12VAC5-590-510.C</u> state, "All waterworks shall provide a minimum working pressure of 20 psigauge (psig) at all service connections."
- 23. The Waterworks Regulations at 12VAC5-590-725 state, in part, "The design of computers, including supervisory control and data acquisition (SCADA) systems if used to monitor and control water treatment and distribution system facilities, shall meet the following general requirements:... 4. Waterworks pumps, chemical feeders, and other essential electrical equipment controlled through a SCADA or an automated control system shall have the capability for independent manual operation. Where a high degree of reliability is required, a backup control system shall be provided."
- 24. The Waterworks Regulations at 12VAC5-590-730 state, "A. An emergency management plan for extended power outages shall be developed for each community waterworks as specified in 12VAC5-590-505. B. Alternative power sources at all waterworks shall be considered in the design to maintain a minimum level of service during an electrical power outage."

This Notice is to advise that, based on the observations outlined above and ODW's investigation to date, the waterworks may have violated the Public Water Supplies Law, Title 32.1, Chapter 6, Article 2 of the Code of Virginia, and the following sections of the Virginia *Waterworks Regulations:*

1. Section <u>12VAC5-590-510.C</u> of the Waterworks Regulations, in that pressures within the City of Richmond waterworks fell below 20 psig on January 6, 2025, when the water levels in distribution system storage tanks fell below normal operating levels and ultimately were emptied. Normal water pressure started to return by January 9, 2025, and the distribution system was fully pressurized by January 10, 2025.

The Honorable Danny Avula Interim Director Scott Morris Page 6 of 8

2. Section <u>12VAC5-590-360.A</u> of the Waterworks Regulations, in that multiple failures at the WTP resulted in the loss of water service to the City of Richmond and portions of the consecutive waterworks that the City of Richmond waterworks provides wholesale water to, resulting in a Boil Water Advisory that was in place from January 6, 2025, to January 11, 2025.

Observations & Requested Corrective Actions

ODW asserts that the water crisis should never have happened and was completely avoidable. The City of Richmond could have prevented the crisis with better preparation, by verifying critical equipment was functional before the storm event, ensuring sufficient staffing was physically present at the WTP in the event of a power outage, and making sure staff present at the WTP during the storm event had appropriate training to effectively respond to the temporary power outage.

As a matter of routine practice, waterworks owners must anticipate, prepare for, practice, and train staff to overcome a temporary power outage. The City of Richmond waterworks experienced a complete loss of pressure in the distribution system and had inadequate pressure for more than three days in the distribution system. Multiple, redundant, back-up, fail-safe power systems did not function properly, or, in certain cases, were not operational, did not function long enough, or took too long to become operational. Not enough staff were present at the WTP by ODW's observations to effectively respond to the power outage. WTP staff did not adequately respond to the power outage, possibly because of a lack of awareness of what needed to happen quickly, ineffective training, or other reasons as might be identified through the ongoing investigation.

VDH wishes to address all aspects of the observations made from January 6, 2025, through January 11, 2025, including actions needed to ensure compliance with state law and regulations. VDH is very concerned about the events that occurred. VDH is also concerned about receiving timely, accurate, and informative notice about significant equipment failures. VDH emphasizes that the City of Richmond must provide proper and adequate notification to consumers whenever there is or may be an imminent threat to public health caused by the actual or potential loss of pressure. To reduce future risks to the reliability of the waterworks, VDH asks that the City of Richmond take these specific actions:

- 1. Within 30 days of the City of Richmond's receipt of this Notice, please submit to ODW's Richmond Field Office, by electronic mail (<u>James.Reynolds@vdh.virginia.gov</u>), the following:
 - a. Confirm in writing that the City of Richmond has verified and trained all licensed and in-training operators and other staff on power outage response. Please ensure WTP employees are properly trained and understand standard procedures when responding to a power outage. Please describe how training was delivered, when that training was delivered, and the content of that training. The date of training

The Honorable Danny Avula Interim Director Scott Morris Page 7 of 8

- must be later than January 6, 2025.
- b. Include the City of Richmond's standard operating procedures at the WTP for responding to a power outage, including roles and responsibilities of employees.
- c. Present documentation to show that all emergency back-up systems (such as secondary power feeds, generators, and UPS) have been tested and are functioning properly, including but not limited to allowing continued functioning of SCADA in an emergency; and if not, the plan to return those systems to normal function.
- d. Describe the City of Richmond's plan to ensure that back-up power systems are routinely exercised and tested, especially before storm events, such that any future power outage does not cause flooding or other damage to the WTP or loss of water service. Please describe the frequency and procedures to test critical equipment and back-up power supplies before storm events. Please describe the frequency and procedures to practice transitioning the WTP from commercial power to emergency power and returning to commercial power.
- e. Describe expected staffing level and role/responsibility of that staffing at the WTP during a significant storm event going forward.
- 2. Continue to allow unfettered and complete access to the WTP, other facilities, and employees during ODW's investigation as directed by Governor Glenn Youngkin. Continue to cooperate and help with ODW's investigation. ODW expects its investigation to conclude by April 7, 2025.

Appropriate timely action and response to this Notice will ensure a cooperative understanding and positive outcome.

Pursuant to Code of Virginia § 2.2-4019 and 12VAC5-590-115 of the Waterworks Regulations, the City of Richmond may request an informal fact-finding proceeding (IFFP) if it disagrees with the allegations in this Notice or wishes to obtain a determination as to whether a violation has occurred. Please advise VDH in writing within 15 business days of the City of Richmond's receipt of this notice if the City of Richmond wishes to request an IFFP. To request an IFFP, please contact Grant Kronenberg, ODW Director of the Division of Compliance, Enforcement, and Policy, at grant.kronenberg@vdh.virginia.gov. If the City of Richmond fails to attend a scheduled IFFP absent good cause, VDH may issue an adverse case decision against the City of Richmond pursuant to Code of Virginia § 2.2-4020.2.

Failure by the City of Richmond to comply with the Virginia Public Water Supplies Law or the Waterworks Regulations may result in VDH taking enforcement action. Enforcement actions include permit revocation, administrative orders, and civil or criminal proceedings, and civil charges or penalties of up to \$5,000 per day for each violation. Va. Code §§ 32.1-26, 32.1-27, 32.1-175.01 and 32.1-176.

If you have questions, you may reach me directly at <u>James.Reynolds@vdh.virginia.gov</u> or (757) 406-1252. You can also contact Dwayne Roadcap, Office Director, at (804) 338-0371 or <u>Dwayne.Roadcap@vdh.virginia.gov</u>.

The Honorable Danny Avula Interim Director Scott Morris Page 8 of 8

Sincerely,

James Reynolds, PE

Field Director, Richmond Field Office

ec: Dr. Elaine Perry, Health Director, Richmond Henrico Health District

Dr. Thomas Franck, Health Director, Chickahominy Health District

Mr. Dwayne Roadcap, Director, Office of Drinking Water

Attachment A:

Request for Proposal (RFP) – Statement of Work

(emergency procurement)

Issue Date: January 16, 2025

Title: City of Richmond Comprehensive Waterworks Evaluation and Cost Estimate

Project Code: VDH103-2025-RFP1

Commodity Code: Professional Services - 90607 & 92533

Issuing Agency & Address: Virginia Department of Health, Office of Drinking Water (ODW)

Attn: Dwayne Roadcap, Director, ODW

109 Governor Street Richmond, VA 23219

Dwayne.Roadcap@vdh.virginia.gov

Location of Work: City of Richmond Water Treatment Plant & Distribution

System

Period Of Contract: Single project services. Requested information is due to the Virginia Department of Health (VDH) in PDF no later than 4 p.m. on January 27, 2025. Information will not be accepted after this date and time.

Any questions to this request for information should be directed via e-mail to:

Dwayne Roadcap, Director, ODW

email: <u>Dwayne.Roadcap@vdh.virginia.gov</u>

Phone: 804-338-0371

I. PURPOSE

The purpose of this RFP is to solicit proposals with the intent to enter into a contract through competitive negotiations for the professional services of an Architectural/Engineering (A/E) firm, authorized to do business in the Commonwealth of Virginia. The A/E firm must have experience in the design and comprehensive evaluation of large public water systems serving more than 50,000 customers, with similar scope to those described in this RFP Section IV, Scope of Services. The A/E firm cannot have any conflict of interest, such as having provided services to the City of Richmond in the past or present.

II. <u>BACKGROUND</u>

The City of Richmond water treatment plant lost system-wide water pressure on January 6, 2025, and did not lift a boil water advisory until January 11, 2025 (hereinafter described as the "City of Richmond's water crisis"). The current water service provider, the City of Richmond, demonstrated that it does not have sufficient, proven capabilities to support its customers, businesses, and healthcare facilities. To guarantee that the City of Richmond's water crisis does not happen again, and to ensure compliance with water quality requirements, the water treatment plant, the distribution system, water storage reservoirs and storage tanks, water production capabilities, processes, procedures, training, and staffing level at the treatment plant and overall waterworks must be evaluated and improved.

This RFP is designed to assist ODW, VDH to perform a root-cause evaluation, including other evaluations and investigations to accurately describe what happened, what did not happen (but should have), effectiveness and timeliness of communication (or lack thereof), and other analysis to be described in a report of findings, observations, and recommendations no later than April 7, 2025. The A/E will assist ODW with a comprehensive investigation of the City of Richmond's water crisis. ODW will help ensure cooperation and collaboration with any independent evaluation and or other analysis that the City of Richmond might engage to complete its own investigation of the City of Richmond's water crisis.

III. INFORMATION AVAILABLE

- US EPA inspection report from 2022.
- VDH inspections, observations, and initial impressions before and during the City of Richmond's water crisis from January 6, 2024 through January 11, 2024.

IV. SCOPE OF SERVICES:

This RFP is designed to investigate the City of Richmond's failure to reliably operate its waterworks in accordance with 12VAC5-590-360. Scope of services includes the following elements:

- Provide a project manager and licensed professional engineer to ensure an appropriate team of professionals will have effective project management, project planning, and leadership to complete a root-cause analysis and comprehensive evaluation as described herein;
- Develop a comprehensive timeline of events from January 6, 2025, through January 11, 2025, that led to the City of Richmond's failure to provide adequate water service, including the City of Richmond's communication to customers, neighboring jurisdictions, and regulatory agencies (what happened);
- Clarify the roles and responsibilities of the water treatment plant's leadership and operators based on the timeline of events developed;
- Completely understand and describe why the City of Richmond's water crisis happened through detailed interviews and investigations (root cause analysis);
- Perform an in-depth review of the water treatment plant's redundant, back-up fail-safe

- systems for power, including standard operating procedures to ensure fail-safe systems will effectively work when needed;
- Evaluate existing staffing levels, staff training, and provide recommended staffing plan to ensure reliable 24/7 operation of the waterworks;
- Inspect the water treatment plant, the distribution system, plant equipment, power supplies, electrical and switchgear systems;
- Review and provide recommendations for each of the following elements with respect to the City of Richmond's waterworks:
 - o Capital improvement plan and its implementation;
 - o Asset management plan and its implementation;
 - o Cybersecurity;
 - Emergency response plan, staff exercises for emergency response (roles and responsibilities), especially for power outages and other natural and man-made disasters;
 - o Operation and maintenance manual and its implementation;
 - o The waterworks' preventative maintenance program and its implementation;
 - o Documentation of operator activities, implementation, and quality of documentation;
 - Operator and staff training on standard operating procedures, emergency procedures, and related exercises to address emergencies, including, but not limited to:
 - Loss of commercial power,
 - Loss of SCADA and/or computer control,
 - Emergency plant shutdown.
- To the extent possible working within the deadlines described herein, provide system assessments and recommended improvements as follows:
 - o Current water demands and the future water demand projections,
 - o Wholesale water agreements,
 - o Waterline, Distribution System Pump Stations, and Storage Tank Evaluation,
 - o Byrd Park Reservoir Water Improvements,
 - o Consecutive System Water Delivery Resiliency,
 - o Potential Regional Solutions to Increase Resiliency,
 - o Water Treatment Plant Design and Operational Improvements,
 - o Cost Estimates for Improvements,
 - o Proposed Design and Construction Schedule.
- Provide recommendations to VDH, which VDH can share with the City of Richmond, on how to ensure that the City of Richmond does not have another water crisis;
- Complete a report of findings and recommendations with analysis of the elements described herein by April 7, 2025, including a recommended listing of what the City of Richmond must do immediately (within 3 months), over the short-term (within 12 months), medium-term (24 months), and long-term (more than 24 months) to ensure that the City of Richmond's water crisis does not happen again;

VDH documents in Section IV (Scope of Services) describe the appearance, aesthetics, functional arrangement, timing, and quality expected.

The selected A/E shall furnish all expertise, labor, and resources for completion of the above-described professional services and report elements.

The selected A/E will work closely with VDH and ODW to study the City of Richmond's waterworks and its water crisis, provide detailed recommendations for improvements to support the potable and fire protection water needs of customers, and ensure that another water crisis is prevented in the future. Any recommendation for proposed improvements to system processes, employee staffing, employee training, infrastructure or other needs shall not be limited to only repairs and replacement, but to modernize the existing waterworks.

V. <u>DELIVERABLES:</u>

- A. Proposal due by 4 p.m. January 27, 2025.
- B. Weekly status updates on the project plan and preliminary observations must be provided to VDH.
- C. Weekly coordination meetings with VDH, including PowerPoint presentations to describe status.
- D. Completion of a report with appropriate engineering stamp, including an executive summary, methods, findings, recommendations, and conclusions, to ODW no later than April 7, 2025.
- E. Ability to start on the project no later than February 5, 2025.
- F. Provide up to three presentations on the final report as requested by VDH.

VI. PROPOSAL REQUIREMENTS:

- A. Proposals shall be signed by an authorized representative of the A/E. By submitting a proposal, the Offeror certifies that all information provided in response to this RFP is true and accurate. Failure to provide information required by this RFP will ultimately result in rejection of the proposal.
- B. Proposals should be prepared simply and economically, providing a straightforward, concise description of the A/E's capabilities for satisfying the requirements of the RFP. Emphasis should be on completeness and clarity of content.
- C. One electronic copy of the Proposal must be submitted to the attention of the Owner/Agency Representative listed below (Dwayne.Roadcap@vdh.virginia.gov).
- D. All documentation submitted with the proposal shall be included in the one electronic copy. A zip file is acceptable if attachments are too large (over 25 mb). Elaborate brochures and other representations beyond those sufficient for presenting a complete and effective proposal are neither required nor desired.
- E. Any information thought to be relevant, but not specifically applicable to the

enumerated Scope of Work, may be provided as an appendix to the proposal. If publications are supplied by the Offeror to respond to a requirement, the response should include reference to the document number and page number. Publications provided without such reference will not be considered relevant to the RFP.

VII. EVALUATION AND AWARD OF CONTRACTS:

- A. Evaluation Criteria: Proposals shall be evaluated by the Agency using the following criteria and weighting (out of 100 points):
 - 1. A statement from the A/E that there is no conflict of interest that would prohibit participation in ODW's investigation. A description of any possible conflict of interest. 5 points.
 - 2. Expertise, experience, staffing capacity, and qualifications of the A/E's primary designer in each relative discipline for providing the services described in Section IV, Scope of Services. 40 points.
 - 3. Expertise, experience and qualifications of any special consultants proposed for providing the services described in Section IV, Scope of Services. 20 points.
 - 4. Geographic location of the A/E's office where work will be performed in relation to the project location(s). 5 points.
 - 5. Current and projected workload, plan to complete the work, and ability to meet the schedule requirements for deliverable timeline and quality as outlined in Section V, Deliverables. 15 points.
 - 6. Budget to complete the work. 15 points.

VDH will provide highest weighting to expertise, experience and qualifications and ability to complete the services with best quality as described in Section IV.

B. AWARD OF CONTRACT: After evaluation of the Proposals received in response to the RFP, the Agency shall immediately issue the purchase order within 2 days of the submission, if it is confirmed that the proposal best satisfies all evaluation criteria as outlined in Section VII.

Proprietary information from competing Offerors (including any data on estimated manhours or rates and the plan for accomplishing the scope of work) will not be disclosed to the public or to competitors, provided such information is duly marked as "Proprietary Information" by the Offeror and the designation is justified as required by Section 2.2-4342, Code of Virginia, as revised.

VIII. FEES:

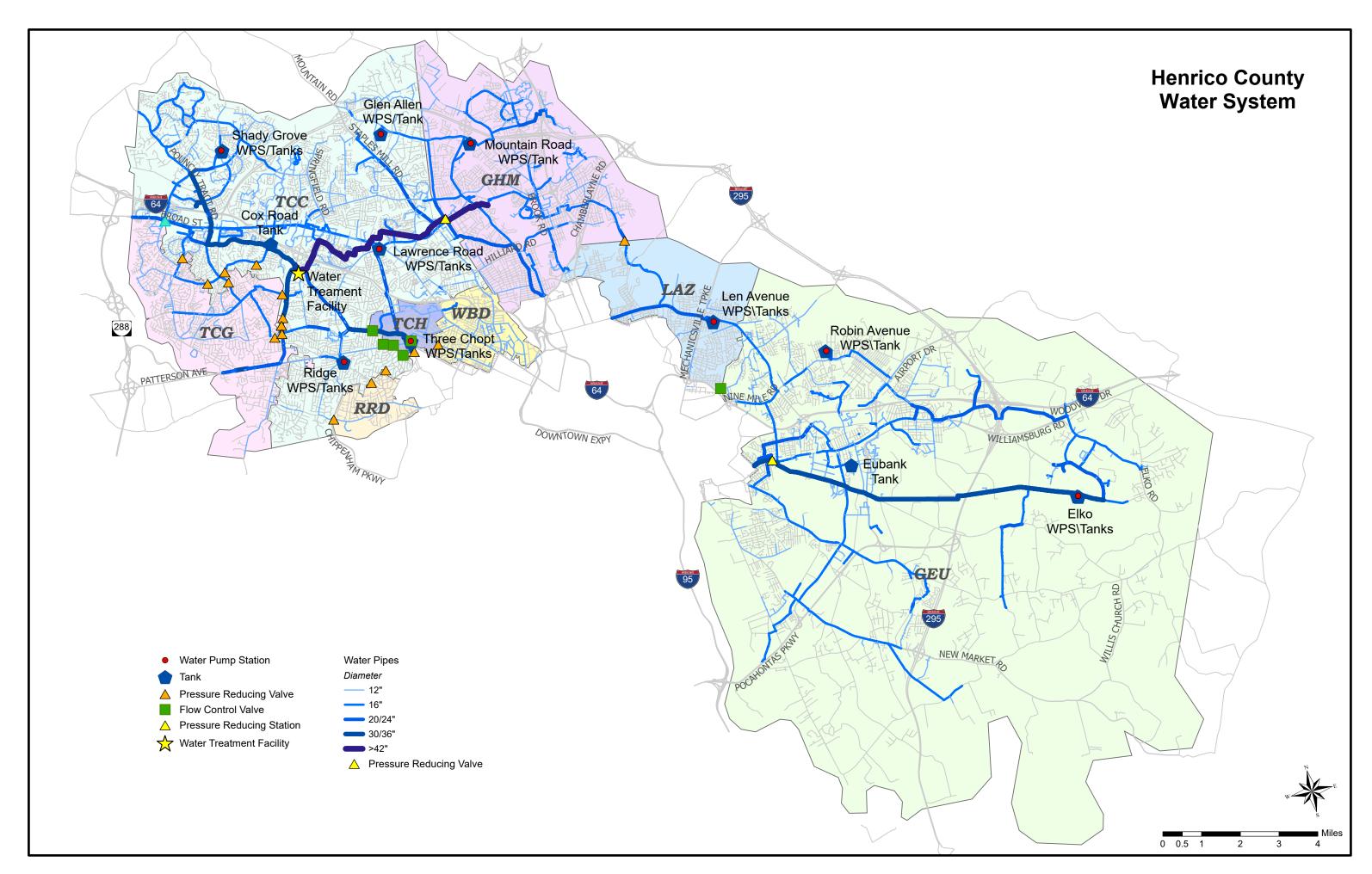
The fee for services shall be negotiated on a lump sum basis considering the Scope of Services required, the estimated manhours required for each level/discipline and the typical labor rates for the various skill levels required for the work. With regard to the proposal, include a sheet of the billable manhour costs by title for each individual who will be assigned to the project. The Memorandum of Understanding prepared by the Agency will document the negotiated acceptable labor rates for the various levels/disciplines and these rates will be used for any hourly rate work of the A/E that is authorized by the Agency.

IX. <u>ATTACHMENTS</u>

Attachment A: US EPA inspection from 2022

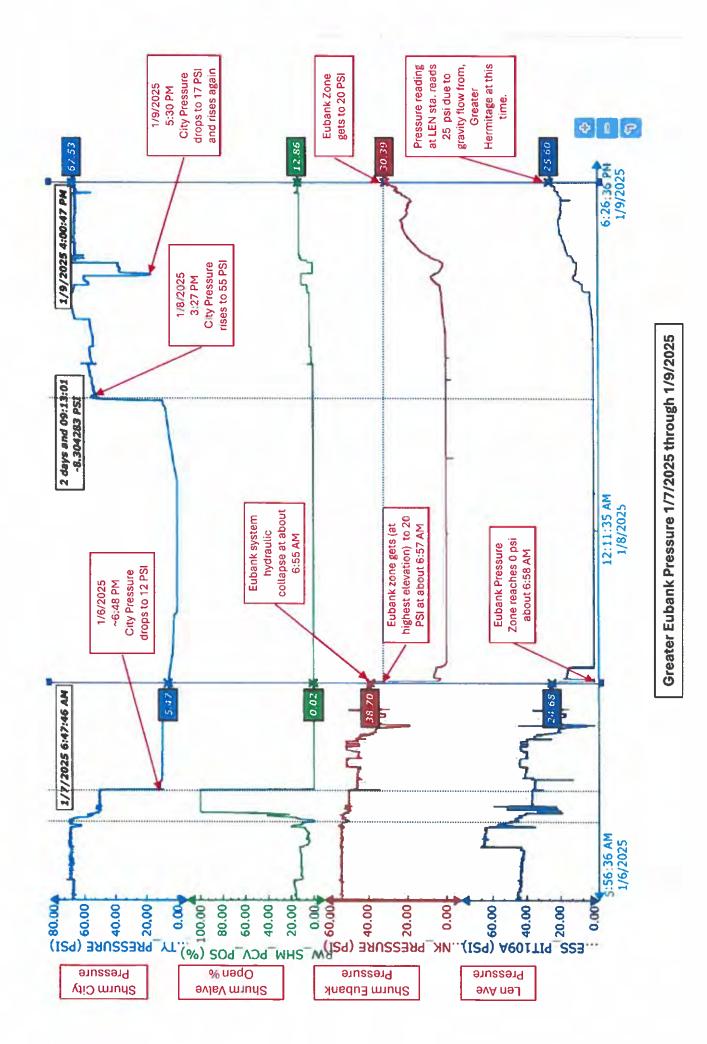
AFTER-ACTION REPORT: HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES' RESPONSE TO THE RICHMOND WATER CRISIS APPENDIX C

MAP OF HENRICO WATER SYSTEM



AFTER-ACTION REPORT: HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES' RESPONSE TO THE RICHMOND WATER CRISIS APPENDIX D

GRAPH OF GEU PRESSURE 1/7/25 THROUGH 1/9/25



AFTER-ACTION REPORT: HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES' RESPONSE TO THE RICHMOND WATER CRISIS APPENDIX E

HENRICO PRESS RELEASES

&

WEBSITE & SOCIAL MEDIA POSTS

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Boil water advisory not in effect in Henrico

Posted on January 6, 2025.

Henrico disconnected from Richmond's water system following power outage that affected city's reservoir system

A boil water advisory is not in effect in Henrico as the county was able to proactively disconnect from Richmond's water supply system following a loss of power to the city's reservoir system.

The power loss, which occurred today and was related to the winter storm, has resulted in a boil water advisory for the city's water customers.

All water customers in Henrico are currently receiving water from the county's Water Treatment Facility. Customers may experience changes in water pressure due to the county's re-routing of service.

"Henrico County wants to assure our customers that their water is safe to drink and use," said Bentley P. Chan, director of the Department of Public Utilities. "We have sufficient capacity from our own water system to meet the needs of our residential and business customers for some time. We are working closely with the city and other partners to ensure that our region's water needs are met and have offered our assistance to bring Richmond's reservoir system back online as quickly as possible."

Henrico's public water system has about 100,000 customers. Under normal conditions, portions of central and eastern Henrico are served by Richmond.

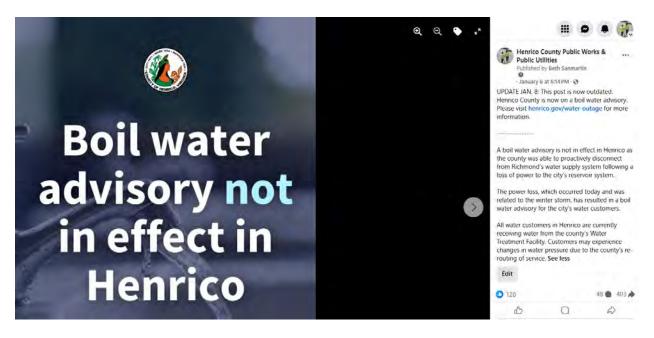
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Departments of Public Works and Public Utilities

Social media posts Jan. 6, 2025 - Jan. 11, 2025

This document shows Facebook posts. All posts were also shared DPW/DPU Twitter/X and Instagram.

All posts also shared on Henrico County main government social pages (Facebook, Twitter/X, Instagram, Nextdoor)



Jan. 6, 6:14 p.m.

UPDATE JAN. 8: This post is now outdated. Henrico County is now on a boil water advisory. Please visit henrico.gov/water-outage for more information.

A boil water advisory is not in effect in Henrico as the county was able to proactively disconnect from Richmond's water supply system following a loss of power to the city's reservoir system.

The power loss, which occurred today and was related to the winter storm, has resulted in a boil water advisory for the city's water customers.

All water customers in Henrico are currently receiving water from the county's Water Treatment Facility. Customers may experience changes in water pressure due to the county's re-routing of service.



Jan. 7, 4:21 p.m.

We know this has been a confusing and difficult time for our residents. We are doing everything we can to get everyone's water restored, the water main break repaired and information out to the public. We are not able to answer every comment and message, so we wanted to post this FAQ for everyone's convenience.

1. Why weren't residents warned about this possibility in yesterday's posts and information?

When the Department of Public Utilities pulled all Henrico customers out of the City of Richmond's water supply and into the county's, we were aware that our customers may notice a drop in pressure as the water gets rerouted through the lines. That information was communicated yesterday. Overnight, a water main broke in Sandston. It's common for a water main break to pull pressure from all the water lines nearby. However, because pressure was already low as lines in eastern Henrico were pulling from Henrico's Water Treatment Facility on Three Chopt Road, these combined instances proved to be too much for the system. As a result, many customers, primarily in the Varina and Fairfield districts, lost water today. These two incidents combined could not have been predicted ahead of time.

2. What is Henrico doing to restore service?

Public Utilities is doing everything possible to return water to the impacted customers. Right now, we are pulling water from western Henrico to flow to impacted customers in eastern Henrico. This may mean customers in the west end will also notice lower pressure if they haven't already. As of 2:30 p.m., the broken main has been repaired, and crews are working on opening valves in the area to facilitate the flow of water. We are still expecting customers to have water back this afternoon.

3. Do I need to boil water now?

No. Henrico water customers are not under a boil water advisory.

4. I showed up to the Eastern Government Center or the Mental Health East Center for drinking water, and none was available. Is there an update?

Henrico is receiving assistance from the state to provide water for residents. There is now a truck with a drinking water tank at the Eastern Government Center, along with bottled drinking water for impacted residents. A drinking water truck will be available shortly at the Mental Health East Center. Bottled water will be available as soon as possible at the Eastern Henrico Recreation Center, Fairfield Area Library, Varina Area Library and Sandston Branch Library. For right now, we are encouraging everyone to go to the Eastern Henrico Government Center for either bottled or tank water for filling. We will update on social media when the other resources are available.

5. Why are Henrico residents receiving water from the City of Richmond in the first place?

Sharing water among the localities has been in effect for decades. For some residents in Henrico, it makes more sense for their water to come from the closer treatment facility located in the City of Richmond. Henrico has over 100,000 water customers, which is a lot for a single treatment facility. Under normal circumstances, we have full confidence in the City of Richmond's water quality that is serving our customers in Henrico!

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Utilities crews working to route water from west to east

Posted on January 8, 2025.

Tuesday night, crews closed two large valves to attempt to push water from western Henrico to eastern Henrico. While this process did work, it proved insufficient to fix the issue.

Wednesday morning, crews blocked off any remaining interconnects that were leading to the City of Richmond water system. While Henrico's access to city water was cut off efficiently on Monday, there were some valves that were not closed as there was no risk of any contaminated water coming into the Henrico water system from those valves. However, now that we are attempting to restore pressure in our own water system, we have been losing water through those valves into the city. As of this update, all of these valves have been fully closed.

Now that those valves are closed, Public Utilities crews are attempting to fill up the Laburnum/Azalea pressure zone. The county's water system is divided into multiple pressure zones, and this zone was the most severely impacted by the City of Richmond shutoff and the water main break in Sandston yesterday. This zone is now being fed from the Greater Hermitage zone in western Henrico. The Greater Hermitage zone receives its water directly from Henrico's Water Treatment Facility from a 42-inch pipe, keeping it well-supplied. We have opened all connecting lines from the Greater Hermitage zone into the Laburnum/Azalea zone.



Crews will be monitoring the pressure from different points as this process gets started to ensure things are operating as expected. Once the Laburnum/Azalea zone has sufficient water pressure, we will then be feeding from that zone into the Greater Eubank zone, which encompasses most of the Varina district.

To be clear, this part of the process may be lengthy. There is one 16-inch pipe that feeds between these two zones in the Henrico water system, and it will take time for all of the water to make its way through into the zone to come up to pressure.

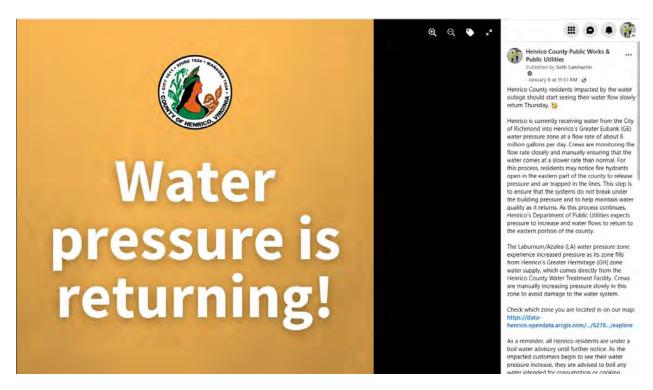
Under normal circumstances, the Laburnum/Azalea and Greater Eubank zones are fed from the City of Richmond's water treatment plant. There are large pipes that normally supply water to these zones, and Henrico supplements additional water to these zones every three days. However, there has never been a need to send this level of water from western Henrico to eastern Henrico. It will take time to make it all the way through our water system into the affected zones.

Crews are continuing to work around the clock to fully restore water service as quickly as possible. The county's emergency operations center is active and moving resources around the county to meet as many needs as possible.

A new <u>webpage</u> is now live and will be updated when any new information is available. We will also keep it updated with the current resources of where to get water, our call center number (804-501-4275, option 2) and other resources as they are established.

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Jan. 9. 11:37 a.m.

Henrico County residents impacted by the water outage should start seeing their water flow slowly return Thursday. 🞾



Henrico is currently receiving water from the City of Richmond into Henrico's Greater Eubank (GE) water pressure zone at a flow rate of about 6 million gallons per day. Crews are monitoring the flow rate closely and manually ensuring that the water comes at a slower rate than normal. For this process, residents may notice fire hydrants open in the eastern part of the county to release pressure and air trapped in the lines. This step is to ensure that the systems do not break under the building pressure and to help maintain water quality as it returns. As this process continues, Henrico's Department of Public Utilities expects pressure to increase and water flows to return to the eastern portion of the county.

The Laburnum/Azalea (LA) water pressure zone experience increased pressure as its zone fills from Henrico's Greater Hermitage (GH) zone water supply, which comes directly from the Henrico County Water Treatment Facility. Crews are manually increasing pressure slowly in this zone to avoid damage to the water system.

Check which zone you are located in on our map: https://data-henrico.opendata.arcgis.com/.../6278.../explore.

As a reminder, all Henrico residents are under a boil water advisory until further notice. As the impacted customers begin to see their water pressure increase, they are advised to boil any water intended for consumption or cooking before use. It is safe to use the water for showering or bathing, however, residents should take care to ensure no water enters their mouths.

For more information on safe practices, visit the Virginia Department of Health website at https://www.vdh.virginia.gov/drinking-water/boil-water-faqs/. Visit henrico.gov/water-outage to stay updated!

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Water testing underway; boil water advisory could possibly be lifted as early as Saturday

Posted on January 9, 2025.

Jan. 9, 10:40 p.m. Update: Public Utilities completed the first round of required tests needed to lift the boil advisory. The chlorine tests were a success. The bacteriological test results will not be available until Friday evening. The next water sample will be pulled from the system Friday at 10 a.m. and will undergo the same round of testing. If all goes well, officials are hopeful the boil advisory will be able to be lifted Saturday morning.

With water now returning to impacted areas of central and eastern Henrico County, officials have initiated the first of two rounds of water-quality tests that ultimately could lead to the lifting of its boil water advisory.



Testing began Thursday evening and, if all goes well, the boil water advisory could be lifted as early as Saturday afternoon, said Bentley P. Chan, director of the Department of Public Utilities.

Late Thursday afternoon, pressure in the water system reached a critical milestone – a minimum sustained water pressure of 20 PSI (pounds per square inch). DPU crews had been monitoring pressure across the system and had focused on a location at the highest elevation. About 5 p.m., that monitoring site was the latest to reach the sustained 20 PSI threshold, Chan said.

He said pressure in the system continues to build slowly and somewhat unpredictably, as water service returns and customers resume use, with showers, laundry and food preparation.

Overnight, DPU will fill its above-ground water tanks, which will provide a buffer against pressure losses amid surges of water use.

With testing now underway, water samples were drawn from seven locations, including one in western Henrico and six in eastern Henrico, and are being measured for levels of chlorine and bacteria. The results will come quickly – in about 15

minutes – for the chlorine tests.

As a result, DPU expects to receive the first results late Thursday, Chan said. The county's tests are being coordinated with the Virginia Department of Health (VDH).

The bacteriological tests take 24 hours to complete, and they must be conducted twice, with the second test initiated 16 hours after the first. With that first test initiated Thursday night, officials are hopeful the results will be available Friday night. That would allow the second test to begin Friday afternoon, with results returning Saturday afternoon.

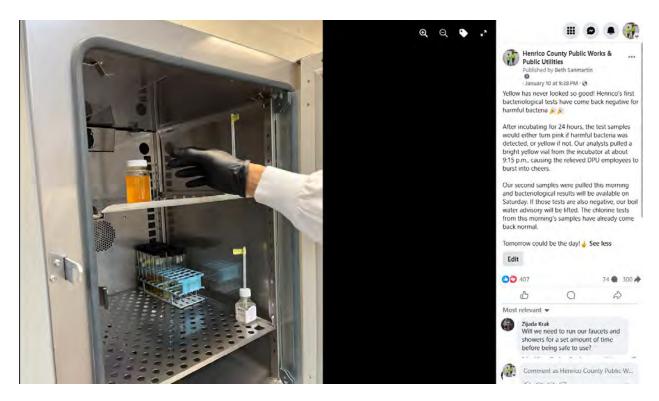
At that point, if all goes well, officials would be able to lift the boil water advisory, Chan said.

"We're going to make sure VDH is standing by to receive the results of the second test and give us the 'all clear," he said.



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Jan. 10, 9:38 p.m.

Yellow has never looked so good! Henrico's first bacteriological tests have come back negative for harmful bacteria 🥕 🎉



After incubating for 24 hours, the test samples would either turn pink if harmful bacteria was detected, or yellow if not. Our analysts pulled a bright yellow vial from the incubator at about 9:15 p.m., causing the relieved DPU employees to burst into cheers.

Our second samples were pulled this morning and bacteriological results will be available on Saturday. If those tests are also negative, our boil water advisory will be lifted. The chlorine tests from this morning's samples have already come back normal.

Tomorrow could be the day! 🤞

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Three Chopt

Tuckahoe

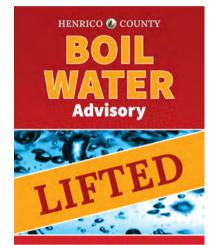
Varina

Home / Henrico News / Archives

Henrico lifts countywide boil water advisory

Posted on January 11, 2025.

Water-quality testing confirms county's water is safe for consumption



Henrico County today lifted its boil water advisory after tests confirmed the county's public water is clean and safe for human consumption and use. Officials will hold a briefing that will be <u>livestreamed</u>, beginning at noon. The city of Richmond and Hanover County also have lifted advisories for their communities.

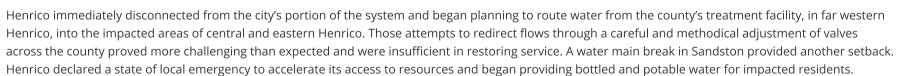
Henrico's advisory had been in effect countywide since Wednesday and was issued as a precaution and in coordination with the Virginia Department of Health (VDH) following a period of service outages that impacted communities in central and eastern Henrico.

The lifting of Henrico's advisory and a VDH advisory for only eastern Henrico comes after a series of tests confirmed the county's water system is free of bacteria, with chlorine levels within normal ranges, said Bentley P. Chan, director of the Department of Public Utilities.

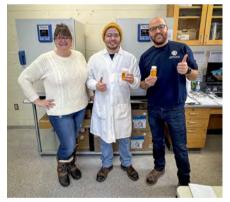
"As a local government, the greatest responsibility we have is protecting the health, safety and welfare of our residents and community," County Manager John A. Vithoulkas said. "Our boil water advisory was issued out of an abundance of caution, and it's being lifted with relief as well as gratitude and appreciation for our entire community. I'd like to thank our residents for their patience and understanding as we've worked tirelessly to restore service. I'd also like to thank our staff and community partners for helping us to overcome every challenge we have faced along the way. As a county, we will be conducting a thorough review of all aspects of this episode. This will include a review along with the city as well as an

independent review by third-party experts. Rest assured, we will be making our water system and our management of it stronger and more resilient."

Henrico's water service outages began late Monday and early Tuesday, after last weekend's winter storm resulted in a loss of power and flooding in Richmond's water treatment plant. The city's facility and Henrico's Water Treatment Facility serve the county's 100,000 water customers. More than 24,000 customers were without service at the outage's peak early Tuesday.





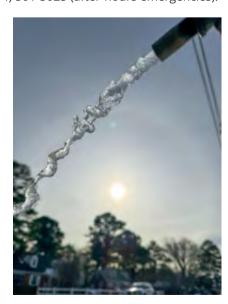


On Wednesday, VDH issued its boil water advisory for eastern Henrico as the city's pumps began to repressurize the system. Henrico officials concluded that a countywide advisory was also necessary given the systems' connections and the possibility that untreated water could reach customers outside the eastern area.

By late Thursday, water service had returned to Henrico's impacted communities and pressure was strong enough throughout the system to begin the bacteriological tests to determine whether the boil water advisory could be lifted. The last of those test results arrived late this morning and confirmed no presence of bacteria.

VDH has <u>guidance</u> for what <u>residents</u> users should do (PDF) after a boil water advisory, which includes flushing faucets to remove trapped air and particles; discarding any leftover ice and cleaning the ice-maker container; and replacing water treatment filter cartridges.

Henrico's call center established during the service outage is being deactivated. More information is available from <u>Public Utilities</u> and by calling (804) 501-4275 (normal weekday hours) or (804) 501-5025 (after-hours emergencies).



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AFTER-ACTION REPORT: HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES' RESPONSE TO THE RICHMOND WATER CRISIS APPENDIX F

RICHMOND PRESS RELEASES

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WEBSITE & SOCIAL MEDIA POSTS





NEWS & ALERTS JOBS VISIT RVA

Posted January 7, 10:40 a.m.

City staff, the Virginia Department of Health, and the Richmond's Sheriff's office are in the process of transporting thousands of gallons of water to the ten public water distribution sites. Due to the massive size of the task, the inclement weather's impacts on the City's roads, and concern for staff safety, this effort is taking longer than expected. Residents are asked to remain patient while deliveries are completed. Staff will be on site throughout the day to assist residents.

Posted January 7, 9:20 a.m.

City of Richmond continues work to restore water production

As of 9:00 a.m., the City of Richmond continues work to restore water production. The water plant systems are stabilizing and are likely to progress to water production early afternoon. Residents are urged to continue conserving water when possible. The Boil Water Advisory will remain in effect for residents with water. Until the Advisory is lifted, all residents should continue to boil water before consuming it.

The City of Richmond's Human Services portfolio has partnered with the Richmond Sheriff's Office and the American Red Cross to continue distributing bottled water in high priority areas — including homeless services providers, public housing, and residences that house older adults. Targeted outreach and distribution to areas of high need and vulnerable populations will continue.

Bottled water distribution sites across the city will operate from 9:30 a.m. to 11:30 a.m. and 3 p.m. to 5 p.m. at the following locations:

Broad Rock Library	4820 Old Warwick Road
West End Library	5420 Patterson Avenue
Hickory Hill Community Center	3000 Belt Boulevard
Bellemeade Community Center	1800 Lynhaven Avenue
Midtown Green	2401 W Leigh Street
Pine Camp Community Center	4901 Old Brook Road
Randolph Community Center	1415 Grayland Avenue
Westover Hills Community Center	1301 Jahnke Road
East End District Initiative (EDI)	701 North 25th Street
Southside Plaza	4100 Hull Street Road

[&]quot;We have navigated crises before, and I know we will get through this together," said Mayor Danny Avula. "Today, I'm asking residents to be patient and continue conserving water so our teams can keep working to serve our neighbors experiencing the greatest need."

The City will communicate new information as it becomes available through <u>rva.gov</u> and its social media pages. As a reminder, residents experiencing emergencies should call 9-1-1 and can call RVA311 (3-1-1 or 804-646-7000) to submit a service request.





JOBS

VISIT RVA

revelaron que ese incidente demoraría el proceso de restauración del servicio.

NEWS & ALERTS

Dijo el alcalde de Richmond, Danny Avula: "Aunque nos decepciona saber que la falla del panel de este martes por la tarde ha frenado nuestro progreso, los equipos de servicio de la ciudad siguen trabajando en turnos durante todo el día y la noche para restablecer la presión del sistema de acueducto y restaurar la distribución del líquido en toda la ciudad", y agregó: "Estamos usando expertos y recursos adicionales para ayudar a resolver el problema mientras trabajamos para retornar el servicio de acueducto a la normalidad".

El personal del Departamento de Servicios Públicos, junto a nuestros aliados, continúa con sus esfuerzos para restablecer el suministro de agua de Richmond a plena capacidad operativa. Aunque esta situación sigue siendo difícil de predecir debido a las muchas variables que involucra, se ha logrado un avance significativo a la hora de volver a poner en funcionamiento la planta de tratamiento y estamos haciendo todos los esfuerzos posibles para volver a obtener el pleno funcionamiento. El alcalde Danny Avula ha sido una presencia constante en la planta de tratamiento, con el fin de supervisar las actividades de restablecimiento y ha pedido a expertos locales y nacionales que nos ayuden a poner la planta en pleno funcionamiento.

Señaló el alcalde Avula: "Ya que tener disponible agua limpia es vital para la salud pública y una vida plena, estamos trabajando incansablemente para asegurarnos de que Richmond tenga acceso a agua limpia y pura para beber"

Update 4:00 pm 1/7/2025

While the City has restored water production at its water treatment facility, it continues to distribute bottled water at the 10 public water distribution sites. Since this morning's water distribution, additional water has been delivered to each of the 10 public water distribution sites. Demand for bottled water is high, and residents are urged to conserve water if possible.

Tomorrow, January 8, public water distributions sites will open and operate from 10:30 a.m. to 2:00 p.m.

Update 12:30 pm 1/7/2025

Richmond restores water production

As of 12:00 p.m., the City of Richmond has restored water production. However, water pressure will take at least several hours to build up before it can be distributed through the network. Residents are asked to continue conserving water when possible. The Boil Water Advisory will remain in effect for residents who have water access until all required testing is complete and approved in accordance with drinking water quality standards. Until the Advisory is lifted, all residents should continue to boil water before consuming it.

"There have been a lot of dedicated employees and officials working around the clock to get us to this point. I'm grateful for that as well as the huge support from our regional and state partners," said **Department of Public Utilities Senior Director April Bingham**.

"I am incredibly proud of our City staff," added Mayor Danny Avula. "We called in every department to bring all of our resources to the challenge, and I am grateful for the long hours of coordination, planning, and hard work to get our City's water system back online and to care for our residents during the crisis. Thank you so much, Richmond, for your continued patience."

"We recognize this outage has touched everyday Richmonders, families, and the business community. We're working hard to resume normal services, and I appreciate their patience and the support," said Interim Chief Administrative Officer Sabrina Joy-Hogg. "The partnership with our regional partners has been immensely instrumental in ensuring the City received needed resources to restore water production."

The City will communicate new information as it becomes available through <u>rva.gov</u> and its social media pages. As a reminder, residents experiencing emergencies should call 9-1-1 and can call RVA311 (3-1-1 or 804-646-7000) to submit a service request.





VISIT RVA

NEWS & ALERTS

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Water Restoration Progress

Update from the Richmond Water Treatment Plant (as of 5:30 a.m., Jan. 8, 2025):

Two Bypass Pumps are being installed

These pumps will boost pressure to "Plant 2" – which will allow more filters and pumps to come online. With these filters and pumps in operation, water pressure will continue to build in the system.

When water returns to the taps, the boil water advisory is in place – and conservation is key! Use as little water as possible to allow restoration to the entire service area.

Current Water Restoration Status 12:3 (42 Million Gallons Per Day) -- Water Restoration Status 12:4 (50 Million Gallons Per Day)

Update 4:30 am 1/8/2025

Water Restoration Progress

Update from the Richmond Water Treatment Plant (as of 4:30 a.m., Jan. 8, 2025):

- 12 filters and 3 pumps are operational
- 42 million gallons of water are flowing, steadily building system pressure

These gains are critical steps toward our goal of 12 filters and 4 pumps running. This level of service will restore full capacity at 50 million gallons per day and continue to build water pressure into the system.

When water returns to the taps, the boil water advisory is in place – and conservation is key! Use as little water as possible to allow restoration to the entire service area.

Current Water Restoration Status 6:1 (9 Million Gallons Per Day) -- Water Restoration Status 12:4 (50 Million Gallons Per Day)

Update 9:00 pm 1/7/2025

Water Restoration Progress

Update from the Richmond Water Treatment Plant (as of 9:00 p.m., Jan. 7, 2025):

We're making steady progress together!

- 6 filters and 1 pump are operational
- 9 million gallons of water are flowing into Richmond homes, steadily building system pressure

These gains are critical steps toward our goal of 12 filters and 4 pumps running, which will restore full capacity at 50 million gallons.

Thank you for your patience, resilience, and understanding as we navigate this together. Your continued support means everything as we work tirelessly for our city.

Update 6:20 pm 1/7/2025

Following positive progress earlier in the day that saw operational computer systems come back online and water flow and pumping activity resume, an event that occurred Tuesday afternoon at the City of Richmond's water treatment plan has slowed progress in fully restoring water service.

During work on the water restoration process this afternoon, an electric panel at the facility failed. On-site engineers moved quickly to address and resolve the issue. Initially, it was thought that this malfunction would not significantly impact the restoration process. However, further analysis and investigation in consultation with regional and statewide experts revealed that the event would extend the restoration process timeline.

"While we are disappointed to learn that the Tuesday afternoon panel failure has slowed our progress, service teams remain on duty round-the-clock to repressurize the water system and restore water distribution throughout the City," said Richmond Mayor Danny Avula. "We are pulling in additional resources and experts to help solve the problem as we work towards returning water service to full functionality."

Staff from the Department of Public Utilities, along with other resource partners, continue efforts to restore Richmond water services to full operational capacity. While this remains a fluid situation involving many variables, significant progress has already been made to get the treatment system operation back up and running and every effort is being made to regain full functionality. Mayor Danny Avula has been a steady presence at the water plant to monitor restoration activities and has called in local and national experts to assist in getting the plant back into service.





NEWS & ALERTS JOBS VISIT RVA

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Places of worship

River Road Church: 8000 River Rd.

(corner of River and Ridge)

- Showers available Thursday and Friday from 10 am 3 pm
- Bring your own towel and toiletries
- Park in the parking lot behind the church off Ridge Rd. and they will greet you there
- Phone: 804.288.1131

Third Church

(600 Forest Avenue)

- Open for warm showers and water refills
- Wednesday January 8th (3-7PM)
- Thursday January 9th (9AM-7PM)
- Friday January 10th (9AM-12PM)
- Access the building through the Fellowship Hall entrance, where they will be greeted by a member of the Discipleship Staff. Please be aware that everyone will need to bring their own toiletries, towel, and hairdryer.

Update 5:00 pm 1/8/2025

Deliveries of New Orders currently paused. Totally orders received 250, current orders delivered 69, and 181 outstanding to be delivered. Deliveries begin again at 10:30 am 1/9/2025.

Update 4:00 pm 1/8/2025

<u>Mayor Danny Aulva provides his top five takeaways</u> from this morning's press confernece that include conservation tips, reminder of the boil water advisory, and the testing schedule that will need to be followed to remove the advisory. <u>See Video</u>

Update 3:20 pm 1/8/2025

For water to flow smoothly into homes, the system needs enough pressure, which comes from the water level in our reservoir. The reservoir holds up to 18 feet of water, but as of this afternoon, it's at 6.24 feet. While this is lower than earlier today, the level fluctuates—it rises when water is pumped in and drops as we use it. Our goal is to maintain at least 10 feet consistently.

The good news is water is flowing into the reservoir again! But getting it out to homes and businesses depends on all of us conserving water. Richmond has nine water zones, and each needs to hit 20 psi of pressure before we can test for safe drinking water. Until then, excessive water use will slow our progress. Let's work together to reach this goal and lift the boil water advisory for everyone. We've got this, Richmond!

Update 2:30 pm 1/8/2025

<u>Press Conference: Mayor Avula</u> and other city officials come together to discuss the latest updates in reference to the water restoration efforts. <u>See Video</u>

<u>DCAO for Human Service video message</u> -- We're continuing water distribution today. Hear directly from DCAO for Human Services Traci Deshazor about the current status. <u>See Video</u>

Update 5:30 am 1/8/2025

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NEWS & ALERTS JOBS VISIT RVA

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"Because clean and available drinking water is paramount to public health and a thriving life, we are working hard to make sure Richmond has access to safe and clean drinking water," added Mayor Avula.

La Ciudad de Richmond ofrece una actualización acerca de sus esfuerzos para restablecer el servicio de acueducto

Luego de observar progresos a comienzos del día martes, en los que se observó que volvieron a funcionar los equipos de cómputo y se restableció el flujo de agua y el bombeo, ocurrió un incidente en la tarde del martes en la planta de tratamiento de aguas de la Ciudad de Richmond, luego del cual se ha disminuido el





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NEWS & ALERTS

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Water Restoration Updates: System pressurized, water testing underway

Posted Jan. 9, 2025

Richmond, VA — The City of Richmond continues to make significant progress in restoring full water system capacity across its service area.

As of 5:00 p.m., 19 of 22 filters and five of eight water pumps are in service, with additional support from two temporary pumps. Water plant production capacity is now at 72 million gallons per day. That volume is well above the 45.5 million gallon-average to support typical service needs for this time of year. And the reservoir is above our target goal for service delivery and system function. Across our city water distribution network, all zones have exceeded the key 20 pounds per square foot (psi) threshold necessary for water safety testing to being.

With the entire system fully pressurized, the Department of Public Utilities has initiated the first of two rounds of required water sample tests to ensure that water flowing through the system is safe for consumption. The second batch of samples collection for testing will occur about 16 hours after the first test.

Two rounds of test results demonstrating water safety are required in order to life the Boil Water Advisory. Note: At this time, the Boil Water Advisory remains in effect.

"I know this week has been challenging for many Richmonders," said Mayor Danny Avula. "With our goal of full water restoration in reach, our primary objectives are now focusing on achieving clean water tests so we can lift the water boil advisory, and strategic staff deployment at the water plant throughout the weekend to help maintain service continuity as more winter weather approaches."

So far this week, the City has achieved the following milestones in the work to restore safe and clean water service to residents:

- ☑ Drained flooded areas and repaired and replaced damaged and disabled equipment at the water plan (Jan. 6 and 7)
- Restored water production to the necessary rate of more than 50 million gallons per day (Jan. 8)
- Repressurized water system to the needed threshold of 20 psi (Jan. 9, 11 a.m.)
- Started to run the first water sample test (Jan. 9, 3:00 PM)

These are the steps that remain to lift the Boil Water Advisory:

- Pass the first water sample test
- Run the second water sample test
- Pass the second water sample test

The City's public water distribution sites will continue to operate as the water system is restored to full functionality.

These steps are being taken to fortify water plant operations for this weekend's inclement weather:

- Each Department of Public Utilities employee shift at the water plant will include all trades (i.e. mechanics and electricians, technicians, instrumentation and control technicians, plant operators, and senior management, and internal engineers)
- Administrative support staff will work additional weekend hours.
- Support services will be onsite, including engineers, wastewater staff, Virginia Department of Health staff, and software and engineering consultants.

AFTER-ACTION REPORT: HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES' RESPONSE TO THE RICHMOND WATER CRISIS APPENDIX G

LIST OF HENRICO DPU EMPLOYEES INTERVIEWED

LIST OF HENRICO DPU EMPLOYEES INTERVIEWED

Henrico DPU Employee	Position
Chan, Bentley	DPU Director
Christian, Alvin	DPU Assistant Director
Forehand, Marcello	DPU Operations Division Assistant Director
Glenn, Stacy	DPU Operations Division – Pumping Section – Instrumentation Specialist
Kramer, Keith	DPU Design Division – Facilities Section – Engineer II
Pruden, Scott	DPU Operations Division – Pumping Section – The Virgil R. Hazelett Reservoir at Cobbs Creek – Superintendent
Simukonde, Nellow	DPU Operations Division Director
Sossong, Marchelle	DPU Design Division Director
Sullard, Jeff	DPU Operations Division – Pumping Section – Utility Superintendent II

AFTER-ACTION REPORT: HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES' RESPONSE TO THE RICHMOND WATER CRISIS APPENDIX H

EMAILS

(INCLUDING MEETING INVITATIONS & ATTENDANCE REPORTS)

From: Adkins, Christopher

To: Chan, Bentley; Christian, Alvin, Jr
Subject: Re: SitRep1: 2025 Winter Storm Blair
Date: Monday, January 6, 2025 6:43:43 AM

Main facility has power with no issues. RWPS lost power and generator was activated. A few moments ago power was restored at RWPS and is back to normal operation.

Chris Adkins
Division Director
Water Treatment Facility
HENRICO WATER, Department of Public Utilities Phone
804.501.7503
2025, at 8:48 PM, Chan, Bentley <cha70@henrico.gov> wrote:

Email: Christopher.Adkins@henrico.us

Cell 804.385.0822

Thanks, Thomas!

Bentley

On Jan 5, 2025, at 8:44 PM, Meade, Thomas <mea19@henrico.gov>wrote:

Good evening,

WRF currently has no unmet needs. We are in good position heading into the storm. Josh Milligan plans to be on-site at 0630 and will update the team if we have any needs at that time.

Thanks!

THOMAS MEADE

<image001.png>

Assistant Division Director – Water Reclamation Facility

HENRICO WATER, Department of Public Utilities Phone 804.501.7629 Email thomas.meade@henrico.gov

9101 WRVA Road, Henrico, Virginia 23231

From: Chan, Bentley <cha70@henrico.gov> Sent: Sunday, January 5, 2025 6:55 PM

To: Adkins, Christopher <adk21@henrico.gov>; Bajek, Chelsea <BAJ001@henrico.gov>; Blunt, Ricky <blu20@henrico.gov>; Byerly, Josh <BYE002@henrico.gov>; Christian, Alvin, Jr <chr26@henrico.gov>; Clary, Jon <cla06@henrico.gov>; Duke, Christopher <duk@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; Garofalo, Jason <GAR097@henrico.gov>; Grandstaff, James <gra@henrico.gov>; Maddox, Lee <mad06@henrico.gov>; McDonald, Elizabeth

<MCD046@henrico.gov>; McGuire, Evelyn <mcg20@henrico.gov>;

Meade, Thomas <mea19@henrico.gov>; Milligan, Josh

<MIL121@henrico.gov>; Parker, Cliff <par76@henrico.gov>; Schwartz,

Rick <sch068@henrico.gov>; Simukonde, Nellow <sim69@henrico.gov>;

Sossong, Marchelle <sos@henrico.gov>; Spain, Anita

<SPA069@henrico.gov>; Thompson, Alice <tho03@henrico.gov>;

Valenzuela, Victor < VAL051@henrico.gov>

Cc: Burry, Anne <burl5@henrico.gov>; Brown, Megan

<BRO172@henrico.gov>; Neergaard, Richard <nee002@henrico.gov>

Subject: FW: SitRep1: 2025 Winter Storm Blair

Hi all,

FYI – first Situation Report for Winter Storm Blair. Please let me know of any needs or all good prior to the 6 AM tomorrow (EOC Teams Call).

Thanks and please be safe, Bentley

<image001.png>

BENTLEY CHAN, PE

Director

HENRICO WATER, Department of Public Utilities

Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Mgt <mgt-bounces@lists.henrico.us> On Behalf Of Welch, Jennifer

Sent: Sunday, January 5, 2025 6:51 PM

To: 'mgt@lists.henrico.us' < mgt@lists.henrico.us>

Cc: Leonard G. Pritchard (Ipritchard) < lpritchard@henrico.k12.va.us; Susan E. Moore (smoore) < smoore@henrico.k12.va.us; Edward Porner

<<u>Edward.Porner@vdh.virginia.gov</u>>; Smith, Judson

<SMI251@henrico.gov>

Subject: SitRep1: 2025 Winter Storm Blair

Good evening, all,

Please see attached for the first Situation Report for Winter Storm Blair which will start impacting our area in the next few hours.

The EOC will be operating in a virtual capacity overnight; if there are any needs please call Rob at (804)316-3563. EM staff will be in the EOC starting at 0500 tomorrow morning.

The next SitRep will come out at 0700 tomorrow following our 0600 Teams call.

From: <u>Simukonde, Nellow</u>

To: <u>Chan, Bentley; Meade, Thomas</u>

Cc: Adkins, Christopher; Bajek, Chelsea; Blunt, Ricky; Byerly, Josh; Christian, Alvin, Jr; Clary, Jon; Duke, Christopher;

Forehand, Marcello; Garofalo, Jason; Grandstaff, James; Maddox, Lee; McDonald, Elizabeth; McGuire, Evelyn; Milligan, Josh; Parker, Cliff; Schwartz, Rick; Sossong, Marchelle; Spain, Anita; Thompson, Alice; Valenzuela,

Victor; Burry, Anne; Brown, Megan; Neergaard, Richard

Subject: Re: SitRep1: 2025 Winter Storm Blair Date: Monday, January 6, 2025 6:53:40 AM

Hi, Bentley -

We currently have no unmet needs.

Nellow Simukonde, P.E. Division Director DPU Operations Division

Mobile: (804) 347-8812

From: Chan, Bentley <cha70@henrico.gov> **Sent:** Sunday, January 5, 2025 8:48:28 PM **To:** Meade, Thomas <mea19@henrico.gov>

Cc: Adkins, Christopher <adk21@henrico.gov>; Bajek, Chelsea <BAJ001@henrico.gov>; Blunt, Ricky

<blu20@henrico.gov>; Byerly, Josh <BYE002@henrico.gov>; Christian, Alvin, Jr

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<VAL051@henrico.gov>; Burry, Anne <bur15@henrico.gov>; Brown, Megan

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<MCD046@henrico.gov>; McGuire, Evelyn <mcg20@henrico.gov>; Milligan, Josh

<MIL121@henrico.gov>; Parker, Cliff <par76@henrico.gov>; Schwartz, Rick <sch068@henrico.gov>;

Simukonde, Nellow <sim69@henrico.gov>; Sossong, Marchelle <sos@henrico.gov>; Spain, Anita

<SPA069@henrico.gov>; Thompson, Alice <tho03@henrico.gov>; Valenzuela, Victor

<VAL051@henrico.gov>; Burry, Anne <bur15@henrico.gov>; Brown, Megan

<BRO172@henrico.gov>; Neergaard, Richard <nee002@henrico.gov>

Subject: Re: SitRep1: 2025 Winter Storm Blair

Thanks, Thomas!

Bentley

On Jan 5, 2025, at 8:44 PM, Meade, Thomas <mea19@henrico.gov> wrote:

Good evening,

WRF currently has no unmet needs. We are in good position heading into the storm. Josh Milligan plans to be on-site at 0630 and will update the team if we have any needs at that time.

Thanks!

THOMAS MEADE

<image001.png>

Assistant Division Director – Water Reclamation Facility

HENRICO WATER, Department of Public Utilities Phone 804.501.7629 Email thomas.meade@henrico.gov 9101 WRVA Road, Henrico, Virginia 23231

From: Chan, Bentley <cha70@henrico.gov> Sent: Sunday, January 5, 2025 6:55 PM

To: Adkins, Christopher <adk21@henrico.gov>; Bajek, Chelsea <BAJ001@henrico.gov>; Blunt, Ricky <blu20@henrico.gov>; Byerly, Josh <BYE002@henrico.gov>; Christian, Alvin, Jr <chr26@henrico.gov>; Clary, Jon <cla06@henrico.gov>; Duke, Christopher <duk@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; Garofalo, Jason <GAR097@henrico.gov>; Grandstaff, James <gra@henrico.gov>; Maddox, Lee <mad06@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; McGuire, Evelyn <mcg20@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Milligan, Josh <MIL121@henrico.gov>; Parker, Cliff <par76@henrico.gov>; Schwartz, Rick <sch068@henrico.gov>; Simukonde, Nellow <sim69@henrico.gov>; Sossong, Marchelle <sos@henrico.gov>; Spain, Anita <SPA069@henrico.gov>; Thompson, Alice <th003@henrico.gov>; Valenzuela, Victor <VAL051@henrico.gov>

Cc: Burry, Anne <bur15@henrico.gov>; Brown, Megan <BRO172@henrico.gov>; Neergaard, Richard <nee002@henrico.gov>

Subject: FW: SitRep1: 2025 Winter Storm Blair

Hi all.

FYI – first Situation Report for Winter Storm Blair. Please let me know of any needs or all good prior to the 6 AM tomorrow (EOC Teams Call).

Thanks and please be safe, Bentley

BENTLEY CHAN, PE

<image001.png>

Director
HENRICO WATER, Department of Public Utilities

From: <u>Chan, Bentley</u>
To: <u>Simukonde, Nellow</u>

Cc: Christian, Alvin, Jr; Forehand, Marcello; McDonald, Elizabeth

Subject: RE: SitRep1: 2025 Winter Storm Blair Date: Monday, January 6, 2025 6:58:58 AM

Attachments: <u>image001.png</u>

Thanks, Nellow. Let us know if there are any issues at the stations and if there are any distribution or collection repairs occurring.

Bentley



BENTLEY CHAN, PE
Director
HENRICO WATER, Department of Public Utilities
Phone 804.501.4280 Email bentley.chan@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

From: Simukonde, Nellow <sim69@henrico.gov>

Sent: Monday, January 6, 2025 6:54 AM

To: Chan, Bentley <cha70@henrico.gov>; Meade, Thomas <mea19@henrico.gov>

Cc: Adkins, Christopher <adk21@henrico.gov>; Bajek, Chelsea <BAJ001@henrico.gov>; Blunt, Ricky

<blu20@henrico.gov>; Byerly, Josh <BYE002@henrico.gov>; Christian, Alvin, Jr

<chr26@henrico.gov>; Clary, Jon <cla06@henrico.gov>; Duke, Christopher <duk@henrico.gov>;

Forehand, Marcello <FOR109@henrico.gov>; Garofalo, Jason <GAR097@henrico.gov>; Grandstaff,

James <gra@henrico.gov>; Maddox, Lee <mad06@henrico.gov>; McDonald, Elizabeth

<MCD046@henrico.gov>; McGuire, Evelyn <mcg20@henrico.gov>; Milligan, Josh

<MIL121@henrico.gov>; Parker, Cliff <par76@henrico.gov>; Schwartz, Rick <sch068@henrico.gov>;

Sossong, Marchelle <sos@henrico.gov>; Spain, Anita <SPA069@henrico.gov>; Thompson, Alice

<tho03@henrico.gov>; Valenzuela, Victor <VAL051@henrico.gov>; Burry, Anne

<bur15@henrico.gov>; Brown, Megan <BRO172@henrico.gov>; Neergaard, Richard

<nee002@henrico.gov>

Subject: Re: SitRep1: 2025 Winter Storm Blair

Hi, Bentley -

We currently have no unmet needs.

Nellow Simukonde, P.E. Division Director DPU Operations Division Mobile: (804) 347-8812

From: Chan, Bentley <<u>cha70@henrico.gov</u>>
Sent: Sunday, January 5, 2025 8:48:28 PM
To: Meade, Thomas <<u>mea19@henrico.gov</u>>

From: Simukonde, Nellow
To: Chan, Bentley

Cc: Christian, Alvin, Jr; Forehand, Marcello; McDonald, Elizabeth

Subject: Re: SitRep1: 2025 Winter Storm Blair
Date: Monday, January 6, 2025 7:03:14 AM

Attachments: <u>image001.png</u>

Understood, Bentley.

Nellow Simukonde, P.E. Division Director Henrico County DPU Operations

From: Chan, Bentley <cha70@henrico.gov>
Sent: Monday, January 6, 2025 6:58 AM

To: Simukonde, Nellow <sim69@henrico.gov>

Cc: Christian, Alvin, Jr <chr26@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>;

McDonald, Elizabeth < MCD046@henrico.gov> **Subject:** RE: SitRep1: 2025 Winter Storm Blair

Thanks, Nellow. Let us know if there are any issues at the stations and if there are any distribution or collection repairs occurring.

Bentley



BENTLEY CHAN, PE

Director
HENRICO WATER, Department of Public Utilities

Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Simukonde, Nellow <sim69@henrico.gov>

Sent: Monday, January 6, 2025 6:54 AM

To: Chan, Bentley <cha70@henrico.gov>; Meade, Thomas <mea19@henrico.gov>

Cc: Adkins, Christopher <adk21@henrico.gov>; Bajek, Chelsea <BAJ001@henrico.gov>; Blunt, Ricky

<blu20@henrico.gov>; Byerly, Josh <BYE002@henrico.gov>; Christian, Alvin, Jr

<chr26@henrico.gov>; Clary, Jon <cla06@henrico.gov>; Duke, Christopher <duk@henrico.gov>;

Forehand, Marcello <FOR109@henrico.gov>; Garofalo, Jason <GAR097@henrico.gov>; Grandstaff,

James <gra@henrico.gov>; Maddox, Lee <mad06@henrico.gov>; McDonald, Elizabeth

<MCD046@henrico.gov>; McGuire, Evelyn <mcg20@henrico.gov>; Milligan, Josh

<MIL121@henrico.gov>; Parker, Cliff <par76@henrico.gov>; Schwartz, Rick <sch068@henrico.gov>;

Sossong, Marchelle <sos@henrico.gov>; Spain, Anita <SPA069@henrico.gov>; Thompson, Alice

<tho03@henrico.gov>; Valenzuela, Victor <VAL051@henrico.gov>; Burry, Anne

<bur15@henrico.gov>; Brown, Megan <BRO172@henrico.gov>; Neergaard, Richard

<nee002@henrico.gov>

Subject: Re: SitRep1: 2025 Winter Storm Blair

From: <u>Simukonde, Nellow</u>

To: <u>Hawkins, William</u>; <u>Glenn, Stacy</u>

Cc: McDonald, Elizabeth; Forehand, Marcello; Spain, Frederick; Sullard, Jeff; Bisulca, Jonathan; Brown, Mark A;

Thomas, Rodney; Birchett, Shawn

Subject: 2025 Winter Storm Blair

Date: Monday, January 6, 2025 7:42:51 AM

Good morning guys -

Pumping: On call staff, please make the necessary checks on pumping facilities and report any impacts (power failures, access impacts, tree falls that we know of) or operational issues from when we spoke this morning to 11 am. Include any issues even if not directly related to the storm. Report by 11 am.

Distribution/collection: On-call staff, please report water or sewer breaks and or repairs being undertaken since we spoke this morning. Resort by 11 am this morning. Report any other operational issues including customer emergency and non emergency situations whether we are responding or waiting, access difficulties due to the snow, any equipment failures, etc.

Nellow Simukonde, P.E. Division Director DPU Operations Division Mobile: (804) 347-8812

Thanks, Nellow. Let us know if there are any issues at the stations and if there are any distribution or collection repairs occurring.

From: cha70@henrico.gov

Sent: Monday, January 6, 2025 9:41 AM

To: Simukonde, Nellow

Cc: Christian, Alvin, Jr; Forehand, Marcello; McDonald, Elizabeth; Sullard, Jeff; Glenn, Stacy;

Adkins, Christopher; Bisulca, Jonathan; Christian, Alvin, Jr; Forehand, Marcello;

McDonald, Elizabeth; Sullard, Jeff; Glenn, Stacy; Adkins, Christopher; Bisulca, Jonathan

Subject: Re: SitRep1: 2025 Winter Storm Blair

Thanks, Nellow. Hopefully they'll be back up and running soon.

Bentley

On Jan 6, 2025, at 9:18 AM, Simukonde, Nellow wrote:

Hi, Bentley, Alvin -

The City of Richmond reported this morning that their water plant is down. They lost a Dominion power feed, which disrupted the plant and resulted in the flooding of the filters. Our pumping staff coordinated with the city and reacted to reduce our draw from the City (per City request) for now and increase our plant production. We are currently not drawing water through our Three Chopt Station and we have reduced the draw at Shurm to the east end.

I just spoke to Doug Towne with the City, and he stated that they are evaluating the situation and working to resume production as soon as possible but could not provide a timeframe. Right now, they have no production and they are relying on their storage of finished water. Our staff is working on increasing water flow into the east end from the west end as a proactive measure. Staff will keep coordinating with the water plant staff at the city for ongoing situational awareness. Our distribution system is stable and operating normally at this time.

NELLOW SIMUKONDE, P.E.

Operations Division Director

HENRICO WATER, Department of Public Utilities

Phone 804.727.8711 Email

nellow.simukonde@henrico.us

10401 Woodman Road, Henrico, Virginia 23060

From: Chan, Bentley

Sent: Monday, January 6, 2025 6:59 AM

To: Simukonde, Nellow

Cc: Christian, Alvin, Jr; Forehand, Marcello; McDonald, Elizabeth

Subject: RE: SitRep1: 2025 Winter Storm Blair

Thanks, Nellow. Let us know if there are any issues at the stations and if there are any

distribution or collection repairs occurring.

Bentley

From: Simukonde, Nellow
To: Chan, Bentley

Cc: Christian, Alvin, Jr; Forehand, Marcello; McDonald, Elizabeth; Sullard, Jeff; Glenn, Stacy; Adkins, Christopher;

Bisulca, Jonathan

Subject: Re: SitRep1: 2025 Winter Storm Blair

Date: Monday, January 6, 2025 11:51:54 AM

Hi, Bentley -

Update on operational status:

DPU Facilities/Pumping:

Situation with City of Richmond Water production and supply to Henrico County as communicates below remains unchanged. Oncall pumping staff are monitoring our system distribution supply capacity. The system remains stable and operating normally.

There have been power hiccups but no impact on facility operations at this time.

Distribution/Collection:

Operations is assisting in Day Shift Snow removal.

DPU Trick 2680 spilled 1 gallon of hydraulic fluid. This has been cleaned up and reported to Richard Neergaard. The truck is with DPW for repair (CAM is not repairing equipment).

There is currently on repair work occurring on water and or sewer infrastructure. There are approximately 10 leaks on the distribution system that are under control and can while resources are assisting with snow removal. Snow/ice removal will also provide safe access and working conditions for repair staff.

Nellow Simukonde, P.E. Division Director DPU Operations Division Mobile: (804) 347-8812

From: Chan, Bentley <cha70@henrico.gov> Sent: Monday, January 6, 2025 9:40 AM

To: Simukonde, Nellow <sim69@henrico.gov>

Cc: Christian, Alvin, Jr <chr26@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Adkins, Christopher <adk21@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; Christian, Alvin, Jr <chr26@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Adkins, Christopher <adk21@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>

Subject: Re: SitRep1: 2025 Winter Storm Blair

Thanks, Nellow. Hopefully they'll be back up and running soon.

From: Chan, Bentley

To: Adkins, Christopher; Bajek, Chelsea; Blunt, Ricky; Byerly, Josh; Christian, Alvin, Jr; Clary, Jon; Duke, Christopher;

Forehand, Marcello; Garofalo, Jason; Grandstaff, James; Maddox, Lee; McDonald, Elizabeth; McGuire, Evelyn; Meade, Thomas; Milligan, Josh; Parker, Cliff; Schwartz, Rick; Simukonde, Nellow; Sossong, Marchelle; Spain,

<u>Anita; Thompson, Alice; Valenzuela, Victor</u> <u>Burry, Anne; Brown, Megan; Neergaard, Richard</u>

Subject: FW: 2025 Winter Storm Blair Sit Rep 3

Date: Monday, January 6, 2025 1:25:37 PM

Attachments: Outlook-i2krgscp.png

Outlook-zupypsmu.png Outlook-ajfalOzz.png Outlook-thys1lgb.png Outlook-kankuwi1.png

2025 Winter Storm Blair SitRep 3.pdf

image001.png

Hi all,

Cc:

FYI – Situation Report 3 for Winter Storm Blair. Please provide operational updates and overnight plans prior to the next EOC call at 4 PM.

Thanks and please continue to be safe, Bentley



BENTLEY CHAN, PE

HENRICO WATER, Department of Public Utilities

Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Mgt <mgt-bounces@lists.henrico.us> On Behalf Of Welch, Jennifer

Sent: Monday, January 6, 2025 1:14 PM

To: 'mgt@lists.henrico.us' <mgt@lists.henrico.us>

Cc: Leonard G. Pritchard (Ipritchard) < Ipritchard@henrico.k12.va.us>; Susan E. Moore (smoore) <smoore@henrico.k12.va.us>; Edward Porner < Edward.Porner@vdh.virginia.gov>; Pecka, Matthew < PEC28@henrico.gov>; Smith, Judson < SMI251@henrico.gov>; EMWS - Team < emws-

team@henrico.gov>

Subject: 2025 Winter Storm Blair Sit Rep 3

Good afternoon, all,

Please see attached for the third sit rep for Winter Storm Blair.

If you have any needs, please don't hesitate to reach out to the EOC.

We look forward to seeing you all on the 4pm call this afternoon.

Thanks,

From: Forehand, Marcello

To: McDonald, Elizabeth; Simukonde, Nellow
Subject: Re: 2025 Winter Storm Blair Sit Rep 3
Date: Monday, January 6, 2025 1:46:15 PM

Attachments: Outlook-i2krqscp.png

Outlook-zupypsmu.png Outlook-ajfal0zz.png Outlook-thys1lgb.png Outlook-kankuwi1.png image001.png

Nellow,

Continuation of system monitoring by pumping staff has been implemented overnight with the following schedule:

Wheel House 4:30-midnight – David Kuhn Midnight – 8 am – Scott Gray

Strawberry

4:30 - midnight - Max Byles / Jamie Osorio Midnight - 8 am - Hunter Gooding / Taniesha Nicholson-Freeburn

Staff is sustaining the east end water system while slowly storing water at Robin Ave WPS. The City's, Water Treatment issue is still in effect.

Marcello S. Forehand DPU Operations Assistant Division Director Get Outlook for iOS

From: McDonald, Elizabeth < MCD046@henrico.gov>

Sent: Monday, January 6, 2025 1:34:02 PMTo: Simukonde, Nellow <sim69@henrico.gov>Cc: Forehand, Marcello <FOR109@henrico.gov>Subject: FW: 2025 Winter Storm Blair Sit Rep 3

Hey Nellow,

Still no repair work happening. Additionally, there are no changes from the leak tracker that was submitted this morning. I have attached it here, again, for your convenience.

Primary On-Call crew has been called-in to assist with down Tree Removal.

Night shift snow removal plans are as follows:

- Superintendent: Shawn is scheduled but is dealing with flight delays so William will stay on until his plane gets in.
- Foreman: Lamar Brown
- Additional Assistance: Ryan Bradley, Jaquez Parker

From: Simukonde, Nellow

To: Forehand, Marcello; Sullard, Jeff; Glenn, Stacy; Bisulca, Jonathan; Spain, Frederick

Cc: McDonald, Elizabeth
Subject: Discuss city water situation

Microsoft Teams Need help? https://aka.ms/JoinTeamsMeeting?omkt=en-US

 $\label{local_complex_point} Join the meeting now https://teams.microsoft.com/l/meetup-join/19%3ameeting_OTc2ZmViMzQtYTNhOS00N2JILWEwMTgtYzBhMmJhYWI3NTZm%40thread.v2/0? context=%7b%22Tid%22%3a%2251d3cfa9-422b-40bf-b49d-6f643110f606%22%2c%22Oid%22%3a%221dbf01c1-9808-4bb5-bb7f-e3d1b7ae2ffd%22%7d>$

Meeting ID: 253 217 689 928

Passcode: 2mm9bF3H

Dial in by phone

+1 323-433-2068,,999411488# <tel:+13234332068,,999411488> United States, Los Angeles

 $Find \ a \ local \ number < https://dialin.teams.microsoft.com/49482a9b-b243-46eb-886b-922dcdfd23e1?id=999411488> https://dialin.teams.microsoft.com/4948488> https://dialin.teams.microsoft.com/49484889> https://dialin.teams.microsoft.com/49484889> https://dialin.teams.microsoft.com/49484889> https://dialin.teams.microsoft.com/49484889> https://dialin.teams.microsoft.com/49484889> https://dialin.teams.microsoft.com/49484889> https://dialin.teams.microsoft.com/49484889> https://dialin.teams.microsoft.com/4948889> https://dialin.teams.microsoft.com/4948889> https://dialin.teams.microsoft.com/4948889> https://dialin.teams.microsoft.com/494889> https://dialin.teams.microsoft.com/494889> https://dialin.teams.microsoft.com/494889> https://dialin.teams.microsoft.com/494889> https://dialin.teams.microsoft.com/49489> https://dialin.teams.$

Phone conference ID: 999 411 488# Join on a video conferencing device

Tenant key: henrico@m.webex.com

Video ID: 116 231 153 7

More info https://www.webex.com/msteams?confid=1162311537&tenantkey=henrico&domain=m.webex.com

For organizers: Meeting options < https://teams.microsoft.com/meetingOptions/?organizerId = 1 dbf01c1-9808-4bb5-bb7f-e3d1b7ae2ffd&tenantId = 51d3cfa9-422b-40bf-b49d-4bbf-b40d

 $66643110606\& threadId = 19_meeting_OTc2ZmViMzQtYTNhOS00N2JILWEwMTgtYzBhMmJhYWI3NTZm@thread.v2\&messageId = 0\&language = en-US>|Reset dial-in PIN < https://dialin.teams.microsoft.com/usp/pstnconferencing>|$

APPENDIX H - 12

1. Summary						
Meeting title	Discuss city water situation					
Attended participants	7	7				
Start time	1/06/25, 2:38:20 PM					
End time	1/07/25, 1:45:00 AM					
Meeting duration	11h 6m 40s					
Average attendance time	9h 10m 57s					
2. Participants						
Name	First Join	Last Leave	In-Meeting Duration	Email	Participant ID (UPN)	Role
Simukonde, Nellow	1/06/25, 2:38:59 PM	1/07/25, 1:45:00 AM	11h 4m 34s	sim69@henrico.gov	sim69@henrico.us	Organizer
Glenn, Stacy	1/06/25, 2:38:38 PM	1/07/25, 1:44:54 AM	11h 6m 15s	gle34@henrico.gov	gle34@henrico.us	Presenter
18043492284 (Unverified)	1/06/25, 2:38:48 PM	1/07/25, 1:45:00 AM	11h 4m 20s			Attendee
Forehand, Marcello	1/06/25, 2:40:37 PM	1/07/25, 1:44:54 AM	11h 4m 16s	FOR109@henrico.gov	FOR109@henrico.us	Presenter
Bisulca, Jonathan	1/06/25, 2:41:16 PM	1/07/25, 1:44:56 AM	8h 1m 27s	BIS018@henrico.gov	BIS018@henrico.us	Presenter
McDonald, Elizabeth	1/06/25, 2:46:07 PM	1/07/25, 1:44:52 AM	10h 58m 44s	MCD046@henrico.gov	MCD046@henrico.us	Presenter
Mark Brown (Unverified)	1/07/25, 12:47:52 AM	1/07/25, 1:44:57 AM	57m 5s			Presenter
3. In-Meeting Activities						
Name	Join Time	Leave Time	Duration	Email	Role	
Simukonde, Nellow	1/06/25, 2:38:59 PM	1/07/25, 12:14:28 AM	9h 35m 29s	sim69@henrico.gov	Organizer	
Simukonde, Nellow	1/07/25, 12:15:55 AM	1/07/25, 1:45:00 AM	1h 29m 5s	sim69@henrico.gov	Organizer	
Glenn, Stacy	1/06/25, 2:38:38 PM	1/07/25, 1:44:54 AM	11h 6m 15s	gle34@henrico.gov	Presenter	
18043492284 (Unverified)	1/06/25, 2:38:48 PM	1/06/25, 9:28:22 PM	6h 49m 34s		Attendee	
18043492284 (Unverified)	1/06/25, 9:30:13 PM	1/07/25, 1:45:00 AM	4h 14m 46s		Attendee	
Forehand, Marcello	1/06/25, 2:40:37 PM	1/07/25, 1:44:54 AM	11h 4m 16s	FOR109@henrico.gov	Presenter	
Bisulca, Jonathan	1/06/25, 2:41:16 PM	1/06/25, 7:16:21 PM	4h 35m 4s	BIS018@henrico.gov	Presenter	
Bisulca, Jonathan	1/06/25, 8:49:22 PM	1/06/25, 9:27:05 PM	37m 42s	BIS018@henrico.gov	Presenter	
Bisulca, Jonathan	1/06/25, 10:45:47 PM	1/06/25, 11:02:37 PM	16m 50s	BIS018@henrico.gov	Presenter	
Bisulca, Jonathan	1/06/25, 11:13:04 PM	1/07/25, 1:44:56 AM	2h 31m 51s	BIS018@henrico.gov	Presenter	
McDonald, Elizabeth	1/06/25, 2:46:07 PM	1/07/25, 1:44:52 AM	10h 58m 44s	MCD046@henrico.gov	Presenter	
Mark Brown (Unverified)	1/07/25, 12:47:52 AM	1/07/25, 1:44:57 AM	57m 5s		Presenter	

From: Chan, Bentley

To: Bingham, April N. - DPU; Eric Whitehurst; Munford, Rodney W. - DPU; Rhonda Johnson; Towne, Douglas P. -

<u>DPU <Douglas.Towne@rva.gov>;</u> "George Hayes"; Longshore, Matthew B.

MBLongshore@hanovercounty.gov>; Vithoulkas, John; Tretina, Cari; Yob, Steven; Christian, Alvin, Jr;

Simukonde, Nellow

Cc: Rowley, Rob; Welch, Jennifer
Subject: Drinking Water Coordination

Microsoft Teams Need help? https://aka.ms/JoinTeamsMeeting?omkt=en-US

Join the meeting now https://teams.microsoft.com/l/meetup-join/19%3ameeting_YzYwOWVIMzItZmZiNy00ZTJmLTljZmEtZmY0NzFjNWQwMjQ5%40thread.v2/0? context=%7b%22Tid%22%3a%2251d3cfa9-422b-40bf-b49d-6f643110f606%22%2c%22Oid%22%3a%22a51cb755-a45d-46de-8e3c-643510430034%22%7d>

Meeting ID: 297 288 572 041

Passcode: MF6nV6Fv

Dial in by phone

+1 323-433-2068,,33484403# <tel:+13234332068,,33484403> United States, Los Angeles

Phone conference ID: 334 844 03#

Join on a video conferencing device

Tenant key: henrico@m.webex.com <mailto:henrico@m.webex.com>

Video ID: 119 151 378 9

More info https://www.webex.com/msteams?confid=1191513789&tenantkey=henrico&domain=m.webex.com

For organizers: Meeting options < https://teams.microsoft.com/meetingOptions/?organizerId = a51cb755-a45d-46de-8e3c-643510430034 & tenantId = 51d3cfa9-422b-40bf-b49d-42b-40bf-b49d-42b-40bf-b40bf-b40d-42b-40bf-b40d-42b-40bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42b

6f643110f606&threadId=19_meeting_YzYwOWVIMzItZmZiNy00ZTJmLTljZmEtZmY0NzFjNWQwMjQ5@thread.v2&messageId=0&language=en-

US> | Reset dial-in PIN https://dialin.teams.microsoft.com/usp/pstnconferencing

1. SummaryMeeting title Drinking Water CoordinationAttended participants

Start time 1/06/25, 2:42:22 PM End time 1/06/25, 3:00:14 PM

Meeting duration17m 51sAverage attendance time12m 39s

2. Participants

Name First Join Last Leave In-Meeting Duration Email Participant ID (UPN) Role cha70@henrico.gov Organizer Chan, Bentley 1/06/25, 2:42:24 PM 1/06/25, 3:00:07 PM 17m 43s cha70@henrico.us Longshore, Matthew B. (External) 1/06/25, 2:43:10 PM Presenter 1/06/25, 3:00:05 PM 16m 55s MBLongshore@hanovercounty.gov PUMBL@hanover.gov 1/06/25, 3:00:07 PM 15m 49s Welch, Jennifer wel33@henrico.gov wel33@henrico.us Presenter 1/06/25, 2:44:17 PM Christian, Alvin, Jr chr26@henrico.gov chr26@henrico.us Presenter 1/06/25, 2:45:00 PM 1/06/25, 3:00:09 PM 15m 8s Kilduff, Todd E. (External) 1/06/25, 3:00:05 PM 14m 57s TEKilduff@hanovercounty.gov ADTEK@hanover.gov Presenter 1/06/25, 2:45:07 PM Larson, Michael (External) 1/06/25, 2:45:20 PM 1/06/25, 3:00:07 PM 14m 47s LarsonM@chesterfield.gov LarsonM@chesterfield.gov Presenter Munford, Rodney W. - DPU (External) 1/06/25, 2:45:23 PM 1/06/25, 3:00:07 PM 14m 43s Rodney.Munford@rva.gov rodney.munford@rva.gov Presenter Hayes, George (External) 1/06/25, 2:46:09 PM 1/06/25, 3:00:13 PM 14m 3s HayesG@chesterfield.gov HayesG@chesterfield.gov Presenter Rembold, Matt (External) 1/06/25, 2:46:18 PM 1/06/25, 3:00:08 PM 13m 49s RemboldM@chesterfield.gov RemboldM@chesterfield.gov Presenter Towne, Douglas P. - DPU (External) 1/06/25, 2:47:05 PM 1/06/25, 3:00:07 PM 13m 2s Douglas.Towne@rva.gov douglas.towne@rva.gov Presenter Presenter Matt (Unverified) 1/06/25, 2:47:16 PM 1/06/25, 3:00:14 PM 12m 57s 1/06/25, 3:00:06 PM 11m 58s Whitehurst, Eric - DPU (External) 1/06/25, 2:48:07 PM Eric.Whitehurst@rva.gov eric.whitehurst@rva.gov Presenter PUTJB@hanover.gov Blackwell, Thomas J. (External) 1/06/25, 2:48:33 PM 1/06/25, 3:00:07 PM 11m 34s TJBlackwell@hanovercounty.gov Presenter Tretina, Cari 1/06/25, 2:57:56 PM 1/06/25, 3:00:05 PM 2m 8s tre08@henrico.gov tre08@henrico.us Presenter 1/06/25, 2:59:59 PM ROW08@henrico.us Presenter Rowley, Rob 1/06/25, 3:00:12 PM 12s ROW08@henrico.gov

3. In-Meeting Activities

Join Time Duration Role Name Leave Time Email Chan, Bentley 1/06/25, 2:42:24 PM 1/06/25, 3:00:07 PM 17m 43s cha70@henrico.gov Organizer Longshore, Matthew B. (External) 1/06/25, 2:43:10 PM 1/06/25, 3:00:05 PM 16m 55s MBLongshore@hanovercounty.gov Presenter Welch, Jennifer 1/06/25, 2:44:17 PM 1/06/25, 3:00:07 PM 15m 49s wel33@henrico.gov Presenter 1/06/25, 3:00:09 PM 15m 8s Christian, Alvin, Jr 1/06/25, 2:45:00 PM chr26@henrico.gov Presenter Kilduff, Todd E. (External) TEKilduff@hanovercounty.gov 1/06/25, 2:45:07 PM 1/06/25, 3:00:05 PM 14m 57s Presenter Larson, Michael (External) 1/06/25, 2:45:20 PM 1/06/25, 3:00:07 PM 14m 47s LarsonM@chesterfield.gov Presenter Munford, Rodney W. - DPU (External) 1/06/25, 2:45:23 PM 1/06/25, 3:00:07 PM 14m 43s Rodney.Munford@rva.gov Presenter 14m 3s Hayes, George (External) 1/06/25, 3:00:13 PM HayesG@chesterfield.gov Presenter 1/06/25, 2:46:09 PM Rembold, Matt (External) 1/06/25, 2:46:18 PM 1/06/25, 3:00:08 PM 13m 49s RemboldM@chesterfield.gov Presenter Towne, Douglas P. - DPU (External) 1/06/25, 2:47:05 PM 1/06/25, 3:00:07 PM 13m 2s Douglas.Towne@rva.gov Presenter Matt (Unverified) 1/06/25, 2:47:16 PM 1/06/25, 3:00:14 PM 12m 57s Presenter Whitehurst, Eric - DPU (External) 1/06/25, 2:48:07 PM 1/06/25, 3:00:06 PM 11m 58s Eric.Whitehurst@rva.gov Presenter Blackwell, Thomas J. (External) 1/06/25, 2:48:33 PM 1/06/25, 3:00:07 PM 11m 34s TJBlackwell@hanovercounty.gov Presenter Tretina, Cari 1/06/25, 2:57:56 PM 1/06/25, 3:00:05 PM 2m 8s tre08@henrico.gov Presenter Rowley, Rob 1/06/25, 2:59:59 PM 1/06/25, 3:00:12 PM 12s ROW08@henrico.gov Presenter

15

From: Chan, Bentley

To: Bingham, April N. - DPU; Eric Whitehurst; Munford, Rodney W. - DPU; Rhonda Johnson; Towne, Douglas P. -

DPU; "George Hayes"; Longshore, Matthew B.; Vithoulkas, John; Tretina, Cari; Yob, Steven; Christian, Alvin, Jr;

Simukonde, Nellow

Cc: Rowley, Rob; Welch, Jennifer; Kilduff, Todd E.; Rembold, Matt

Subject: Drinking Water Coordination Follow Up

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 $\label{local_complex} Join the meeting now https://ceams.microsoft.com/l/meetup-join/19%3ameeting_YjFmYWI3ODItOWQ5MS00ZTdhLTk4MWUtMDJiNWQ2ZTIzYjJh%40thread.v2/0? context=%7b%22Tid%22%3a%2251d3cfa9-422b-40bf-b49d-6f643110f606%22%2c%22Oid%22%3a%22a51cb755-a45d-46de-8e3c-643510430034%22%7d>$

Meeting ID: 264 437 123 900

Passcode: bT9ob7hj

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 $+1\ 323-433-2068,789371757\# < tel: +13234332068,789371757>\ United\ States,\ Los\ Angeles$

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Phone conference ID: 789 371 757#

Join on a video conferencing device

Tenant key: henrico@m.webex.com

Video ID: 117 409 854 1

More info <a href="https://www.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams.com/mste

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US> | Reset dial-in PIN https://dialin.teams.microsoft.com/usp/pstnconferencing

Simukonde, Nellow From:

To:

Chan, Bentley; Bingham, April N. - DPU; Whitehurst, Eric - DPU; Munford, Rodney W. - DPU; Johnson, Rhonda L. - DPU; Towne, Douglas P. - DPU; Hayes, George; Longshore, Matthew B.; Vithoulkas, John; Tretina, Cari; Yob, Steven; Christian, Alvin, Jr; Rowley, Rob; Welch, Jennifer; Kilduff, Todd E.; Larson, Michael; Rembold, Matt;

Blackwell, Thomas J.

Date: Monday, January 6, 2025 3:06:01 PM

I have asked the guys to lower the pressure in the east end to a minimum we can sustain. I will explain.

From: Chan, Bentley

Bingham, April N. - DPU; Eric Whitehurst; Munford, Rodney W. - DPU; Rhonda Johnson; Towne, Douglas P. -To:

DPU; "George Hayes"; Longshore, Matthew B.; Vithoulkas, John; Tretina, Cari; Yob, Steven; Christian, Alvin, Jr;

Simukonde, Nellow

Cc: Rowley, Rob; Welch, Jennifer; Reynolds, James; Kilduff, Todd E.; Rembold, Matt

Subject: Drinking Water Coordination Follow Up

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Join the meeting now https://teams.microsoft.com/l/meetup- join/19%3ameeting_YjFmYWI3ODItOWQ5MS00ZTdhLTk4MWUtMDJiNWQ2ZTIzYjJh%40thread.v2/0? context=%7b%22Tid%22%3a%2251d3cfa9-422b-40bf-b49d-6f643110f606%22%2c%22Oid%22%3a%22a51cb755-a45d-46de-8e3c-643510430034%22%7d>

Meeting ID: 264 437 123 900

Passcode: bT9ob7hj

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Video ID: 117 409 854 1

More info <a href="https://www.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams?confid=1174098541&tenantkey=henrico&domain=m.webex.com/msteams.com/mste

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US> | Reset dial-in PIN https://dialin.teams.microsoft.com/usp/pstnconferencing

From: Christian, Alvin, Jr
To: Chan, Bentley
Subject: VDH Request

Date: Monday, January 6, 2025 3:34:21 PM

Bentley,

I just received a call from Randy Morasette about our efforts in the wake of Richmond's loss of production. I informed him of our efforts and regional coordination. Randy and James Reynolds would like to be added to our coordination call at 4:30.

Can you share the invitation?

Alvin Christian, P.E.

Assistant Director
Henrico County Public Utilities
chr26@henrico.us
Ph. 804.501.4500

From: Chan, Bentley

To: <u>Bingham, April N. - DPU; Eric Whitehurst; Munford, Rodney W. - DPU; Rhonda Johnson; Towne, Douglas P. -</u>

DPU; "George Hayes"; Longshore, Matthew B.; Vithoulkas, John; Tretina, Cari; Yob, Steven; Christian, Alvin, Jr;

Simukonde, Nellow

Cc: Rowley, Rob; Welch, Jennifer; Morrissette, Randall; Kilduff, Todd E.; Rembold, Matt; Reynolds, James; Coughlin,

Jessica (VDH)

Subject: Drinking Water Coordination Follow Up

Microsoft Teams Need help? https://aka.ms/JoinTeamsMeeting?omkt=en-US

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Meeting ID: 264 437 123 900

Passcode: bT9ob7hj

Dial in by phone

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Tenant key: henrico@m.webex.com <mailto:henrico@m.webex.com>

Video ID: 117 409 854 1

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For organizers: Meeting options < https://teams.microsoft.com/meetingOptions/?organizerId = a51cb755-a45d-46de-8e3c-643510430034 & tenantId = 51d3cfa9-422b-40bf-b49d-42b-40bf-b49d-42b-40bf-b40bf-b40d-42b-40bf-b40d-42b-40bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42bf-b40d-42b

6f643110f606&threadId=19_meeting_YjFmYWI3ODItOWQ5MS00ZTdhLTk4MWUtMDJiNWQ2ZTIzYjJh@thread.v2&messageId=0&language=en-

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From: McDonald, Elizabeth

To: Simukonde, Nellow; Forehand, Marcello; Sullard, Jeff; Glenn, Stacy; Bisulca, Jonathan; Spain, Frederick

Date: Monday, January 6, 2025 3:25:50 PM

Can you please help me with a valve number?

From: McDonald, Elizabeth

To: Simukonde, Nellow; Forehand, Marcello; Sullard, Jeff; Glenn, Stacy; Bisulca, Jonathan; Spain, Frederick

Date: Monday, January 6, 2025 3:26:02 PM

and a nearby address?

From: Forehand, Marcello

To: McDonald, Elizabeth

Cc: <u>Simukonde, Nellow; Brown, Mark A</u>

Subject: FW: Water pressure

Date: Monday, January 6, 2025 3:29:00 PM

Attachments: voicemail-3566.m4a

image001.png

See below for the zone boundary valve ID. Anthony visited this location before. It is an 8" valve. Justs south of the monument and Beveridge PRV.



Marcello S. Forehand, E.I.T.

Assistant Division Director, Operations
HENRICO WATER, Department of Public Utilities
Office 804.727.8790 Cell 804.297.5307
Email Marcello.Forehand@henrico.gov
10401 Woodman Road, Glen Allen, Virginia 23060

From: Forehand, Marcello

Sent: Wednesday, October 23, 2024 1:11 PM

To: Bradley, Ryan <BRA155@henrico.gov>; Stephens, Eugene <STE134@henrico.gov>

Cc: Brown, Mark A <brooks@henrico.gov>; Durham, Anthony <DUR029@henrico.gov>; Robinson,

Clifford <rob84@henrico.gov>; Bennett, Tamara <ben17@henrico.gov>; Calder, Wanda

<cal@henrico.gov>

Subject: FW: Water pressure

FYI - This is in location where Anthony Durham opened the zone boundary valve in order to help out St. Mary's. Also, just north of the PRV location. Interesting enough, the gentlemen should have higher than normal pressure. I believe this is just a late call response to the system pressures dropping, earlier.

I spoke with Eugene, Ryan is in that location. Please have the zone boundary valve (#065NW513V) closed by hand.

The Monument & Beveridge PRV valves were open and should be able to assist in supplying the West Broad Zone.

We'll continue to monitor this location for low pressure calls. Wanda has called the gentlemen. He is away from his residence and will check back in with us later.



Marcello S. Forehand, E.I.T.

Assistant Division Director, Operations
HENRICO WATER, Department of Public Utilities
Office 804.727.8790 Cell 804.297.5307
Email Marcello.Forehand@henrico.gov

10401 Woodman Road, Glen Allen, Virginia 23060

From: Redmond, Veronica < RED043@henrico.gov>
Sent: Wednesday, October 23, 2024 12:30 PM

To: Brown, Mark A < brou5@henrico.gov; Calder, Wanda < calder, Wanda < a href="mailto:cal@henrico.gov">calder, Wanda <a hr

From: To:

Forehand, Marcello McDonald, Elizabeth; Hawkins, William

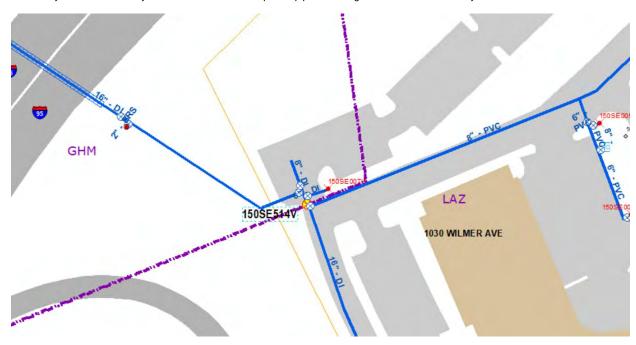
Sullard, Jeff; Bisulca, Jonathan; Brown, Mark A; Tansi, Odette; Simukonde, Nellow; Glenn, Stacy; Spain, Frederick

2nd interconnect from GHM to LAZ Monday, January 6, 2025 3:45:06 PM Subject: Date:

Attachments: image001.png image002.png

Elizabeth,

See the 2nd zone boundary interconnect on the 16" water main for GHM to LAZ. I couldn't zoom in to great at home so please have the crew verify the zone boundary valve. There should be a plastic pipe indicating that it is a zone boundary valve.





From: Johnson, Rhonda L. - DPU

Brian.Little@vdh.virginia.gov; hayesg@chesterfield.gov; Chan, Bentley; Longshore, Matthew B. To:

Bingham, April N. - DPU; Whitehurst, Eric - DPU Cc:

Subject: City media advisory DRAFT

Date: Monday, January 6, 2025 3:48:55 PM

Attachments: City of Richmond Issues Immediate Boil Water Advisory and Strongly Encourages Residents to Limit Water

Usage DRAFT 1.docx

Hello DPU Partners!

Thank you for your partnership as Richmond works through its water plant issue.

George, Bentley and Matt -Please share with your PIO.

We'd like to release ASAP, so a quick review is much appreciated.

Thanks!

Rhonda Johnson | Senior Public Information Manager City of Richmond Department of Public Utilities 730 East Broad Street, 6th Floor Richmond, VA 23219

Office: 804-646-5463 | Cell: 804-627-3565

www.RVA.gov/public-utilities

City resident? Visit our website to complete the water pipe inventory AND sign up for real time utility alerts with CivicReady.

From: Chan, Bentley
To: Vithoulkas, John

Cc: Tretina, Cari; Yob, Steven

Subject: City of Richmond Drinking Water Production Date: Monday, January 6, 2025 4:18:06 PM

Attachments: <u>image001.png</u>

Hi Mr. Manager,

We were notified earlier today of an impact from the winter storm on the City of Richmond's drinking water facility. There was a power disruption that that flooded parts of their station that resulted in an inability to produce drinking water for their residents and surrounding localities. The City estimates that they can resume very limited production later tonight but VDH has placed them under a boil water notice. From the Henrico perspective, portions of central and eastern parts of the County are normally served by the City but we have made adjustments to our system to bring water from our Three Chopt drinking water plant to supplement needs in the areas normally served by the City. We have storage and infrastructure to provide for the entire County in the interim without any need for boiling water while the City works to restore their service. Staff will provide updates as the situation develops and if there are any impacts as restoration occurs.

Please let me know if anything additional is needed.

Thanks, Bentley



BENTLEY CHAN, PE
Director
HENRICO WATER, Department of Public Utilities
Phone 804.501.4280 Email bentley.chan@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

From: Simukonde, Nellow
To: Chan, Bentley

Cc: Christian, Alvin, Jr; Forehand, Marcello; McDonald, Elizabeth; Sullard, Jeff; Glenn, Stacy; Adkins, Christopher;

Bisulca, Jonathan

Subject: RE: SitRep1: 2025 Winter Storm Blair Date: Monday, January 6, 2025 4:18:43 PM

Attachments: <u>image001.png</u>

Hi, Bentley –

Here is a quick update. I was rushing a little.

Pumping Facilities

East end water supply – as discussed with Bentley. Staff if filling all storage tanks to maximum capacity. If we lose city supply, Greater Eubank pressure will be reduced to a minimum that we can sustain to extend water supply as much as possible. Further pressure reductions in the low-elevation residential areas may be implemented by throttling valves.

Staff to monitor systems overnight: Stacy Glenn -On-call superintendent.

Wheel House

4:30-midnight – David Kuhn

Midnight – 8 am – Scott Gray

Strawberry

4:30 - midnight - Max Byles / Jamie Osorio

Midnight – 8 am – Hunter Gooding / Taniesha Nicholson-Freeburn

Distribution/Collection:

Still, no repair work is happening.

Primary on-call crew will be assisting with tree removal

We will continue assisting with snow removal.

Night shift snow removal plans are as follows:

- Superintendent: Shawn is scheduled but is dealing with flight delays so William will stay on until his plane gets in.
- Foreman: Lamar Brown
- Additional Assistance: Ryan Bradley, Jaquez Parker



NELLOW SIMUKONDE, P.E.

Operations Division Director
HENRICO WATER, Department of Public Utilities
Phone 804.727.8711 Email nellow.simukonde@henrico.us
10401 Woodman Road, Henrico, Virginia 23060

From: Simukonde, Nellow <sim69@henrico.gov>

Sent: Monday, January 6, 2025 12:25 **To:** Chan, Bentley <cha70@henrico.gov>

From: <u>DPU - Communications</u>
To: <u>DPU - Communications</u>

Subject: City of Richmond Issues Immediate Boil Water Advisory and Strongly Encourages Residents to Limit Water Usage

Date: Monday, January 6, 2025 4:26:04 PM

Attachments: <u>image001.png</u>



January 6, 2025

Media Contact: Rhonda Johnson 804-646-5463 office 804-627-3565 mobile Rhonda.Johnson@RVA.gov

City of Richmond Issues Immediate Boil Water Advisory and Strongly Encourages Residents to Limit Water Usage

Richmond, VA — The City of Richmond, in partnership with the Virginia Department of Health, has issued a Boil Water Advisory immediately and until further notice for all City of Richmond residents. **It is urgent that residents take conservation steps immediately and boil water before consuming it.**

In regional cooperation, the counties of Chesterfield, Henrico and Hanover have removed themselves from the City's water supply and transferred to other supplies. Residents in those counties are not impacted by the boil water advisory.

Some customers may experience a total loss of water service, while others may experience varying degrees of loss in water pressure.

"Our top priority is the health and safety of our residents and neighbors. I am asking all Richmonders to limit their water usage as the team at the Department of Public Utilities works around the clock to get our water system back online," said Mayor Danny Avula. "I'm also asking residents to consider their neighbors, and only use as much water as they need – all in this together."

This advisory comes after a winter weather storm-related loss of power today impacted the City's water reservoir system, causing the system to temporarily malfunction. Capacity restoration services are currently underway.

"We know the importance water plays in our everyday lives," says April Bingham, senior director for the Department of Public Utilities. "My team is diligently working to bring the water system back online along with the support of our partners."

City officials remain in close contact with the Virginia Health Department to assess and resolve the situation. Once the water system is back online, Department of Public Utilities personnel will begin the process of flushing the system and ensuring that the water is safe to drink.

The City will communicate new information as it becomes available through rva.gov and its social media pages.

Below is a checklist for safe water use during this time:

- Do not drink tap water during this boil water advisory.
- Do not drink from water fountains in parks, public or private buildings that receive water from the City of Richmond Department of Public Utilities.
- Do not use ice made from water today. Discard the ice and sanitize the ice machine and/or ice trays. This also applies to water and ice dispensed directly from a refrigerator.
- Do not use tap water to make drinks, juices, or fountain soft drinks.
- Do not wash your dishes using tap water use boiled water or use paper plates for the next few days.
- Do not wash your fruits and vegetables with tap water use boiled or bottled water.
- Do not brush your teeth with tap water use boiled or bottled water.
- Do not cook with tap water, unless your food will be boiled vigorously for three minutes.

Temporary water conservation tips:

- Eliminate or shorten shower times.
- Avoid unnecessary toilet flushes,
- Avoid washing clothes for as long as possible.
- Postpone washing dishes if possible.

Check all faucets, showerheads and under cabinets for drips.

Please share this information with everyone in your household, local friends and family, and others who may have not received this advisory directly (for example, people in apartments, nursing homes, schools, and businesses).

For more information on boil water advisories, visit the Virginia Department of Health Boil Water FAQs: https://www.vdh.virginia.gov/drinking-water/boil-water-faqs/

1 Summany						
1. Summary	Drinking Water Coordination Follow Up				+	
Meeting title	Drinking Water Coordination Follow Up					
Attended participants	29	'				
Start time	1/06/25, 4:23:24 PM					
End time	1/06/25, 4:52:23 PM					
Meeting duration	28m 59s					
Average attendance time	20m 6s					
2. Participants						
Name	First Join	Last Leave	In-Meeting Duration	Email	Participant ID (UPN)	Role
Chan, Bentley	1/06/25, 4:30:22 PM	1/06/25, 4:50:59 PM	20m 37s	cha70@henrico.gov	cha70@henrico.us	Organizer
Jones, Will	1/06/25, 4:23:27 PM	1/06/25, 4:51:38 PM	28m 10s	jon43@henrico.gov	jon43@henrico.us	Presenter
Roadcap, Dwayne (VDH) (External)	1/06/25, 4:24:09 PM	1/06/25, 4:51:02 PM	26m 52s	Dwayne.Roadcap@vdh.virginia.gov	Dwayne.Roadcap@vdh.virginia.gov	Presenter
Pletch, Donna (VDEM) (External)	1/06/25, 4:25:07 PM	1/06/25, 4:50:51 PM	25m 44s	Donna.Pletch@vdem.virginia.gov	Donna.Pletch@vdem.virginia.gov	Presenter
Laffoon, Sherri (VDEM) (External)	1/06/25, 4:25:14 PM	1/06/25, 4:50:53 PM	24m 23s	Sherri.Laffoon@vdem.virginia.gov	Sherri.Laffoon@vdem.virginia.gov	Presenter
Welch, Jennifer	1/06/25, 4:27:49 PM	1/06/25, 4:50:57 PM	23m 7s	wel33@henrico.gov	wel33@henrico.us	Presenter
Hayes, George (External)	1/06/25, 4:28:41 PM	1/06/25, 4:51:00 PM	22m 18s	HayesG@chesterfield.gov	HayesG@chesterfield.gov	Presenter
Reynolds, James (VDH) (External)	1/06/25, 4:28:51 PM	1/06/25, 4:50:58 PM	22m 7s	James.Reynolds@vdh.virginia.gov	James.Reynolds@vdh.virginia.gov	Presenter
Rembold, Matt (External)	1/06/25, 4:29:01 PM	1/06/25, 4:51:03 PM	22m 2s	RemboldM@chesterfield.gov	RemboldM@chesterfield.gov	Presenter
Smith, Jesse W (External)	1/06/25, 4:29:46 PM	1/06/25, 4:50:55 PM	21m 9s	SmithJW@chesterfield.gov	SmithJW@chesterfield.gov	Presenter
Davis, Bailey (VDH) (External)	1/06/25, 4:30:14 PM	1/06/25, 4:51:00 PM	20m 46s	Bailey.Davis@vdh.virginia.gov	Bailey.Davis@vdh.virginia.gov	Presenter
Morrissette, Randall (VDH) (External)	1/06/25, 4:30:21 PM	1/06/25, 4:51:00 PM	20m 39s	Randall.Morrissette@vdh.virginia.gov	Randall.Morrissette@vdh.virginia.gov	Presenter
Neth, Sam (VDH) (External)	1/06/25, 4:30:30 PM	1/06/25, 4:52:23 PM	21m 53s	Sam.Neth@vdh.virginia.gov	Sam.Neth@vdh.virginia.gov	Presenter
Killgore, Mark (DCR) (External)	1/06/25, 4:30:34 PM	1/06/25, 4:51:07 PM	20m 32s	Mark.Killgore@dcr.virginia.gov	Mark.Killgore@dcr.virginia.gov	Presenter
Blackwell, Thomas J. (External)	1/06/25, 4:30:40 PM	1/06/25, 4:50:58 PM	20m 18s	TJBlackwell@hanovercounty.gov	PUTJB@hanover.gov	Presenter
Tretina, Cari	1/06/25, 4:30:40 PM	1/06/25, 4:49:12 PM	18m 32s	tre08@henrico.gov	tre08@henrico.us	Presenter
Bonifas, Teresa (External)	1/06/25, 4:30:40 PM	1/06/25, 4:50:55 PM	20m 15s	BonifasT@chesterfield.gov	BonifasT@chesterfield.gov	Presenter
Munford, Rodney W DPU (External)	1/06/25, 4:30:43 PM	1/06/25, 4:50:55 PM	20m 11s	Rodney.Munford@rva.gov	rodney.munford@rva.gov	Presenter
Longshore, Matthew B. (External)	1/06/25, 4:30:57 PM	1/06/25, 4:50:58 PM	20m 1s	MBLongshore@hanovercounty.gov	PUMBL@hanover.gov	Presenter
Whitehurst, Eric - DPU (External)	1/06/25, 4:31:03 PM	1/06/25, 4:50:26 PM	19m 23s	Eric.Whitehurst@rva.gov	eric.whitehurst@rva.gov	Presenter
Bryant, Toby (VDH) (External)	1/06/25, 4:31:26 PM	1/06/25, 4:51:06 PM	19m 39s	Toby.Bryant@vdh.virginia.gov	Toby.Bryant@vdh.virginia.gov	Presenter
Towne, Douglas P DPU (External)	1/06/25, 4:32:32 PM	1/06/25, 4:50:57 PM	18m 25s	Douglas.Towne@rva.gov	douglas.towne@rva.gov	Presenter
Yob, Steven	1/06/25, 4:32:42 PM	1/06/25, 4:51:00 PM	18m 18s	yob@henrico.gov	yob@henrico.us	Presenter
Coughlin, Jessica (VDH) (External)	1/06/25, 4:33:48 PM	1/06/25, 4:51:17 PM	17m 28s	Jessica.Coughlin@vdh.virginia.gov	Jessica.Coughlin@vdh.virginia.gov	Presenter
Larson, Michael (External)	1/06/25, 4:34:10 PM	1/06/25, 4:51:01 PM	16m 51s	LarsonM@chesterfield.gov	LarsonM@chesterfield.gov	Presenter
Sheppard, Ben	1/06/25, 4:34:20 PM	1/06/25, 4:51:01 PM	16m 40s	she16@henrico.gov	she16@henrico.us	Presenter
Christian, Alvin, Jr	1/06/25, 4:35:17 PM	1/06/25, 4:51:04 PM	15m 46s	chr26@henrico.gov	chr26@henrico.us	Presenter
Casey, Joe (External)	1/06/25, 4:35:33 PM	1/06/25, 4:51:09 PM	15m 35s	CaseyJoe@chesterfield.gov	CaseyJoe@chesterfield.gov	Presenter
Sanmartin, Beth	1/06/25, 4:45:53 PM	1/06/25, 4:50:54 PM	5m 1s	SAN082@henrico.gov	SAN082@henrico.us	Presenter
Jannaran, John	2700720, 11101001111	2,00,20, 1100101111	0 20	oooze	0/ ii/002@//o//ii/00	11000
3. In-Meeting Activities						
Name	Join Time	Leave Time	Duration	Email	Role	
Chan, Bentley	1/06/25, 4:30:22 PM	1/06/25, 4:50:59 PM	20m 37s	cha70@henrico.gov	Organizer	
Jones, Will	1/06/25, 4:23:27 PM	1/06/25, 4:51:38 PM	28m 10s	jon43@henrico.gov	Presenter	
Roadcap, Dwayne (VDH) (External)	1/06/25, 4:24:09 PM	1/06/25, 4:51:02 PM	26m 52s	Dwayne.Roadcap@vdh.virginia.gov	Presenter	
Pletch, Donna (VDEM) (External)	1/06/25, 4:25:07 PM	1/06/25, 4:50:51 PM	25m 44s	Donna.Pletch@vdem.virginia.gov	Presenter	
Laffoon, Sherri (VDEM) (External)	1/06/25, 4:25:14 PM	1/06/25, 4:26:14 PM	59s	Sherri.Laffoon@vdem.virginia.gov	Presenter	
Laffoon, Sherri (VDEM) (External)	1/06/25, 4:25:14 FM 1/06/25, 4:27:28 PM	1/06/25, 4:50:53 PM	23m 24s	Sherri.Laffoon@vdem.virginia.gov	Presenter	
Welch, Jennifer	1/06/25, 4:27:28 PM 1/06/25, 4:27:49 PM	1/06/25, 4:50:57 PM	23m 7s	wel33@henrico.gov	Presenter	
		· ·				
Hayes, George (External)	1/06/25, 4:28:41 PM	1/06/25, 4:51:00 PM	22m 18s	HayesG@chesterfield.gov	Presenter	

Reynolds, James (VDH) (External)	1/06/25, 4:28:51 PM	1/06/25, 4:50:58 PM	22m 7s	James.Reynolds@vdh.virginia.gov	Presenter	
Rembold, Matt (External)	1/06/25, 4:29:01 PM	1/06/25, 4:51:03 PM	22m 2s	RemboldM@chesterfield.gov	Presenter	
Smith, Jesse W (External)	1/06/25, 4:29:46 PM	1/06/25, 4:50:55 PM	21m 9s	SmithJW@chesterfield.gov	Presenter	
Davis, Bailey (VDH) (External)	1/06/25, 4:30:14 PM	1/06/25, 4:51:00 PM	20m 46s	Bailey.Davis@vdh.virginia.gov	Presenter	
Morrissette, Randall (VDH) (External)	1/06/25, 4:30:21 PM	1/06/25, 4:51:00 PM	20m 39s	Randall.Morrissette@vdh.virginia.gov	Presenter	
Neth, Sam (VDH) (External)	1/06/25, 4:30:30 PM	1/06/25, 4:52:23 PM	21m 53s	Sam.Neth@vdh.virginia.gov	Presenter	
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Blackwell, Thomas J. (External)	1/06/25, 4:30:40 PM	1/06/25, 4:50:58 PM	20m 18s	TJBlackwell@hanovercounty.gov	Presenter	
Tretina, Cari	1/06/25, 4:30:40 PM	1/06/25, 4:49:12 PM	18m 32s	tre08@henrico.gov	Presenter	
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Towne, Douglas P DPU (External)	1/06/25, 4:32:32 PM	1/06/25, 4:50:57 PM	18m 25s	Douglas.Towne@rva.gov	Presenter	
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Larson, Michael (External)	1/06/25, 4:34:10 PM	1/06/25, 4:51:01 PM	16m 51s	LarsonM@chesterfield.gov	Presenter	
Sheppard, Ben	1/06/25, 4:34:20 PM	1/06/25, 4:51:01 PM	16m 40s	she16@henrico.gov	Presenter	
Christian, Alvin, Jr	1/06/25, 4:35:17 PM	1/06/25, 4:51:04 PM	15m 46s	chr26@henrico.gov	Presenter	
Casey, Joe (External)	1/06/25, 4:35:33 PM	1/06/25, 4:51:09 PM	15m 35s	CaseyJoe@chesterfield.gov	Presenter	
Sanmartin, Beth	1/06/25, 4:45:53 PM	1/06/25, 4:50:54 PM	5m 1s	SAN082@henrico.gov	Presenter	

From: <u>Forehand, Marcello</u>

To: Simukonde, Nellow; McDonald, Elizabeth; Sullard, Jeff; Glenn, Stacy; Bisulca, Jonathan; Spain, Frederick

Date: Tuesday, January 7, 2025 12:41:22 AM

Simukonde, NellowThe lowest pressure at the highest point (elevation 190)will be 20 PSI. The highest pressure at the lowest point (like the WRF elevation 70) will be around 70 PSI.

From: McDonald, Elizabeth
To: Brown, Mark A
Subject: No Water Call

Date: Tuesday, January 7, 2025 12:47:42 AM

https://teams.microsoft.com/l/meetup-

join/19%3ameeting OTc2ZmViMzQtYTNhOS00N2JlLWEwMTgtYzBhMmJhYWI3NTZm%40thread.v2/0?context=%7b%22Tid%22%3a%2251d3cfa9-422b-40bf-b49d-

 $\underline{66643110606\%22\%2c\%22Oid\%22\%3a\%221dbf01c1-9808-4bb5-bb7f-e3d1b7ae2ffd\%22\%7d}$

Sent from my iPhone

From: <u>Simukonde, Nellow</u>

To: <u>Chan, Bentley; Christian, Alvin, Jr; Meade, Thomas; Adkins, Christopher; Maddox, Lee; Sossong, Marchelle;</u>

Forehand, Marcello; McDonald, Elizabeth; Bisulca, Jonathan; Tansi, Odette; Calder, Wanda; Security Console;

Sullard, Jeff; Glenn, Stacy; McGuire, Evelyn; Spain, Anita; Constantine, Patricia

Subject: Low Water Pressure Notification - Eastern Henrico County

Date: Tuesday, January 7, 2025 2:48:17 AM

All -

Following the outage of water production at the City of Richmond water plant and the subsequent loss of the City's water supply to the County, we have implemented measures to hopefully extend the supply of water in the east end of the County. These measures include the reduction of supply pressure across the entire Greater Eubank Pressure Zone and manual operation of pumping facilities to manage supply.

While these measures are in place, we can expect customer reports of low pressure and possible fire alarms. The fire marshal has been notified. We hope that the measures will ration water supply to the east end of the county at low pressure and maintain supply until the City can resume finished water production and supply to the County.

Nellow Simukonde, P.E. Division Director DPU Operations Division Mobile: (804) 347-8812 From: Reynolds, James (VDH)

To: Chan, Bentley

Cc: Morrissette, Randall (VDH); Bryant, Toby (VDH)

Subject: Henrico update

Date: Tuesday, January 7, 2025 7:28:03 AM

Bentley,

We received some messages that a fire station in Henrico is experiencing low pressure. I'm trying to get a status update on how Henrico is holding up, if there are portions of Henrico that might be served directly by City of Richmond that are experiencing pressure issues, and how long you may be able to operate with supply from Richmond shut off. Thanks for any info you can provide. I will be headed to the Richmond plant this morning and will see if there is any assistance they may need on either technical, manpower, etc. and relay what I find you you.

James Reynolds, PE Field Director- Richmond Field Office Virginia Department of Health, Office of Drinking Water james.reynolds@vdh.virginia.gov (757)406-1252 (cell phone)

Get Outlook for Android

 From:
 Chan, Bentley

 To:
 Vithoulkas, John

 Cc:
 Tretina, Cari; Yol

 Cc:
 Tretina, Cari; Yob, Steven

 Subject:
 Drinking Water in Eastern Henrico

 Date:
 Tuesday, January 7, 2025 8:05:14 AM

Attachments: <u>image001.png</u>

Hi Mr. Manager,

Due to the shutdown from the City of Richmond water plant that normally feeds portions of the central and eastern areas of the County, we are experiencing lower pressure and flow in these areas. Staff are working to adjust our system such that water produced at our Three Chopt water plant can supplement these needs. Residents and businesses can expect lower than normal pressure and flow while we work to make the adjustments and while the City restores their service. We're expecting that there will be some service available later this morning.

Thanks and hope this helps, Bentley



BENTLEY CHAN, PE
Director
HENRICO WATER, Department of Public Utilities
Phone 804.501.4280 Email bentley.chan@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

From: Chan, Bentley
To: Vithoulkas, John
Cc: Tretina, Cari; Yob, Steven

Subject: RE: Drinking Water in Eastern Henrico
Date: Tuesday, January 7, 2025 8:35:35 AM

Attachments: <u>image001.png</u>

Hi Mr. Manager,

An additional update, we had an overnight water main break in the Highland Springs area that resulted in a major draw from our system and subsequently the lower pressure and flow in the eastern portion of the County. As crews work to make that repair and with our adjustments and opening valves in the system, residents should see a restoration of service at lower pressure later this morning.

Thanks and hope this helps, Bentley



BENTLEY CHAN, PE

Director
HENRICO WATER, Department of Public Utilities
Phone 804.501.4280 Email bentley.chan@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

From: Chan, Bentley

Sent: Tuesday, January 7, 2025 8:05 AM **To:** Vithoulkas, John <vit@henrico.gov>

Cc: Tretina, Cari <tre08@henrico.gov>; Yob, Steven <yob@henrico.gov>

Subject: Drinking Water in Eastern Henrico

Hi Mr. Manager,

Due to the shutdown from the City of Richmond water plant that normally feeds portions of the central and eastern areas of the County, we are experiencing lower pressure and flow in these areas. Staff are working to adjust our system such that water produced at our Three Chopt water plant can supplement these needs. Residents and businesses can expect lower than normal pressure and flow while we work to make the adjustments and while the City restores their service. We're expecting that there will be some service available later this morning.

Thanks and hope this helps, Bentley

BENTLEY CHAN, PE

Director
HENRICO WATER, Department of Public Utilities
Phone 804.501.4280 Email bentley.chan@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

From: Sossong, Marchelle

To: <u>Chan, Bentley; Christian, Alvin, Jr</u>

Subject: Water quality

Date: Tuesday, January 7, 2025 12:43:57 PM

Attachments: image001.png

Bentley and Alvin,

I just talked with Keith after his discussion with Marcello. They are working to confirm a theory that water may be going from Henrico into the City system through the open meters at the interconnects. I know it would take a lot of effort, but do we need to consider closing off the meters/valves to be sure that we don't get any water from the City until after they have re-established their system and water quality? I'm not sure what the protocols are for the City to remove the boil water notice, but we would need to be sure of the water quality that is coming to Henrico.

Also, the emergency wells should not be interconnected to the system since they do not use the same treatment system. I know Jeff Sullard has mentioned their use in the past. The wells use chlorine treatment while the plant uses chloramines.



Marchelle Sossong, P.E.

Design Division Director

HENRICO WATER, Department of Public Utilities

Phone 804.501.7341
Email marchelle.sossong@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

Starting July 1, 2024, all communications coming from Henrico County general government employees will be from an @henrico.gov domain. Please ensure you update your contact information

From: Christian, Alvin, Jr
To: McGuire, Evelyn
Cc: Simukonde, Nellow

Subject: RE: Is there an update to the break I am in the call center

Date: Tuesday, January 7, 2025 2:35:00 PM

Attachments: <u>image002.png</u>

Repair has been completed. We are checking system pressures now.



Alvin Christian, P.E.

Assistant Director for Enterprise Operations
HENRICO WATER, Department of Public Utilities
Ph. 804.501.4500 (o) | 804.219.7750 (c) | chr26@henrico.gov

From: McGuire, Evelyn <mcg20@henrico.gov>

Sent: Tuesday, January 7, 2025 2:15 PM **To:** Christian, Alvin, Jr <chr26@henrico.gov> **Cc:** Simukonde, Nellow <sim69@henrico.gov>

Subject: Is there an update to the break I am in the call center



EVELYN MCGUIRE

Assistant Director of Administrative Operations
HENRICO WATER, Department of Public Utilities
Phone 804.501.4442 Email mcg20@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

From: Reynolds, James (VDH)

To: <u>Chan, Bentley</u>

Cc: Mccauley, Lyndsey (VDH); Bryant, Toby (VDH)

Subject: Fw: Community Water Systems- Water Main Break Guidance Document

Date: Tuesday, January 7, 2025 4:33:26 PM

Attachments: Outlook-vp2lm1gs.png

3.0 Main Break Types & Responses - NON-chlorination.docx 3.0 Main Break Types & Responses - chlorination (1).docx FINAL Main Break information checklist - fillable SJK.docx

Bentley,

See the guidance for chlorinated systems and checklist attached

James Reynolds, PE Field Director- Richmond Field Office Virginia Department of Health, Office of Drinking Water james.reynolds@vdh.virginia.gov (757)406-1252 (cell phone)

Get Outlook for Android

From: Reynolds, James (VDH) < James. Reynolds@vdh.virginia.gov>

Sent: Wednesday, April 10, 2024 3:30:37 PM

To: shiloh@co.kinggeorge.state.va.us <shiloh@co.kinggeorge.state.va.us> **Subject:** Community Water Systems- Water Main Break Guidance Document

Attached you will find the Office of Drinking Water's <u>Water Main Break Guidance Document</u>. The guidance document covers:

- the four types of water main breaks,
- types of shutdowns,
- procedures for repair, disinfection, requirements for bacteriological and disinfectant residual sampling,
- determining when a Boil Water Advisory (BWA) should be issued, which is made in conjunction with your VDH-Office of Drinking Water Field Office, and
- steps required to rescind a BWA.

This document offers guidance if your waterworks experiences a water main break of any type, whether it is catastrophic or not, as well as reporting requirements for this and other situations that may result in depressurization of your water system. Please ensure you are following the guidance document that aligns with your system (permanent chlorination vs. non-chlorinated system).

Also enclosed is a form to identify the information you need to provide the Office of Drinking Water (ODW) when issuing a BWA.

A template for developing a Boil Water Advisory handout may be accessed from the ODW website at https://www.vdh.virginia.gov/drinking-water/office-of-drinking-water/information-for-waterworks-owners/emergency-planning-tools/

As always, your Field Office should be your first point of contact anytime there is an issue such a water line break or service interruption that could require the issuance of a BWA. Your Field Office is available to provide the technical assistance in determining the type of main break that occurred, and if a BWA should be issued. Please note that if you own or maintain any community waterworks in addition to the waterworks referenced above, this guidance material applies to all community waterworks that you own or maintain.

From: Adkins, Christopher

To: <u>Chan, Bentley; Sullard, Jeff; Lofton, Vincent</u>

Cc: Christian, Alvin, Jr; Johnson, Donte; Duke, Christopher; Simukonde, Nellow; Forehand, Marcello; McDonald,

Elizabeth; Bisulca, Jonathan; Tansi, Odette

Subject: RE: Raw water comms down

Date: Tuesday, January 7, 2025 5:20:27 PM

Attachments: image001.png image002.png

At 2:30 pm: We reached out to IT and have KACE ticket entered. IT has talked to Verizon but issue has not been resolved. We were manually running the raw water pumps.

At 5:15 pm: Issue was resolved due to failed UPS power. Temporarily have plugged into main electric power and all communications are back and pumps running in auto. Will replace UPS in am and restore back to normal configuration.



From: Chan, Bentley <cha70@henrico.gov> Sent: Tuesday, January 7, 2025 2:34 PM

To: Adkins, Christopher <adk21@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>

Cc: Christian, Alvin, Jr <chr26@henrico.gov>; Johnson, Donte <JOH246@henrico.gov>; Duke, Christopher <duk@henrico.gov>; Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>

Subject: RE: Raw water comms down

Thanks, Chris. Copying additional OPS staff to loop them in.

Bentley



BENTLEY CHAN, PE
Director
HENRICO WATER, Department of Public Utilities
Phone 804.501.4280 Email bentley.chan@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

From: Adkins, Christopher <a dk21@henrico.gov>

Sent: Tuesday, January 7, 2025 2:29 PM

To: Sullard, Jeff < sul11@henrico.gov >; Lofton, Vincent < lof04@henrico.gov >

Cc: Christian, Alvin, Jr <<u>chr26@henrico.gov</u>>; Chan, Bentley <<u>cha70@henrico.gov</u>>; Johnson, Donte <<u>JOH246@henrico.gov</u>>; Duke, Christopher <<u>duk@henrico.gov</u>>

Subject: FW: Raw water comms down

We have lost our communications to RWPS. Pumps are being run manually at this time. Not sure if a Verizon FIOS line is down.

Please provide an update for pumping schedule for the next 12 hours due to City of Richmond plant issues so we know if we need to run more raw water pumps over the next 12 hours.



From: Ennas, Joseph < ENN003@henrico.gov > Sent: Tuesday, January 7, 2025 2:16 PM

To: Arroyo, David < ARR006@henrico.gov > Cc: Adkins, Christopher < adk21@henrico.gov >

Subject: Raw water comms down

David we have lost our Verizon connection can you please look into this

I am on hold with the help desk, and have been for a few minutes , this is not a good process.

This is very important



ISA CCST III # 20991 FOA CFOT#2110388 ASOPE PPOE 1st Class Lic#R404041115-R From: Chan, Bentley

To: Reynolds, James (VDH)

Cc: Mccauley, Lyndsey (VDH); Bryant, Toby (VDH); Vithoulkas, John; Tretina, Cari; Yob, Steven

Subject: RE: Community Water Systems- Water Main Break Guidance Document

Date: Tuesday, January 7, 2025 5:30:50 PM

Attachments: 3.0 Main Break Types & Responses - NON-chlorination.docx

3.0 Main Break Types & Responses - chlorination (1).docx FINAL Main Break information checklist - fillable SJK.docx

image001.png image002.png

Thanks, James and Lyndsey on the call earlier. Working on completing the checklist and will have that back to you. We fall under the context of a Type 1 and Type 2 Break with our efforts to maintain positive pressure and having a controlled dial back of the pressure in the system to sustain our supply while taking offline the City of Richmond feeds. If all goes to plan, we're hoping for a wider restoration of normal at lowered pressure service to our eastern residents in the next several hours with flushing and checks/samples.

Bentlev



BENTLEY CHAN. PE

Director
HENRICO WATER, Department of Public Utilities
Phone 804.501.4280 Email bentley.chan@henrico.gov

4305 East Parham Road, Henrico, Virginia 23228

From: Reynolds, James (VDH) < James. Reynolds@vdh.virginia.gov>

Sent: Tuesday, January 7, 2025 4:33 PM **To:** Chan, Bentley <cha70@henrico.gov>

Cc: Mccauley, Lyndsey (VDH) < Lyndsey. Mccauley@vdh.virginia.gov>; Bryant, Toby (VDH)

<Toby.Bryant@vdh.virginia.gov>

Subject: Fw: Community Water Systems- Water Main Break Guidance Document

Bentley,

See the guidance for chlorinated systems and checklist attached

James Reynolds, PE
Field Director- Richmond Field Office
Virginia Department of Health, Office of Drinking Water
james.reynolds@vdh.virginia.gov
(757)406-1252 (cell phone)

Get Outlook for Android

From: Reynolds, James (VDH) < <u>James.Reynolds@vdh.virginia.gov</u>>

Sent: Wednesday, April 10, 2024 3:30:37 PM

To: shiloh@co.kinggeorge.state.va.us>

From: Forehand, Marcello
To: Hawkins, William

Cc: McDonald, Elizabeth; Tansi, Odette; Brown, Mark A; Simukonde, Nellow; Thomas, Rodney

Subject: Laburnum Avenue City Meter
Date: Tuesday, January 7, 2025 6:26:00 PM

Attachments: <u>image001.png</u>

City of Richmond Meter at Laburnum Avenue.pdf

William.

Per Bentley's request. Please have the on call crew close the City of Richmond Meter near 209 W. Laburnum Avenue. There are also hydrants nearby that can be used for pressure readings and bleeding off the air. Please take a before and after pressure when closing the City valve. See attached map.



Marcello S. Forehand, E.I.T.

Assistant Division Director, Operations
HENRICO WATER, Department of Public Utilities
Office 804.727.8790 Cell 804.297.5307
Email Marcello.Forehand@henrico.gov
10401 Woodman Road, Glen Allen, Virginia 23060

From: Forehand, Marcello

To: <u>Hawkins, William</u>; <u>Ross, Raymond</u>

Cc: McDonald, Elizabeth; Tansi, Odette; Brown, Mark A; Simukonde, Nellow; Thomas, Rodney; Sullard, Jeff

Subject: RE: Laburnum Avenue and Mechanicsville - City Meters - Close the valves in the vaults

Date: Tuesday, January 7, 2025 6:44:26 PM

Attachments: <u>image001.png</u>

<u>City of Richmond Meter at Laburnum Avenue.pdf</u> <u>City of Richmond Meter at Mechanicsville Turnpike.pdf</u>

Piggy backing off the email below. I've attached both maps.

Per Bentley's request. Please close the City meters at Laburnum Avenue (24") and Mechanicsville Turnpike (12"). Please have staff check the pressures before and after closing the City meter valves.



Marcello S. Forehand, E.I.T.

Assistant Division Director, Operations
HENRICO WATER, Department of Public Utilities
Office 804.727.8790 Cell 804.297.5307
Email Marcello.Forehand@henrico.gov
10401 Woodman Road, Glen Allen, Virginia 23060

From: Forehand, Marcello

Sent: Tuesday, January 7, 2025 6:27 PM **To:** Hawkins, William haw11@henrico.gov

Subject: Laburnum Avenue City Meter

William,

Per Bentley's request. Please have the on call crew close the City of Richmond Meter near 209 W. Laburnum Avenue. There are also hydrants nearby that can be used for pressure readings and bleeding off the air. Please take a before and after pressure when closing the City valve. See attached map.



Marcello S. Forehand, E.I.T.

Assistant Division Director, Operations
HENRICO WATER, Department of Public Utilities
Office 804.727.8790 Cell 804.297.5307
Email Marcello.Forehand@henrico.gov
10401 Woodman Road, Glen Allen, Virginia 23060

From: Reynolds, James (VDH)

To: Chan, Bentley

Cc: Mccauley, Lyndsey (VDH); Bryant, Toby (VDH); Vithoulkas, John; Tretina, Cari; Yob, Steven

Subject: Re: Community Water Systems- Water Main Break Guidance Document

Date: Tuesday, January 7, 2025 9:27:13 PM

Attachments: <u>image001.png</u>

image002.png

Bentley thanks, if you can provide that checklist and documentation in the morning that would be great.

James Reynolds, PE Field Director- Richmond Field Office Virginia Department of Health, Office of Drinking Water james.reynolds@vdh.virginia.gov (757)406-1252 (cell phone)

Get Outlook for Android

From: Chan, Bentley <cha70@henrico.gov> Sent: Tuesday, January 7, 2025 5:30:43 PM

To: Reynolds, James (VDH) < James.Reynolds@vdh.virginia.gov>

Cc: Mccauley, Lyndsey (VDH) <Lyndsey.Mccauley@vdh.virginia.gov>; Bryant, Toby (VDH)

<Toby.Bryant@vdh.virginia.gov>; Vithoulkas, John <vit@henrico.gov>; Tretina, Cari

<tre08@henrico.gov>; Yob, Steven <yob@henrico.gov>

Subject: RE: Community Water Systems- Water Main Break Guidance Document

Thanks, James and Lyndsey on the call earlier. Working on completing the checklist and will have that back to you. We fall under the context of a Type 1 and Type 2 Break with our efforts to maintain positive pressure and having a controlled dial back of the pressure in the system to sustain our supply while taking offline the City of Richmond feeds. If all goes to plan, we're hoping for a wider restoration of normal at lowered pressure service to our eastern residents in the next several hours with flushing and checks/samples.

Bentley



BENTLEY CHAN, PE

Director
HENRICO WATER, Department of Public Utilities

Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Reynolds, James (VDH) < James. Reynolds@vdh.virginia.gov>

Sent: Tuesday, January 7, 2025 4:33 PM **To:** Chan, Bentley <cha70@henrico.gov>

Cc: Mccauley, Lyndsey (VDH) < Lyndsey. Mccauley@vdh.virginia.gov>; Bryant, Toby (VDH)

<Toby.Bryant@vdh.virginia.gov>

Subject: Fw: Community Water Systems- Water Main Break Guidance Document

From: <u>McDonald, Elizabeth</u>

To: Forehand, Marcello; Woodfin, Kurt; Prince, Henry; Hawkins, William

Cc: Ross, Raymond; Simukonde, Nellow; Brown, Mark A; Tansi, Odette; Sullard, Jeff; Bisulca, Jonathan

Subject: East Laburnum Investigation

Date: Tuesday, January 7, 2025 11:34:41 PM

Attachments: East Laburnum Investigation Water Loss Event 20250106.pptx

image001.png

All,

Please see the attached Valve/Hydrant Investigation Map.

Respectfully,



ELIZABETH McDONALD, P.E.*

Assistant Division Director, Operations
HENRICO WATER, Department of Public Utilities
Office 804.727.8765 Cell 804.398.0756
eMail elizabeth.mcdonald@henrico.gov
10401 Woodman Road, Henrico, Virginia 23060

*Licensed in FL, GA, and VA

From: Yob, Steven
To: Vithoulkas, John
Subject: Richmond Water

Date: Wednesday, January 8, 2025 5:30:13 AM

Good morning sir a quick update. I'm leaving the plant now. It's 2 AM. They have 9 of 22 filters running on the north side and just got the south side of the plant started.

They are making about 32 gallon MGD and they're pumping to the distribution system over 20 MGD, some is filling up plant storage.

The bypass pumps just arrived so they will set those up over the next several hours and should be able to increase their production to closer to 30 MGD.

They're being conservative with pushing the equipment and making sure it's working before they're adding new equipment.

I'll check with April in the morning on status.

Get Outlook for iOS

From: Reynolds, James (VDH)

To: Chan, Bentley

Subject: Status update- East end pressure

Date: Wednesday, January 8, 2025 7:24:29 AM

Hey Bentley,

Understand y'all are busy and have put in hours and appreciate all the effort. I left a voice mail, would you be able to email me a quick status update on getting pressure back on the East side? Any info you can provide would be appreciated for my report out to Dwayne. I was shooting for 0830 call with him, if possible. Thanks so much

James Reynolds, PE Field Director- Richmond Field Office Virginia Department of Health, Office of Drinking Water james.reynolds@vdh.virginia.gov (757)406-1252 (cell phone)

Get Outlook for Android

From: <u>Simukonde, Nellow</u>

To: Brown, Mark A; McDonald, Elizabeth

Cc: McDonald, Elizabeth; Stephens, Eugene; Tansi, Odette; Forehand, Marcello; Birchett, Shawn; Robinson, Clifford;

Sullard, Jeff

Subject: City Meter Isolations

Date: Wednesday, January 8, 2025 7:46:48 AM

Attachments: <u>image001.png</u>

Hi, Elizabeth

I have a high-priority assignment this morning that will involve as many of our field staff as available to isolate the following meters from the City of Richmond at the :

WMTR086276 at 2301 Mechanicsville Turnpike

WMTR086258 at 3702 Caroline Avenue

WMTR086257 at 3705 Patrick Ave

WMTR001475 at 3706 Meadowbridge Road

WMTR086242 at 901 Azalea Ave

WMTR001472 a

WMTR001473 at 5206 Seminary Ave

WMTR086246

WMTR086261 at3307 Dill Road

Please assemble at least three crew crews to isolate these valves from the city as early as possible this morning. The valves shall be operated manually and very slowly. The meters may be isolated by the following means:

- 1. Closing a valve or valves on the meter where available.
- 2. Closing a valve on the City side if there is only one or two valves to close.
- 3. Closing valves are on the county side without service impacts.

I suggest Mark Brown lead/coordinate the operation. Available pumping staff may help.

Please let me know if you have questions.



NELLOW SIMUKONDE, P.E.

Operations Division Director
HENRICO WATER, Department of Public Utilities
Phone 804.727.8711 Email nellow.simukonde@henrico.us
10401 Woodman Road, Henrico, Virginia 23060

From: <u>Chan, Bentley</u>

To: Reynolds, James (VDH)

Cc: <u>Vithoulkas, John; Tretina, Cari; Yob, Steven</u>
Subject: RE: Status update- East end pressure
Date: Wednesday, January 8, 2025 8:03:22 AM

Attachments: <u>image001.png</u>

Good morning and thanks, James. We were able to get two large meters from the City closed last night (24" and 12") to allow for movement of water from the Azalea/Richmond Henrico Turnpike area into south Laburnum/west Mechanicsville Turnpike. We are stabilizing this area this morning with additional closures of smaller Richmond meters and flushing and testing. We hope that this will allow us to begin bringing service to east Mechanicsville Turnpike and then into Len Avenue to refill tanks to move water to further east in the County. Working on the checklist and hope to have that back to you with supplemental information later this morning.

Bentley



BENTLEY CHAN. PE

Director
HENRICO WATER, Department of Public Utilities
Phone 804.501.4280 Email bentley.chan@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

From: Reynolds, James (VDH) < James. Reynolds@vdh.virginia.gov>

Sent: Wednesday, January 8, 2025 7:24 AM **To:** Chan, Bentley <cha70@henrico.gov> **Subject:** Status update- East end pressure

Hey Bentley,

Understand y'all are busy and have put in hours and appreciate all the effort. I left a voice mail, would you be able to email me a quick status update on getting pressure back on the East side? Any info you can provide would be appreciated for my report out to Dwayne. I was shooting for 0830 call with him, if possible. Thanks so much

James Reynolds, PE
Field Director- Richmond Field Office
Virginia Department of Health, Office of Drinking Water
james.reynolds@vdh.virginia.gov
(757)406-1252 (cell phone)

Get Outlook for Android

From: Chan, Bentley
To: Sossong, Marchelle

Subject: FW: Community Water Systems- Water Main Break Guidance Document

Date: Wednesday, January 8, 2025 8:17:00 AM

Attachments: Outlook-vp2lm1gs.png

3.0 Main Break Types & Responses - NON-chlorination.docx 3.0 Main Break Types & Responses - chlorination (1).docx FINAL Main Break information checklist - fillable SJK.docx

image001.png

Hi Marchelle.

Here are the documents from VDH. The checklist doc has the demographic information we're looking for.

Thanks!

Bentley



BENTLEY CHAN, PE

Director
HENRICO WATER, Department of Public Utilities

Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Reynolds, James (VDH) < James. Reynolds@vdh.virginia.gov>

Sent: Tuesday, January 7, 2025 4:33 PM **To:** Chan, Bentley <cha70@henrico.gov>

Cc: Mccauley, Lyndsey (VDH) < Lyndsey. Mccauley@vdh.virginia.gov>; Bryant, Toby (VDH)

<Toby.Bryant@vdh.virginia.gov>

Subject: Fw: Community Water Systems- Water Main Break Guidance Document

Bentley,

See the guidance for chlorinated systems and checklist attached

James Reynolds, PE
Field Director- Richmond Field Office
Virginia Department of Health, Office of Drinking Water
james.reynolds@vdh.virginia.gov
(757)406-1252 (cell phone)

Get Outlook for Android

From: Reynolds, James (VDH) < <u>James.Reynolds@vdh.virginia.gov</u>>

Sent: Wednesday, April 10, 2024 3:30:37 PM

To: shiloh@co.kinggeorge.state.va.us shiloh@co.kinggeorge.shiloh@co.kinggeorge.shiloh@co.kinggeorge.shiloh.va.us shiloh@co.kinggeorge.shiloh.wa.u

From: McDonald, Elizabeth

To: <u>Chan, Bentley; Simukonde, Nellow; Yob, Steven</u>

Cc: Forehand, Marcello; Tansi, Odette; Brown, Mark A; Stephens, Eugene; Robinson, Clifford; Birchett, Shawn;

Sullard, Jeff; Hawkins, William; Thomas, Rodney; Bisulca, Jonathan

Subject: RE: Richmond City Meter Closer

Date: Wednesday, January 8, 2025 10:45:35 AM

Attachments: <u>image001.png</u>

Nellow, Bentley, and Steve,

ALL VALVES CLOSED

Progress on City Meter Closers is as follows:

- WMTR086261 at 3500 Dill Road Closed (valve on County side of meter outside of vault has been closed 01/08/2025 10:10 AM)
- WMTR086276 at 2301 Mechanicsville Turnpike Closed 01/07/2025
- WMTR086258 at 3702 Carolina Avenue Closed (valves on both sides of meter within vault have been closed 01/08/2025 9:15 AM)
- WMTR086257 at 3705 Patrick Avenue Closed (valves on both sides of meter within vault have been closed 01/08/2025 9:25 AM)
- WMT\$001475 at 3706 Meadowbridge Road Closed (valve on County side of meter outside of vault has been closed 01/08/2025 10:00 AM)
- WMTR086242 at 901 Azalea Avenue Closed (valves two valves downstream of meter [WV009375 & WV009376] 01/08/2025 10:45 AM)
- WMTR001473 at 5206 Seminary Avenue Closed (valves on both sides of meter outside of vault have been closed on 01/08/2025 9:35 AM)
- WMTR086246 at 5207 Brook Road Closed (valves on both sides of meter outside of vault have been closed on 01/08/2025 10:15 AM)
- WMTR086232 at 209 W Laburnum Avenue Closed 01/07/2025

Respectfully,



ELIZABETH McDONALD, P.E.*

Assistant Division Director, Operations
HENRICO WATER, Department of Public Utilities
Office 804.727.8765 Cell 804.398.0756

eMail elizabeth.mcdonald@henrico.gov 10401 Woodman Road, Henrico, Virginia 23060 *Licensed in FL, GA, and VA

From: McDonald, Elizabeth

Sent: Wednesday, January 8, 2025 10:10 AM

To: Chan, Bentley <cha70@henrico.gov>; Simukonde, Nellow <sim69@henrico.gov>; Yob, Steven <yob@henrico.gov>

Cc: Forehand, Marcello <FOR109@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>; Brown, Mark A <broops@henrico.gov>; Stephens, Eugene <STE134@henrico.gov>; Robinson, Clifford <rob84@henrico.gov>; Birchett, Shawn <brookspace; Sullard, Jeff <sul11@henrico.gov>; Hawkins, William <haw11@henrico.gov>; Thomas, Rodney <tho34@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>

Subject: RE: Richmond City Meter Closer

From: Reynolds, James (VDH)

To: Chan, Bentley

Cc: Mccauley, Lyndsey (VDH); Morrissette, Randall (VDH); Bryant, Toby (VDH); Roadcap, Dwayne (VDH)

Subject: Boil Water Advisory- Eastern Henrico

Date: Wednesday, January 8, 2025 10:52:25 AM

Attachments: Henrico 1.8.25 Standard BWA Template.docx

Bentley,

This morning I had a discussion with Dwayne and Bailey and in conjunction with guidance from the state health commissioner, a boil water advisory is needed for those customers impacted by loss of pressure and service in Eastern Henrico over the past 24 hours. It is understood that the break was shutdown in a controlled manner, however due to the extent of the outage and number of customers impacted along with the outage persisting through the day yesterday and into this morning the boil water advisory must be issued. I have cc'd Dwayne for awareness. If you have collected samples this morning, those should count as the first set of samples. Please collect a second set at least 16 hours apart.

I have attached a draft template for the advisory. Please review and revise as necessary. Once revised, please send a copy to Lyndsey for review.

Thank you, I understand this is a difficult situation and hope that we can work in cooperation to ensure public health is top priority.

James Reynolds, PE Field Director- Richmond Field Office Virginia Department of Health, Office of Drinking Water james.reynolds@vdh.virginia.gov (757)406-1252 (cell phone)

Get Outlook for Android

From: Kramer, Keith

To: Sossong, Marchelle; Anderson, Ethan

Cc: Chan, Bentley

Subject: RE: Community Water Systems- Water Main Break Guidance Document

Date: Wednesday, January 8, 2025 12:29:31 PM

Attachments: FINAL Main Break information checklist - fillable SJK ECA Edits.docx

image001.png image002.png

Marchelle.

Here is the form with the counts inserted.

Keith

From: Sossong, Marchelle <sos@henrico.gov> Sent: Wednesday, January 8, 2025 8:53 AM

To: Kramer, Keith <kra@henrico.gov>; Anderson, Ethan <AND136@henrico.gov> **Subject:** FW: Community Water Systems- Water Main Break Guidance Document

Keith,

Attached is the checklist document with the demographic information needed for the two events – Rollingview Dr water break and the larger east end loss of pressure.



Marchelle Sossong, P.E.
Design Division Director
HENRICO WATER, Department of Public Utilities

Phone 804.501.7341
Email marchelle.sossong@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

Starting July 1, 2024, all communications coming from Henrico County general government employees will be from an @henrico.gov domain. Please ensure you update your contact information

From: Chan, Bentley < cha70@henrico.gov > Sent: Wednesday, January 8, 2025 8:18 AM To: Sossong, Marchelle < sos@henrico.gov >

Subject: FW: Community Water Systems- Water Main Break Guidance Document

Hi Marchelle,

Here are the documents from VDH. The checklist doc has the demographic information we're looking for.

Thanks!

Bentley

From: <u>Kramer, Keith</u>

To: Sossong, Marchelle; Anderson, Ethan

Cc: Chan, Bentley

Subject: RE: Community Water Systems- Water Main Break Guidance Document

Date: Wednesday, January 8, 2025 12:58:32 PM

Attachments: <u>image001.png</u>

image002.png

Here you go:

Schools: (note: there are 25 listed; I orginonally did not include the Fairfield MS Gym because I assumed there would be a property for the MS itself but apparently not.

Highland Springs Elem School

Authur Ashe Elementary School

Cashell Donahoe Elementary Sch

Elko Middle School

FAIRFIELD MIDDLE SCHOOL

GYM

George F Baker Elementary Scho

Glen Lea Elementary

Harvie Elementary School

HENRICO HIGH SCHOOL

Henry D Ward Elem School

HIGHLAND SPRINGS HS YR

1949

Jacob Adams Elem School

John Rolfe Middle School

Laburnum Elementary School

Math Science Innovation Center

Mehfoud Elementary School

Montrose Elementary School

Nine Mile Road School

SANDSTON ELEMANTARY

SCHOOL

SEVEN PINES ELEMENTARY

SCHOOL

Varina Elementary School

Varina High School

Vis Handicapped School Bldg

Ratcliffe Elementary School

FAIR OAKS ELEMANTARY

SCHOOL

Healthcare:

Henrico Health Care Center Masonic Home Of Virginia East Area Mental Health Capital Trail Dental
DR MONACELL
ORTHODONTIST OFF
Med Express
MUNN DENTISTRY
DR. ROFFIS
Henrico East Health Clinic
Laburnum Medical Center
MARTHA DAWSON DDS
Newmarket Medical Center
Nine Mile Road Medical Center
Sandston Primary Care
Sandston Professional Building
VACANT REHAB

Leasehold MAO Pharmacy

From: Sossong, Marchelle <sos@henrico.gov> Sent: Wednesday, January 8, 2025 12:34 PM

To: Kramer, Keith < kra@henrico.gov>; Anderson, Ethan < AND136@henrico.gov>

Cc: Chan, Bentley <cha70@henrico.gov>

Subject: RE: Community Water Systems- Water Main Break Guidance Document

Thanks, Keith.

Do you have a list of the schools and healthcare facilities in case that's needed?



Marchelle Sossong, P.E.

Design Division Director

HENRICO WATER, Department of Public Utilities

Phone 804.501.7341
Email marchelle.sossong@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

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From: Kramer, Keith < kra@henrico.gov > Sent: Wednesday, January 8, 2025 12:29 PM

To: Sossong, Marchelle <sos@henrico.gov>; Anderson, Ethan <AND136@henrico.gov>

Cc: Chan, Bentley < cha70@henrico.gov>

Subject: RE: Community Water Systems- Water Main Break Guidance Document

From: Chan, Bentley

To: Mccauley, Lyndsey (VDH); Reynolds, James (VDH)

Cc: Bryant, Toby (VDH); Vithoulkas, John; Tretina, Cari; Yob, Steven; Morrissette, Randall (VDH); Davis, Bailey

(VDH)

Subject: RE: Community Water Systems- Water Main Break Guidance Document

Date: Wednesday, January 8, 2025 6:23:45 PM

Attachments: FINAL Main Break Information Checklist - Henrico County 20250108.docx

image001.png image002.png

Hi Lyndsey,

My apologies for the delay on this; we were working on finalizing restoration and boil water advisory plans. I've attached the checklist and will be coordinating with Bailey tomorrow morning on follow up testing as we're bringing in water from Richmond.

Please let us know if anything additional is needed.

Thanks, Bentley



BENTLEY CHAN, PE

Director
HENRICO WATER, Department of Public Utilities
Phone 804.501.4280 Email bentley.chan@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

From: Mccauley, Lyndsey (VDH) < Lyndsey. Mccauley@vdh.virginia.gov>

Sent: Wednesday, January 8, 2025 10:11 AM

To: Chan, Bentley <cha70@henrico.gov>; Reynolds, James (VDH)

<James.Reynolds@vdh.virginia.gov>

Cc: Bryant, Toby (VDH) <Toby.Bryant@vdh.virginia.gov>; Vithoulkas, John <vit@henrico.gov>; Tretina, Cari <tre08@henrico.gov>; Yob, Steven <yob@henrico.gov>; Morrissette, Randall (VDH) <Randall.Morrissette@vdh.virginia.gov>

Subject: Re: Community Water Systems- Water Main Break Guidance Document

Hi Bentley!

I wanted to follow up and see if you had a chance to complete the checklist and documentation? Would you also be able to provide us with an update in terms of the water restoration process in Eastern Henrico?

I know you all are working tirelessly to try and resolve these issues, however, it is important that we receive an update since it is a time sensitive matter.

Thank you so much,

Lyndsey McCauley

Environmental Health Specialist Sr. Richmond Field Office

Office of Drinking Water

Phone: (804) 965-4038

Facebook | Twitter | YouTube | LinkedIn

109 Governor Street, 6th Floor Richmond, Virginia 23219



From: Chan, Bentley < cha70@henrico.gov>
Sent: Tuesday, January 7, 2025 5:30 PM

To: Reynolds, James (VDH) < <u>James.Reynolds@vdh.virginia.gov</u>>

Cc: Mccauley, Lyndsey (VDH) < Lyndsey.Mccauley@vdh.virginia.gov >; Bryant, Toby (VDH) < Toby.Bryant@vdh.virginia.gov >; Vithoulkas, John < vit@henrico.gov >; Tretina, Cari

<<u>tre08@henrico.gov</u>>; Yob, Steven <<u>vob@henrico.gov</u>>

Subject: RE: Community Water Systems- Water Main Break Guidance Document

Thanks, James and Lyndsey on the call earlier. Working on completing the checklist and will have that back to you. We fall under the context of a Type 1 and Type 2 Break with our efforts to maintain positive pressure and having a controlled dial back of the pressure in the system to sustain our supply while taking offline the City of Richmond feeds. If all goes to plan, we're hoping for a wider restoration of normal at lowered pressure service to our eastern residents in the next several hours with flushing and checks/samples.

Bentley



BENTLEY CHAN, PE
Director
HENRICO WATER, Department of Public Utilities
Phone 804.501.4280 Email bentley.chan@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

From: Reynolds, James (VDH) < <u>James.Reynolds@vdh.virginia.gov</u>>

Sent: Tuesday, January 7, 2025 4:33 PM **To:** Chan, Bentley < cha70@henrico.gov>

Cc: Mccauley, Lyndsey (VDH) < Lyndsey. Mccauley@vdh.virginia.gov >; Bryant, Toby (VDH)

<<u>Toby.Bryant@vdh.virginia.gov</u>>

Subject: Fw: Community Water Systems- Water Main Break Guidance Document

From: McDonald, Elizabeth

To: Simukonde, Nellow; Forehand, Marcello; Tansi, Odette; Bisulca, Jonathan; Sullard, Jeff; Brown, Mark A; Thomas,

Rodney; Birchett, Shawn; Hawkins, William; Robinson, Clifford; Stephens, Eugene; Pruden, Joseph; Glenn, Stacy; Spain, Frederick; Lofton, Vincent; Grandstaff, James; Meade, Thomas; Adkins, Christopher; Duke, Christopher; Sossong, Marchelle; Schwartz, Rick; Thompson, Alice; Kramer, Keith; Christian, Alvin, Jr; Chan, Bentley; Yob,

Steven; Valenzuela, Victor; Maddox, Lee; Bajek, Chelsea; Garofalo, Jason

Subject: Henrico Water - COR Water Supply - System Re-Energization

Date: Thursday, January 9, 2025 12:55:45 AM

Attachments: <u>image001.png</u>

All.

As of 7:15 PM 01/08/2025 DPU Operations Staff opened the Shurm Pressure Reducing Station Valve to allow City of Richmond Water to enter Henrico County's Greater Eubank Distribution Pressure Zone. At that time the City of Richmond limited Henrico's withdrawal to 0.5 MGD. The smallest increment DPU Operations Staff could open the valve was 1.5% and allowed 0.7 MGD to flow. This was found to be acceptable by the City of Richmond.

At 8:00 PM 01/08/2025 DPU Operations Staff opened the gravity flow valve at Len Avenue Pump Station to allow the Laburnum Azelia Distribution Pressure Zone to flow via gravity into the Greater Eubank Distribution Pressure Zone. The valve was opened to 40% and allowed 0.35 MGD to flow through this additional entry point.

At 9:00 PM 01/08/2025 DPU Operations Staff contacted the City of Richmond to request an increase of flow at the Shurm Pressure Reducing Station. The City of Richmond approved withdrawal up to 1.5 MGD. At that time the valve placement increased to 2.9% open. This allowed 1.6 MGD to flow. The City of Richmond found this flow rate to be acceptable.

As of now, 12:49 AM 01/09/2025 Shurm Pressure Reducing Station Valve remains at 2.9% open with a flow rate of 1.8 MGD. The City of Richmond was contacted and this flow rate was still found to be acceptable. The gravity valve Len Avenue Pump Station remains at 40% open with a flow rate of 0.54 MGD. DPU Operations plans to hold the valves at their current positions until office staff arrives at 8:00 AM to discuss next steps.

Please feel free to contact me if you have any questions.

Updates to come.

Respectfully,



ELIZABETH McDONALD, P.E.*

Assistant Division Director, Operations
HENRICO WATER, Department of Public Utilities
Office 804.727.8765 Cell 804.398.0756
eMail elizabeth.mcdonald@henrico.gov

10401 Woodman Road, Henrico, Virginia 23060 *Licensed in FL, GA, and VA

From: McDonald, Elizabeth
To: Chan, Bentley

Cc: Simukonde, Nellow; Forehand, Marcello; Tansi, Odette; Bisulca, Jonathan; Sullard, Jeff; Brown, Mark A; Thomas,

Rodney; Birchett, Shawn; Hawkins, William; Robinson, Clifford; Stephens, Eugene; Pruden, Joseph; Glenn, Stacy; Spain, Frederick; Lofton, Vincent; Grandstaff, James; Meade, Thomas; Adkins, Christopher; Duke, Christopher; Sossong, Marchelle; Schwartz, Rick; Thompson, Alice; Kramer, Keith; Christian, Alvin, Jr; Yob, Steven; Valenzuela, Victor; Maddox, Lee; Bajek, Chelsea; Garofalo, Jason; Simukonde, Nellow; Forehand, Marcello; Tansi, Odette; Bisulca, Jonathan; Sullard, Jeff; Brown, Mark A; Thomas, Rodney; Birchett, Shawn; Hawkins, William; Robinson, Clifford; Stephens, Eugene; Pruden, Joseph; Glenn, Stacy; Spain, Frederick; Lofton, Vincent; Grandstaff, James; Meade, Thomas; Adkins, Christopher; Duke, Christopher; Sossong, Marchelle; Schwartz, Rick; Thompson, Alice; Kramer, Keith; Christian, Alvin, Jr; Yob, Steven; Valenzuela, Victor; Maddox, Lee; Bajek,

Chelsea; Garofalo, Jason

Subject: RE: Henrico Water - COR Water Supply - System Re-Energization

Date: Thursday, January 9, 2025 5:28:38 AM

Attachments: <u>image001.png</u>

Hi Bentley,

At this point our best information is that we see pressure consistently building at Eubank Tank. It began showing at 1:00 AM and has steadily continued to increase.

We have two crews out now beginning the hydrant purge. They are following the path of water, so we should have better information on this within a few hours. We will know how far it has gotten beyond Eubank Tank when they get to a point where water hasn't yet reached, and the hydrants run dry. So far we have flowing hydrants in the NW portion of the Greater Eubank Distribution Pressure Zone.

Respectfully.



ELIZABETH McDONALD, P.E.*

Assistant Division Director, Operations
HENRICO WATER, Department of Public Utilities
Office 804.727.8765 Cell 804.398.0756
eMail elizabeth.mcdonald@henrico.gov
10401 Woodman Road, Henrico, Virginia 23060
*Licensed in FL, GA, and VA

From: Chan, Bentley <cha70@henrico.gov> Sent: Thursday, January 9, 2025 5:16 AM

To: McDonald, Elizabeth < MCD046@henrico.gov>

Cc: Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; Tansi,

Odette <TAN072@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; Sullard, Jeff

<sul11@henrico.gov>; Brown, Mark A <bro05@henrico.gov>; Thomas, Rodney

<tho34@henrico.gov>; Birchett, Shawn <bir@henrico.gov>; Hawkins, William

<a href="mailto:, Robinson, Clifford <a href="mailto:, Stephens, Eugene

<STE134@henrico.gov>; Pruden, Joseph <pru06@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>;

Spain, Frederick <SPA066@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Grandstaff, James

<gra@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Adkins, Christopher

<adk21@henrico.gov>; Duke, Christopher <duk@henrico.gov>; Sossong, Marchelle

<sos@henrico.gov>; Schwartz, Rick <sch068@henrico.gov>; Thompson, Alice <tho03@henrico.gov>;

Kramer, Keith <kra@henrico.gov>; Christian, Alvin, Jr <chr26@henrico.gov>; Yob, Steven

<yob@henrico.gov>; Valenzuela, Victor <VAL051@henrico.gov>; Maddox, Lee

<mad06@henrico.gov>; Bajek, Chelsea <BAJ001@henrico.gov>; Garofalo, Jason

Subject: Re: Henrico Water - COR Water Supply - System Re-Energization

Good morning and thanks, Elizabeth! Any word on how far water has gone through the system?

Bentley

On Jan 9, 2025, at 4:51 AM, McDonald, Elizabeth < MCD046@henrico.gov> wrote:

AII,

DPU Operations Staff communicated with the City of Richmond at 4:15 AM 01/09/2025, requesting to increase our withdrawal. The City of Richmond accepted our request, but wants us to remain at this withdrawal rate until at least 8:00 AM.

City of Richmond flow into the Greater Eubank Distribution Pressure Zone from the Shurm Pressure Reducing Station Valve has increased to 4.9 MGD.

DPU Operations Distribution Crews have begun purging air from the watermains by opening fire hydrants in strategic locations. This process will increase our capacity within the distribution system and reduce the risk to watermain breaks during system re-energization.

Updates to follow.

Respectfully,

ELIZABETH McDONALD, P.E.*

Assistant Division Director, Operations

<image001.png> HENRICO WATER, Department of Public Utilities

Office 804.727.8765 Cell 804.398.0756 eMail elizabeth.mcdonald@henrico.gov

10401 Woodman Road, Henrico, Virginia 23060 *Licensed in FL, GA, and VA

From: McDonald, Elizabeth

Sent: Thursday, January 9, 2025 3:50 AM

To: Simukonde, Nellow <<u>sim69@henrico.gov</u>>; Forehand, Marcello

<FOR109@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>; Bisulca, Jonathan

<<u>BISO18@henrico.gov</u>>; Sullard, Jeff <<u>sul11@henrico.gov</u>>; Brown, Mark A

<<u>bir@henrico.gov</u>>; Hawkins, William <<u>haw11@henrico.gov</u>>; Robinson, Clifford

<rob84@henrico.gov>; Stephens, Eugene <<u>STE134@henrico.gov</u>>; Pruden, Joseph

cpru06@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Spain, Frederick

<<u>SPA066@henrico.gov</u>>; Lofton, Vincent <<u>lof04@henrico.gov</u>>; Grandstaff, James

<gra@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Adkins, Christopher

<a href="mailto:adk21@henrico.gov; Sossong, Marchelle

<sos@henrico.gov>; Schwartz, Rick <sch068@henrico.gov>; Thompson, Alice

<<u>tho03@henrico.gov</u>>; Kramer, Keith <<u>kra@henrico.gov</u>>; Christian, Alvin, Jr

<<u>chr26@henrico.gov</u>>; Chan, Bentley <<u>cha70@henrico.gov</u>>; Yob, Steven

<yob@henrico.gov>; Valenzuela, Victor <VAL051@henrico.gov>; Maddox, Lee

<<u>mad06@henrico.gov</u>>; Bajek, Chelsea <<u>BAJ001@henrico.gov</u>>; Garofalo, Jason

<GAR097@henrico.gov>

Subject: RE: Henrico Water - COR Water Supply - System Re-Energization

AII,

DPU Operations Staff communicated with the City of Richmond at 3:15 AM 01/09/2025, requesting to increase our withdrawal. The City of Richmond eagerly accepted our request as their tanks were nearing capacity.

City of Richmond flow into the Greater Eubank Distribution Pressure Zone from the Shurm Pressure Reducing Station Valve has increased to 2.2 MGD.

Updates to follow.

Respectfully,

<image001.png>

ELIZABETH McDONALD, P.E.*

Assistant Division Director, Operations

HENRICO WATER, Department of Public Utilities

Office 804.727.8765 Cell 804.398.0756 eMail elizabeth.mcdonald@henrico.gov 10401 Woodman Road, Henrico, Virginia 23060

*Licensed in FL, GA, and VA

From: McDonald, Elizabeth

Sent: Thursday, January 9, 2025 2:42 AM

To: Simukonde, Nellow <<u>sim69@henrico.gov</u>>; Forehand, Marcello

<<u>FOR109@henrico.gov</u>>; Tansi, Odette <<u>TAN072@henrico.gov</u>>; Bisulca, Jonathan

<BISO18@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Brown, Mark A

bro05@henrico.gov>; Thomas, Rodney <tho34@henrico.gov>; Birchett, Shawn

bir@henrico.gov>; Hawkins, William <haw11@henrico.gov>; Robinson, Clifford
<robserved</p>
<robserved</p>

crob84@henrico.gov>; Stephens, Eugene <
STE134@henrico.gov>; Pruden, Joseph
pru06@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Spain, Frederick
<SPA066@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Grandstaff, James
<qra@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Adkins, Christopher
<adk21@henrico.gov>; Duke, Christopher <duk@henrico.gov>; Sossong, Marchelle
<sos@henrico.gov>; Schwartz, Rick <sch068@henrico.gov>; Thompson, Alice
<tho03@henrico.gov>; Kramer, Keith <kra@henrico.gov>; Christian, Alvin, Jr
<chr26@henrico.gov>; Valenzuela, Victor <vAL051@henrico.gov>; Maddox, Lee
<mad06@henrico.gov>; Bajek, Chelsea <BAJ001@henrico.gov>; Garofalo, Jason
<GAR097@henrico.gov>

Subject: RE: Henrico Water - COR Water Supply - System Re-Energization

All,

DPU Operations Staff is continuing to allow water to be gravity fed into the Greater Eubank Distribution Pressure Zone via the entry points mentioned in the prior update.

The City of Richmond finds the current withdrawal acceptable and finds no issue with Henrico County continuing at this withdrawal rate throughout the remainder of the night. SCADA data confirms the City of Richmond's system pressure is stabilizing.

As of 1:00 AM the Eubank Tank began recording pressure readings, meaning we are actively seeing water progress its way through the system.

The next update will come once Distribution Crews actively begin purging air from the watermains. Updates to follow.

Respectfully,

ELIZABETH McDONALD, P.E.*

Assistant Division Director, Operations

<image001.png> HENRICO WATER, Department of Public Utilities

Office 804.727.8765 Cell 804.398.0756
eMail elizabeth.mcdonald@henrico.gov
10401 Woodman Road, Henrico, Virginia 23060

*Licensed in FL, GA, and VA

From: McDonald, Elizabeth

Sent: Thursday, January 9, 2025 12:56 AM

To: Simukonde, Nellow < <u>sim69@henrico.gov</u>>; Forehand, Marcello

<<u>FOR109@henrico.gov</u>>; Tansi, Odette <<u>TAN072@henrico.gov</u>>; Bisulca, Jonathan

<BISO18@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Brown, Mark A

<<u>broups</u>; Thomas, Rodney <<u>tho34@henrico.gov</u>>; Birchett, Shawn

<bir@henrico.gov>; Hawkins, William <haw11@henrico.gov>; Robinson, Clifford
<rob84@henrico.gov>; Stephens, Eugene <STE134@henrico.gov>; Pruden, Joseph
<pru06@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Spain, Frederick
<SPA066@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Grandstaff, James
<qra@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Adkins, Christopher
<adk21@henrico.gov>; Duke, Christopher <duk@henrico.gov>; Sossong, Marchelle
<sos@henrico.gov>; Schwartz, Rick <sch068@henrico.gov>; Thompson, Alice
<th003@henrico.gov>; Kramer, Keith <kra@henrico.gov>; Christian, Alvin, Jr

<chr26@henrico.gov>; Chan, Bentley <cha70@henrico.gov>; Yob, Steven
<yob@henrico.gov>; Valenzuela, Victor <VAL051@henrico.gov>; Maddox, Lee
<mad06@henrico.gov>; Bajek, Chelsea <BAJ001@henrico.gov>; Garofalo, Jason
<GAR097@henrico.gov>

Subject: Henrico Water - COR Water Supply - System Re-Energization

All,

As of 7:15 PM 01/08/2025 DPU Operations Staff opened the Shurm Pressure Reducing Station Valve to allow City of Richmond Water to enter Henrico County's Greater Eubank Distribution Pressure Zone. At that time the City of Richmond limited Henrico's withdrawal to 0.5 MGD. The smallest increment DPU Operations Staff could open the valve was 1.5% and allowed 0.7 MGD to flow. This was found to be acceptable by the City of Richmond.

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As of now, 12:49 AM 01/09/2025 Shurm Pressure Reducing Station Valve remains at 2.9% open with a flow rate of 1.8 MGD. The City of Richmond was contacted and this flow rate was still found to be acceptable. The gravity valve Len Avenue Pump Station remains at 40% open with a flow rate of 0.54 MGD. DPU Operations plans to hold the valves at their current positions until office staff arrives at 8:00 AM to discuss next steps.

Please feel free to contact me if you have any questions.

Updates to come.

Respectfully,

ELIZABETH McDONALD, P.E.*Assistant Division Director, Operations

From: Pruden, Joseph

To: Yob, Steven; Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Brown, Mark A; Thomas, Rodney;

Bisulca, Jonathan; Spain, Frederick; Lofton, Vincent; Tansi, Odette; Smith, Evan; Sullard, Jeff; Birchett, Shawn;

Robinson, Clifford; Stephens, Eugene; Sandiford, Danyelle; Hawkins, William

Subject: Shurm Update

Date: Thursday, January 9, 2025 1:14:20 AM

Attachments: 1-8-25 Event.xlsx image001.png

Good morning all here is our 1AM update more updates to follow by the hour.



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289

Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060 From: Pruden, Joseph

To: Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Brown, Mark A; Thomas, Rodney; Bisulca,

Jonathan; Spain, Frederick; Lofton, Vincent; Tansi, Odette; Smith, Evan; Sullard, Jeff; Birchett, Shawn; Robinson,

Clifford; Stephens, Eugene; Sandiford, Danyelle; Hawkins, William

Subject: RE: Shurm Update

Date: Thursday, January 9, 2025 6:08:06 AM

Attachments: 1-8-25 Event.xlsx image001.png

Here is our 6AM update we had to make a few changes COR Trafford is having a few pump issues they hope to be up soon updates to follow.



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060

From: Pruden, Joseph

Sent: Thursday, January 9, 2025 5:00 AM

To: Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Brown, Mark A <broops@henrico.gov>; Thomas, Rodney <tho34@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; Spain, Frederick <SPA066@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>; Smith, Evan <SMI248@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Birchett, Shawn

STE134@henrico.gov>; Sandiford, Danyelle <SAN075@henrico.gov>; Hawkins, William <haw11@henrico.gov>

Subject: RE: Shurm Update

Here is our 5AM update.



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060

From: Pruden, Joseph

Sent: Thursday, January 9, 2025 3:10 AM

To: Simukonde, Nellow <<u>sim69@henrico.gov</u>>; Forehand, Marcello <<u>FOR109@henrico.gov</u>>; McDonald, Elizabeth <<u>MCD046@henrico.gov</u>>; Brown, Mark A <<u>bro05@henrico.gov</u>>; Thomas, Rodney <<u>tho34@henrico.gov</u>>; Bisulca, Jonathan <<u>BIS018@henrico.gov</u>>; Spain, Frederick <<u>SPA066@henrico.gov</u>>; Lofton, Vincent <<u>lof04@henrico.gov</u>>; Tansi, Odette

<<u>TAN072@henrico.gov</u>>; Smith, Evan <<u>SMI248@henrico.gov</u>>; Sullard, Jeff <<u>sul11@henrico.gov</u>>; Birchett, Shawn <<u>bir@henrico.gov</u>>; Robinson, Clifford <<u>rob84@henrico.gov</u>>; Stephens, Eugene <<u>STE134@henrico.gov</u>>; Sandiford, Danyelle <<u>SAN075@henrico.gov</u>>; Hawkins, William <<u>haw11@henrico.gov</u>>

Subject: RE: Shurm Update

Here is our 3AM update



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060

From: Pruden, Joseph

Sent: Thursday, January 9, 2025 2:07 AM

To: Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Brown, Mark A

dhenrico.gov>; Thomas, Rodney <tho34@henrico.gov>; Bisulca, Jonathan

BIS018@henrico.gov>; Spain, Frederick <

SPA066@henrico.gov>; Lofton, Vincent <

lof04@henrico.gov>; Tansi, Odette <

TAN072@henrico.gov>; Smith, Evan <SMI248@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Birchett, Shawn

bir@henrico.gov>; Robinson, Clifford <rob84@henrico.gov>; Stephens, Eugene <

STE134@henrico.gov>; Sandiford, Danyelle <SAN075@henrico.gov>; Hawkins, William <

haw11@henrico.gov>

Subject: RE: Shurm Update

Here is our 2AM update



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060

From: Pruden, Joseph

Sent: Thursday, January 9, 2025 1:26 AM

To: Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Brown, Mark A <brooks@henrico.gov>; Thomas, Rodney <th034@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; Spain, Frederick <SPA066@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>; Smith, Evan <SMI248@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Birchett, Shawn

Sirchett, Shawn <br

Subject: Shurm Update

Good morning all here is our 1AM update more updates to follow by the hour.



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section
The Virgil R.Hazelett Reservoir at Cobbs Creek
HENRICO WATER, Department of Public Utilities
Phone 804-727-8758 Co. Cell 804-349-2289
Email Joseph.Pruden@henrico.gov
10401 Woodman Rd., Glen Allen VA, 23060

From: Pruden, Joseph

To: Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Brown, Mark A; Thomas, Rodney; Bisulca,

Jonathan; Spain, Frederick; Lofton, Vincent; Tansi, Odette; Smith, Evan; Sullard, Jeff; Birchett, Shawn; Robinson,

Clifford; Stephens, Eugene; Sandiford, Danyelle; Hawkins, William

Subject: RE: Shurm Update

Date: Thursday, January 9, 2025 7:59:34 AM

Attachments: 1-8-25 Event.xlsx image001.png

Here is our 8AM update



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060

From: Pruden, Joseph

Sent: Thursday, January 9, 2025 7:00 AM

To: Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Brown, Mark A <broops@henrico.gov>; Thomas, Rodney <tho34@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; Spain, Frederick <SPA066@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>; Smith, Evan <SMI248@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Birchett, Shawn

STE134@henrico.gov>; Sandiford, Danyelle <SAN075@henrico.gov>; Hawkins, William <haw11@henrico.gov>

Subject: RE: Shurm Update

Here is our 7AM update / Trafford COR is back up.



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060

From: Pruden, Joseph

Sent: Thursday, January 9, 2025 6:08 AM

To: Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Brown, Mark A <brookspace

Rodney <th034@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; Spain, Frederick <<SPA066@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Tansi, Odette <<TAN072@henrico.gov>; Smith, Evan <SMI248@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Birchett, Shawn

birchett, Shawn

\$\frac{\text{bir@henrico.gov}}{\text{constant}}\$; Sandiford, Danyelle <\SAN075@henrico.gov>; Hawkins, William

01-08-2025 event

TIME		7:15	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30	5:00	5:30	6:00	6:30	7:00	7:30	8:00
Shurm	City psi valve % flow mgd	55.5 1.5 0.7	56 1.5 0.7	56.2 1.5 0.7	57 1.5 0.7	54 2.9 1.62	54.3 2.9 1.62	54.9 2.9 1.62	55.3 2.9 1.62	55.7 2.9 1.64	56.35 2.9 1.64	66 2.9 1.7	67 2.9 1.7	67.38 2.9 1.7	68 2.9 1.8	69 2.9 1.8	68.9 2.9 2.2	67.1 4.7 2.2	66.25 4.7 2.2	57 9.9 4.8	59.9 10 4.8	37 0 0	37 0 0	38.25 0 0	68.3 5 2.3	67.45 10.9 5.21	65 12 6.2
eubank	system psi tank level	0 0	0 0	0 0	0 0	0 0	0	0	0	0 0	0 0	0 0	0.1 0	0.6 0	0.9 0	1.4 0	1.5 0	1.9 0	2.4	4.76 0	6.72 0	3.32 0	2.36 0	1.49 0	2.4	7.4 0	11.2 0
len	grav valve % flow mgd LA psi EU psi tank level		40 0.35 16.1 0 3.1	40 0.35 16.7 0 3.1	40 0.37 17.7 0 3.1	40 0.36 18.2 0.42 3.1	40 0.4 18.7 1.16 3.1	40 0.5 19.8 1.13 3.1	40 0.5 20.1 1.11 3.1	40 0.51 21 1.29 3.1	40 0.51 21.28 1.38 3.1	40 0.53 23.19 1.57 3.1	40 0.54 24 1.8 3.1	40 0.57 26 1.6 3.12	40 0.6 32 1.8 3.1	40 0.6 33 2.1 3.1	40 0.6 29.4 2.2 3.1	49 1.6 20.3 2.4 3.1	49 1.4 18.16 2.4 3.1	53 1.7 16.97 4.9 3.1	54 2.3 28.11 6.8 3.1	53.9 2.2 24.24 3.3 3.1	53.9 2.2 23.98 2.3 3.1	53.9 2.2 24.49 1.5 3.1	53.9 2.7 25.23 2.5 3.1	58 2.6 25.65 7.4 3.1	68 2.93 22.45 11.3 3.1
Elko t1v open	system psi flow tank level prv %		5 0 6.3 7	5 0 6.3 7	5.3 0.002 7 7	5.8 0.002 8.1 7	7 0 9.01 7	7.7 0 9.08 5	8.1 0.1 9.08 3	8.3 0.1 9.02 3	8.7 0.1 9.02 3	9.1 0.1 9.05 3	9.6 0.1 9.07 3	9.9 0.1 9.08 3	10.1 0.1 9.08 3	10.3 0.1 9.09 3	10.3 0.1 9.09 3	10.6 0.14 9.1 3	11.6 0.14 9.1 3	11.9 0.16 9.12 3	13.5 0.17 9.15 3	12.4 0.16 9.13 3	11.5 0.15 9.11 3	10.6 0.14 9.09 3	10.9 0.14 9.09 3	14.4 0.18 9.16 3	17.4 0.22 9.2 3
robin	prv % system psi tank level flow			5.5 0.5 2.6	5.5 0.75 2.6	5.5 1 2.6 0.01	5.5 1.5 2.6 0.01	5.5 1.8 2.6 0	5.5 2 2.6 0	5.5 2.3 2.6 0	5.5 2.48 2.6 0	5.5 2.75 2.61 0.01	5.5 3.01 2.61 0.01	5.5 3.32 2.6 0.01	5.5 3.5 2.6 0.01	5.5 3.7 2.6 0.01	5.5 3.9 2.6 0.01	5.5 4.36 2.6 0.01	5.5 4.85 2.6 0.01	5.5 5.43 2.6 0.01	5.5 6.79 2.6 0.01	5.5 6.42 2.6 0.01	5.5 5.79 2.6 0.01	5.5 5.2 2.6 0.01	5.5 5.29 2.6 0.01	5.5 7.73 2.6 0.01	5.5 9.77 2.6 0.01

From: <u>Simukonde, Nellow</u>

To: McDonald, Elizabeth; Forehand, Marcello; Tansi, Odette; Bisulca, Jonathan; Sullard, Jeff; Brown, Mark A;

Thomas, Rodney; Birchett, Shawn; Hawkins, William; Robinson, Clifford; Stephens, Eugene; Pruden, Joseph; Glenn, Stacy; Spain, Frederick; Lofton, Vincent; Grandstaff, James; Meade, Thomas; Adkins, Christopher; Duke, Christopher; Sossong, Marchelle; Schwartz, Rick; Thompson, Alice; Kramer, Keith; Christian, Alvin, Jr; Chan,

Bentley; Yob, Steven; Valenzuela, Victor; Maddox, Lee; Bajek, Chelsea; Garofalo, Jason

Subject: RE: Henrico Water - COR Water Supply - System Re-Energization

Date: Thursday, January 9, 2025 8:54:17 AM

Attachments: <u>image001.png</u>

Good morning, all -

We are proceeding to re-energize the water distribution system with all deliberate speed to avoid shock or unwanted hydraulic instability that might increase the likelihood of water main breaks. We are doing our best to balance this with the urgent needs of our customers. We are currently receiving 6.2 Million Gallons a Day from the City through the Shurm station. Storage tanks at our Elko and Robin Avenue Water Pumping stations are being slowly filled as the zone pressures increase. We are not running any booster pumps yet in these stations or any other station in the Greater Eubank Pressure Zone (East end) to boost pressure as we need to continue to check the system and bleed out air through hydrants and allow smooth system reenergization and capacity buildup.

As we continue this process, different parts of the eastern County will see (or are seeing) the return of water or increasing pressure at different times due to different elevations. Basing judgment on a continuous assessment of the system hydraulic grade line in the zone and in coordination with the city, we will be adjusting the supply upwards and eventually start our booster pumps when the system is confirmed to be stable. This will be a push toward normal hydraulic conditions and restoration of firefighting capacity.

Other parts of the County that are supplied by the City, including the River Road area in the west end, should be seeing increased pressure at this time. The central region, including the Laburnum-Azalea zone, is seeing increasing pressure, but the pressure is still to reach the acceptable threshold. DPU will open valves to allow supply from the city through our 16 meters along the zone boundary with the city. Up 4 four of these valves will be opened per day depending on the supply line size and monitored zone hydraulic conditions, including the need for air release through hydrants.

We will continue to provide frequent updates.



NELLOW SIMUKONDE, P.E. *Operations Division Director*

HENRICO WATER, Department of Public Utilities

Phone 804.727.8711 Email nellow.simukonde@henrico.us

10401 Woodman Road, Henrico, Virginia 23060

From: McDonald, Elizabeth < MCD046@henrico.gov>

Sent: Thursday, January 9, 2025 04:51

From: Smith, Evan

To: McDonald, Elizabeth; Thomas, Rodney

Cc:Tansi, OdetteSubject:Flushing Plan

Date: Thursday, January 9, 2025 9:00:33 AM

Attachments: <u>EastEndFlushingPlan.pdf</u>

image001.png

Hi Elizabeth and Rodney,

Here is the map showing location and ID for hydrants to flush from. I have divided them into four color-coded sections and selected based on pipe size and system location.

I will follow up with a excel shared file with a list of these hydrants by assignment.

Evan



From: Smith, Evan

To: <u>McDonald, Elizabeth; Thomas, Rodney; Tansi, Odette</u>

Subject: RE: Flushing Plan

Date: Thursday, January 9, 2025 9:11:17 AM

Attachments: <u>EastEndFlushingPlan.pdf</u>

image002.png image003.png

Flushing Plan Checklist.xlsx



Evan Smith

Water Quality Engineer
HENRICO WATER, Department of Public Utilities
Phone 804-727-8759 Email Evan.Smith@henrico.gov
10401 Woodman Road, Glen Allen, Virginia 23060

From: Smith, Evan

Sent: Thursday, January 9, 2025 9:00 AM

To: McDonald, Elizabeth < MCD046@henrico.gov>; Thomas, Rodney < tho34@henrico.gov>

Cc: Tansi, Odette <TAN072@henrico.gov>

Subject: Flushing Plan

Hi Elizabeth and Rodney,

Here is the map showing location and ID for hydrants to flush from. I have divided them into four color-coded sections and selected based on pipe size and system location.

I will follow up with a excel shared file with a list of these hydrants by assignment.

Evan



Evan Smith

Water Quality Engineer
HENRICO WATER, Department of Public Utilities
Phone 804-727-8759 Email Evan.Smith@henrico.gov
10401 Woodman Road, Glen Allen, Virginia 23060

From: Smith, Evan

To: <u>McDonald, Elizabeth; Thomas, Rodney; Tansi, Odette</u>

Subject: RE: Flushing Plan

Date: Thursday, January 9, 2025 10:52:21 AM

Attachments: <u>EastEndFlushingPlan.pdf</u>

JanuaryFlush2.pdf image001.png image002.png

Second selection map attached.



Evan Smith

Water Quality Engineer
HENRICO WATER, Department of Public Utilities
Phone 804-727-8759 Email Evan.Smith@henrico.gov
10401 Woodman Road, Glen Allen, Virginia 23060

From: Smith, Evan

Sent: Thursday, January 9, 2025 9:11 AM

To: McDonald, Elizabeth <MCD046@henrico.gov>; Thomas, Rodney <tho34@henrico.gov>; Tansi,

Odette <TAN072@henrico.gov>

Subject: RE: Flushing Plan

Flushing Plan Checklist.xlsx



Evan Smith

Water Quality Engineer
HENRICO WATER, Department of Public Utilities
Phone 804-727-8759 Email Evan.Smith@henrico.gov
10401 Woodman Road, Glen Allen, Virginia 23060

From: Smith, Evan

Sent: Thursday, January 9, 2025 9:00 AM

To: McDonald, Elizabeth < MCD046@henrico.gov >; Thomas, Rodney < tho34@henrico.gov >

Cc: Tansi, Odette < TAN072@henrico.gov >

Subject: Flushing Plan

Hi Elizabeth and Rodney,

Here is the map showing location and ID for hydrants to flush from. I have divided them into four color-coded sections and selected based on pipe size and system location.

I will follow up with a excel shared file with a list of these hydrants by assignment.

Evan

Evan Smith

Water Quality Engineer

From: Chan, Bentley

To: <u>Davis, Bailey (VDH)</u>; <u>Reynolds, James (VDH)</u>; <u>Mccauley, Lyndsey (VDH)</u>

Cc: Christian, Alvin, Jr; Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Grandstaff, James; Meade,

Thomas; Stubbs, Kimberlee

Subject: RE: Henrico BWA

Date: Thursday, January 9, 2025 11:10:18 AM

Attachments: <u>image001.png</u>

Hi James, Bailey, and Lyndsey,

Thank you again for the calls this morning. Just to update . . . we're looking better than expected with 20 psi minimum pressure across the area later this afternoon. As such, we'll begin sampling then. The west bacteriological sample should be collected this morning. Will have more information for you soon.

Thanks again, Bentley



BENTLEY CHAN, PE

HENRICO WATER, Department of Public Utilities

Phone 804.501.4280 Email bentley.chan@henrico.gov

4305 East Parham Road, Henrico, Virginia 23228

----Original Appointment-----

From: Davis, Bailey (VDH) <Bailey.Davis@vdh.virginia.gov>

Sent: Thursday, January 9, 2025 9:31 AM

To: Davis, Bailey (VDH); Chan, Bentley; Reynolds, James (VDH); Mccauley, Lyndsey (VDH)

Subject: Henrico BWA

When: Thursday, January 9, 2025 9:30 AM-10:00 AM (UTC-05:00) Eastern Time (US & Canada).

Where: Microsoft Teams Meeting

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 259 406 323 68

Passcode: Lw6BK9BY

Dial in by phone

+1 434-230-0065,,68694499# United States, South Hill

Find a local number

From: Chan, Bentley

To: Reynolds, James (VDH); Davis, Bailey (VDH); Mccauley, Lyndsey (VDH)

Cc: Christian, Alvin, Jr; Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Grandstaff, James; Meade,

Thomas; Stubbs, Kimberlee

Subject: RE: Henrico BWA

Date: Thursday, January 9, 2025 3:54:40 PM

Attachments: <u>image001.png</u>

Thanks, James! We'll let you know when we've collected.

Bentley



BENTLEY CHAN, PE

Director
HENRICO WATER, Department of Public Utilities

Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Reynolds, James (VDH) < James.Reynolds@vdh.virginia.gov>

Sent: Thursday, January 9, 2025 3:53 PM

To: Chan, Bentley <cha70@henrico.gov>; Davis, Bailey (VDH) <Bailey.Davis@vdh.virginia.gov>;

Mccauley, Lyndsey (VDH) < Lyndsey. Mccauley@vdh.virginia.gov>

Cc: Christian, Alvin, Jr <chr26@henrico.gov>; Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Grandstaff, James

<gra@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Stubbs, Kimberlee

<STU005@henrico.gov> **Subject:** Re: Henrico BWA

Yes, I believe those will work. Thanks!

James Reynolds, PE
Field Director- Richmond Field Office
Virginia Department of Health, Office of Drinking Water
james.reynolds@vdh.virginia.gov
(757)406-1252 (cell phone)

Get Outlook for Android

From: Chan, Bentley < cha70@henrico.gov > Sent: Thursday, January 9, 2025 3:44:33 PM

To: Davis, Bailey (VDH) < Bailey.Davis@vdh.virginia.gov>; Reynolds, James (VDH)

<<u>James.Reynolds@vdh.virginia.gov</u>>; Mccauley, Lyndsey (VDH)

<<u>Lyndsey.Mccauley@vdh.virginia.gov</u>>

Cc: Christian, Alvin, Jr <<u>chr26@henrico.gov</u>>; Simukonde, Nellow <<u>sim69@henrico.gov</u>>; Forehand, Marcello <<u>FOR109@henrico.gov</u>>; McDonald, Elizabeth <<u>MCD046@henrico.gov</u>>; Grandstaff, James

<gra@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Stubbs, Kimberlee

<<u>STU005@henrico.gov</u>>

From: <u>Davis, Bailey (VDH)</u>

To: Chan, Bentley; Reynolds, James (VDH); Mccauley, Lyndsey (VDH)

Cc: Christian, Alvin, Jr; Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Grandstaff, James; Meade,

Thomas; Stubbs, Kimberlee

Subject: Re: Henrico BWA

Date: Thursday, January 9, 2025 4:17:24 PM

Attachments: <u>image001.png</u>

Those will work fine. Thanks!

From: Chan, Bentley <cha70@henrico.gov> Sent: Thursday, January 9, 2025 4:14 PM

To: Davis, Bailey (VDH) <Bailey.Davis@vdh.virginia.gov>; Reynolds, James (VDH)

<James.Reynolds@vdh.virginia.gov>; Mccauley, Lyndsey (VDH)

<Lyndsey.Mccauley@vdh.virginia.gov>

Cc: Christian, Alvin, Jr <chr26@henrico.gov>; Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Grandstaff, James <gra@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Stubbs, Kimberlee

<STU005@henrico.gov> **Subject:** RE: Henrico BWA

Hi Bailey,

We collected the west bacteriological at 9312 S. Mooreland Rd and will collect the east bacteriological at 5308 Coxson Rd. Will this work?

Thanks!

Bentlev



BENTLEY CHAN. PE

Director
HENRICO WATER, Department of Public Utilities

Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Davis, Bailey (VDH) <Bailey.Davis@vdh.virginia.gov>

Sent: Thursday, January 9, 2025 3:58 PM

To: Chan, Bentley <cha70@henrico.gov>; Reynolds, James (VDH) <James.Reynolds@vdh.virginia.gov>; Mccauley, Lyndsey (VDH)

<Lyndsey.Mccauley@vdh.virginia.gov>

Cc: Christian, Alvin, Jr <chr26@henrico.gov>; Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Grandstaff, James <gra@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Stubbs, Kimberlee

<STU005@henrico.gov> **Subject:** Re: Henrico BWA

Bentley,

I may have missed it so sorry if this is repeat information. Have you already taken a sample from a Western Henrico location? If so, what was that location?

Thanks, Bailey

From: Chan, Bentley < cha70@henrico.gov> Sent: Thursday, January 9, 2025 3:54 PM

To: Reynolds, James (VDH) < <u>James.Reynolds@vdh.virginia.gov</u>>; Davis, Bailey (VDH)

<<u>Bailey.Davis@vdh.virginia.gov</u>>; Mccauley, Lyndsey (VDH) <<u>Lyndsey.Mccauley@vdh.virginia.gov</u>>

Cc: Christian, Alvin, Jr <<u>chr26@henrico.gov</u>>; Simukonde, Nellow <<u>sim69@henrico.gov</u>>; Forehand, Marcello <<u>FOR109@henrico.gov</u>>; McDonald, Elizabeth <<u>MCD046@henrico.gov</u>>; Grandstaff, James

<<u>gra@henrico.gov</u>>; Meade, Thomas <<u>mea19@henrico.gov</u>>; Stubbs, Kimberlee

<<u>STU005@henrico.gov</u>> **Subject:** RE: Henrico BWA

Thanks, James! We'll let you know when we've collected.

Bentley



BENTLEY CHAN, PE

Director
HENRICO WATER, Department of Public Utilities

Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Reynolds, James (VDH) < <u>James.Reynolds@vdh.virginia.gov</u>>

Sent: Thursday, January 9, 2025 3:53 PM

To: Chan, Bentley <<u>cha70@henrico.gov</u>>; Davis, Bailey (VDH) <<u>Bailey.Davis@vdh.virginia.gov</u>>; Mccauley, Lyndsey (VDH) <<u>Lyndsey.Mccauley@vdh.virginia.gov</u>>

Cc: Christian, Alvin, Jr <<u>chr26@henrico.gov</u>>; Simukonde, Nellow <<u>sim69@henrico.gov</u>>; Forehand, Marcello <<u>FOR109@henrico.gov</u>>; McDonald, Elizabeth <<u>MCD046@henrico.gov</u>>; Grandstaff, James <<u>gra@henrico.gov</u>>; Meade, Thomas <<u>mea19@henrico.gov</u>>; Stubbs, Kimberlee

<<u>STU005@henrico.gov</u>> **Subject:** Re: Henrico BWA

Yes, I believe those will work. Thanks!

James Reynolds, PE Field Director- Richmond Field Office Virginia Department of Health, Office of Drinking Water james.reynolds@vdh.virginia.gov (757)406-1252 (cell phone) From: Chan, Bentley

To: <u>Davis, Bailey (VDH)</u>; <u>Reynolds, James (VDH)</u>; <u>Mccauley, Lyndsey (VDH)</u>

Cc: Christian, Alvin, Jr; Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Grandstaff, James; Meade,

Thomas; Stubbs, Kimberlee

Subject: RE: Henrico BWA

Date: Thursday, January 9, 2025 11:08:10 PM

Attachments: <u>image001.png</u>

Hi James, Bailey, and Lyndsey,

Following up . . . the first round of sampling across the Greater Eubank Pressure Zone has been completed. Total residual chlorine concentrations are consistent with average concentrations historically observed during routine monthly monitoring at these same locations. Here are the details on the samples:

Sample Location	Sample Date	Sample Time	Total Residual Chlorine (mg/L)
5308 Coxson Rd	1/9/2025	18:06	4.5
20 Meadowspring Rd	1/9/2025	18:40	3.3
5104 Tiffanywoods Ct	1/9/2025	19:15	3.3
436 Evanrude Ln	1/9/2025	19:42	1.57
101 Linstead Rd	1/9/2025	20:09	2.0
9101 WRVA Rd	1/9/2025	20:58	0.18

The BacT sample for the zone was collected from 5308 Coxson Rd. Results will be available at approximately 9:30 PM tomorrow (Friday) evening. We will resample these locations again tomorrow beginning after 10:00 AM, allowing for the required 16-hours between sampling events.

The west end sample was collected from 9312 S. Mooreland Rd at 1:28 PM this afternoon. Total residual chlorine at this site was 2.5 mg/L. The BacT sample result for this location will be available at approximately 3:00 PM tomorrow afternoon. This location will also be resampled in the morning, allowing for the 16-hour window between events.

We will provide the results for our second round of sampling tomorrow.

Thanks, Bentley



BENTLEY CHAN, PE

HENRICO WATER, Department of Public Utilities

Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Chan, Bentley

From: Pruden, Joseph
To: Spain, Frederick
Subject: Shurm System Update

Date: Thursday, January 9, 2025 11:24:50 PM

Attachments: 1-8-25 Event.xlsx image001.png



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060 From: Spain, Frederick
To: Simukonde, Nellow
Subject: RE: Shurm System update

Date: Friday, January 10, 2025 3:06:07 AM

Attachments: <u>image001.png</u>

I am putting water in elio tank and Len slowly

Sent from my T-Mobile 5G Device

----- Original message -----

From: "Simukonde, Nellow" <sim69@henrico.gov>

Date: 1/10/25 2:59 AM (GMT-05:00)

To: "Spain, Frederick" <SPA066@henrico.gov>

Cc: "Forehand, Marcello" <FOR109@henrico.gov>, "Sullard, Jeff" <sul11@henrico.gov>,

"McDonald, Elizabeth" < MCD046@henrico.gov>

Subject: Re: Shurm System update

Fred, thank you. My phone was not receiving email and I was in the dark for a while. It was looking for a two-factor authentication and I was not aware. I just fixed it.

Nellow Simukonde, P.E. Division Director Henrico County DPU Operations

From: Spain, Frederick <SPA066@henrico.gov> **Sent:** Friday, January 10, 2025 2:40:24 AM **To:** Simukonde, Nellow <sim69@henrico.gov>

Cc: Forehand, Marcello <FOR109@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>

Subject: Shurm System update

I will send another one out later to everyone.



Fred Spain
Operations
Water / Wastewater Facility Maintenance
Superintendent
HENRICO WATER, Department of Public Utilities

Phone 804.727.8760 cell 804.398.0885 Email Frederick.Spain@henrico.gov 10401 Woodman Road Glen Allen, Va. 23060

From: Simukonde, Nellow
To: Spain, Frederick

Cc: Forehand, Marcello; Sullard, Jeff; McDonald, Elizabeth; Lofton, Vincent

Subject: Re: Shurm System update

Date: Friday, January 10, 2025 3:08:52 AM

Attachments: <u>image001.png</u>

Let's continue to fill the tanks with priority on Elko tanks.

Nellow Simukonde, P.E. Division Director Henrico County DPU Operations

From: Simukonde, Nellow <sim69@henrico.gov>

Sent: Friday, January 10, 2025 2:58:53 AM **To:** Spain, Frederick < SPA066@henrico.gov>

Cc: Forehand, Marcello <FOR109@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; McDonald,

Elizabeth < MCD046@henrico.gov> **Subject:** Re: Shurm System update

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Nellow Simukonde, P.E. Division Director Henrico County DPU Operations

From: Spain, Frederick <SPA066@henrico.gov> **Sent:** Friday, January 10, 2025 2:40:24 AM **To:** Simukonde, Nellow <sim69@henrico.gov>

Cc: Forehand, Marcello <FOR109@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>

Subject: Shurm System update

I will send another one out later to everyone.



Fred Spain
Operations
Water / Wastewater Facility Maintenance
Superintendent
HENRICO WATER, Department of Public Utilities

Phone 804.727.8760 cell 804.398.0885 Email Frederick.Spain@henrico.gov 10401 Woodman Road Glen Allen, Va. 23060

From: Spain, Frederick

To:

Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Bisulca, Jonathan; Sullard, Jeff; Brown, Mark A; Thomas, Rodney; Lofton, Vincent; Tansi, Odette; Smith, Evan; Birchett, Shawn; Robinson, Clifford; Glenn, Stacy;

Stephens, Eugene; Sandiford, Danyelle; Hawkins, David; Pruden, Joseph

Subject: Shurm System Update

Date: Friday, January 10, 2025 5:10:25 AM

Copy of 1-8-25 Event.xlsx Attachments:

image001.png



Fred Spain Operations Water / Wastewater Facility Maintenance Superintendent

HENRICO WATER, Department of Public Utilities

Phone 804.727.8760 cell 804.398.0885 Email

Frederick.Spain@henrico.gov 10401 Woodman Road Glen Allen, Va. 23060

From: Hayes, George

To: Chan, Bentley; Bingham, April N. - DPU; Longshore, Matthew B.; Rembold, Matt; Email, Robert Wilson

Cc: Yob, Steven; Smith, Jesse W

Subject: RE: Storm Coordination - Richmond/Chesterfield/Hanover/Henrico

Date: Friday, January 10, 2025 11:33:19 AM

Attachments: image001.png

Emergency Request for Support Staff 011025.xlsx

April and Bentley,

I drafted the attached Emergency Request for Supplement Plant Operators to address Richmond's request. I also reached out to the Executive Director of ARWA, Robert Wilson, copied and invited to the 1pm meeting, and requested if he had any operators. Chesterfield, having a much smaller plant, can provide one operator for the Sunday Day shift. ARWA has offered to cover two shifts. On the schedule developed, each jurisdiction can fill in the operators and contacts.

For Henrico's request for additional water repair crews, Chesterfield had put one additional water main repair crew on standby to cover Friday night, Saturday and Sunday if needed. I have included a table with the contact name and number if needed. I left extra space if other resources identified.

I also suggest that if Richmond and Henrico belong to Virginia WARN (, you reach out to them. If you are not familiar with VA Warn, it is a Utility mutual aid network that you can become a member and request resources throughout the state during emergencies. In this type of situation it would be beneficial because not every part of the state is getting hit with the snow storm we are about to face, on top of the water crisis. Attached is a link to their site: About VA WARN | Virginia Water and Wastewater Agency Response Network

Look forward to meeting at 1pm.

George B. Hayes, P.E.

Director
Department of Utilities
9840 Government Center Parkway
P.O. Box 608
Chesterfield, VA 23832



----Original Appointment----

From: Chan, Bentley <cha70@henrico.gov> Sent: Friday, January 10, 2025 10:13 AM

To: Chan, Bentley; Bingham, April N. - DPU; Hayes, George; Longshore, Matthew B.

Cc: Yob, Steven

Subject: Storm Coordination - Richmond/Chesterfield/Hanover/Henrico

When: Friday, January 10, 2025 1:00 PM-1:30 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Microsoft Teams Meeting

CAUTION: External Email

From: Chan, Bentley

To: Hayes, George; Bingham, April N. - DPU; Longshore, Matthew B.; Rembold, Matt; Email, Robert Wilson

Cc: Yob, Steven; Smith, Jesse W

Subject: RE: Storm Coordination - Richmond/Chesterfield/Hanover/Henrico

Date: Friday, January 10, 2025 2:30:17 PM

Attachments: Emergency Request for Support Staff 011025 - Henrico.xlsx

image002.png image003.png

With Henrico staff added. Thanks!

Bentley



BENTLEY CHAN, PE

HENRICO WATER, Department of Public Utilities

Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Hayes, George < Hayes G@chesterfield.gov>

Sent: Friday, January 10, 2025 11:33 AM

To: Chan, Bentley <cha70@henrico.gov>; Bingham, April N. - DPU <April.Bingham@rva.gov>;

Longshore, Matthew B. <MBLongshore@hanovercounty.gov>; Rembold, Matt <RemboldM@chesterfield.gov>; Email, Robert Wilson <rwilson@arwava.org>
Cc: Yob, Steven <yob@henrico.gov>; Smith, Jesse W <SmithJW@chesterfield.gov>

Subject: RE: Storm Coordination - Richmond/Chesterfield/Hanover/Henrico

April and Bentley,

I drafted the attached Emergency Request for Supplement Plant Operators to address Richmond's request. I also reached out to the Executive Director of ARWA, Robert Wilson, copied and invited to the 1pm meeting, and requested if he had any operators. Chesterfield, having a much smaller plant, can provide one operator for the Sunday Day shift. ARWA has offered to cover two shifts. On the schedule developed, each jurisdiction can fill in the operators and contacts.

For Henrico's request for additional water repair crews, Chesterfield had put one additional water main repair crew on standby to cover Friday night, Saturday and Sunday if needed. I have included a table with the contact name and number if needed. I left extra space if other resources identified.

I also suggest that if Richmond and Henrico belong to Virginia WARN (, you reach out to them. If you are not familiar with VA Warn, it is a Utility mutual aid network that you can become a member and request resources throughout the state during emergencies. In this type of situation it would be beneficial because not every part of the state is getting hit with the snow storm we are about to face, on top of the water crisis. Attached is a link to their site: About VA WARN | Virginia Water and Wastewater Agency Response Network

Look forward to meeting at 1pm.

George B. Hayes, P.E.

Director
Department of Utilities
9840 Government Center Parkway

P.O. Box 608 Chesterfield, VA 23832



-----Original Appointment-----

From: Chan, Bentley < cha70@henrico.gov > Sent: Friday, January 10, 2025 10:13 AM

To: Chan, Bentley; Bingham, April N. - DPU; Hayes, George; Longshore, Matthew B.

Cc: Yob, Steven

Subject: Storm Coordination - Richmond/Chesterfield/Hanover/Henrico

When: Friday, January 10, 2025 1:00 PM-1:30 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Microsoft Teams Meeting

CAUTION: External Email

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 285 702 066 821

Passcode: GZ75xd6z

Dial in by phone

<u>+1323-433-2068,,825009832#</u> United States, Los Angeles

Find a local number

Phone conference ID: 825 009 832#

Join on a video conferencing device

Tenant key: henrico@m.webex.com

Video ID: 112 353 897 7

More info

For organizers: Meeting options | Reset dial-in PIN

D-	Ct - t D - t -	C1 - 1	-			-		erators 12 hour Shift	-
Day	Start Date	Start	End	Name	Org	Class Op	Cell	Office	Comment
Fridov	1/10/2025	7.00	10.00						
Friday	1/10/2025	7:00	19:00						
				Vince Lofton	Henrico	Class I	804.349.5432		
Friday - Sat	1/10/2025	19:00	7:00	Pat Dillon	Henrico	Electrician	804.380.9307		
				Brian Schultz	Henrico		804.398.0886		
									Working ARWA 1/10 through
	1/11/2025			Joe Bragg	ARWA	Class I	804-704-0072	590-1145 ext 113	16:00.
Sat		7:00	0 19:00	Vince Lofton	Henrico	Class I	804.349.5432		Some portion of Saturday
				Pat Dillon	Henrico	Electrician	804.380.9307		Some portion of Saturday
				Brian Schultz	Henrico		804.398.0886		Some portion of Saturday
				Vince Lofton	Henrico	Class I	804.349.5432		As needed
Sat - Sun	1/11/2025	19:00	7:00	Pat Dillon	Henrico	Electrician	804.380.9307		As needed
				Brian Schultz	Henrico		804.398.0886		As needed
									Working ARWA 1/10 through
Sunday	1/12/2025	7:00	19:00	Joe Bragg	ARWA	Class I	804-704-0072	590-1145 ext 113	16:00.
Sunday	1/12/2023	7.00	19.00	Timothy Luft	Chesterfield	Class II	804-295-8930		

	Henrico County Request for Additional Standby Repair Crews							
Day	Date	# Crews	Name	Org	Cell			
		1	Nathan	Chesterfield	804-244-7482			
Friday Night	1/10/2025							
		1	Nathan	Chesterfield	804-244-7482			
Saturday	1/11/2025							
		1	Dan	Chesterfield	775-813-1061			
Sunday	1/12/2025							

From: Chan, Bentley

To: Reynolds, James (VDH); Davis, Bailey (VDH); Mccauley, Lyndsey (VDH)

Cc: Yob, Steven; Christian, Alvin, Jr; Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Grandstaff,

James; Meade, Thomas; Stubbs, Kimberlee

Subject: RE: Henrico BWA

Date: Friday, January 10, 2025 2:42:02 PM

Attachments: image001.png image002.png

Hi James, Bailey, and Lyndsey,

Additional update . . . we have completed the second round of sampling for all seven sites with total residual chlorine concentrations found to be consistent with typical historical concentrations for these locations. Details for today's chlorine samples are as follows:

Sample Location	Sample Date	Sample Time	Total Residual Chlorine (mg/L)
9312 S. Mooreland Rd	1/10/2025	09:41	2.4
5308 Coxson Rd	1/10/2025	10:35	4.8
20 Meadowspring Rd	1/10/2025	11:16	4.5
5104 Tiffanywoods Ct	1/10/2025	12:02	4.1
436 Evanrude Ln	1/10/2025	12:34	2.4
101 Linstead Rd	1/10/2025	13:05	1.67
9101 WRVA Rd	1/10/2025	13:46	0.27

Second BacT samples were collected at both 9312 S. Mooreland Rd and 5308 Coxson Rd. with samples placed into the incubator at 11:15 AM this morning. Results are expected to be available at 11:15 AM tomorrow (Saturday) morning.

Results for the BacT samples collected during the first round of sampling yesterday at 9312 S. Mooreland Rd and 5308 Coxson Rd. will be available at 15:01 and 21:18, respectively.

We spoke with Richmond and Hanover who are also in the 10 AM – Noon on Saturday morning for second results. Henrico is planning to communicating its results to the public and doesn't currently have plans for a joint notification.

Thanks!

Bentley



BENTLEY CHAN, PE Director

HENRICO WATER, Department of Public Utilities

Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Reynolds, James (VDH)

To: Bingham, April N. - DPU; Chan, Bentley; hayesg; Longshore, Matthew B.; Stephens, Wayne

Cc: Davis, Bailey (VDH); Roadcap, Dwayne (VDH); Coughlin, Jessica (VDH)

Subject: Potential for Spike in demand once advisories lifted

Date: Friday, January 10, 2025 5:31:31 PM

Hey all,

One concern for when the advisory is lifted is the potential for a spike in demand due to customers flushing their internal plumbing. The tanks look to be at good levels and the plant operations look to be at a good spot right now, but wanted to get some thoughts on how lifting the advisory may impact each of your distribution systems.

James Reynolds, PE Field Director- Richmond Field Office Virginia Department of Health, Office of Drinking Water james.reynolds@vdh.virginia.gov (757)406-1252 (cell phone)

Get Outlook for Android

From: Hayes, George

To: Reynolds, James (VDH); Bingham, April N. - DPU; Chan, Bentley; Longshore, Matthew B.; Stephens, Wayne

Cc: Davis, Bailey (VDH); Roadcap, Dwayne (VDH); Coughlin, Jessica (VDH)

Subject: RE: Potential for Spike in demand once advisories lifted

Date: Friday, January 10, 2025 5:37:18 PM

Attachments: <u>image001.png</u>

Good idea to prepare for increase in flow. I don't see an impact for Chesterfield since we got the word out pretty good that we were not included in advisory.

George B. Hayes, P.E.

Director
Department of Utilities
9840 Government Center Parkway
P.O. Box 608
Chesterfield, VA 23832

Office: 804-318-8372



From: Reynolds, James (VDH) < James. Reynolds@vdh.virginia.gov>

Sent: Friday, January 10, 2025 5:31 PM

To: Bingham, April N. - DPU <April.Bingham@rva.gov>; Chan, Bentley <cha70@henrico.gov>; Hayes, George <HayesG@chesterfield.gov>; Longshore, Matthew B. <MBLongshore@hanovercounty.gov>; Stephens, Wayne <wstephens@goochlandva.us>

Cc: Davis, Bailey (VDH) <Bailey.Davis@vdh.virginia.gov>; Roadcap, Dwayne (VDH)

<Dwayne.Roadcap@vdh.virginia.gov>; Coughlin, Jessica (VDH) <Jessica.Coughlin@vdh.virginia.gov>

Subject: Potential for Spike in demand once advisories lifted

CAUTION: External Email

Hey all,

One concern for when the advisory is lifted is the potential for a spike in demand due to customers flushing their internal plumbing. The tanks look to be at good levels and the plant operations look to be at a good spot right now, but wanted to get some thoughts on how lifting the advisory may impact each of your distribution systems.

James Reynolds, PE
Field Director- Richmond Field Office
Virginia Department of Health, Office of Drinking Water
james.reynolds@vdh.virginia.gov
(757)406-1252 (cell phone)

Get Outlook for Android

From: Longshore, Matthew B.

To: Reynolds, James (VDH); Bingham, April N. - DPU; Chan, Bentley; havesg; Stephens, Wayne

Cc: Davis, Bailey (VDH); Roadcap, Dwayne (VDH); Coughlin, Jessica (VDH)

Subject: Re: Potential for Spike in demand once advisories lifted

Date: Friday, January 10, 2025 5:41:07 PM

Hey James - appreciate you reaching out. Once we got the first round of passing results today we started slowly filling tanks in the impacted pressure zone in preparation for tonight's weather. The only tank we haven't begun filling yet is the one that interacts with both the Ashland pressure zone and the Mechanicsville pressure zone. When we have a good indication in the morning that the second round will pass then we will fill that tank. We should be at a good spot from a storage and pumping standpoint to weather potential high system demands.

Matt Longshore, P.E. Director of Public Utilities

o: 804-365-6022

From: Reynolds, James (VDH) < James.Reynolds@vdh.virginia.gov>

Sent: Friday, January 10, 2025 5:31:23 PM

To: Bingham, April N. - DPU <April.Bingham@rva.gov>; Chan, Bentley <cha70@henrico.gov>; hayesg <hayesg@chesterfield.gov>; Longshore, Matthew B. <MBLongshore@hanovercounty.gov>; Stephens, Wayne <wstephens@goochlandva.us>

Cc: Davis, Bailey (VDH) <Bailey.Davis@vdh.virginia.gov>; Roadcap, Dwayne (VDH)

<Dwayne.Roadcap@vdh.virginia.gov>; Coughlin, Jessica (VDH) <Jessica.Coughlin@vdh.virginia.gov>

Subject: Potential for Spike in demand once advisories lifted

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Hey all,

One concern for when the advisory is lifted is the potential for a spike in demand due to customers flushing their internal plumbing. The tanks look to be at good levels and the plant operations look to be at a good spot right now, but wanted to get some thoughts on how lifting the advisory may impact each of your distribution systems.

James Reynolds, PE Field Director- Richmond Field Office Virginia Department of Health, Office of Drinking Water james.reynolds@vdh.virginia.gov (757)406-1252 (cell phone)

Get Outlook for Android

From: Spain, Frederick To: Simukonde, Nellow

Forehand, Marcello; McDonald, Elizabeth; Bisulca, Jonathan; Sullard, Jeff; Brown, Mark A; Thomas, Rodney; Lofton, Vincent; Tansi, Odette; Smith, Evan; Birchett, Shawn; Robinson, Clifford; Glenn, Stacy; Stephens, Cc:

Eugene; Sandiford, Danyelle; Pruden, Joseph

Subject: Shurm System Updates

Date: Friday, January 10, 2025 6:19:16 PM

image001.png Attachments:

Copy of 1-8-25 Event - Copy.xlsx



Fred Spain Operations Water / Wastewater Facility Maintenance Superintendent

HENRICO WATER, Department of Public Utilities

Phone 804.727.8760 cell 804.398.0885 Email

Frederick.Spain@henrico.gov 10401 Woodman Road Glen Allen, Va. 23060

From: Spain, Frederick
To: Simukonde, Nellow

Cc: Forehand, Marcello; McDonald, Elizabeth; Bisulca, Jonathan; Sullard, Jeff; Brown, Mark A; Thomas, Rodney;

Lofton, Vincent; Tansi, Odette; Smith, Evan; Birchett, Shawn; Robinson, Clifford; Glenn, Stacy; Stephens.

Eugene; Sandiford, Danyelle; Pruden, Joseph

Subject: RE: Shurm System Updates

Date: Friday, January 10, 2025 9:04:55 PM

Attachments: Copy of 1-8-25 Event - Copy - Copy.xlsx

image001.png



Fred Spain
Operations
Water / Wastewater Facility Maintenance
Superintendent

HENRICO WATER, Department of Public Utilities

Phone 804.727.8760 cell 804.398.0885 Email

Frederick.Spain@henrico.gov

10401 Woodman Road Glen Allen, Va. 23060

From: Spain, Frederick

Sent: Friday, January 10, 2025 6:19 PM

To: Simukonde, Nellow <sim69@henrico.gov>

Subject: Shurm System Updates



Fred Spain
Operations
Water / Wastewater Facility Maintenance
Superintendent

HENRICO WATER, Department of Public Utilities

Phone 804.727.8760 cell 804.398.0885 Email

Frederick.Spain@henrico.gov

10401 Woodman Road Glen Allen, Va. 23060

From: Chan, Bentley

Reynolds, James (VDH); Davis, Bailey (VDH); Mccauley, Lyndsey (VDH) To:

Yob, Steven; Christian, Alvin, Jr; Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Grandstaff, Cc:

James; Meade, Thomas; Stubbs, Kimberlee

Subject: RE: Henrico BWA

Friday, January 10, 2025 9:23:55 PM Date:

Attachments: image001.png

image002.png

Hi James, Bailey, and Lyndsey,

The first BacT sample collected yesterday from 9312 S. Mooreland Rd. and the first BacT sample collected yesterday from 5308 Coxson Rd. have completed their incubation periods and both indicate ABSENT for total coliform and E. coli.

We will follow up tomorrow morning with the results of the second samples at both locations.

Thanks!

Bentley



BENTLEY CHAN, PE

HENRICO WATER, Department of Public Utilities Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Chan, Bentley

Sent: Friday, January 10, 2025 2:42 PM

To: Reynolds, James (VDH) < James.Reynolds@vdh.virginia.gov>; Davis, Bailey (VDH)

<Bailey.Davis@vdh.virginia.gov>; Mccauley, Lyndsey (VDH) <Lyndsey.Mccauley@vdh.virginia.gov>

Cc: Yob, Steven <yob@henrico.gov>; Christian, Alvin, Jr <chr26@henrico.gov>; Simukonde, Nellow

<sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth

<MCD046@henrico.gov>; Grandstaff, James <gra@henrico.gov>; Meade, Thomas

<mea19@henrico.gov>; Stubbs, Kimberlee <STU005@henrico.gov>

Subject: RE: Henrico BWA

Hi James, Bailey, and Lyndsey,

Additional update . . . we have completed the second round of sampling for all seven sites with total residual chlorine concentrations found to be consistent with typical historical concentrations for these locations. Details for today's chlorine samples are as follows:

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We spoke with Richmond and Hanover who are also in the 10 AM – Noon on Saturday morning for second results. Henrico is planning to communicating its results to the public and doesn't currently have plans for a joint notification.

Thanks!

Bentley



BENTLEY CHAN, PE

Director
HENRICO WATER, Department of Public Utilities
Phone 804.501.4280 Email bentley.chan@henrico.gov
4305 East Parham Road, Henrico, Virginia 23228

From: Chan, Bentley

Sent: Friday, January 10, 2025 1:40 PM

To: Reynolds, James (VDH) < <u>James.Reynolds@vdh.virginia.gov</u>>; Davis, Bailey (VDH)

<<u>Bailey.Davis@vdh.virginia.gov</u>>; Mccauley, Lyndsey (VDH) <<u>Lyndsey.Mccauley@vdh.virginia.gov</u>> **Cc:** Yob, Steven <<u>yob@henrico.gov</u>>; Christian, Alvin, Jr <<u>chr26@henrico.gov</u>>; Simukonde, Nellow

<sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth

< MCD046@henrico.gov >; Grandstaff, James < gra@henrico.gov >; Meade, Thomas

<mea19@henrico.gov>; Stubbs, Kimberlee <<u>STU005@henrico.gov</u>>

Subject: RE: Henrico BWA

Thanks so much, James!

Bentley

BENTLEY CHAN, PE

Director

HENRICO WATER, Department of Public Utilities

From: Spain, Frederick
To: Simukonde, Nellow

Cc: Forehand, Marcello; McDonald, Elizabeth; Bisulca, Jonathan; Sullard, Jeff; Brown, Mark A; Thomas, Rodney;

Lofton, Vincent; Tansi, Odette; Smith, Evan; Birchett, Shawn; Robinson, Clifford; Glenn, Stacy; Stephens,

Eugene; Sandiford, Danyelle; Pruden, Joseph

Subject: RE: Shurm System Updates

 Date:
 Friday, January 10, 2025 10:39:57 PM

 Attachments:
 Copy of 1-8-25 Event - Copy - Copy - Copy.xlsx

image001.png

See note on spreadsheet



Fred Spain
Operations
Water / Wastewater Facility Maintenance
Superintendent

HENRICO WATER, Department of Public Utilities

Phone 804.727.8760 cell 804.398.0885 Email

Frederick.Spain@henrico.gov

<SAN075@henrico.gov>; Pruden, Joseph <pru06@henrico.gov>

10401 Woodman Road Glen Allen, Va. 23060

From: Spain, Frederick

Sent: Friday, January 10, 2025 9:05 PM

To: Simukonde, Nellow <sim69@henrico.gov>

Subject: RE: Shurm System Updates



Fred Spain
Operations
Water / Wastewater Facility Maintenance
Superintendent

HENRICO WATER, Department of Public Utilities

Phone 804.727.8760 cell 804.398.0885 Email Frederick.Spain@henrico.gov

10401 Woodman Road Glen Allen, Va. 23060

From: Spain, Frederick

Sent: Friday, January 10, 2025 6:19 PM

To: Simukonde, Nellow <<u>sim69@henrico.gov</u>>

Cc: Forehand, Marcello <<u>FOR109@henrico.gov</u>>; McDonald, Elizabeth <<u>MCD046@henrico.gov</u>>; Bisulca, Jonathan <<u>BIS018@henrico.gov</u>>; Sullard, Jeff <<u>sul11@henrico.gov</u>>; Brown, Mark A

From: Spain, Frederick
To: Simukonde, Nellow

Cc: Forehand, Marcello; McDonald, Elizabeth; Bisulca, Jonathan; Sullard, Jeff; Brown, Mark A; Thomas, Rodney;

Lofton, Vincent; Tansi, Odette; Smith, Evan; Birchett, Shawn; Robinson, Clifford; Glenn, Stacy; Stephens,

Eugene; Sandiford, Danyelle; Pruden, Joseph

Subject: RE: Shurm System Updates

Date: Friday, January 10, 2025 11:27:42 PM

Attachments: Copy of 1-8-25 Event - Copy - C

image001.png

See both notes on spreadsheet



Fred Spain
Operations
Water / Wastewater Facility Maintenance
Superintendent

HENRICO WATER, Department of Public Utilities

Phone 804.727.8760 cell 804.398.0885 Email

Frederick.Spain@henrico.gov

10401 Woodman Road Glen Allen, Va. 23060

From: Spain, Frederick

Sent: Friday, January 10, 2025 10:40 PM

To: Simukonde, Nellow <sim69@henrico.gov>

<lof04@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>; Smith, Evan <SMI248@henrico.gov>;

Birchett, Shawn

 Sir@henrico.gov>; Robinson, Clifford <rob84@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Stephens, Eugene <STE134@henrico.gov>; Sandiford, Danyelle

<SAN075@henrico.gov>; Pruden, Joseph <pru06@henrico.gov>

Subject: RE: Shurm System Updates

See note on spreadsheet



Fred Spain
Operations
Water / Wastewater Facility Maintenance
Superintendent

HENRICO WATER, Department of Public Utilities

Phone 804.727.8760 cell 804.398.0885 Email Frederick.Spain@henrico.gov

10401 Woodman Road Glen Allen, Va. 23060

From: Spain, Frederick

Sent: Friday, January 10, 2025 9:05 PM

To: Simukonde, Nellow < sim69@henrico.gov>

Cc: Forehand, Marcello <<u>FOR109@henrico.gov</u>>; McDonald, Elizabeth <<u>MCD046@henrico.gov</u>>; Bisulca, Jonathan <<u>BIS018@henrico.gov</u>>; Sullard, Jeff <<u>sul11@henrico.gov</u>>; Brown, Mark A

From: Simukonde, Nellow

To:

McDonald, Elizabeth; Forehand, Marcello; Tansi, Odette; Bisulca, Jonathan; Sullard, Jeff; Brown, Mark A; Thomas, Rodney; Birchett, Shawn; Hawkins, William; Robinson, Clifford; Stephens, Eugene; Pruden, Joseph; Glenn, Stacy; Spain, Frederick; Lofton, Vincent; Grandstaff, James; Meade, Thomas; Adkins, Christopher; Duke, Christopher; Sossong, Marchelle; Schwartz, Rick; Thompson, Alice; Kramer, Keith; Christian, Alvin, Jr; Chan,

Bentley; Yob, Steven

Subject: RE: Henrico Water - COR Water Supply - System Re-Energization

Date: Saturday, January 11, 2025 12:46:10 AM

image001.png Attachments:

Update information as of 12:00 AM 1/11/2024:

Station	i i		Ref. Max	Comments
Shurm PRV	City Pressure	62 PSI	N/A	· - +
Station			i !	
	Flow Rate	7 MGD	19 MGD	· - +
! !	(Discharge)		1	
Eubank Tank	System Pressure	53 PSI	~54 PSI	!
 	Tank Level	32.19 FT	39 FT	
Len Avenue	Azalea Zone Pressure	41 PSI	N/A	<u>'</u>
Station			i !	
	Eubank Zone	39 PSI	N/A	· - †
I	Pressure		i !	
 	Tank Level	11.29 FT	18 FT	
Elko Station	System Pressure	63 PSI	N/A	COR requested a reduction
! ! !	 		! ! !	on withdrawal at 11 pm.
 			1 1 1	Staff working to resume
! ! 	<u> </u>		!	filling Elko at a lower rate
ı ! 	Fill flow rate	0 MGD	N/A	1
 	Tank level	8.33 FT	16 FT	1
Robin Ave Station	System Pressure	55 PSI	N/A	<u> </u>
 	Tank Level	8.44 FT	20 FT	!
	Fill flow rate	0.01	N/A	COR requested a reduction
! ! L	! ! ! !		! !	on withdrawal at 10 pm
			 	1
 			!	



NELLOW SIMUKONDE, P.E. *Operations Division Director*HENRICO WATER, Department of Public Utilities Phone 804.727.8711 Email nellow.simukonde@henrico.us 10401 Woodman Road, Henrico, Virginia 23060 From: Pruden, Joseph

Simukonde, Nellow; Forehand, Marcello; Bisulca, Jonathan; McDonald, Elizabeth; Sullard, Jeff; Spain, Frederick; To:

Glenn, Stacy; Lofton, Vincent; Brown, Mark A; Birchett, Shawn; Tansi, Odette; Smith, Evan; Stephens, Eugene;

Thomas, Rodney; Sandiford, Danyelle; Hawkins, William

Subject: Shurm System Updates

Date: Saturday, January 11, 2025 2:16:17 AM

Attachments: image001.png

Copy of 1-8-25 Event - Copy -

Good morning all here is our next update. I will send out additional update at around 5AM.

J. SCOTT PRUDEN



Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060

From: Pruden, Joseph

To: Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Bisulca, Jonathan; Sullard, Jeff; Spain, Frederick;

Glenn, Stacy; Lofton, Vincent; Brown, Mark A; Birchett, Shawn; Tansi, Odette; Smith, Evan; Stephens, Eugene;

Thomas, Rodney; Sandiford, Danyelle; Hawkins, William

Subject: FW: Shurm System Updates

Date: Saturday, January 11, 2025 5:13:17 AM

Attachments: image001.png

Copy of 1-8-25 Event - Copy - Copy - Copy - Copy.xlsx

Good morning all here is our 5AM update, I will update again at 8AM



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060

From: Pruden, Joseph

Sent: Saturday, January 11, 2025 2:16 AM

To: Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Spain, Frederick <SPA066@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Brown, Mark A <broo5@henrico.gov>; Birchett, Shawn <brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><brookspan="2"><b

Subject: Shurm System Updates

Good morning all here is our next update. I will send out additional update at around 5AM.



Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060 From: Pruden, Joseph

To: Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Bisulca, Jonathan; Sullard, Jeff; Spain, Frederick;

Glenn, Stacy; Lofton, Vincent; Brown, Mark A; Birchett, Shawn; Tansi, Odette; Smith, Evan; Stephens, Eugene;

Thomas, Rodney; Sandiford, Danyelle; Hawkins, William

Subject: RE: Shurm System Updates

Date: Saturday, January 11, 2025 8:13:25 AM

Attachments: image001.png

Copy of 1-8-25 Event - Copy - Copy - Copy - Copy.xlsx

Good morning all here is our 8AM updates.



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060

From: Pruden, Joseph

Sent: Saturday, January 11, 2025 5:13 AM

To: Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Spain, Frederick <SPA066@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Brown, Mark A <brooxspan="2">brown, Mark A <brooxspan="2">bro05@henrico.gov>; Birchett, Shawn <brookspan="2">birchett, Shawn <brookspan="2">bir@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>; Smith, Evan <SMI248@henrico.gov>; Stephens, Eugene <STE134@henrico.gov>; Thomas, Rodney <tho34@henrico.gov>; Sandiford, Danyelle <SAN075@henrico.gov>; Hawkins, William <haw11@henrico.gov>

Subject: FW: Shurm System Updates

Good morning all here is our 5AM update, I will update again at 8AM



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060

From: Pruden, Joseph

Sent: Saturday, January 11, 2025 2:16 AM

To: Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Spain, Frederick <SPA066@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Brown, Mark A <brown

*bir@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>; Smith, Evan <SMI248@henrico.gov>; Stephens, Eugene <STE134@henrico.gov>; Thomas, Rodney <th034@henrico.gov>; Sandiford, Danyelle <SAN075@henrico.gov>; Hawkins, William <haw11@henrico.gov>

From: Sullard, Jeff

To: Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Bisulca, Jonathan; Sullard, Jeff; Spain, Frederick;

Glenn, Stacy; Lofton, Vincent; Brown, Mark A; Birchett, Shawn; Tansi, Odette; Smith, Evan; Stephens, Eugene;

Thomas, Rodney; Sandiford, Danyelle; Hawkins, William

Subject: FW: East Water System Updates : 11:00

Date: Saturday, January 11, 2025 11:26:09 AM

Attachments: image001.png

Copy of 1-8-25 Event - Copy -



Jeff Sullard

Operations, Pumping Superintendent II
HENRICO WATER, Department of Public Utilities
Phone 804-727-8757 Email Jeff Sullard@henrico.gov
10401 Woodman Road Glen Allen Va. 23060

To: Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Spain, Frederick <SPA066@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Brown, Mark A <broops@henrico.gov>; Birchett, Shawn <broops@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>; Smith, Evan <SMI248@henrico.gov>; Stephens, Eugene <STE134@henrico.gov>; Thomas, Rodney <tho34@henrico.gov>; Sandiford, Danyelle <SAN075@henrico.gov>; Hawkins, William <haw11@henrico.gov>

Subject: RE: Shurm System Updates

Good morning all here is our 8AM updates.



J. SCOTT PRUDEN

Superintendent I Operations / Pumping Section The Virgil R.Hazelett Reservoir at Cobbs Creek HENRICO WATER, Department of Public Utilities Phone 804-727-8758 Co. Cell 804-349-2289 Email Joseph.Pruden@henrico.gov 10401 Woodman Rd., Glen Allen VA, 23060

From: Pruden, Joseph

Sent: Saturday, January 11, 2025 5:13 AM

To: Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth <MCD046@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Spain, Frederick <SPA066@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Brown, Mark A <brooks@henrico.gov>; Birchett, Shawn
bir@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>; Smith, Evan <SMI248@henrico.gov>; Stephens, Eugene <STE134@henrico.gov>; Thomas, Rodney <th034@henrico.gov>; Sandiford, Danyelle <SAN075@henrico.gov>; Hawkins, William

From: Simukonde, Nellow

To: McDonald, Elizabeth; Forehand, Marcello; Tansi, Odette; Bisulca, Jonathan; Sullard, Jeff; Brown, Mark A;

Thomas, Rodney: Birchett, Shawn: Hawkins, William: Robinson, Clifford: Stephens, Eugene: Pruden, Joseph: Glenn, Stacy: Spain, Frederick: Lofton, Vincent: Grandstaff, James: Meade, Thomas: Adkins, Christopher: Duke, Christopher: Sossong, Marchelle: Schwartz, Rick: Thompson, Alice: Kramer, Keith: Christian, Alvin, Jr.; Chan,

Bentley; Yob, Steven

Subject: RE: Henrico Water - COR Water Supply - System Re-Energization

Date: Saturday, January 11, 2025 12:03:00 PM

Attachments: image001.png

All - update as of 12:00 pm this afternoon

Station			Ref. Max	Comments
Shurm PRV	City Pressure	65.5 PSI	N/A	
Station	Flow Rate (Discharge)	7.5 MGD	19 MGD	
Eubank Tank	System Pressure	52 PSI	~54 PSI	
Eubalik Talik	Tank Level	31.3 FT	39 FT	
	Azalea Zone Pressure	40.69 PSI	N/A	
Len Avenue Station	Eubank Zone Pressure	40.79 PSI	N/A	
	Tank Level	19.35 FT	18 FT	Tank full
	System Pressure	58.8 PSI	N/A	
Elko Station	Fill flow rate	1.0 MGD	N/A	
	Tank level	15.8 FT (Both)	16 FT	Both tanks full
Dobin Arro	System Pressure	50.28 PSI	N/A	
Robin Ave	Tank Level	13.4 FT	20 FT	
Station	Fill flow rate	1.8 MGD	N/A	

Leak Water main repair activities						
Number of Active Leaks	8					
Number of ongoing	2		2 DPU Crews			
repairs						
	Juan Little	Service break/water	2420 Stone Post Terrace: Tme to			
		outage	complete ~1 hour			
Location of work	Juan Little	Water main break	9113 Prestondale Ave: Time to			
Location of work			complete ~5 hours			
	Kur Woodfin	Water main break	2193 Thistlebrook ln: Time to			
			complete~ 4 hours			



NELLOW SIMUKONDE, P.E.

Operations Division Director
HENRICO WATER, Department of Public Utilities
Phone 804.727.8711 Email sim69@henrico.gov
10401 Woodman Road, Henrico, Virginia 23060

From: McDonald, Elizabeth < MCD046@henrico.gov>

Sent: Saturday, January 11, 2025 09:29

To: Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; Tansi,

Subject: RE: Henrico Water - COR Water Supply - System Re-Energization

All.

Please see the update as of 8:00 AM this morning. I have also attached the leak tracker, which is also up to date.

Leak Summary

- 9 Active Leaks
 - 1 assigned to GLH
 - 2 DPU Crews Actively Working
 - One DPU Crew is starting with a Service Leak on Stone Post Terrace as the customer is presently without water.
 - Second DPU Crew on Thistlebrook Lane.

С	-		Ref. Max	Comments
Shurm PRV	City Pressure	66.22 PSI	N/A	
Station	! ! L	! ! !	! ! !	1
 	Flow Rate	7.22 MGD	19 MGD	, ,
! ! !	(Discharge)	 	, , ,	!
Eubank Tank	System Pressure	53.65 PSI	~54 PSI	1
!	Tank Level	31.61 FT	39 FT	! !
Len Avenue	Azalea Zone Pressure	35.86 PSI	N/A	1
Station	! ! L	! ! !	 	! !
 	Eubank Zone	35.99 PSI	N/A	
! !	Pressure	! ! !	 	! !
	Tank Level	17.77 FT	18 FT	1
Elko Station	System Pressure	59.7 PSI	N/A	1
	Fill flow rate	0.9 MGD	N/A	1
!	Tank level	15.00 FT (Both)	16 FT	! !
Robin Ave Station	System Pressure	50.31 PSI	N/A	
	Tank Level	11.02 FT	20 FT	
 	Fill flow rate	1.64	N/A	

Respectfully,



ELIZABETH McDONALD, P.E.*

Assistant Division Director, Operations
HENRICO WATER, Department of Public Utilities
Office 804.727.8765 Cell 804.398.0756
eMail elizabeth.mcdonald@henrico.gov
10401 Woodman Road, Henrico, Virginia 23060

*Licensed in FL, GA, and VA

From: Simukonde, Nellow < sim69@henrico.gov>

Sent: Saturday, January 11, 2025 12:46 AM

To: McDonald, Elizabeth < MCD046@henrico.gov; Forehand, Marcello < FOR109@henrico.gov;

Tansi, Odette <TAN072@henrico.gov>; Bisulca, Jonathan <BIS018@henrico.gov>; Sullard, Jeff

<sul11@henrico.gov>; Brown, Mark A <brooks@henrico.gov>; Thomas, Rodney

<<u>tho34@henrico.gov</u>>; Birchett, Shawn <<u>bir@henrico.gov</u>>; Hawkins, William

<a href="mailto:haw11@h

<<u>STE134@henrico.gov</u>>; Pruden, Joseph <<u>pru06@henrico.gov</u>>; Glenn, Stacy <<u>gle34@henrico.gov</u>>;

Spain, Frederick < SPA066@henrico.gov >; Lofton, Vincent < lof04@henrico.gov >; Grandstaff, James

<gra@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Adkins, Christopher

<adk21@henrico.gov>; Duke, Christopher <duk@henrico.gov>; Sossong, Marchelle

<sos@henrico.gov>; Schwartz, Rick <sch068@henrico.gov>; Thompson, Alice <tho03@henrico.gov>;

Kramer, Keith < kra@henrico.gov>; Christian, Alvin, Jr < chr26@henrico.gov>; Chan, Bentley

<<u>cha70@henrico.gov</u>>; Yob, Steven <<u>yob@henrico.gov</u>>

Subject: RE: Henrico Water - COR Water Supply - System Re-Energization

Update information as of 12:00 AM 1/11/2024:

Station			Ref. Max	Comments
Shurm PRV	City Pressure	62 PSI	N/A	
Station			! ! !	
Г	Flow Rate	7 MGD	19 MGD	
! ! L	(Discharge)		! ! !	
Eubank Tank	System Pressure	53 PSI	~54 PSI	
 	Tank Level	32.19 FT	39 FT	!
Len Avenue	Azalea Zone Pressure	41 PSI	N/A	- +
Station			1	1
	Eubank Zone	39 PSI	N/A	- +
! ! !	Pressure		1	
 	Tank Level	11.29 FT	18 FT	!
Elko Station	System Pressure	63 PSI	N/A	COR requested a reduction
, 1 1			i !	on withdrawal at 11 pm.
! ! !			1 1 1	Staff working to resume
 	 	 	! !	filling Elko at a lower rate
 	Fill flow rate	0 MGD	N/A	<u> </u>
, 	Tank level	8.33 FT	16 FT	1
Robin Ave Station	System Pressure	55 PSI	N/A	1
 	Tank Level	8.44 FT	20 FT	!
Г 	Fill flow rate	0.01	N/A	COR requested a reduction
! ! !		 	! ! !	on withdrawal at 10 pm
			 	!

NELLOW SIMUKONDE, P.E.

Operations Division Director
HENRICO WATER, Department of Public Utilities
Phone 804.727.8711 Email nellow.simukonde@henrico.us
10401 Woodman Road, Henrico, Virginia 23060

From: <u>Valenzuela, Victor</u>

To: McDonald, Elizabeth; Simukonde, Nellow; Adkins, Christopher; Anderson, Ethan; Bajek, Chelsea; Bennett,

Tamara; Birchett, Shawn; Blunt, Ricky; Brown, Mark A; Burnett, Kenneth; Burry, Anne; Byerly, Josh; Calder, Wanda; Cejka, John; Chan, Bentley; Christian, Alvin, Jr; Clary, Jon; Claytor, Ralph; Collins, Craig; Constantine, Patricia; Eileen M. Cox (emcox); Eure, Todd; FireMarshal; Forehand, Marcello; Garofalo, Jason; Glenn, Stacy; Grandstaff, James; Hawkins, William; Hughes, Terrell; Jim Ellis (jeellis); Johnson, Lamont A.; Jones, Will; Knockemus, Steve; Kramer, Keith; Leonard G. Pritchard (Ipritchard); Linsinbigler, Richard; Lofton, Vincent; Maddox, Lee; Mawyer, Matthew; McGuire, Evelyn; Meade, Thomas; Meyer, Darielle; Neergaard, Richard; Parker, Cliff; Pecka, Matthew; Police Media Relations; Pond, Kevin; Pruden, Joseph; Redmond, Veronica; Rhodes, Stephen; Robinson, Clifford; Rowley, Rob; Sadler, Charles; Sanmartin, Beth; Schwartz, Rick; Sheppard, Ben; Simms, Mario; Smith, Evan; Smith, Judson; Smith, Paul; Sossong, Marchelle; Spain, Anita; Spain, Frederick; Sullard, Jeff; Tansi, Odette; Taylor, Rebekah; Thomas, Rodney; Thompson, Alice; Tretina, Cari; Vithoulkas, John;

Welch, Jennifer; Wilder, Robin; Williams, Deana; Yob, Steven

Subject: Re: Watermain Break (12 DI, Yr Unknown) at Monument Avenue and Bremo Road

Date: Saturday, January 11, 2025 12:35:31 AM

Attachments: image001.png

Update: Upon exposing the 12-inch waterline at the location of the break, multiple longitudinal cracks and holes were discovered along the bottom of the pipe. Accordingly, a section of approximately 35 feet of waterline is to be replaced and tied into the section of waterline replaced yesterday. This replacement is currently in progress.

Approximately a 90 -95% shutdown was achieved with the majority of the flow coming from the east. To aid in future isolation needs of this critical 12-inch line, a new 12-inch in-line valve is also being installed.

The outer westbound lane of Monument Avenue between Bremo Road and Keystone Drive remains closed. DPW is salting the open lane of Monument Ave for the safety of the Annual Contractor crews.

More updates to follow.

Get Outlook for iOS

From: Valenzuela, Victor

Sent: Friday, January 10, 2025 5:29:10 PM

To: McDonald, Elizabeth < MCD046@henrico.gov>; Simukonde, Nellow < sim69@henrico.gov>; Adkins, Christopher <adk21@henrico.gov>; Anderson, Ethan <AND136@henrico.gov>; Bajek, Chelsea <BAJ001@henrico.gov>; Bennett, Tamara <ben17@henrico.gov>; Birchett, Shawn
<bir@henrico.gov>; Blunt, Ricky <blu20@henrico.gov>; Brown, Mark A <brooxs@henrico.gov>; Burnett, Kenneth <BUR32@henrico.gov>; Burry, Anne <bur15@henrico.gov>; Byerly, Josh <BYE002@henrico.gov>; Calder, Wanda <cal@henrico.gov>; Cejka, John <cej@henrico.gov>; Chan, Bentley <cha70@henrico.gov>; Christian, Alvin, Jr <chr26@henrico.gov>; Clary, Jon <cla06@henrico.gov>; Claytor, Ralph <cla01@henrico.gov>; Collins, Craig <COL156@henrico.gov>; Constantine, Patricia < CON089@henrico.gov>; Eileen M. Cox (emcox) < emcox@henrico.k12.va.us>; Eure, Todd <eur@henrico.gov>; FireMarshal <FireMarshal@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; Garofalo, Jason <GAR097@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Grandstaff, James <gra@henrico.gov>; Hawkins, William <haw11@henrico.gov>; Hughes, Terrell <HUG121@henrico.gov>; Jim Ellis (jeellis) <jeellis@henrico.k12.va.us>; Johnson, Lamont A. <JOH66@henrico.gov>; Jones, Will <jon43@henrico.gov>; Knockemus, Steve <kno04@henrico.gov>; Kramer, Keith <kra@henrico.gov>; Leonard G. Pritchard (Ipritchard) < lpritchard@henrico.k12.va.us>; Linsinbigler, Richard

<LIN050@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Maddox, Lee <mad06@henrico.gov>; Mawyer, Matthew <maw001@henrico.gov>; McGuire, Evelyn <mcg20@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Meyer, Darielle <MEY006@henrico.gov>; Neergaard, Richard <nee002@henrico.gov>; Parker, Cliff <par76@henrico.gov>; Pecka, Matthew <PEC28@henrico.gov>; Police Media Relations <police-media-relations@henrico.gov>; Pond, Kevin <pon@henrico.gov>; Pruden, Joseph <pru06@henrico.gov>; Redmond, Veronica <RED043@henrico.gov>; Rhodes, Stephen <rho03@henrico.gov>; Robinson, Clifford <rob84@henrico.gov>; Rowley, Rob <ROW08@henrico.gov>; Sadler, Charles <sad02@henrico.gov>; Sanmartin, Beth <SAN082@henrico.gov>; Schwartz, Rick <sch068@henrico.gov>; Sheppard, Ben <she16@henrico.gov>; Simms, Mario <sim63@henrico.gov>; Smith, Evan <SMI248@henrico.gov>; Smith, Judson <SMI251@henrico.gov>; Smith, Paul <smi91@henrico.gov>; Sossong, Marchelle <sos@henrico.gov>; Spain, Anita <SPA069@henrico.gov>; Spain, Frederick <SPA066@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>; Taylor, Rebekah <tay98@henrico.gov>; Thomas, Rodney <tho34@henrico.gov>; Thompson, Alice <tho03@henrico.gov>; Tretina, Cari <tre08@henrico.gov>; Vithoulkas, John <vit@henrico.gov>; Welch, Jennifer <wel33@henrico.gov>; Wilder, Robin <wil47@henrico.gov>; Williams, Deana <wil224@henrico.gov>; Yob, Steven <yob@henrico.gov>

Subject: RE: Watermain Break (12 DI, Yr Unknown) at Monument Avenue and Bremo Road

Update:... the outer westbound lane of Monument Aveune is closed to facilitate the work in the shoulder.



Victor H. Valenzuela, PE
Construction Division Assistant Director
HENRICO WATER, Department of Public Utilities

Phone 804.349.2266 Email victor.valenzuela@henrico.gov 10401 Woodman Road, Glen Allen, VA 23060

From: Valenzuela, Victor

Sent: Friday, January 10, 2025 5:28 PM

To: McDonald, Elizabeth <MCD046@henrico.gov>; Simukonde, Nellow <sim69@henrico.gov>; Adkins, Christopher <adk21@henrico.gov>; Anderson, Ethan <AND136@henrico.gov>; Bajek, Chelsea <BAJ001@henrico.gov>; Bennett, Tamara <ben17@henrico.gov>; Birchett, Shawn

<br/

Leonard G. Pritchard (Ipritchard) < lpritchard@henrico.k12.va.us>; Linsinbigler, Richard <LIN050@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Maddox, Lee <mad06@henrico.gov>; Mawyer, Matthew <maw001@henrico.gov>; McGuire, Evelyn <mcg20@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Meyer, Darielle <MEY006@henrico.gov>; Neergaard, Richard <nee002@henrico.gov>; Parker, Cliff <par76@henrico.gov>; Pecka, Matthew <PEC28@henrico.gov>; Police Media Relations <police-media-relations@henrico.gov>; Pond, Kevin <pon@henrico.gov>; Pruden, Joseph <pru06@henrico.gov>; Redmond, Veronica <RED043@henrico.gov>; Rhodes, Stephen <rho03@henrico.gov>; Robinson, Clifford <rob84@henrico.gov>; Rowley, Rob <ROW08@henrico.gov>; Sadler, Charles <sad02@henrico.gov>; Sanmartin, Beth <SAN082@henrico.gov>; Schwartz, Rick <sch068@henrico.gov>; Sheppard, Ben <she16@henrico.gov>; Simms, Mario <sim63@henrico.gov>; Smith, Evan <SMI248@henrico.gov>; Smith, Judson <SMI251@henrico.gov>; Smith, Paul <smi91@henrico.gov>; Sossong, Marchelle <sos@henrico.gov>; Spain, Anita <SPA069@henrico.gov>; Spain, Frederick <SPA066@henrico.gov>; Sullard, Jeff <sul11@henrico.gov>; Tansi, Odette <TAN072@henrico.gov>; Taylor, Rebekah <tay98@henrico.gov>; Thomas, Rodney <tho34@henrico.gov>; Thompson, Alice <tho03@henrico.gov>; Tretina, Cari <tre08@henrico.gov>; Vithoulkas, John <vit@henrico.gov>; Welch, Jennifer <wel33@henrico.gov>; Wilder, Robin <wil47@henrico.gov>; Williams, Deana <wil224@henrico.gov>; Yob, Steven <yob@henrico.gov>

Subject: RE: Watermain Break (12 DI, Yr Unknown) at Monument Avenue and Bremo Road

Update: Another break at Monument Avenue & Bremo Road has been discovered just few yards away from yesterday's repair. GLH has mobilized and will commence digging shortly.

Operations has provided what appears to be a full shutdown.

Following the shutdown, St. Mary's Hospital returned to normal system pressures. Coordination with the hospital is ongoing.

More updates to follow.



Victor H. Valenzuela, PE
Construction Division Assistant Director
HENRICO WATER, Department of Public Utilities

Phone 804.349.2266 Email victor.valenzuela@henrico.gov 10401 Woodman Road, Glen Allen, VA 23060

From: Valenzuela, Victor

Sent: Thursday, January 9, 2025 5:27 PM

To: McDonald, Elizabeth < MCD046@henrico.gov">MCD046@henrico.gov; Simukonde, Nellow < sim69@henrico.gov; Adkins, Christopher < adk21@henrico.gov; Anderson, Ethan < AND136@henrico.gov; Bajek, Chelsea < BaJ001@henrico.gov; Bennett, Tamara < ben17@henrico.gov; Birchett, Shawn < bir@henrico.gov; Blunt, Ricky < blu20@henrico.gov; Brown, Mark A < bro05@henrico.gov; Burry, Anne < bur15@henrico.gov; Byerly, Josh < BYE002@henrico.gov; Calder, Wanda < cal@henrico.gov; Cejka, John < cej@henrico.gov; Chan, Bentley < cha70@henrico.gov; Christian, Alvin, Jr < chr26@henrico.gov; Clary, Jon

From: <u>Valenzuela, Victor</u>

To: McDonald, Elizabeth; Simukonde, Nellow; Adkins, Christopher; Anderson, Ethan; Bajek, Chelsea; Bennett,

Tamara; Birchett, Shawn; Blunt, Ricky; Brown, Mark A; Burnett, Kenneth; Burry, Anne; Byerly, Josh; Calder, Wanda; Cejka, John; Chan, Bentley; Christian, Alvin, Jr; Clary, Jon; Claytor, Ralph; Collins, Craig; Constantine, Patricia; Eileen M. Cox (emcox); Eure, Todd; FireMarshal; Forehand, Marcello; Garofalo, Jason; Glenn, Stacy; Grandstaff, James; Hawkins, William; Hughes, Terrell; Jim Ellis (jeellis); Johnson, Lamont A.; Jones, Will; Knockemus, Steve; Kramer, Keith; Leonard G. Pritchard (Ipritchard); Linsinbigler, Richard; Lofton, Vincent; Maddox, Lee; Mawyer, Matthew; McGuire, Evelyn; Meade, Thomas; Meyer, Darielle; Neergaard, Richard; Parker, Cliff; Pecka, Matthew; Police Media Relations; Pond, Kevin; Pruden, Joseph; Redmond, Veronica; Rhodes, Stephen; Robinson, Clifford; Rowley, Rob; Sadler, Charles; Samartin, Beth; Schwartz, Rick; Sheppard, Ben; Simms, Mario; Smith, Evan; Smith, Judson; Smith, Paul; Sossong, Marchelle; Spain, Anita; Spain, Frederick; Sullard, Jeff; Tansi, Odette; Taylor, Rebekah; Thomas, Rodney; Thompson, Alice; Tretina, Cari; Vithoulkas, John;

Welch, Jennifer; Wilder, Robin; Williams, Deana; Yob, Steven

Subject: Re: Watermain Break (12 DI, Yr Unknown) at Monument Avenue and Bremo Road

Date: Saturday, January 11, 2025 2:14:19 AM

Attachments: <u>image001.png</u>

Update: Repair is complete and system is being reenergize. Backfill is in progress.

Will update once outer westbound lane of Monument Ave is reopened.

Get Outlook for iOS

From: Valenzuela, Victor <VAL051@henrico.gov> Sent: Saturday, January 11, 2025 12:35:24 AM

To: McDonald, Elizabeth < MCD046@henrico.gov>; Simukonde, Nellow < sim69@henrico.gov>; Adkins, Christopher <adk21@henrico.gov>; Anderson, Ethan <AND136@henrico.gov>; Bajek, Chelsea <BAJ001@henrico.gov>; Bennett, Tamara <ben17@henrico.gov>; Birchett, Shawn
<bir@henrico.gov>; Blunt, Ricky <blu20@henrico.gov>; Brown, Mark A <brooxs@henrico.gov>; Burnett, Kenneth <BUR32@henrico.gov>; Burry, Anne <bur15@henrico.gov>; Byerly, Josh <BYE002@henrico.gov>; Calder, Wanda <cal@henrico.gov>; Cejka, John <cej@henrico.gov>; Chan, Bentley <cha70@henrico.gov>; Christian, Alvin, Jr <chr26@henrico.gov>; Clary, Jon <cla06@henrico.gov>; Claytor, Ralph <cla01@henrico.gov>; Collins, Craig <COL156@henrico.gov>; Constantine, Patricia <CON089@henrico.gov>; Eileen M. Cox (emcox) <emcox@henrico.k12.va.us>; Eure, Todd <eur@henrico.gov>; FireMarshal <FireMarshal@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; Garofalo, Jason <GAR097@henrico.gov>; Glenn, Stacy <gle34@henrico.gov>; Grandstaff, James <gra@henrico.gov>; Hawkins, William <haw11@henrico.gov>; Hughes, Terrell <HUG121@henrico.gov>; Jim Ellis (jeellis) <jeellis@henrico.k12.va.us>; Johnson, Lamont A. <JOH66@henrico.gov>; Jones, Will <jon43@henrico.gov>; Knockemus, Steve <kno04@henrico.gov>; Kramer, Keith <kra@henrico.gov>; Leonard G. Pritchard (lpritchard) < lpritchard@henrico.k12.va.us>; Linsinbigler, Richard <LIN050@henrico.gov>; Lofton, Vincent <lof04@henrico.gov>; Maddox, Lee <mad06@henrico.gov>; Mawyer, Matthew <maw001@henrico.gov>; McGuire, Evelyn <mcg20@henrico.gov>; Meade, Thomas <mea19@henrico.gov>; Meyer, Darielle <MEY006@henrico.gov>; Neergaard, Richard <nee002@henrico.gov>; Parker, Cliff <par76@henrico.gov>; Pecka, Matthew <PEC28@henrico.gov>; Police Media Relations <police-media-relations@henrico.gov>; Pond, Kevin <pon@henrico.gov>; Pruden, Joseph <pru06@henrico.gov>; Redmond, Veronica <RED043@henrico.gov>; Rhodes, Stephen <rho03@henrico.gov>; Robinson, Clifford <rob84@henrico.gov>; Rowley, Rob <ROW08@henrico.gov>; Sadler, Charles <sad02@henrico.gov>;

From: Chan, Bentley

Davis, Bailey (VDH); Reynolds, James (VDH); Mccauley, Lyndsey (VDH) To:

Yob, Steven; Christian, Alvin, Jr; Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Grandstaff, Cc:

James; Meade, Thomas; Stubbs, Kimberlee

RE: Henrico BWA Subject:

Date: Saturday, January 11, 2025 11:17:12 AM

Attachments: image001.png

image002.png

Good morning, James, Bailey, and Lyndsey,

Both the second BacT sample collected yesterday from 9312 S. Mooreland Rd. and the second BacT sample collected yesterday from 5308 Coxson Rd. have completed their incubation periods and both indicate ABSENT for total coliform and E. coli.

We will issue a public notification upon concurrence.

Thanks!

Bentley



BENTLEY CHAN, PE

HENRICO WATER, Department of Public Utilities Phone 804.501.4280 Email bentley.chan@henrico.gov 4305 East Parham Road, Henrico, Virginia 23228

From: Davis, Bailey (VDH) <Bailey.Davis@vdh.virginia.gov>

Sent: Friday, January 10, 2025 9:39 PM

To: Chan, Bentley <cha70@henrico.gov>; Reynolds, James (VDH)

<James.Reynolds@vdh.virginia.gov>; Mccauley, Lyndsey (VDH)

<Lyndsey.Mccauley@vdh.virginia.gov>

Cc: Yob, Steven <yob@henrico.gov>; Christian, Alvin, Jr <chr26@henrico.gov>; Simukonde, Nellow

<sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth

<MCD046@henrico.gov>; Grandstaff, James <gra@henrico.gov>; Meade, Thomas

<mea19@henrico.gov>; Stubbs, Kimberlee <STU005@henrico.gov>

Subject: Re: Henrico BWA

Good news!

Bailey Davis Chief of Field Operations VDH Office of Drinking Water (804) 928-4811

From: Chan, Bentley < cha70@henrico.gov> Sent: Friday, January 10, 2025 9:23:48 PM

From: Reynolds, James (VDH)

To: Chan, Bentley; Davis, Bailey (VDH); Mccauley, Lyndsey (VDH)

Cc: Yob, Steven; Christian, Alvin, Jr; Simukonde, Nellow; Forehand, Marcello; McDonald, Elizabeth; Grandstaff,

James; Meade, Thomas; Stubbs, Kimberlee

Subject: Re: Henrico BWA

Date: Saturday, January 11, 2025 11:19:10 AM

Attachments: image001.png image002.png

Bentley,

Based on the negative results for the second set of samples, you may rescind the boil water advisory for the impacted areas of Henrico County. Please let me know if you need any assistance with this. Thanks!

James Reynolds, PE Field Director- Richmond Field Office Virginia Department of Health, Office of Drinking Water james.reynolds@vdh.virginia.gov (757)406-1252 (cell phone)

Get Outlook for Android

From: Chan, Bentley <cha70@henrico.gov>
Sent: Saturday, January 11, 2025 11:17:09 AM

To: Davis, Bailey (VDH) <Bailey.Davis@vdh.virginia.gov>; Reynolds, James (VDH)

<James.Reynolds@vdh.virginia.gov>; Mccauley, Lyndsey (VDH)

<Lyndsey.Mccauley@vdh.virginia.gov>

Cc: Yob, Steven <yob@henrico.gov>; Christian, Alvin, Jr <chr26@henrico.gov>; Simukonde, Nellow <sim69@henrico.gov>; Forehand, Marcello <FOR109@henrico.gov>; McDonald, Elizabeth

<MCD046@henrico.gov>; Grandstaff, James <gra@henrico.gov>; Meade, Thomas

<mea19@henrico.gov>; Stubbs, Kimberlee <STU005@henrico.gov>

Subject: RE: Henrico BWA

Good morning, James, Bailey, and Lyndsey,

Both the second BacT sample collected yesterday from 9312 S. Mooreland Rd. and the second BacT sample collected yesterday from 5308 Coxson Rd. have completed their incubation periods and both indicate ABSENT for total coliform and E. coli.

We will issue a public notification upon concurrence.

Thanks!

Bentley

BENTLEY CHAN, PE

Director

HENRICO WATER, Department of Public Utilities

Christian, Alvin, Jr

From:

Adkins, Christopher

Sent:

Friday, January 24, 2025 4:12 PM

To:

Christian, Alvin, Jr

Subject:

RE: Production the week of January 6

Average daily flows have been 7 – 10 MGD higher than normal for this time of year. Peak hourly flows have been up to 40 MGD since the event.

Water Withdrawal from James River in MGD for January.

January
19.9
21.6
18.8
24.4
20.6
27.3
29.8
30.5
29.3
26.9
29.7
26.4
29.3
26.2
28.3
27.1
27.5
27.1
27.3
25.5
28.7
28.3
28.9

Water Production from WTF in MGD for January.

	January
1	16.8
2	18.8
3	16.8
4	20.1
5	18.3
6	21.5
7	27.6
8	26.9
9	26.2

10	23.6
11	25.2
12	24.2
13	25.5
14	23.6
15	25.3
16	24.0
17	24.7
18	23.1
19	24.9
20	23.6
21	25.0
22	24.5
23	24.3



Chris Adkins HENRICO WATER, Department of Public Utilities

Phone 804.501.7503 Email Christopher.Adkins@henrico.gov Cell 804.385.0822

From: Christian, Alvin, Jr <chr26@henrico.gov>

Sent: Friday, January 24, 2025 3:15 PM

To: Adkins, Christopher <adk21@henrico.gov> **Subject:** Production the week of January 6

Importance: High

Chris,

Can you provide production levels for the week of January 6? We would like to see how the events impacted the amount of production at the facility. You can send the information next week since you are dealing with the emergency.



Alvin Christian, P.E.

Assistant Director for Enterprise Operations
HENRICO WATER, Department of Public Utilities
Ph. 804.501.4500 (o) | 804.219.7750 (c) | chr26@henrico.gov

AFTER-ACTION REPORT: HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES' RESPONSE TO THE RICHMOND WATER CRISIS APPENDIX I

CELL PHONE CALL LOG OF HENRICO DPU DIRECTOR

CHAN CELL PHONE CALL LOG (JANUARY 5, 2025 THROUGH JANUARY 11, 2025)

Details for : 804-349-2286 Cycle ends : 01/23/2025

Date	Time	Number	Minutes	Description	Name Per B. Chan	Org Per B. Chan
01/11/2025	08:12PM	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/11/2025	02:56PM	8043478812	7	INCOMING	Nellow Simukonde	Henrico DPU
01/11/2025	02:55PM	8043478812	1	RICHMOND	Nellow Simukonde	Henrico DPU
01/11/2025	02:52PM	8045015025	3	RICHMOND	After Hours Emergency	Henrico Security
01/11/2025	02:51PM	8043478812	1	RICHMOND	Nellow Simukonde	Henrico DPU
01/11/2025	12:59PM	8042197750	6	RICHMOND	Alvin Christian	Henrico DPU
01/11/2025	11:31AM	8045106070	2	RICHMOND	Cari Tretina	Henrico CM
01/11/2025	11:21AM	8042013400	1	RICHMOND	Thomas Meade	Henrico DPU
01/11/2025	11:19AM	7574061252	2	NRFOLKZON3	James Reynolds	VDH
01/11/2025	11:14AM	8042013400	2	RICHMOND	Thomas Meade	Henrico DPU
01/11/2025	10:34AM	8049101767	9	INCOMING	Matt Longshore	Hanover DPU
01/11/2025	09:19AM	8043980756	2	INCOMING	Elizabeth McDonald	Henrico DPU
01/11/2025	08:50AM	8043492284	8	GLEN ALLEN	Jeff Sullard	Henrico DPU
01/11/2025	08:42AM	8043161168	8	RICHMOND	Tim Price	QTS
01/11/2025	08:32AM	8042218224	11	INCOMING	Ben Sheppard	Henrico PR
01/11/2025	08:30AM	8042218224	2	RICHMOND	Ben Sheppard	Henrico PR
01/11/2025	08:16AM	8043161168	2	INCOMING	Tim Price	QTS
01/11/2025	07:04AM	8043478812	18	INCOMING	Nellow Simukonde	Henrico DPU
01/11/2025	06:49AM	8043478812	2	RICHMOND	Nellow Simukonde	Henrico DPU
01/11/2025	06:00AM	8045106070	2	INCOMING	Cari Tretina	Henrico CM
01/10/2025	09:24PM	8043478812	5	INCOMING	Nellow Simukonde	Henrico DPU
01/10/2025	09:16PM	8043478812	1	RICHMOND	Nellow Simukonde	Henrico DPU
01/10/2025	09:11PM	8042218224	4	INCOMING	Ben Sheppard	Henrico PR
01/10/2025	07:09PM	8044325265	17	INCOMING	John Vithoulkas	Henrico CM
01/10/2025	06:43PM	8043495572	2	GLEN ALLEN	Eugene Stephens	Henrico DPU
01/10/2025	06:42PM	8042400610	1	INCOMING	Mario Simms	Henrico DPW
01/10/2025	05:39PM	8045014442	2	INCOMING	Evelyn McGuire	Henrico DPU
01/10/2025	05:33PM	8045014442	1	RICHMOND	Evelyn McGuire	Henrico DPU
01/10/2025	04:25PM	8045149741	3	INCOMING	Mike Schnurman	Henrico CM
01/10/2025	04:00PM	8043163563	10	RICHMOND	Rob Rowley	Henrico EM
01/10/2025	03:50PM	8045014442	4	RICHMOND	Evelyn McGuire	Henrico DPU
01/10/2025	03:49PM	8045014540	1	RICHMOND	Patti Constantine	Henrico DPU
01/10/2025	03:42PM	8042400610	2	INCOMING	Mario Simms	Henrico DPW
01/10/2025	03:30PM	8045017341	3	RICHMOND	Marchelle Sossong	Henrico DPU
01/10/2025	03:27PM	8045017341	2	INCOMING	Marchelle Sossong	Henrico DPU
01/10/2025	03:09PM	2762609898	2	INCOMING		
01/10/2025	02:49PM	7574061252	2	NRFOLKZON3	James Reynolds	VDH
01/10/2025	02:44PM	8049284811	5	GLEN ALLEN	Bailey Davis	VDH
01/10/2025	02:35PM	8044325265	1	INCOMING	John Vithoulkas	Henrico CM

01/10/2025	02:02PM	4078376944	5	INCOMING	Bryan Lee	St. Mary's
01/10/2025	01:32PM	8045017341		RICHMOND	Marchelle Sossong	Henrico DPU
01/10/2025	01:31PM	8045149741		RICHMOND	Mike Schnurman	Henrico CM
01/10/2025	12:48PM	8043161168		RICHMOND	Tim Price	QTS
01/10/2025	12:39PM	3528122114		OCALA	Allison Williams	ABC8
01/10/2025	12:38PM	8045017633		RICHMOND	Kim Stubbs	Henrico DPU
01/10/2025	12:27PM	8044325265		INCOMING	John Vithoulkas	Henrico CM
01/10/2025	12:22PM	8043872667	7	RICHMOND	Will Jones	Henrico PR
01/10/2025	12:21PM	8045017633	8	INCOMING	Kim Stubbs	Henrico DPU
01/10/2025	11:45AM	8045017633	8	RICHMOND	Kim Stubbs	Henrico DPU
01/10/2025	11:41AM	8043872667	3	INCOMING	Will Jones	Henrico PR
01/10/2025	11:20AM	8042218224	6	RICHMOND	Ben Sheppard	Henrico PR
01/10/2025	11:05AM	8043473235	14	RICHMOND	Tom Lappas	Henrico Citizen
01/10/2025	11:01AM	8043492266	4	INCOMING	Victor Valenzuela	Henrico DPU
01/10/2025	11:00AM	8043492255	1	GLEN ALLEN	Randy Steinmark	Henrico DPU
01/10/2025	10:58AM	8043492266	2	GLEN ALLEN	Victor Valenzuela	Henrico DPU
01/10/2025	10:56AM	8042013400	3	RICHMOND	Thomas Meade	Henrico DPU
01/10/2025	10:01AM	8042787437	3	RICHMOND	April Bingham	Richmond DPU
01/10/2025	09:53AM	8049101767	9	RICHMOND	Matt Longshore	Hanover DPU
01/10/2025	09:50AM	8045133411	2	RICHMOND	George Hayes	Chesterfield DPU
01/10/2025	09:39AM	8044325265	6	INCOMING	John Vithoulkas	Henrico CM
01/10/2025	09:19AM	8043478812	2	INCOMING	Nellow Simukonde	Henrico DPU
01/10/2025	09:02AM	8043980756	1	RICHMOND	Elizabeth McDonald	Henrico DPU
01/10/2025	09:01AM	8043478812	1	RICHMOND	Nellow Simukonde	Henrico DPU
01/10/2025	09:00AM	8047278711	1	RICHMOND	Nellow Simukonde	Henrico DPU
01/10/2025	08:59AM	8047278711	1	RICHMOND	Nellow Simukonde	Henrico DPU
01/10/2025	08:58AM	8043478812	1	RICHMOND	Nellow Simukonde	Henrico DPU
01/10/2025	08:52AM	1918042787	6	INCOMING		
01/10/2025	07:54AM	8044325265	3	RICHMOND	John Vithoulkas	Henrico CM
01/10/2025	07:04AM	8043478812	6	RICHMOND	Nellow Simukonde	Henrico DPU
01/09/2025	10:21PM	8042197750	4	RICHMOND	Alvin Christian	Henrico DPU
01/09/2025	09:54PM	8042218224	7	INCOMING	Ben Sheppard	Henrico PR
01/09/2025	09:48PM	8042013400	5	RICHMOND	Thomas Meade	Henrico DPU
01/09/2025	09:45PM	8044325265	3	RICHMOND	John Vithoulkas	Henrico CM
01/09/2025	09:43PM	8042197750	3	INCOMING	Alvin Christian	Henrico DPU
01/09/2025	08:39PM	8042197750	5	INCOMING	Alvin Christian	Henrico DPU
01/09/2025	08:19PM	8044325265	11	INCOMING	John Vithoulkas	Henrico CM
01/09/2025	08:18PM	8042197750	1	RICHMOND	Alvin Christian	Henrico DPU
01/09/2025	08:10PM	8043980884	2	RICHMOND	Mark Brown	Henrico DPU
01/09/2025	07:53PM	8043980884	5	RICHMOND	Mark Brown	Henrico DPU
01/09/2025	07:49PM	8046905376	4	RICHMOND	Tyrone Nelson	Henrico BOS
01/09/2025	07:01PM	8045128993	47	RICHMOND	Danny Avula	Richmond Mayor
01/09/2025	06:31PM	8042197750	31	RICHMOND	Alvin Christian	Henrico DPU

01/09/2025	06:29PM	8043632930	1	RICHMOND		
01/09/2025	05:56PM	8043872667		RICHMOND	Will Jones	Henrico PR
01/09/2025	05:52PM	8043872667		INCOMING	Will Jones	Henrico PR
01/09/2025	05:321 W	8043872667		INCOMING	Will Jones	Henrico PR
01/09/2025	05:15PM	8043872667		RICHMOND	Will Jones	Henrico PR
01/09/2025	04:53PM	8042013400		RICHMOND	Thomas Meade	Henrico DPU
01/09/2025	04:52PM	8042975307		INCOMING	Marcello Forehand	Henrico DPU
01/09/2025	04:35PM	8043161168		RICHMOND	Tim Price	QTS
01/09/2025	04:34PM	8044325265		RICHMOND	John Vithoulkas	Henrico CM
01/09/2025	04:31PM	8042197750		INCOMING	Alvin Christian	Henrico DPU
01/09/2025	04:29PM	8047745000		RICHMOND	7 (VIII CIIII Sciali	Tienned bi o
01/09/2025	04:24PM	8046591487		INCOMING	Beth Sanmartin	Henrico PR
01/09/2025	04:24FM	8042013400		RICHMOND	Thomas Meade	Henrico DPU
01/09/2025	04:22FW	8042975307		INCOMING	Marcello Forehand	Henrico DPU
01/09/2025	04:14PM	8042975307		RICHMOND	Marcello Forehand	Henrico DPU
	04.13PM 03:56PM	8042973307		RICHMOND	Will Jones	
01/09/2025 01/09/2025	-				John Vithoulkas	Henrico PR
01/09/2025	03:49PM 03:44PM	8044325265 8042013400		INCOMING RICHMOND	Thomas Meade	Henrico CM Henrico DPU
	03:44PM				Thomas Meade	
01/09/2025	+	8042013400		RICHMOND		Henrico DPU
01/09/2025	03:32PM	8042013400		INCOMING	Thomas Meade	Henrico DPU
01/09/2025	03:10PM	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/09/2025	03:03PM	8044325265		RICHMOND	John Vithoulkas	Henrico CM
01/09/2025	02:57PM	8045017633		RICHMOND	Kim Stubbs	Henrico DPU
01/09/2025	02:56PM	8042013400		RICHMOND	Thomas Meade	Henrico DPU
01/09/2025	02:51PM	8042975307		RICHMOND	Marcello Forehand	Henrico DPU
01/09/2025	02:48PM	8045565845		GOOCHLAND	Wayne Stephens	Goochland DPU
01/09/2025	02:46PM	8044325265		RICHMOND	John Vithoulkas	Henrico CM
01/09/2025	02:43PM	7574061252		NRFOLKZON3	James Reynolds	VDH
01/09/2025	02:22PM	8044325265		INCOMING	John Vithoulkas	Henrico CM
01/09/2025	02:13PM	8042013400		RICHMOND	Thomas Meade	Henrico DPU
01/09/2025	02:10PM	7574061252		NRFOLKZON3	James Reynolds	VDH
01/09/2025	02:01PM	8043818923	9	RICHMOND		
01/09/2025	01:59PM	7574061252	1	NRFOLKZON3	James Reynolds	VDH
01/09/2025	01:55PM	8046905376	4	INCOMING	Tyrone Nelson	Henrico BOS
01/09/2025	01:09PM	1915405389	1	INCOMING		
01/09/2025	12:54PM	8046905376	2	INCOMING	Tyrone Nelson	Henrico BOS
01/09/2025	12:49PM	1918045645	1	INCOMING		
01/09/2025	12:43PM	8042975307	2	INCOMING	Marcello Forehand	Henrico DPU
01/09/2025	12:25PM	8045017633	4	INCOMING	Kim Stubbs	Henrico DPU
01/09/2025	12:21PM	8044325265	4	RICHMOND	John Vithoulkas	Henrico CM
01/09/2025	12:07PM	8043473235	15	INCOMING	Tom Lappas	Henrico Citizen
01/09/2025	12:06PM	8043473235	1	RICHMOND	Tom Lappas	Henrico Citizen
01/09/2025	11:57AM	8042218224	1	INCOMING	Ben Sheppard	Henrico PR

01/09/2025	11:52AM	8043161168		INCOMING	Tim Price	QTS
					Tim Price	ŲIS
01/09/2025	11:49AM	8045014000		INCOMING RICHMOND	Alvin Christian	Homico DDH
01/09/2025	11:42AM	8042197750			Alvin Christian	Henrico DPU
01/09/2025	11:40AM	8042218224		INCOMING	Ben Sheppard	Henrico PR
01/09/2025	11:15AM	1918043828		INCOMING		
01/09/2025	10:48AM	2019191964		MORRISTOWN	D 61 1	
01/09/2025	10:42AM	8042218224		RICHMOND	Ben Sheppard	Henrico PR
01/09/2025	10:37AM	1918043813		INCOMING		
01/09/2025	10:17AM	8042197750		RICHMOND	Alvin Christian	Henrico DPU
01/09/2025	10:10AM	8042197750		INCOMING	Alvin Christian	Henrico DPU
01/09/2025	10:03AM	8044325265		RICHMOND	John Vithoulkas	Henrico CM
01/09/2025	09:12AM	1912019191		INCOMING		
01/09/2025	09:05AM	8042787437		RICHMOND	April Bingham	Richmond DPU
01/09/2025	08:42AM	8043980756	2	RICHMOND	Elizabeth McDonald	Henrico DPU
01/09/2025	08:28AM	7574061252	2	NRFOLKZON3	James Reynolds	VDH
01/09/2025	08:19AM	2024124404	7	INCOMING	Jennifer Kienel	Highwoods
01/09/2025	08:01AM	8042197750	2	RICHMOND	Alvin Christian	Henrico DPU
01/09/2025	07:53AM	8046905376	3	INCOMING	Tyrone Nelson	Henrico BOS
01/09/2025	06:40AM	8043492298	1	GLEN ALLEN	Steve Yob	Henrico CM
01/09/2025	06:36AM	8043980756	3	RICHMOND	Elizabeth McDonald	Henrico DPU
01/09/2025	06:07AM	8044325265	8	INCOMING	John Vithoulkas	Henrico CM
01/09/2025	05:59AM	8043980756	1	RICHMOND	Elizabeth McDonald	Henrico DPU
01/09/2025	05:59AM	8043980756	7	RICHMOND	Elizabeth McDonald	Henrico DPU
01/09/2025	05:52AM	4078376944	7	INCOMING	Bryan Lee	St. Mary's
01/08/2025	05:58PM	8046905376	6	INCOMING	Tyrone Nelson	Henrico BOS
01/08/2025	05:46PM	8048199558	1	INCOMING	Joel Vazquez	NBC12
01/08/2025	05:23PM	8048073851	3	INCOMING	Terrell Hughes	Henrico DPW
01/08/2025	05:22PM	8048073851	1	RICHMOND	Terrell Hughes	Henrico DPW
01/08/2025	05:21PM	8048073851	1	INCOMING	Terrell Hughes	Henrico DPW
01/08/2025	05:13PM	8045436101	5	INCOMING	Tommy Branin	Henrico BOS
01/08/2025	04:56PM	8049284811	7	GLEN ALLEN	Bailey Davis	4:56
01/08/2025	04:48PM	8605390544	4	HARTFORD		
01/08/2025	04:45PM	8046593858	3	RICHMOND	Matt Frame	VDH
01/08/2025	04:43PM	8046771089	1	RICHMOND	Kim Stubbs	Henrico DPU
01/08/2025	04:40PM	8043161168	3	INCOMING	Tim Price	QTS
01/08/2025	04:39PM	8043161168		RICHMOND	Tim Price	QTS
01/08/2025	04:28PM	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/08/2025	04:22PM	1918049284		INCOMING		
01/08/2025	04:13PM	1918045565		INCOMING		
01/08/2025	03:15PM	8605390544		INCOMING		
01/08/2025	02:45PM	4078376944		INCOMING	Bryan Lee	St. Mary's
01/08/2025	02:10PM	8045017633		INCOMING	Kim Stubbs	Henrico DPU
01/08/2025	02:07PM	8043478812		INCOMING	Nellow Simukonde	Henrico DPU
01/00/2023	02.071101	00-0-10012			recitow SittleRolle	TICHING DI O

01/08/2025	01:52PM	1918049042	2	INCOMING	<u> </u>	
01/08/2025	01:321 W	1918046593		INCOMING	Matt Frame	VDH
01/08/2025	01:44PM	8045017341		INCOMING	Marchelle Sossong	Henrico DPU
01/08/2025	01:44FW	8043017341		INCOMING	John Vithoulkas	Henrico CM
01/08/2025	01:23FW	8049558021		INCOMING	Andrew Newby	Henrico CA
01/08/2025	01:13PM	8043980756		RICHMOND	Elizabeth McDonald	Henrico DPU
01/08/2025	01:11FW	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/08/2025	01:06PM	8042975307		RICHMOND	Marcello Forehand	Henrico DPU
01/08/2025	01:06PM	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/08/2025	01:04PM	4078376944		VM DEPOSIT	Bryan Lee	St. Mary's
01/08/2025	12:59PM	8048199558		INCOMING	,	NBC12
					Joel Vazquez Matt Frame	VDH
01/08/2025	12:55PM	1918046593		INCOMING		
01/08/2025	12:30PM	1918046593		INCOMING	Matt Frame	VDH
01/08/2025	12:13PM	7574061252		INCOMING	James Reynolds	VDH
01/08/2025	12:11PM	8045106070		INCOMING	Cari Tretina	Henrico CM
01/08/2025	12:07PM	7574061252		NRFOLKZON3	James Reynolds	VDH
01/08/2025	11:54AM	8045106070		RICHMOND	Cari Tretina	Henrico CM
01/08/2025	11:52AM	8043492298		INCOMING	Steve Yob	Henrico CM
01/08/2025	11:48AM	8605390544		INCOMING	Enkuang Yang	Meta
01/08/2025	11:43AM	8043492298	5	INCOMING	Steve Yob	Henrico CM
01/08/2025	11:35AM	8045106070	4	RICHMOND	Cari Tretina	Henrico CM
01/08/2025	11:22AM	8049440193	14	RICHMOND	Andrew Newby	Henrico CA
01/08/2025	11:21AM	8048741028	15	INCOMING	Chris Pomeroy	AquaLaw
01/08/2025	11:19AM	8045017341	2	RICHMOND	Marchelle Sossong	Henrico DPU
01/08/2025	11:06AM	8049558021	9	INCOMING	Andrew Newby	Henrico CA
01/08/2025	10:59AM	8042218224	4	RICHMOND	Ben Sheppard	Henrico PR
01/08/2025	10:57AM	8049688847	3	RICHMOND	Anthony Romanello	Henrico EDA
01/08/2025	10:45AM	1918046593	8	INCOMING	Matt Frame	VDH
01/08/2025	10:41AM	8049558021	2	RICHMOND	Andrew Newby	Henrico CA
01/08/2025	10:40AM	4078376944	2	KISSIMMEE	Bryan Lee	St. Mary's
01/08/2025	10:34AM	4078376944	2	INCOMING	Bryan Lee	St. Mary's
01/08/2025	10:29AM	8045017633	5	INCOMING	Kim Stubbs	Henrico DPU
01/08/2025	10:25AM	8045017633	2	RICHMOND	Kim Stubbs	Henrico DPU
01/08/2025	10:21AM	8045014676	4	INCOMING	Andrew Newby	Henrico CA
01/08/2025	10:05AM	8045014676	15	INCOMING	Andrew Newby	Henrico CA
01/08/2025	09:54AM	8043354000	6	RICHMOND		
01/08/2025	09:52AM	8046591487	1	RICHMOND	Beth Sanmartin	Henrico PR
01/08/2025	09:32AM	8045014676	20	RICHMOND	Andrew Newby	Henrico CA
01/08/2025	09:23AM	8049558021	2	RICHMOND	Andrew Newby	Henrico CA
01/08/2025	08:49AM	8045014208	3	INCOMING	Veta Herbaugh	Henrico BOS
01/08/2025	08:20AM	8049558021	11	INCOMING	Andrew Newby	Henrico CA
01/08/2025	08:07AM	8045017341	9	RICHMOND	Marchelle Sossong	Henrico DPU
01/08/2025	07:56AM	8044325265	4	RICHMOND	John Vithoulkas	Henrico CM

01/08/2025	07:34AM	8043161168	3	INCOMING	Tim Price	QTS
01/08/2025	07:24AM	8043492298	10	INCOMING	Steve Yob	Henrico CM
01/08/2025	07:12AM	8046905376	4	INCOMING	Tyrone Nelson	Henrico BOS
01/08/2025	07:07AM	8605390544	5	INCOMING	Enkuang Yang	Meta
01/08/2025	06:00AM	8042218224	3	INCOMING	Ben Sheppard	Henrico PR
01/08/2025	05:59AM	8042218224	1	RICHMOND	Ben Sheppard	Henrico PR
01/08/2025	05:54AM	8046905376	3	INCOMING	Tyrone Nelson	Henrico BOS
01/08/2025	05:50AM	8044325265	5	INCOMING	John Vithoulkas	Henrico CM
01/08/2025	04:16AM	8043492298	3	INCOMING	Steve Yob	Henrico CM
01/08/2025	04:15AM	8043492298	1	GLEN ALLEN	Steve Yob	Henrico CM
01/08/2025	04:11AM	8044325265	1	RICHMOND	John Vithoulkas	Henrico CM
01/08/2025	03:13AM	8044325265	1	RICHMOND	John Vithoulkas	Henrico CM
01/08/2025	02:13AM	8044325265	5	RICHMOND	John Vithoulkas	Henrico CM
01/07/2025	11:23PM	8046905376	2	INCOMING	Tyrone Nelson	Henrico BOS
01/07/2025	11:16PM	8044325265	4	RICHMOND	John Vithoulkas	Henrico CM
01/07/2025	11:06PM	8043492273	2	INCOMING	William Hawkins	Henrico DPU
01/07/2025	10:58PM	8044325265	2	RICHMOND	John Vithoulkas	Henrico CM
01/07/2025	10:38PM	8043161168	4	INCOMING	Tim Price	QTS
01/07/2025	08:34PM	8048073851	1	INCOMING	Terrell Hughes	Henrico DPW
01/07/2025	08:20PM	8043478812	7	INCOMING	Nellow Simukonde	Henrico DPU
01/07/2025	08:20PM	8043478812	1	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	08:13PM	8044325265	6	INCOMING	John Vithoulkas	Henrico CM
01/07/2025	08:06PM	4806503033	4	INCOMING	Nellow Simukonde	Henrico DPU
01/07/2025	08:05PM	8043478812	1	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	07:52PM	8043161168	13	INCOMING	Tim Price	QTS
01/07/2025	07:51PM	8043478812	2	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	07:44PM	8044325265	2	INCOMING	John Vithoulkas	Henrico CM
01/07/2025	07:37PM	8043478812	2	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	07:15PM	8043478812	2	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	07:03PM	8043478812	3	INCOMING	Nellow Simukonde	Henrico DPU
01/07/2025	06:53PM	8043163563	4	RICHMOND	Tim Price	QTS
01/07/2025	06:50PM	8043161168	2	RICHMOND	Tim Price	QTS
01/07/2025	06:36PM	8043492298	14	INCOMING	Steve Yob	Henrico CM
01/07/2025	06:26PM	8043492298	4	INCOMING	Steve Yob	Henrico CM
01/07/2025	06:21PM	8043492298	1	GLEN ALLEN	Steve Yob	Henrico CM
01/07/2025	06:18PM	8042218224	3	RICHMOND	Ben Sheppard	Henrico PR
01/07/2025	06:16PM	8046905376	2	RICHMOND	Tyrone Nelson	Henrico BOS
01/07/2025	06:14PM	8044325265	2	RICHMOND	John Vithoulkas	Henrico CM
01/07/2025	06:01PM	8043478812	13	INCOMING	Nellow Simukonde	Henrico DPU
01/07/2025	05:55PM	8042218224	4	RICHMOND	Ben Sheppard	Henrico PR
01/07/2025	05:53PM	8042197750	2	INCOMING	Alvin Christian	Henrico DPU
01/07/2025	05:47PM	8046591487	1	RICHMOND	Beth Sanmartin	Henrico PR
01/07/2025	05:41PM	8042197750	2	INCOMING	Alvin Christian	Henrico DPU

01/07/2025	05:36PM	8042197750	6	INCOMING	Alvin Christian	Henrico DPU
01/07/2025	05:30FM			INCOMING		Henrico BOS
01/07/2025	05:19PM 05:17PM	8046905376 8042197750		RICHMOND	Tyrone Nelson Alvin Christian	Henrico DPU
01/07/2025	05:17PM	8048199558		INCOMING	Joel Vazquez	NBC12
					Beth Sanmartin	
01/07/2025	04:59PM	8046591487		RICHMOND		Henrico PR
01/07/2025	04:54PM	8043492298		GLEN ALLEN	Steve Yob	Henrico CM
01/07/2025	04:49PM	8046591487		INCOMING	Beth Sanmartin	Henrico PR
01/07/2025	04:48PM	8043492298		INCOMING	Steve Yob	Henrico CM
01/07/2025	04:31PM	8042052867		RICHMOND	Sarah Chakales	NBC12
01/07/2025	04:26PM	8044325265		RICHMOND	John Vithoulkas	Henrico CM
01/07/2025	04:13PM	8044325265		RICHMOND	John Vithoulkas	Henrico CM
01/07/2025	04:12PM	8044325265		RICHMOND	John Vithoulkas	Henrico CM
01/07/2025	04:10PM	8049654038		INCOMING	Lyndsey McCauley	VDH
01/07/2025	04:09PM	8043980756	1	INCOMING	Elizabeth McDonald	Henrico DPU
01/07/2025	04:00PM	8044325265	3	RICHMOND	John Vithoulkas	Henrico CM
01/07/2025	03:51PM	8044325265	3	RICHMOND	John Vithoulkas	Henrico CM
01/07/2025	03:08PM	8042197750	3	RICHMOND	Alvin Christian	Henrico DPU
01/07/2025	03:06PM	8045106070	3	INCOMING	Cari Tretina	Henrico CM
01/07/2025	03:03PM	8046905376	3	INCOMING	Tyrone Nelson	Henrico BOS
01/07/2025	03:01PM	8042197750	2	RICHMOND	Alvin Christian	Henrico DPU
01/07/2025	02:48PM	8042197750	1	INCOMING	Alvin Christian	Henrico DPU
01/07/2025	02:28PM	8043980756	1	INCOMING	Elizabeth McDonald	Henrico DPU
01/07/2025	02:27PM	8042018594	1	INCOMING	Ray Ross	Henrico DPU
01/07/2025	02:13PM	8042018594	1	INCOMING	Ray Ross	Henrico DPU
01/07/2025	02:12PM	8043478812	1	INCOMING	Nellow Simukonde	Henrico DPU
01/07/2025	01:32PM	8042018594	2	RICHMOND	Ray Ross	Henrico DPU
01/07/2025	01:31PM	8043478812	2	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	01:23PM	8042016183	5	RICHMOND	Jon Clary	Henrico DPU
01/07/2025	01:01PM	8047278711	5	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	12:54PM	8042197750	7	RICHMOND	Alvin Christian	Henrico DPU
01/07/2025	12:46PM	8043980756	3	RICHMOND	Elizabeth McDonald	Henrico DPU
01/07/2025	12:46PM	8043478812	1	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	12:44PM	8046591487	1	INCOMING	Ben Sheppard	Henrico PR
01/07/2025	12:25PM	8048199558	3	INCOMING	Joel Vazquez	NBC12
01/07/2025	12:22PM	8042612277	1	INCOMING	·	
01/07/2025	11:46AM	8043980756	1	INCOMING	Elizabeth McDonald	Henrico DPU
01/07/2025	11:33AM	8043980756	1	INCOMING	Elizabeth McDonald	Henrico DPU
01/07/2025	11:30AM	8043980756	2	RICHMOND	Elizabeth McDonald	Henrico DPU
01/07/2025	11:30AM	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	11:18AM	8043980756		RICHMOND	Elizabeth McDonald	Henrico DPU
01/07/2025	10:55AM	8047278711		RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	10:52AM	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	10:47AM	8043163563		INCOMING	Rob Rowley	Henrico EM

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01/07/2025	10:45AM	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	10:22AM	8044325265		INCOMING	John Vithoulkas	Henrico CM
01/07/2025	10:12AM	8046591487		INCOMING	Beth Sanmartin	Henrico PR
01/07/2025	09:48AM	8048199558		INCOMING	Joel Vazquez	NBC12
01/07/2025	09:43AM	8042052867	2	RICHMOND	Sarah Chakales	NBC12
01/07/2025	09:33AM	8045483874	11	RICHMOND	Emily Yinger	NBC12
01/07/2025	09:26AM	8043980756	1	RICHMOND	Elizabeth McDonald	Henrico DPU
01/07/2025	09:25AM	8043478812	1	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	09:21AM	8042218224	2	RICHMOND	Ben Sheppard	Henrico PR
01/07/2025	09:02AM	8042218224	2	INCOMING	Ben Sheppard	Henrico PR
01/07/2025	09:00AM	8045483874	2	INCOMING	Emily Yinger	NBC12
01/07/2025	08:49AM	8042218224	3	RICHMOND	Ben Sheppard	Henrico PR
01/07/2025	08:44AM	8042052867	5	INCOMING	Sarah Chakales	NBC12
01/07/2025	08:39AM	8043163563	3	RICHMOND	Rob Rowley	Henrico EM
01/07/2025	08:36AM	8042197750	3	INCOMING	Alvin Christian	Henrico DPU
01/07/2025	08:35AM	8042052867	1	RICHMOND	Sarah Chakales	NBC12
01/07/2025	08:32AM	8042197750	2	RICHMOND	Alvin Christian	Henrico DPU
01/07/2025	08:29AM	8043492298	2	GLEN ALLEN	Steve Yob	Henrico CM
01/07/2025	08:14AM	8043478812	15	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	08:04AM	8042218224	7	INCOMING	Ben Sheppard	Henrico PR
01/07/2025	07:51AM	8046905376	2	RICHMOND	Tyrone Nelson	Henrico BOS
01/07/2025	07:47AM	8044325265	3	INCOMING	John Vithoulkas	Henrico CM
01/07/2025	07:38AM	8044325265	3	INCOMING	John Vithoulkas	Henrico CM
01/07/2025	07:32AM	8044325265	1	RICHMOND	John Vithoulkas	Henrico CM
01/07/2025	07:24AM	8043478812	8	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	07:18AM	8043478812	1	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	07:17AM	8044325265	1	INCOMING	John Vithoulkas	Henrico CM
01/07/2025	07:16AM	8044325265	1	INCOMING	John Vithoulkas	Henrico CM
01/07/2025	05:56AM	8044325265	3	RICHMOND	John Vithoulkas	Henrico CM
01/07/2025	04:34AM	8043809463	6	RICHMOND	Jim Courtney	Henrico Fire
01/07/2025	04:25AM	8043163563	9	RICHMOND	Rob Rowley	Henrico EM
01/07/2025	04:19AM	8043478812	4	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	04:13AM	8042218224	7	RICHMOND	Ben Sheppard	Henrico PR
01/07/2025	04:05AM	8044325265	7	RICHMOND	John Vithoulkas	Henrico CM
01/07/2025	03:58AM	8043163563	5	RICHMOND	Rob Rowley	Henrico EM
01/07/2025	03:51AM	8043478812	7	RICHMOND	Nellow Simukonde	Henrico DPU
01/07/2025	03:45AM	8043163563	2	INCOMING	Rob Rowley	Henrico EM
01/07/2025	12:03AM	8043478812	11	INCOMING	Nellow Simukonde	Henrico DPU
01/06/2025	09:51PM	8043980756	2	RICHMOND	Elizabeth McDonald	Henrico DPU
01/06/2025	09:47PM	8049447914	2	INCOMING	Caleb Meyer	Henrico EM
01/06/2025	09:42PM	8043632930	2	RICHMOND	·	
01/06/2025	09:42PM	8049447914		RICHMOND	Caleb Meyer	Henrico PR
01/06/2025	09:38PM	8043980756		INCOMING	Elizabeth McDonald	Henrico DPU
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01/06/2025	08:20PM	8046591487	5	INCOMING	Beth Sanmartin	Henrico PR
01/06/2025	07:40PM	8043478812		INCOMING	Nellow Simukonde	Henrico DPU
01/06/2025	07:40FM	4078376944		KISSIMMEE	Bryan Lee	St. Mary's
01/06/2025	07:04PM	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/06/2025	07:02PM	8049447914		INCOMING	Caleb Meyer	Henrico EM
01/06/2025	06:56PM	8042016183		RICHMOND	Jon Clary	Henrico DPU
01/06/2025	06:54PM	8046591487		INCOMING	Beth Sanmartin	Henrico PR
01/06/2025	06:44PM	8048073851		INCOMING	Terrell Hughes	Henrico DPW
01/06/2025	06:36PM	8043632930		RICHMOND	Rob Rowley	Henrico EM
01/06/2025	06:30PM	4078376944		KISSIMMEE	Bryan Lee	St. Mary's
01/06/2025	06:29PM	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/06/2025	06:04PM	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/06/2025	05:26PM	4078376944		KISSIMMEE	Bryan Lee	St. Mary's
01/06/2025	05:201 W	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/06/2025	05:06PM	8045106070		RICHMOND	Cari Tretina	Henrico CM
01/06/2025	05:01PM	8044325265		RICHMOND	John Vithoulkas	Henrico CM
01/06/2025	05:01PM	8044325265		INCOMING	John Vithoulkas	Henrico CM
01/06/2025	04:59PM	8045106070		INCOMING	Cari Tretina	Henrico CM
01/06/2025	04:55PM	8042218224		RICHMOND	Ben Sheppard	Henrico PR
01/06/2025	04:51PM	8045149734		RICHMOND	Pat O'Bannon	Henrico BOS
01/06/2025	04:28PM	8049688847		INCOMING	Anthony Romanello	Henrico EDA
01/06/2025	04:28FM	8044325265		INCOMING	John Vithoulkas	Henrico CM
01/06/2025	03:54PM	8044325265		INCOMING	John Vithoulkas	Henrico CM
01/06/2025	03:46PM	8042218224		RICHMOND	Ben Sheppard	Henrico PR
01/06/2025	03:43PM	8046980221		RICHMOND	Jenn Welch	Henrico EM
01/06/2025	03:41PM	8042197750		RICHMOND	Alvin Christian	Henrico DPU
01/06/2025	03:26PM	8043478812		INCOMING	Nellow Simukonde	Henrico DPU
01/06/2025 01/06/2025	03:00PM 02:40PM	8045106070 8049101767		INCOMING INCOMING	Cari Tretina Matt Longshore	Henrico CM
01/06/2025	02:34PM	8042197592		INCOMING	Rodney Munford	Hanover DPU Richmond DPU
					·	Richmond DPU
01/06/2025 01/06/2025	02:34PM 02:31PM	8042197592 8045133411		INCOMING RICHMOND	Rodney Munford George Hayes	Chesterfield DPU
01/06/2025	02:31PM 02:29PM	8042016183		RICHMOND	Jon Clary	Henrico DPU
01/06/2025	02:23PM	8042010183		RICHMOND	•	Richmond DPU
01/06/2025					Rodney Munford	Richmond DPU
<u> </u>	02:19PM	8042408725 8044325265		RICHMOND	Eric Whitehurst	
01/06/2025	02:15PM			RICHMOND	John Vithoulkas	Henrico CM
01/06/2025	02:14PM	8042787437		RICHMOND	April Bingham	Richmond DPU
01/06/2025	02:13PM	8043656022		ASHLAND	Matt Longshore	Hanover DPU
01/06/2025	02:05PM	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/06/2025	02:03PM	8044325265		INCOMING	John Vithoulkas	Henrico CM
01/06/2025	12:21PM	8043478812		INCOMING	Nellow Simukonde	Henrico DPU
01/06/2025	12:16PM	8043478812		RICHMOND	Nellow Simukonde	Henrico DPU
01/06/2025	11:08AM	8046591487	3	INCOMING	Beth Sanmartin	Henrico PR

01/06/2025	10:03AM	8045017401	3	INCOMING	EOC	Henrico EM
01/06/2025	06:42AM	8042197750	3	INCOMING	Alvin Christian	Henrico DPU
01/06/2025	06:30AM	8042197750	3	RICHMOND	Alvin Christian	Henrico DPU
01/05/2025	10:26PM	8043478812	1	INCOMING	Nellow Simukonde	Henrico DPU
01/05/2025	10:22PM	8043056634	1	RICHMOND	Terrell Hughes	Henrico DPW
01/05/2025	10:17PM	8043478812	4	RICHMOND	Nellow Simukonde	Henrico DPU
01/05/2025	10:14PM	8043056634	2	INCOMING	Terrell Hughes	Henrico DPW
01/05/2025	07:11PM	8043809463	10	RICHMOND	Jim Courtney	Henrico Fire
01/05/2025	06:46PM	8043809463	1	RICHMOND	Jim Courtney	Henrico Fire
01/05/2025	05:59PM	8043809463	5	INCOMING	Jim Courtney	Henrico Fire
01/05/2025	04:18PM	8042016183	2	RICHMOND	Jon Clary	Henrico DPU
01/05/2025	04:15PM	8046591487	1	RICHMOND	Beth Sanmartin	Henrico PR
01/05/2025	01:50PM	8043632930	9	INCOMING	Rob Rowley	Henrico EM

AFTER-ACTION REPORT: HENRICO COUNTY DEPARTMENT OF PUBLIC UTILITIES' RESPONSE TO THE RICHMOND WATER CRISIS APPENDIX J

TEXT MESSAGES











3 People

New name available from John

Update



John vithoulkas

Sabrina

Looking at water production to start around 9-10 pm. Still under boil water advisory for at least 24 hrs.

FN 87

5:12 PN



There is already a healthcare coalition call going on now as hospitals and ER routing issues being defined. Good topic for IMT. Forwarded prompt to fire chief

1

5:14PN



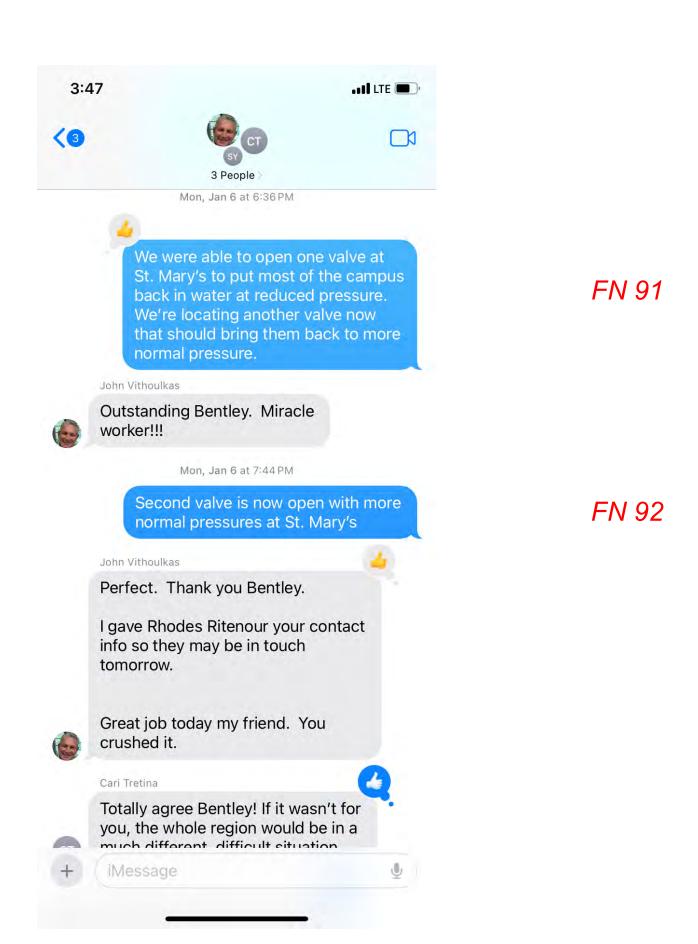
100 percent. We can't lose another Level 1 trauma center. I will ask Rob Rowley to call your EM's in the am to set up the gameplan for how we put this together as soon



5:15 PN

Text Message









Tue, Jan 7 at 1:38 AM

April Bingham

1:30 am Tuesday morning.....

Still at the Plant....SCADA is finally back up.

FN 104

We are attempting to start the backwash process so we can begin making product.

Just keeping you guys in the loop. Will send another text as we progress.

Tue, Jan 7 at 4:59 AM

April Bingham

5am

Hi guys - do you have any electricians from your Plants that you can send our way at daybreak?

AB

AB

Please let me know.

George Hayes

Chesterfield uses heritage electric for our electric needs, the same contractor we sent you for the SCADA. They are very

APPENDIX J - 3



Text Message • SMS











New name available from John

Update



John vithoulkas

Tue, Jan 7 at 3:11 AM

Sabrina

Update. We are not producing water yet. We are close. We should start producing clean water around 5 am. However, that will not be enough to push distribution throughout the city. Distribtuon will increase throughout the morning. Boil water advisory will still remain in effect until VDH clears us.

3:11 AM

Tue, Jan 7 at 4:13 AM

John Vithoulkas

Ten four and that is great news. Please know we are here for you today.

4:13 AM

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Tue, Jan 7 at 1:38 AM

April Bingham

1:30 am Tuesday morning.....

Still at the Plant....SCADA is finally back up.

We are attempting to start the backwash process so we can begin making product.

Just keeping you guys in the loop. Will send another text as we progress.

AB

Tue, Jan 7 at 4:59 AM

April Bingham

5am

Hi guys - do you have any electricians from your Plants that you can send our way at daybreak?

FN 110

AB

Please let me know.

George Hayes

Chesterfield uses heritage electric for our electric needs, the same contractor we sent you for the SCADA. They are very

APPENDIX J - 5

FN 110



Text Message • SMS









April Bingham

AB

Thanks Matt...

FN 110

That's our on call contractor. They have 2 electricians available right now

April Bingham

Connected with Eric - he's sending electricians our way.

AB

Thank you

Tue, Jan 7 at 9:07 AM

April Bingham

Good morning guys -

AB

Production has resumed.

George Hayes

GH

Thanks april. On CVIMT call now, may call you later.

April Bingham

Sounds good.

Matt - your guys are onsite with us right now. And the electrician arrived as well.

AB

Wed, Jan 8 at 8:45 AM

APPENDIX J - 6

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Text Message - SMS



iMessage Tue, Jan 7 at 6:14 AM

Rob Rowley

I obviously can't speak to the wisdom of the decision or even what they really mean by it but the word from city emergency management is that the pumps are running and pressurization will happen around noon.

FN 112

RR

Thanks, Rob. We just heard the same from our contacts and are scratching our heads as to how.

We can definitely do our own water quality tests on their water and flush generously to make sure things are safe on our end

John Vithoulkas

Yeah just got off the phone with the city manager. Not sure communication is fiftering down. A







3 People

New name available from John

Update

John vithoulkas

Was water restored last night?

6:29AM

Sorry missed earlier text about 5:00 am restart

6:31AM

Sabrina

1/2/25

Water has not been restored yet. It should be within the hour for water production to begin. Even then, it won't be enough to distribute. We are going to continue ue to ask for conservation.

FN 113

6:31 AM

John Vithoulkas

I'm good after 8. Send invite and we can jump on.

6:32AM

Sabrina

Let's do 9. Press conference should be done then.



6:37 AM

Text Message











New name available from John

Update

John vithoulkas

ready to make water again by tomorrow as all of our efforts have been spent getting it back operational.

Sabrina

Poc for tanker is bill Lawson 804 551 2991

8:08AM

Thank you all.

8:10 AM

Our tanker is in route

8:11 AM

John Vithoulkas

We're sending Vince Lofton and Scott Gray from our **Operations Division to** Richmond by 9

8:22AM *FN 117*

Has IMT been set? Assuming it will be Teams/ Zoom?

8:28 AM

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New name available from John

Update

John vithoulkas

Tue, Jan 7 at 10:33 AM

John Vithoulkas

Hey all - we are going to hold a press conference at 11:30 in the east end to address the water outage that we have in eastern Henrico. We have gotten inundated with calls and misinformation so hoping this helps.

10:33 AM

1/2/25

Tue, Jan 7 at 12:08 PM

Sabrina

We are producing water. Still processing. We expect distribution to start around 3-4 pm. It will still take hours to fill and reach full pressure.

FN 128

F Text Message



12:08 PM







3 People >

New name available from John

Update X

John vithoulkas

over here

Sabrina

We had a panel blow. Had to pump water out again in one of the plants. It seems we did not lose any water, and they are still producing water. They are trying to bring the other plant back. It does delay the anticipated distribution timeline about an hour.

FN 138

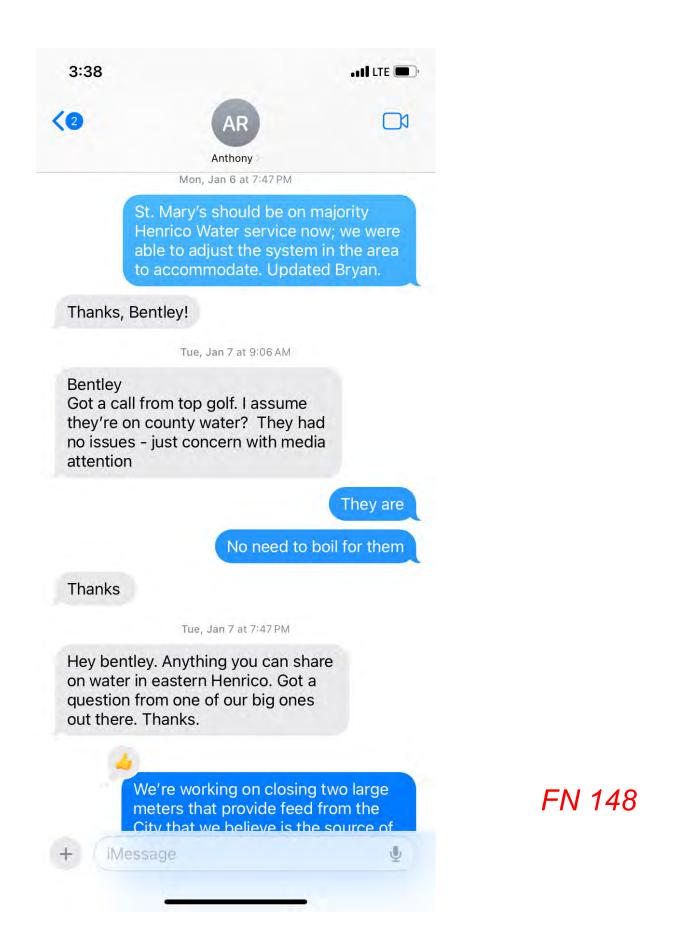
4:01PM

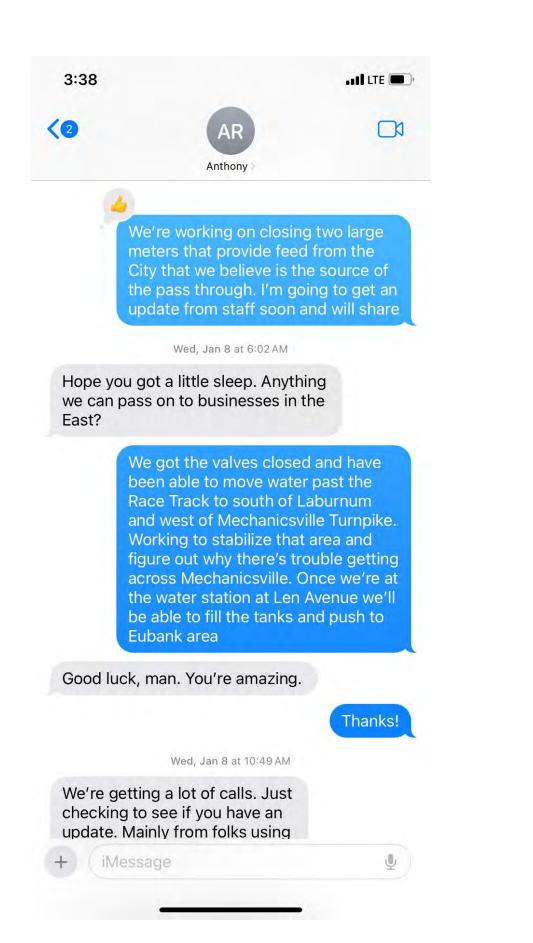
We have blown through 4 tractor trailer loads of bottled water in two hours. Teams are working to procure tankers and more water. Welcome your staff to reach out to our EOC if you have leads

4:29 PM

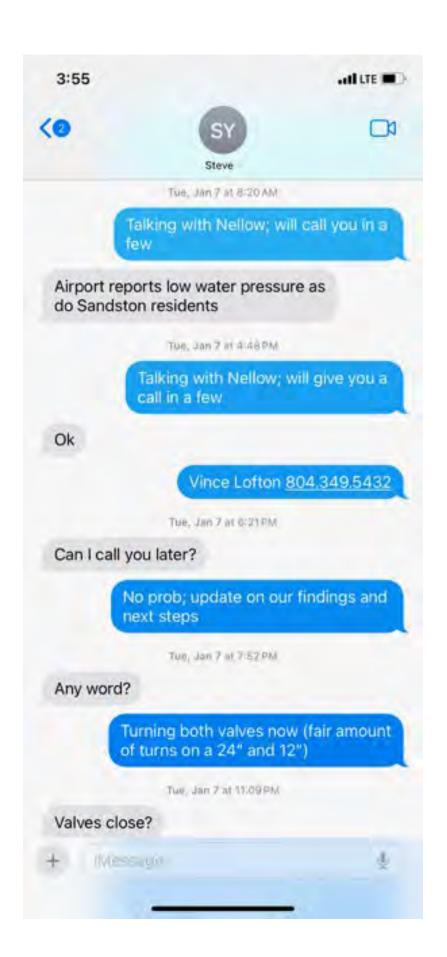
+ TetV a

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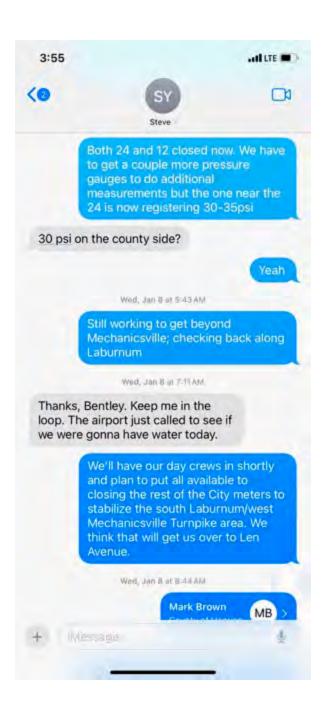




FN 148



FN 152



FN 152