



SUBMISSION FORM

All submission forms must include the following information. Separate submission forms must be turned in for each eligible program. **Deadline: July 1, 2025.** Please include this submission form as the first page of your electronic entry. If you do not receive an email confirming receipt of your entry within 3 days of submission, please contact [Gage Harter](#).


PROGRAM INFORMATION

County: Chestfield County
Program Title: Assembling the Utilities Emergent Response Team
Program Category: Communication

CONTACT INFORMATION

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SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

Name: George Hayes
Title: Director of Utilities
Signature: 

2025 VACo Achievement Awards

Assembling a Utilities Emergent Response Team

I. Overview

Chesterfield County Utilities (CCU) is a medium to large-size purveyor of potable water and provider of collection and treatment of wastewater. With a population of just over 380,000, Chesterfield is the fourth most populous county in Virginia. Due to its size and complexity, CCU must be able to adapt quickly to emergent events that compromise water and wastewater system operations. As a department within Chesterfield County government, CCU must also be capable of communicating real-time information to county leadership during times of crisis when the county's Emergency Operations Center (EOC) is opened.

During the COVID-19 pandemic, Chesterfield County government pivoted to a virtual environment when opening the EOC through the platform Microsoft Teams (Virtual EOC). CCU, as an active member of the Virtual EOC, adapted lessons learned from this new environment and applied them to establish the Utilities O&M Emergent Team environment. The Utilities O&M Emergent Team has allowed for enhanced communication among essential department staff during emergent events, improving department response to rapidly changing conditions while maintaining service to our customers.

The objectives of this program included improving interdepartmental communications through emergent events, resulting in enhanced responsiveness, improved record keeping, employee

engagement and customer service. The Utilities O&M Emergent Team was created in late 2023 and utilized through multiple emergent conditions in 2024 and early 2025.

II. The Problem/Need for the Program

Communications during emergent conditions can be complex, involving a large group of stakeholders responsible for generating, receiving, and relaying information as events unfold. Historically, these communications were handled via multiple modes, including telephone, email, text message, and face-to-face interactions. A limitation of these forms of communication is that none of them reliably capture the entire team affected by the emergency. This limitation results in incomplete knowledge sharing, missed signals, and inefficient relaying of messages to interested parties that were not original recipients. These limitations are exacerbated during times of crisis when critical information must be received immediately by all affected team members.

Before the Utilities O&M Emergent Team was implemented, the department's assistant director of operations and maintenance generally served as the communications hub during emergent events. Staff members from the various water, wastewater, and engineering groups in the department would send specific information to the assistant director who would filter and share those signals with other affected parties. This would often include relaying situation reports to county leadership, requests for aid to the county's emergency manager, and interdepartmental coordination of staff and resources to quickly respond to crises as they unfold. With the assistant director serving as a single point of contact, if their ability to communicate effectively during a crisis was compromised, the department and county's response would similarly be impaired, creating a critical vulnerability to be addressed by this program.

III. Description of the Program

Chesterfield County government emerged from the COVID-19 pandemic with new abilities to coordinate an emergency operations center virtually via the Microsoft Teams platform (Virtual EOC). The Virtual EOC would open at the direction of the county administrator in consultation with the county's emergency manager. Upon opening the Virtual EOC, a new "Team" would be created in the Microsoft Teams platform, with channels specific to the various divisions in local government, including a "General" channel, for updates and directives for all Virtual EOC participants, along with division-specific channels for detailed information sharing. Examples of these channels are, "Administration and Finance," "External Affairs," "Infrastructure and Utilities," and "Public Safety." The Teams platform allowed for effective real-time communication of emerging events, periodic situation reports, specific requests for assistance, and accurate archival of events. Critically, it provided all interested parties access to information without relying solely upon the county's emergency manager to share it with others in local government.

Recognizing the critical vulnerability of CCU having the assistant director serve as a single point of contact during emergent events, CCU adapted lessons learned through the county's Virtual EOC platform and applied them to the specific operations and maintenance needs of a water and wastewater utility. This led to the creation of the Utilities O&M Emergent Response Team. The assistant director of Operations and Maintenance serves as the team leader, with CCU's

management team serving as backup. The response team includes all operations and maintenance employees who would be called upon to work during an emergent event.

To provide structure and order to communications using the Utilities O&M Emergent Response Team, seven channels were created, and members were assigned channel membership based on their jobs within the department. The seven channels included:

1. General: Reserved for CCU leadership to provide information to all O&M employees during the event. Examples include opening the Utilities O&M Emergent Response Team for communications, requesting time periodic situation reports, providing updated weather forecasting, communicating information about power outages or road closures, etc.
2. Pretreatment: Reserved for Industrial Pretreatment staff to communicate information relative to their program responsibilities, including regulated significant industrial users and hauled waste contractors.
3. Technical Support: Reserved for Technical Support staff to communicate information on active construction projects, respond to requests for engineering assistance, and recruit contracted engineering assistance in response to emergency events.
4. Wastewater Collections: Reserved for Wastewater Collections staff to communicate information about the status of the county's wastewater collection system and pump stations, including sanitary sewer overflows, pump station status, power outages, easement clearing, and other requests for assistance.
5. Wastewater Treatment: Reserved for Wastewater Treatment Plant staff to communicate information about the county's two wastewater treatment plants, including flow updates,

equalization basin storage volumes, power outages, equipment failures, and flow distribution between the two plants via a diversion pump station within the collection system.

6. Water Distribution: Reserved for Water Distribution staff to communicate information about the county's water distribution system including summaries of supplies, tank levels, pump stations, control valves, power outages, and emergency repairs.
7. Water Treatment: Reserved for Water Treatment staff to communicate information about the county's water reservoir levels, plant operating status, and requests for assistance.

The Teams platform allows for customizable notification by channel, allowing members who desire to be notified of all updates, such as CCU leadership, to be notified anytime new information is posted. The customizable notification also allows members to not receive updates to channels that they do not regularly monitor, for example, Water Distribution may not be concerned with what is occurring in the Wastewater Treatment section and elect to keep those notifications turned off. Microsoft Teams also allows for direct notification to an individual or to a Team channel using the "@" symbol, which will override any previously set notification settings.

As emergent events unfold, and generally in concert with situation reports due to the county's Virtual EOC, updates are posted, and those who require the information are immediately alerted without notifying the entire department. Microsoft Teams is portable, allowing county employees to receive notifications regardless of their physical location. Portability is especially important for operators as they are often away from their workstations during emergencies. With Teams, they can receive instant notifications or communicate immediately when situations change.

Teams also allows for time-accurate record keeping as emergent events unfold. Posts to the various channels are time-stamped and allow for improved after-action reviews of critical events to determine why particular decisions were made with the information available at the time. This can lead to improved information sharing as the team members understand what critical pieces of information lead to improved decision-making.

Lastly, with all operations and maintenance employees who would potentially be involved in an emergent event response being included, the program has improved employee engagement within their centers as well as the department at large. This program has taken a significant step toward eliminating silos which tend to occur within large and complex organizations. Employees are free to communicate directly with their peers and leadership during emergent events, where they feel their contributions to the response effort are directly recognized and appreciated, promoting further positive engagement within the department.

IV. The Cost of the Program

CCU has invested zero additional capital cost and made no additional operating expenditures to fund this program. The Teams platform is part of the standard software package made available to all employees participating in the program and regularly being used for other uses unrelated to the program. Similarly, Chesterfield County employees are required to have a mobile device capable of supporting Microsoft Teams as a condition of their employment. There is no cost associated with this requirement other than the compensation salary or wage afforded county employees.

This program has decreased the number of on-site employees required during emergent events. When the county opens the Virtual EOC, CCU members responsible for staffing the EOC work remotely. The Utilities O&M Emergent Response Team has allowed for improved remote work adoption during times of crisis while simultaneously improving communication responsiveness. The ability to work remotely decreases direct costs to employees associated with travel to the workplace and costs to CCU associated with safety by keeping vehicles off the road during inclement weather.

V. The Results/Success of the Program

The Utilities O&M Emergent Response Team program has proven very successful. Since its original implementation during the fall 2023 hurricane season, the program has been used to coordinate the operating and maintenance efforts around six emergent condition events, including four winter weather events, one regional water crisis, and one tropical storm. Despite varying challenges, the program was successful in accomplishing many goals. Specifically:

- During a period of sequential winter storms, abnormally high wastewater influent flows were coordinated and diverted from one wastewater treatment plant to another as a result of improved interdepartmental communication and coordination between the Wastewater Treatment Plants and Wastewater Collections Teams, thereby assuring permit compliance and improved employee engagement.
- During the same period of sequential winter storms, flood waters from the county's two reservoirs were effectively communicated and managed. This included response to minor flooding around the treatment plant property, notification of high runoff rates to

downstream dam operators, and proactive management of dam control gates to reduce the duration of the flood event on downstream properties.

- During the tropical storm event, multiple facilities were impacted by a loss of power. This program allowed for near immediate notification of the county's emergency manager who was able to quickly inform the power company so they could prioritize response to CCU.
- During the regional water crisis, Chesterfield County retained water service to our customers, but many of the surrounding jurisdictions did not and underwent a boil water advisory and water conservation notice. The program allowed for real-time communication with CCU leadership regarding the operating conditions effecting the water utility. In turn, CCU leadership was able to respond to the many requests for information from our customers and the local media as the regional water crisis unfolded. The program allowed for accurate after-action reporting of specific actions in time that the county took in response to the crisis. This program allowed for improved customer service and the promotion of public trust in Chesterfield County's local government.

CCU staff and leadership alike recognized the program as a major advancement in fostering better interdepartmental communication, enhancing responsiveness, improving record keeping, and increasing both employee engagement and customer service.

VI. Worthiness of an Award

The Utilities O&M Emergent Response Team program meets outlined criteria for 2025 VACo Achievement Awards. The qualifying criteria include but are not limited to, improving the

administration of an existing county government program, enhancing the level of citizen understanding of government programs, and promotion of intergovernmental cooperation and coordination in addressing shared problems. All aspects of the program are consistent with acceptable governmental and financial management practices and promote general governmental accountability. Our commitment to our customers to provide world-class system reliability and responsiveness is demonstrated through our continuous improvement of our existing services and programs. The objectives of our system reliability and responsiveness commitment continue to be:

- To provide innovative and creative strategies for enhancing system responsiveness to emergent events.
- To promote open communication and coordination with a variety of stakeholders during abnormal operating conditions.
- To improve record keeping, thereby allowing for improved after action reviews of critical decision-making points during times of crisis.
- To leverage technology in innovative ways to improve service delivery and promote public trust in local government operations.

Although the use of the Teams platform is not new to local governments emerging from the pandemic, the utilization of a Teams channel to coordinate specific operations and maintenance challenges confronting a water and wastewater utility during times of crisis does not yet appear to be widely adopted. Chesterfield County's success with this program is worthy of recognition and available to be modeled by other local governments that share the same communications challenges during emergent events. Due to CCU's success during the regional water crisis, the

most recent implementation of the program, the department was recognized by the General Assembly in February 2025.



SENATE OF VIRGINIA

SENATE JOINT RESOLUTION NO. 373

Commending Chesterfield County.

Patrons—Sturtevant; Delegates: Cherry, Coyner, Earley, Gardner and McQuinn

Agreed to by the Senate, February 13, 2025

Agreed to by the House of Delegates, February 17, 2025

WHEREAS, in 2024, Chesterfield County was reaffirmed a AAA bond rating for its water and sewer revenue bonds from Fitch Ratings, demonstrating its robust water and sewer infrastructure; and

WHEREAS, the Chesterfield County Utilities Department has been recognized as a AAA rated utility since 2002, one of only nine combined water and sewer public utilities to hold this designation in the country; it is the highest rating achievable and recognizes the department for its leadership, financial achievements, affordable rates, and historically solid financial position; and

WHEREAS, the Chesterfield County Utilities Department provides water service to more than 123,000 customers and wastewater service to approximately 105,000 customers; and

WHEREAS, Chesterfield County, a member of the Appomattox River Water Authority, purchases and distributes water from the Appomattox River Water Authority and the City of Richmond, in addition to water from its own treatment plant on the Swift Creek Reservoir; and

WHEREAS, Chesterfield County, a member of the South Central Wastewater Authority, maintains two wastewater treatment plants at Falling Creek and Proctor's Creek and purchases treatment services from the South Central Wastewater Authority; and

WHEREAS, Chesterfield County has maintained reasonable operating costs for its water and wastewater systems while addressing critical investment needs; and

WHEREAS, Chesterfield County's purposeful investment and vigilant maintenance of its water infrastructure has resulted in the cultivation of multiple water sources and the development of numerous system redundancies, allowing the Chesterfield County Utilities Department to respond to natural disasters and other crisis situations efficiently and effectively; and

WHEREAS, after a severe weather event in January 2025 that resulted in limited water service and boil water advisories in several localities, Chesterfield County was able to seamlessly transition to alternative water sources and maintain a normal supply level of safe drinking water; and


WHEREAS, thanks to its resilient infrastructure, Chesterfield County was also able to provide assistance to individuals affected by the water crisis in the City of Richmond, allowing providers of essential services, including Chippenham Hospital, to maintain operations; and

WHEREAS, Chesterfield County's long-term rate models and capital plans help with rate stabilization, resulting in the lowest user fees in the region; and

WHEREAS, Chesterfield County's plans for a fourth water source are in final state and federal approval processes, and the additional water quality security and capacity will further help sustain customer demands and support economic development projects; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the General Assembly hereby commend Chesterfield County on receiving a AAA bond rating for its water and sewer revenue bonds; and, be it

RESOLVED FURTHER, That the Clerk of the Senate prepare a copy of this resolution for presentation to Chesterfield County as an expression of the General Assembly's admiration for its commitment to maintaining strong infrastructure.


Susan Clarke Schaar
Clerk of the Senate