



Response to Water Main Break & Boil Water Advisory

August 14 - 18

Presented: August 28, 2025

Water Main Break Overview

Thursday Night – August 14

- Probable time of main break is 8:35 pm
- First call to dispatch received at 8:48 pm
- SFD confirms break / notifies PW at 8:57 pm
- Crews start arriving at PW 9:11 pm
- PW crews arrive at break site at 9:15 pm
 - Find 16" main broken
 - Largest sized pipe in distribution system
- Water plant discharging 16 million gallons per day (4 million gallons per day normal flow)
- PW crews begin closing valves at 9:30 pm



Water Main Break Overview

Early Friday morning – August 15

- City staff consults with Virginia Department of Health throughout the night and Virginia Department of Emergency Management
- Notified VDH of break within 40 minutes
- Distribution system is pressurized. This pressure and full tanks act as buffer when breaks occur or water is shutoff.
- Each situation is unique: The majority of breaks or water shutoffs do not lead to a Boil Water Advisory.
- Water pressure drops too low → Boil Water Advisory needed by Friday morning
- PW crews repaired the break early Friday morning



Friday – August 15

- Boil Water Advisory issued
 - Multiple communication channels:
Staunton Alert Message call/text (Everbridge), city website news, city website banner, city email newsletter, social media, media release
 - Fire Department direct business outreach
- Staff & VDEM develop water distribution plan
- Water testing begins for portions of the city



Friday – August 15

- 3 sites established as a convenience for residents
 - Bessie Weller Elementary School
 - Staunton High School
 - Gypsy Hill Park Gymnasium
- Community Support
 - Walmart & Molson Coors donate emergency water supplies & Houff Transfer helps deliver
 - Staff and community (including Staunton High School students) mobilize to distribute bottled water.
- Quantity limits –could pick up for family, friends, & neighbors
- Consolidated to one site to manage resources Saturday PM



Weekend Operations: Sustained Response

August 16-17

- All parts of the city returned to normal water pressure Saturday morning (everyone has water)
- Water sampling for testing continues
 - Two rounds taken 16 hours apart
 - Samples must incubate for 24 hours before results are available
- Continued communication through the weekend
 - Updates to water distribution and the status of the BWA through website, Staunton Alert Message, and social media
- Water distribution continues at GHP



All Clear Monday Morning

August 18

- Last round of test results are all clear
 - No bacteria detected across 40 samples
 - Chlorine levels all in range
- Boil Water Advisory lifted at 10:35 am
- Final communication push
- Normal operations restored
- At no time did we find any indication of contamination



Response by the Numbers

- Water Shutoff
 - 16 valves closed
 - 600 valve key turns needed
- Bottled/Canned Water Distribution
 - 3 sites, 5 trailer loads
 - 115,200 bottles, 4,896 gallon-jugs, 16,224 cans
 - 140+ city employees & community volunteers
- Communication
 - 41 messages across 6 platforms in 4 days
 - Staunton Alert Message growth: 854 new subscribers
- Incident Duration
 - 86 hours from major break to lifting of BWA



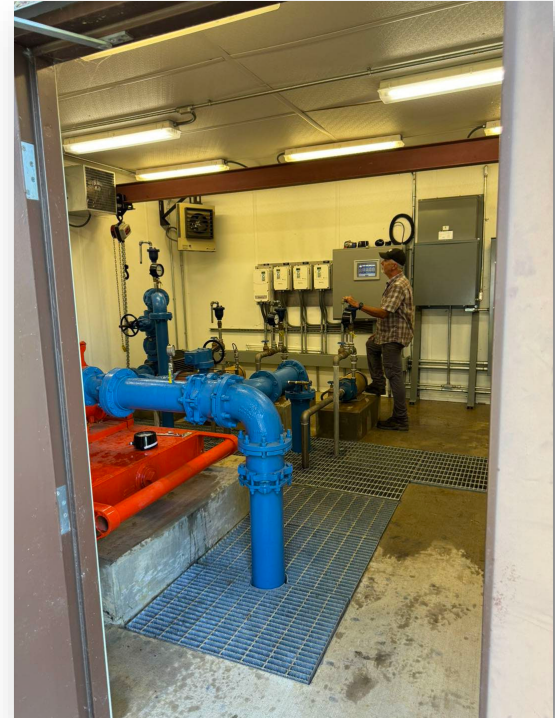
Infrastructure & Evolution of Regulations:

Proactive Infrastructure Upgrades

- Annual Waterline replacement program (began 1990s)
 - Annual replacement of old/undersized waterlines throughout the city
 - This year: Paige, Pierce, Wayne, West, N. Madison
- Upcoming major water infrastructure projects
 - Richmond Ave. Water Line Replacement (9,600 LF over 5 years)

Most recent similar event was in 2007

- 18 years ago
- Past regulations did not require boil water advisory (2007)
- Today's more proactive VDH standards triggered boil water advisory as commitment to public safety and health



What Worked & Lessons Learned

What Worked

- Quick response and repair
- Water Treatment Plant Operations
- Timely, multi-department and regulatory cooperation
- Communication and outreach (initial and updates)
- Provision of drinking water during BWA
- Paramount focus on public health and safety



What Worked & Lessons Learned

Lessons Learned

- Limited staff trained to go out and take samples
 - Future – train every water treatment employee
- Sampling sites only available at hydrants
 - Consider adding dedicated sampling stations around the city to reduce sampling time
- Continued opportunity to improve GIS utilities layers
- Better understanding of the support VDH, VDEM and other state agencies can provide
- Learned from this experience to be better prepared for future emergencies
- Develop pre-registered volunteer database
- Expand Staunton Alert Message Enrollment

STAY IN TOUCH WITH



SIGN UP FOR:

- EMERGENCY ALERTS
- PHONE CALLS
- TEXT MESSAGES



“When the well is dry, we know the
worth of water”

- Benjamin Franklin

Thank You

PUBLIC WORKS

FIRST RESPONDER