

Association of Metropolitan Water Agencies
2017 Executive Management Conference



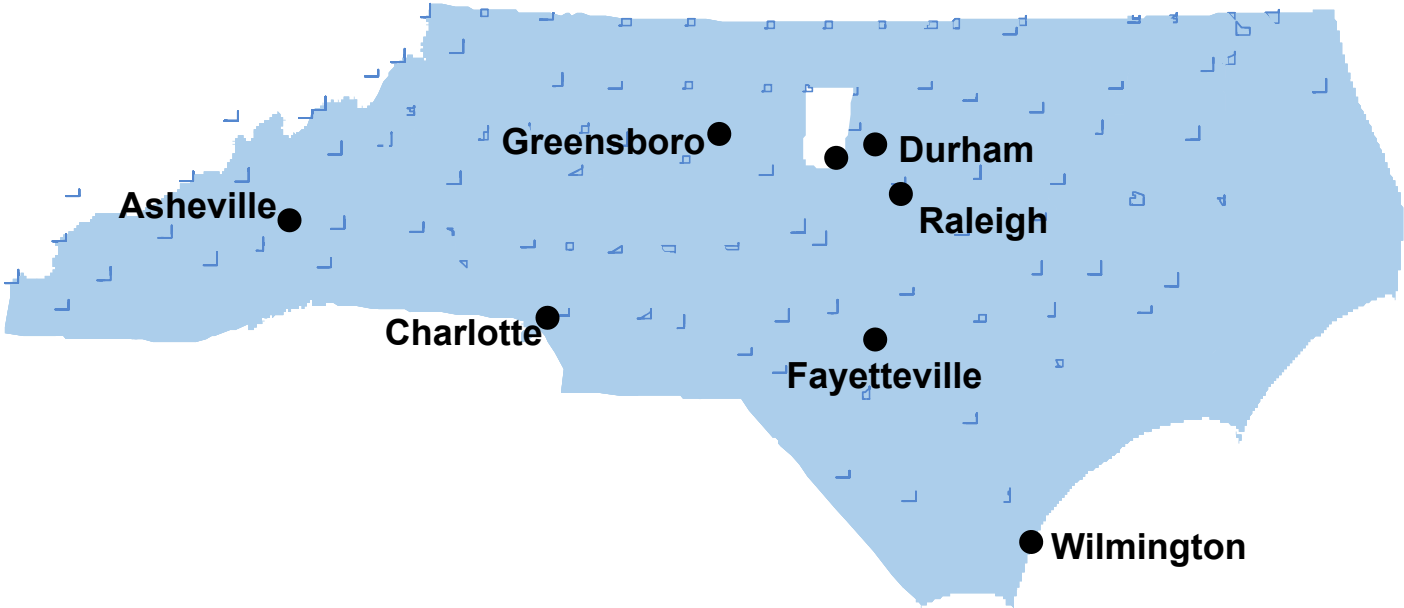
Water Emergency! When You Suddenly Become “Breaking News”

October 17, 2017



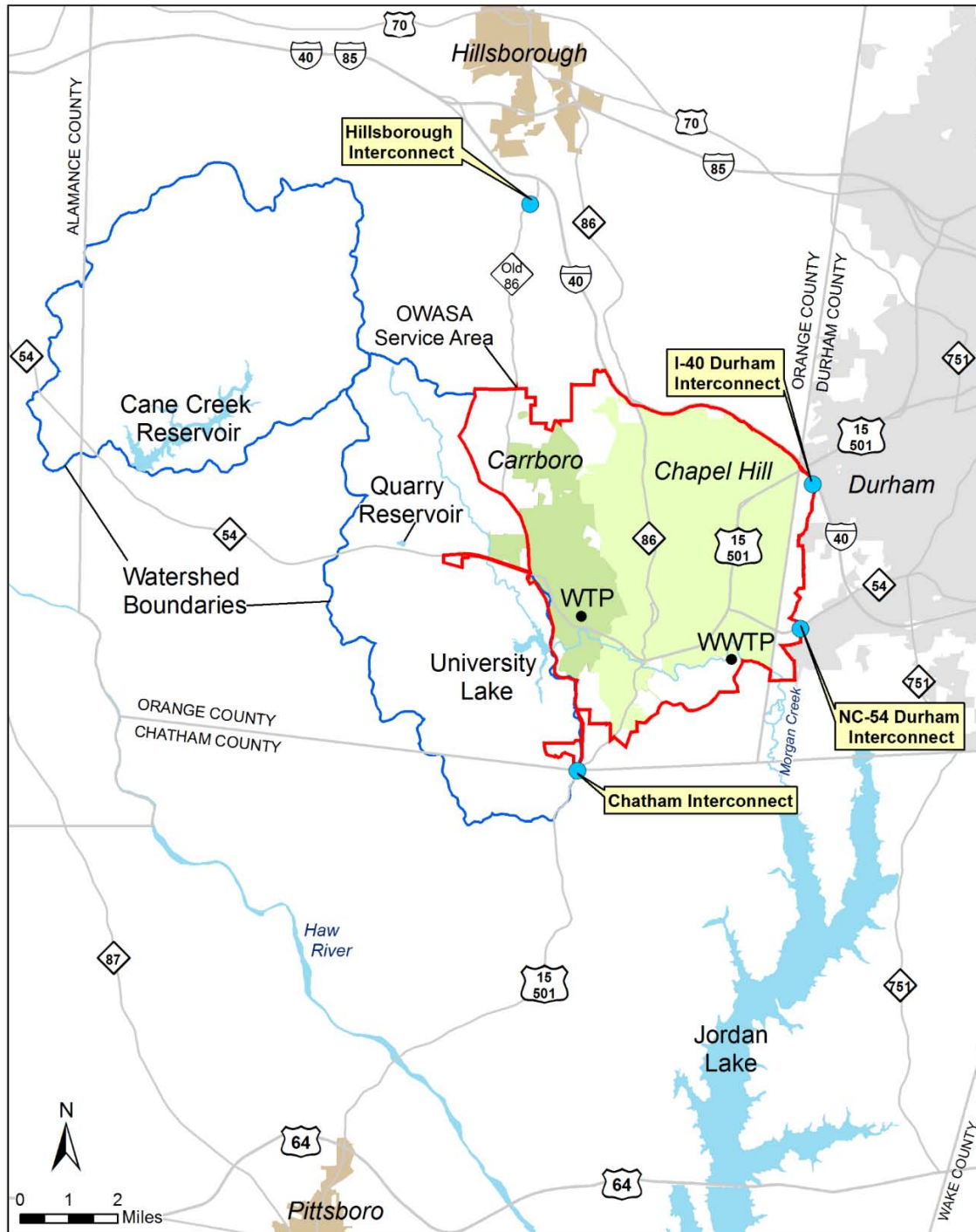
*Community owned utility providing water,
wastewater and reclaimed water services
to the Carrboro-Chapel Hill community.*

▪ Chapel Hill/Carrboro, NC



Orange Water and Sewer Authority

Community owned utility providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community in North Carolina.



Water Supply

Cane Creek Reservoir

University Lake

Quarry Reservoir

Jordan Lake (backup supply via mutual aid)

Jones Ferry Road Water Treatment Plant 20 MGD

Reclaimed Water 2.0 MGD

OWASA Emergency Interconnections

- City of Durham
- Town of Hillsborough
- Chatham County

Breaking News...

February 3, 2017



North Carolina's game vs. Notre Dame moved to Sunday due to water emergency

The Irish and Tar Heels will play Sunday in Greensboro, North Carolina

by Kyle Boone @kylebooneCBS Feb 3, 2017 • 1 min read



Saturday's Notre Dame-North Carolina game originally scheduled for 6 p.m. ET has been postponed to Sunday due to an emergency water crisis in the Chapel Hill, North Carolina, area the school announced in a news release Friday.

A major water main break resulted in a state of emergency being declared in the area. WRAL reported that water in the area will not be safe for at least 24 hours.



ADVISORS WITH ONE GOAL IN MIND. YOU

Water issues force postponement, move of UNC-Notre Dame game

Updated: February 4, 2017, 1:32 PM ET

Associated Press

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CHAPEL HILL, N.C. — The game between No. 12 North Carolina and No. 20 Notre Dame scheduled for Saturday in Chapel Hill has been postponed a day and moved to Greensboro due to a water shortage.

In a news release Friday evening, UNC said the game -- originally scheduled for 6 p.m. Saturday at the Smith Center -- would be played at 1 p.m. Sunday at the Greensboro Coliseum.



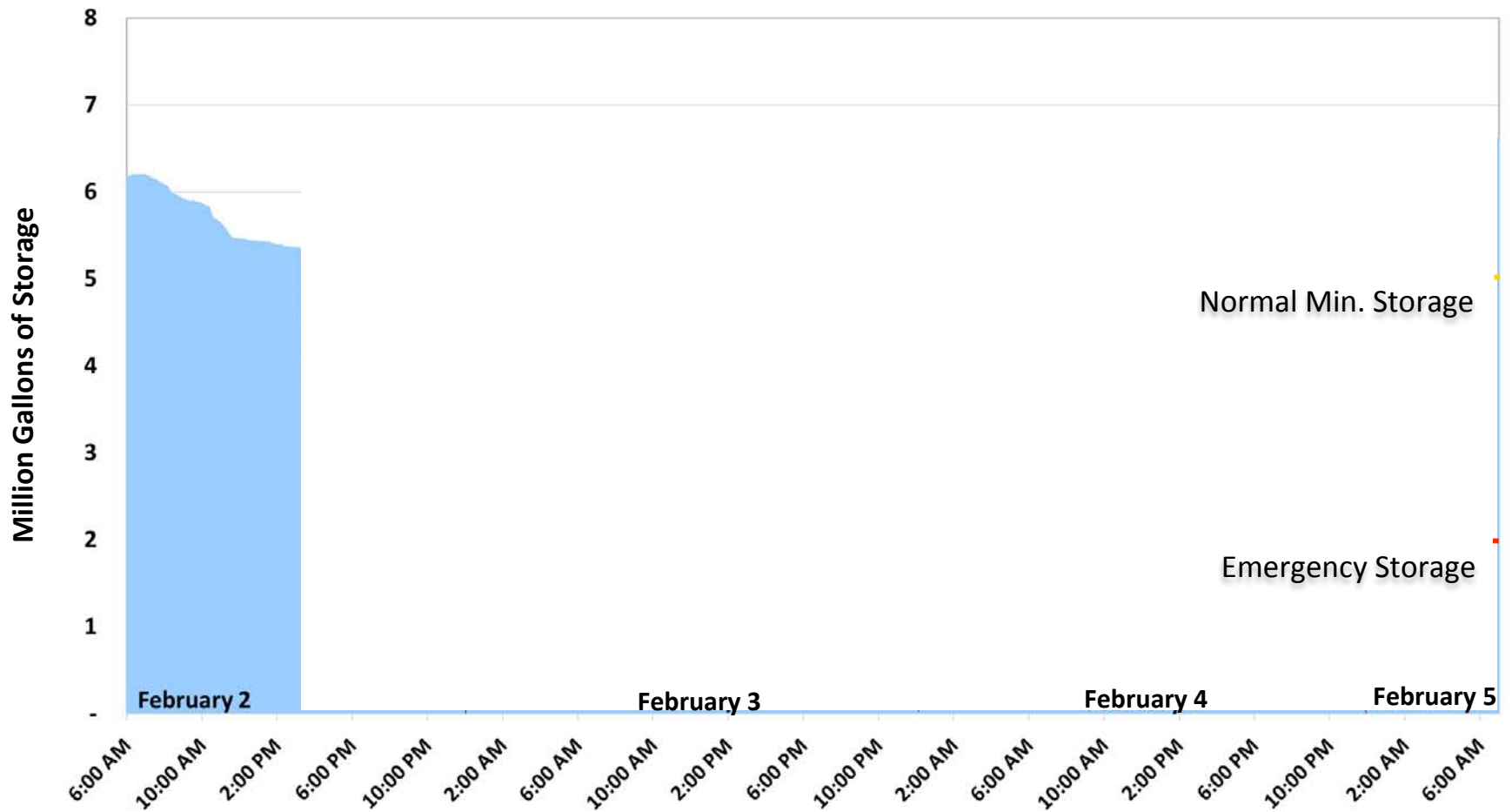
Key Take-aways

- Be prepared locally and regionally for the “what-ifs”
- Interconnection of drinking water systems important for resiliency
- National Incident Management System (NIMS) and your local and regional partners are essential
- Communications – be open, honest and transparent
- After Action Reviews – powerful continuous improvement tool

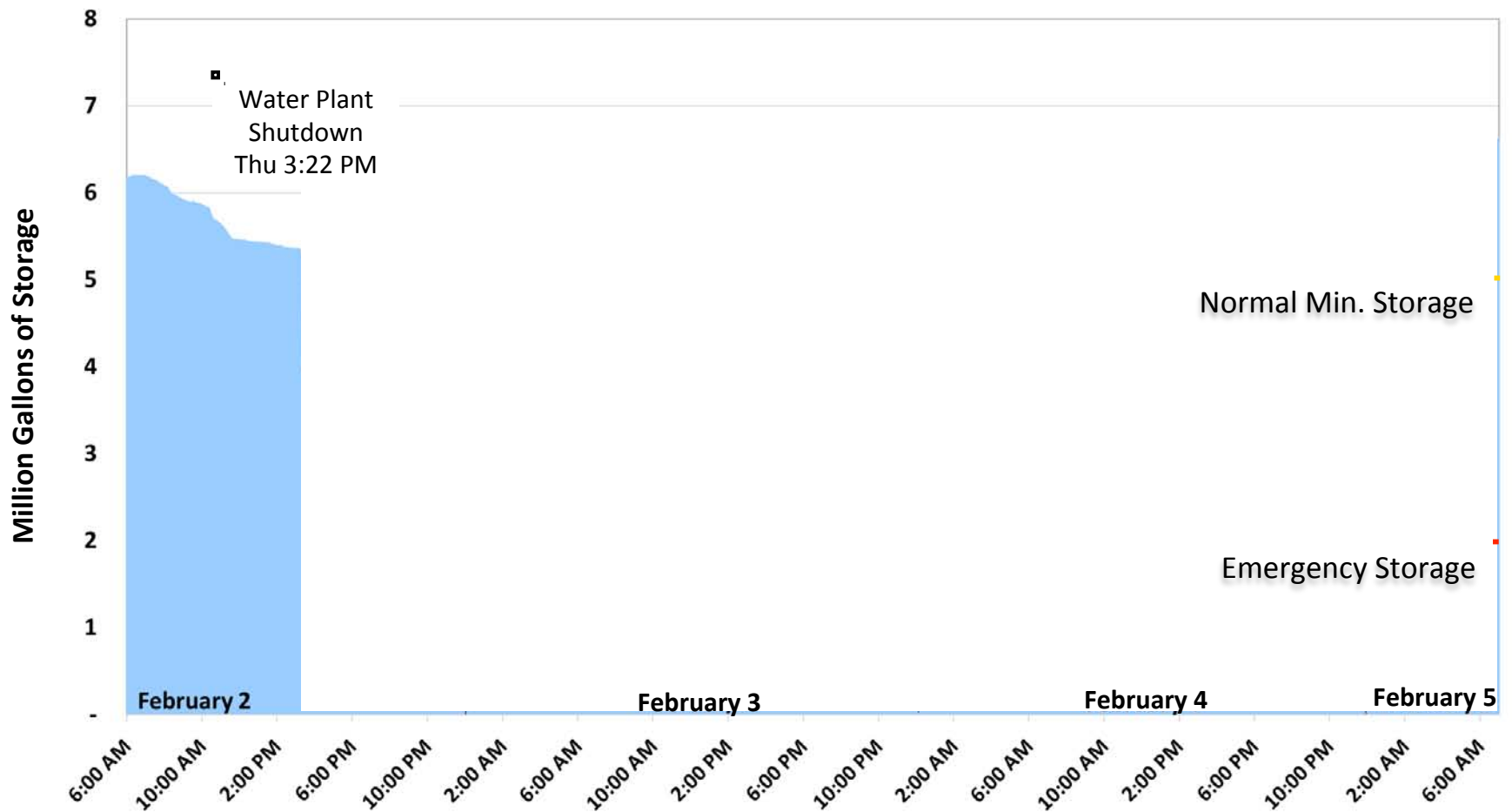
May 2011, OWASA became the 9th water utility in US to receive the "Excellence in Water Treatment" award



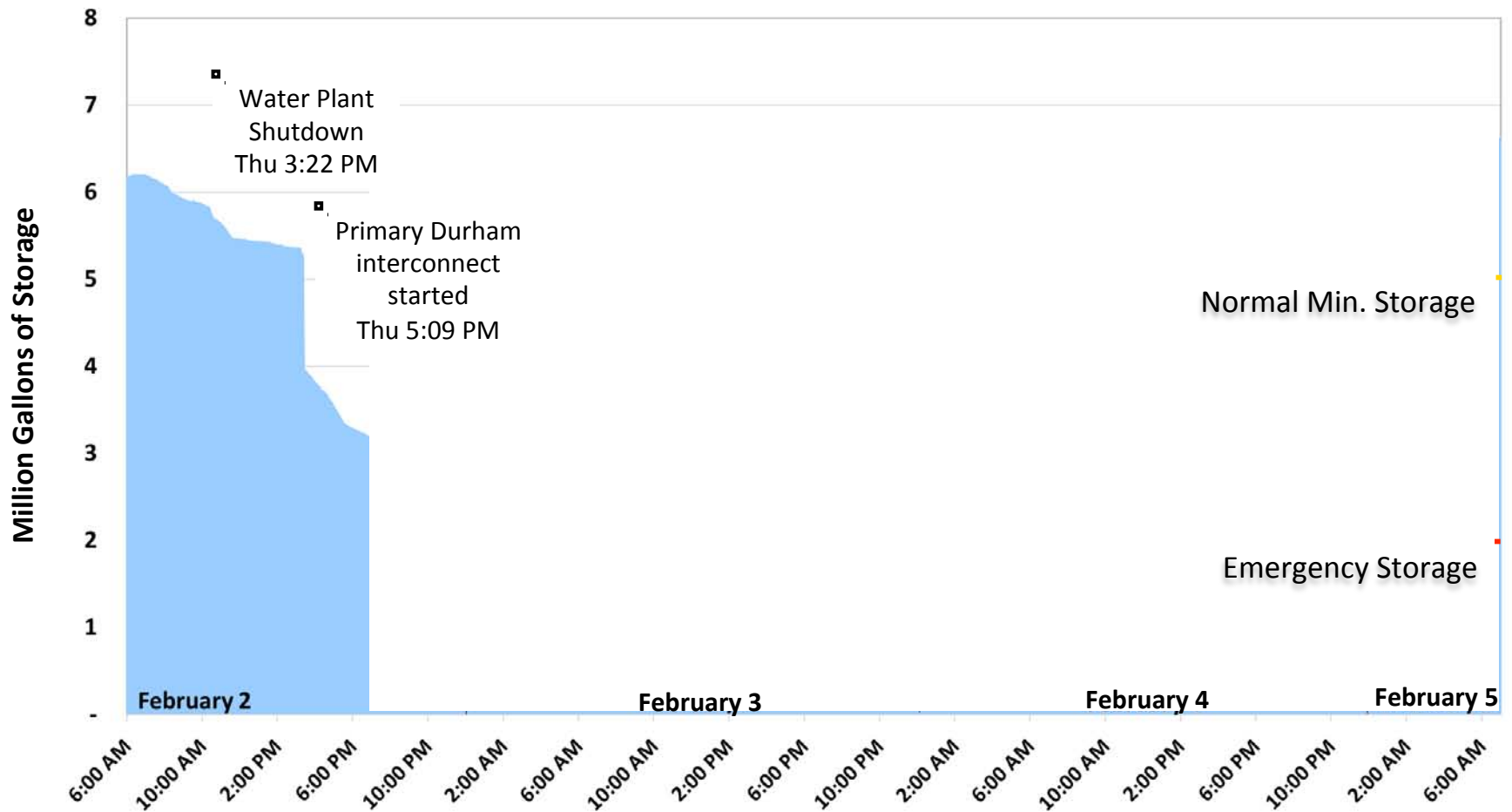
February 2017 Water Emergency



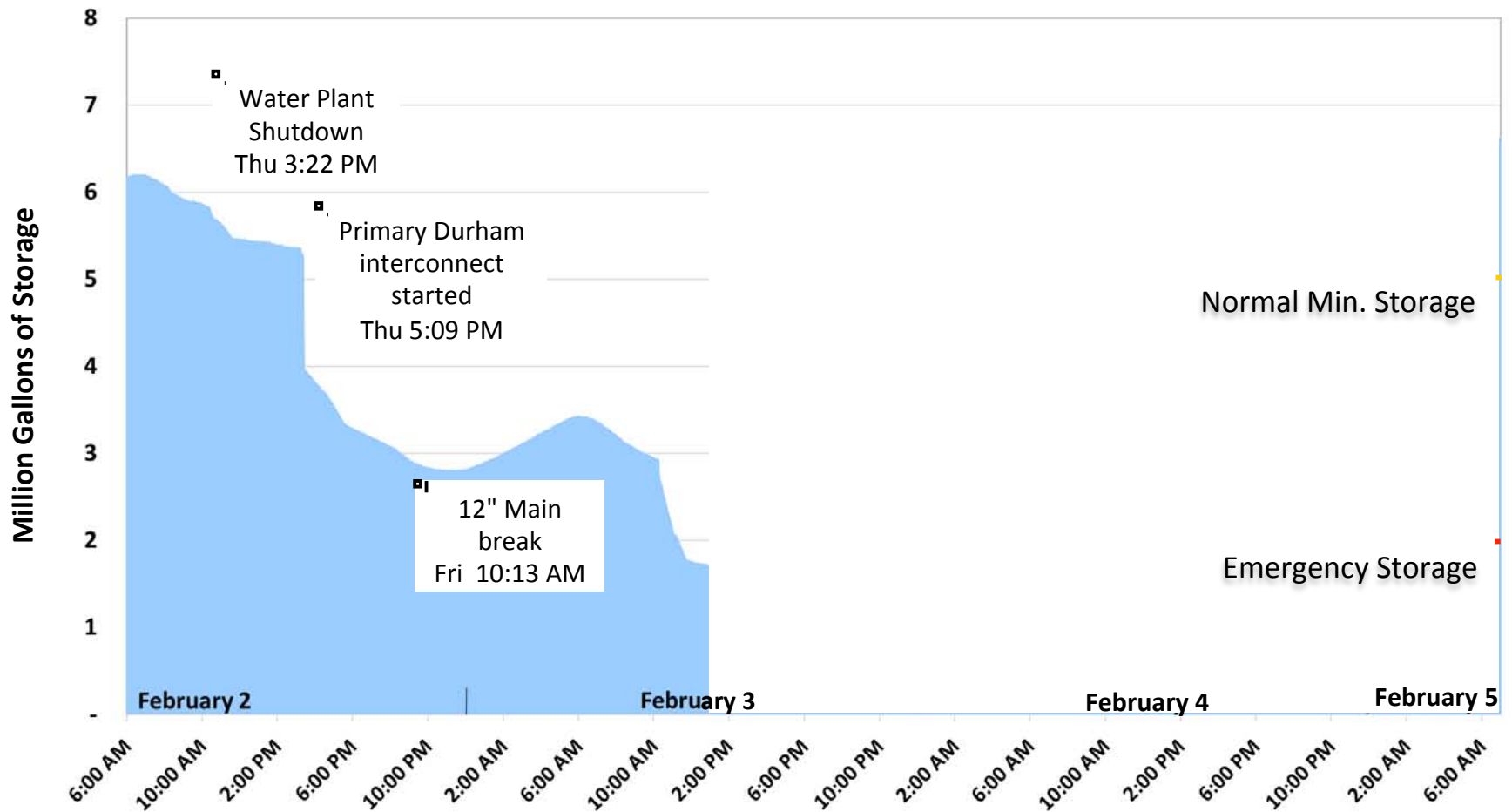
February 2017 Water Emergency



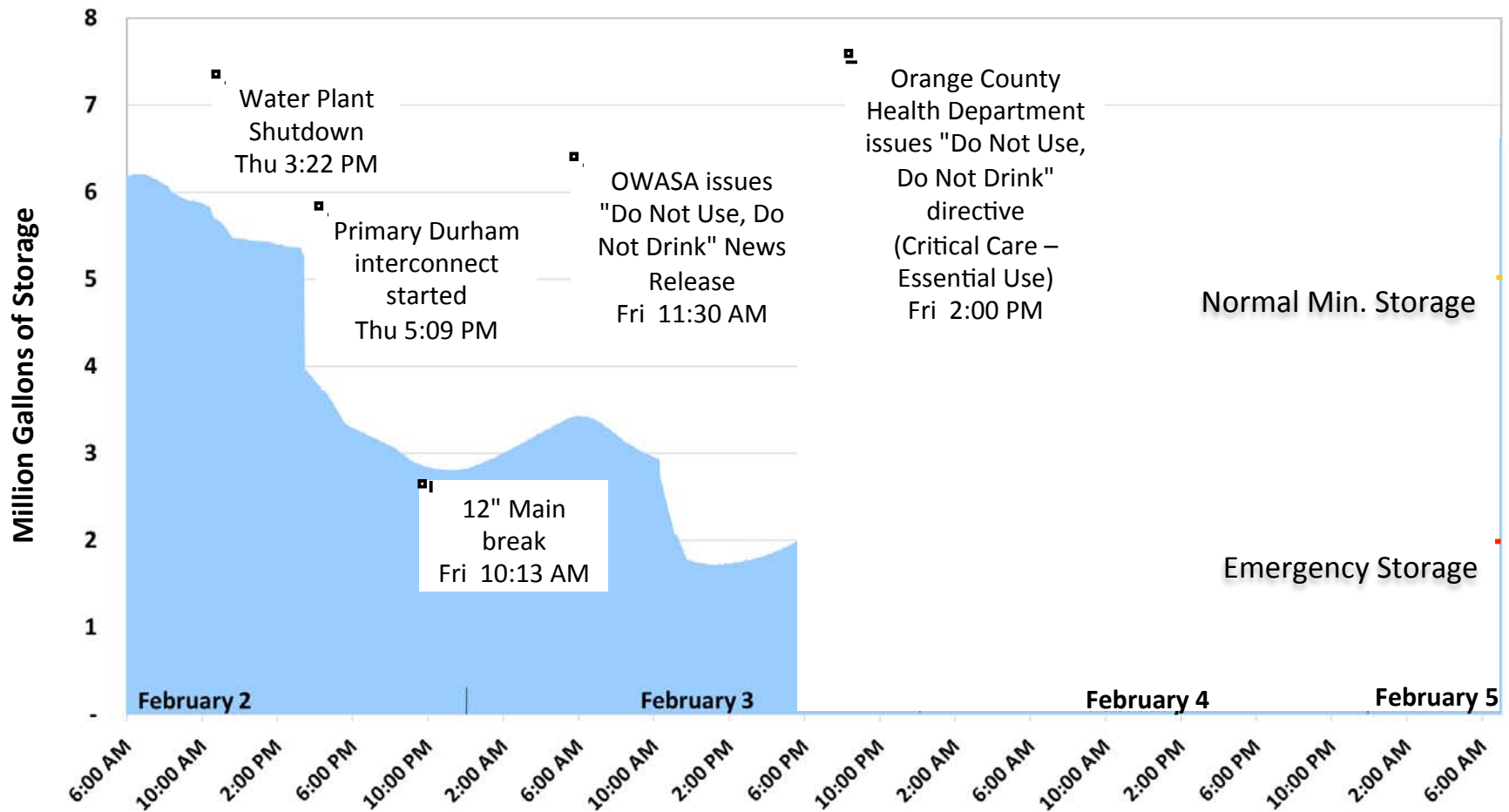
February 2017 Water Emergency



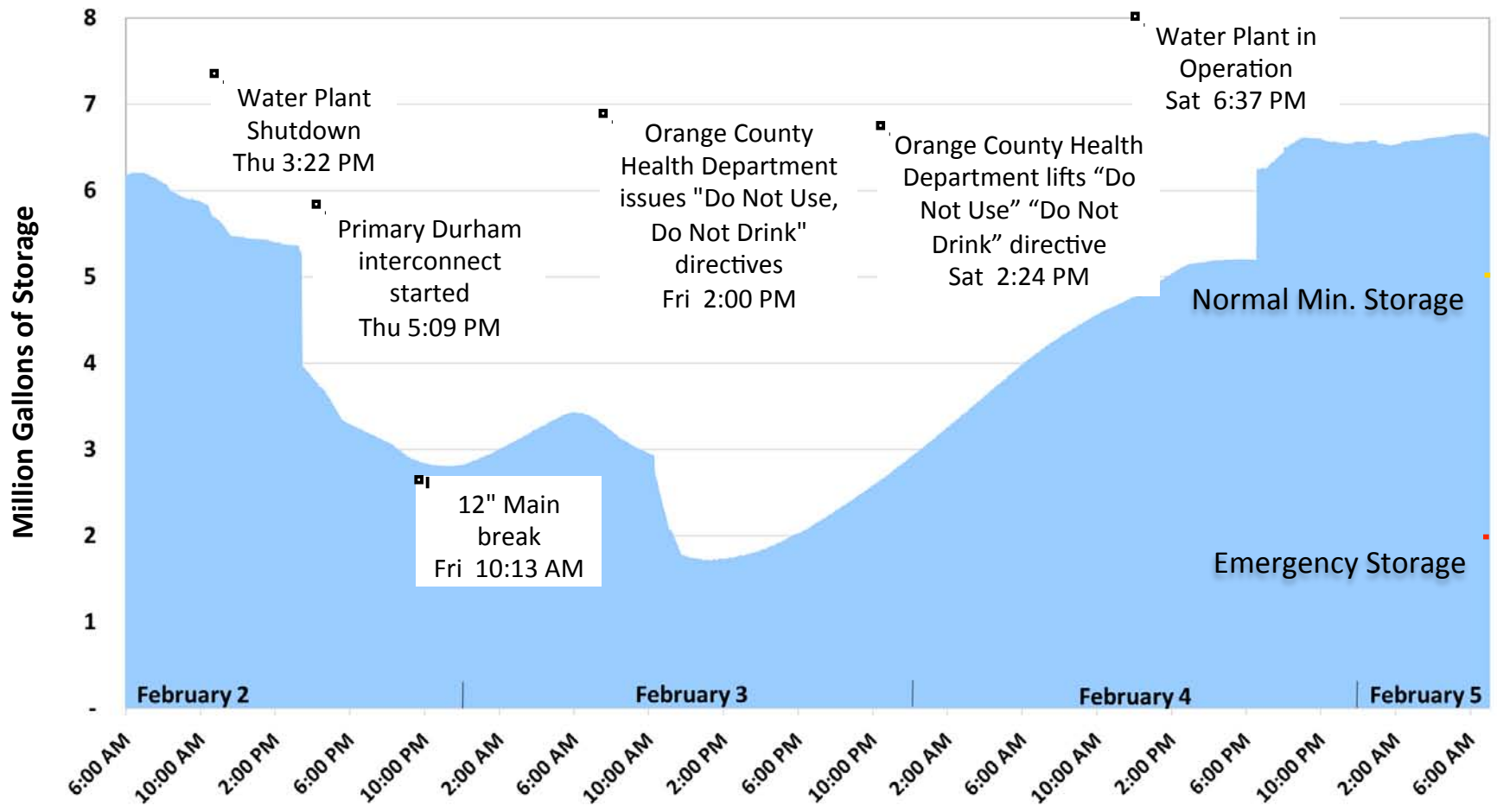
February 2017 Water Emergency



February 2017 Water Emergency



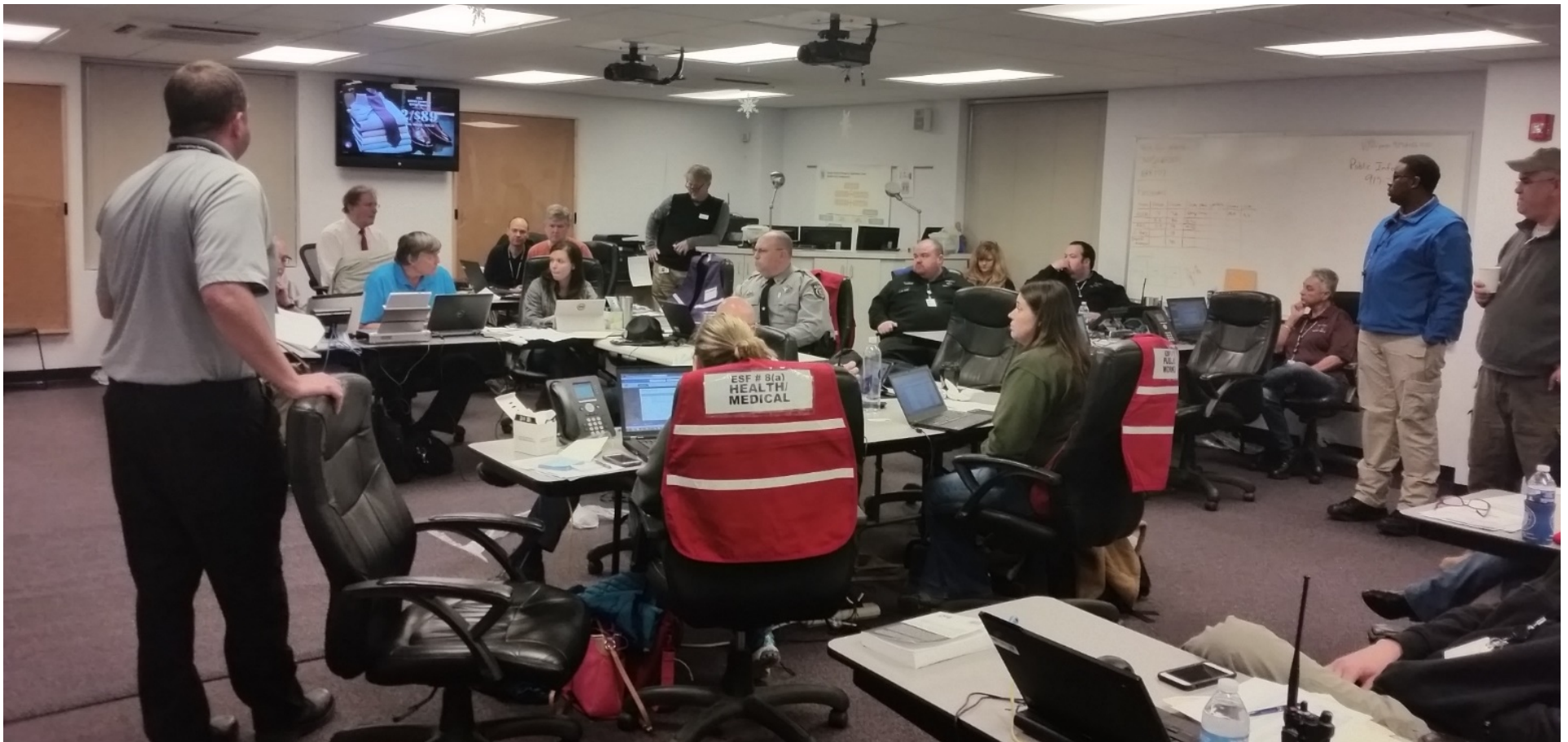
February 2017 Water Emergency



County Emergency Operations Center

(Orange County; Towns of Chapel Hill & Carrboro; UNC; Health Department; OWASA; Others)

- National Incident Management System (NIMS)



County Emergency Operations Center

- Coordinated and comprehensive response
- Distribution of bottled water and other community resources
- Communication Tools
 - OC Alerts (reverse 9-1-1)
 - News Releases/Media
 - Joint News Conferences
 - Call center, tweets, website
 - Non-English; special needs population

Communications

Be open, honest and transparent – to be trusted

- Share information quickly, openly and honestly
- Work with news media to get your message out
- Keep partners and employees fully informed; common message
- Routine updates for all stakeholders
- Invite feedback and review
- Independent review of fluoride overfeed and water main break

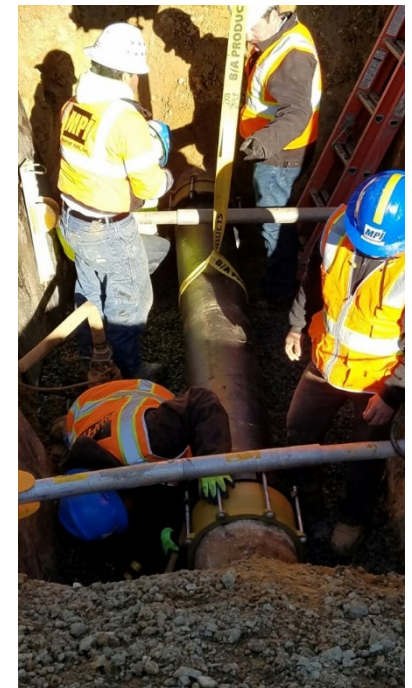
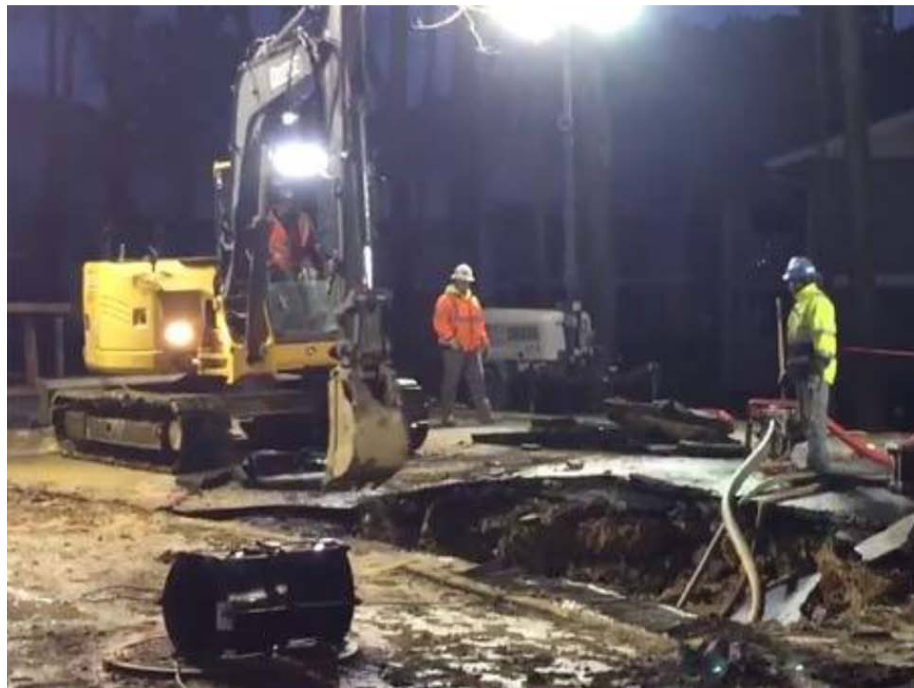
Accidental Fluoride Overfeed

CH2M Report (February 10, 2017)

- **Primary Cause**
 - Unintentional operator keystroke increased pump feed rate to higher than desired level
 - Subsequent adjustment made 12 seconds later, but pump did not respond as expected
- **Secondary Cause**
 - During subsequent routine inspection, operator failed to take timely corrective action

***No water with higher than normal fluoride levels
left the treatment plant***

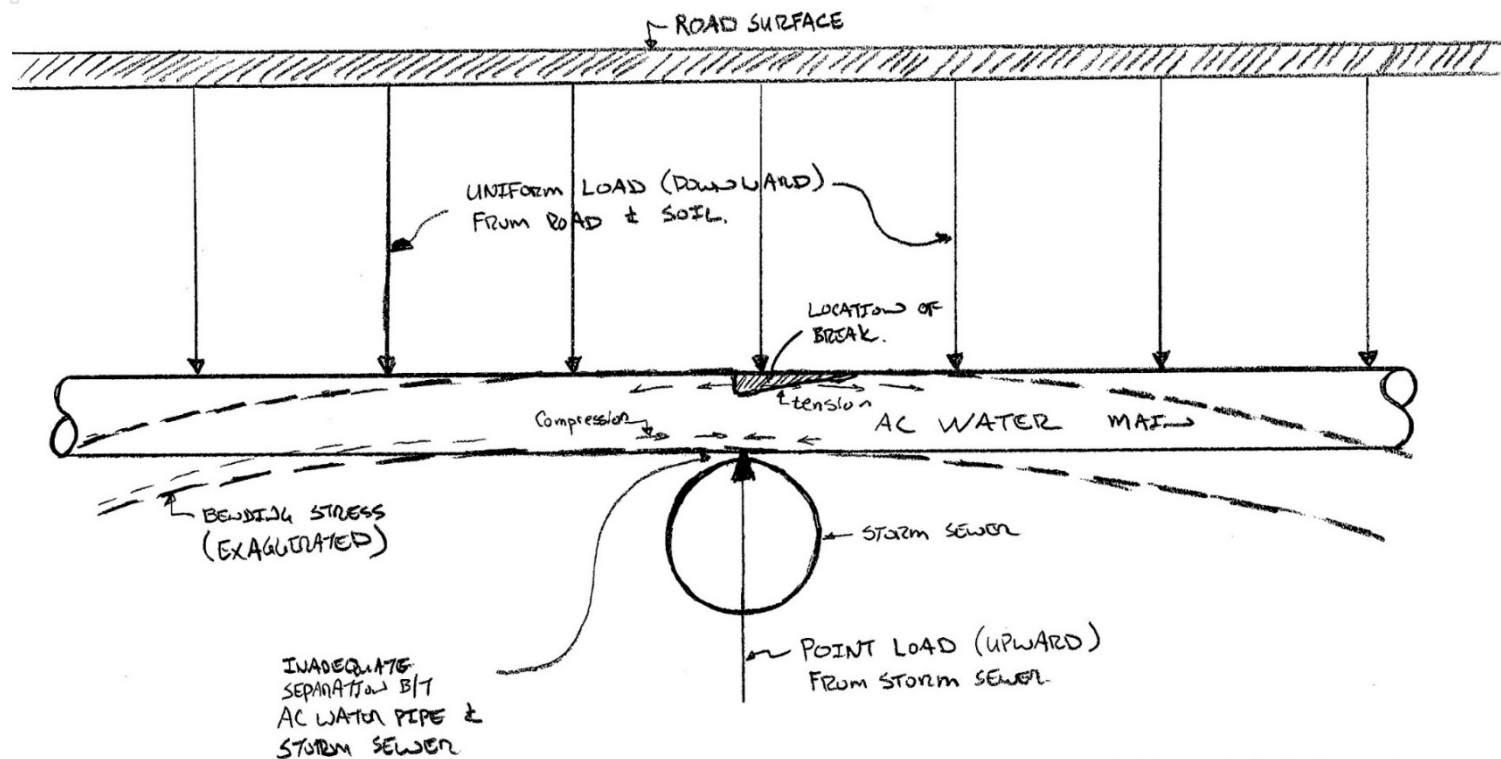
12-Inch Water Main Break – February 3, 2017



Water Main Break

AECOM Report (February 10, 2017)

“... it (the pipe) was set up to fail 44 years ago on the day of its installation”





ORANGE WATER AND SEWER AUTHORITY



A public, non-profit agency providing water, sewer & reclaimed water services to the Carrboro-Chapel Hill community.

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Pay your bill and check your water usage online



START OR STOP SERVICE

Moving? Start and stop service online



UPDATES ON WATER EVENT & RECOVERY

Learn More



CARE TO SHARE

Donate to help families in need.



Our award-winning Jones Ferry Road Water Treatment Plant

www.owasa.org

After Action Review (AAR)

Powerful organizational learning tool

1. What did we set out to do?
2. What actually happened?
3. What went well?
4. What can be improved?

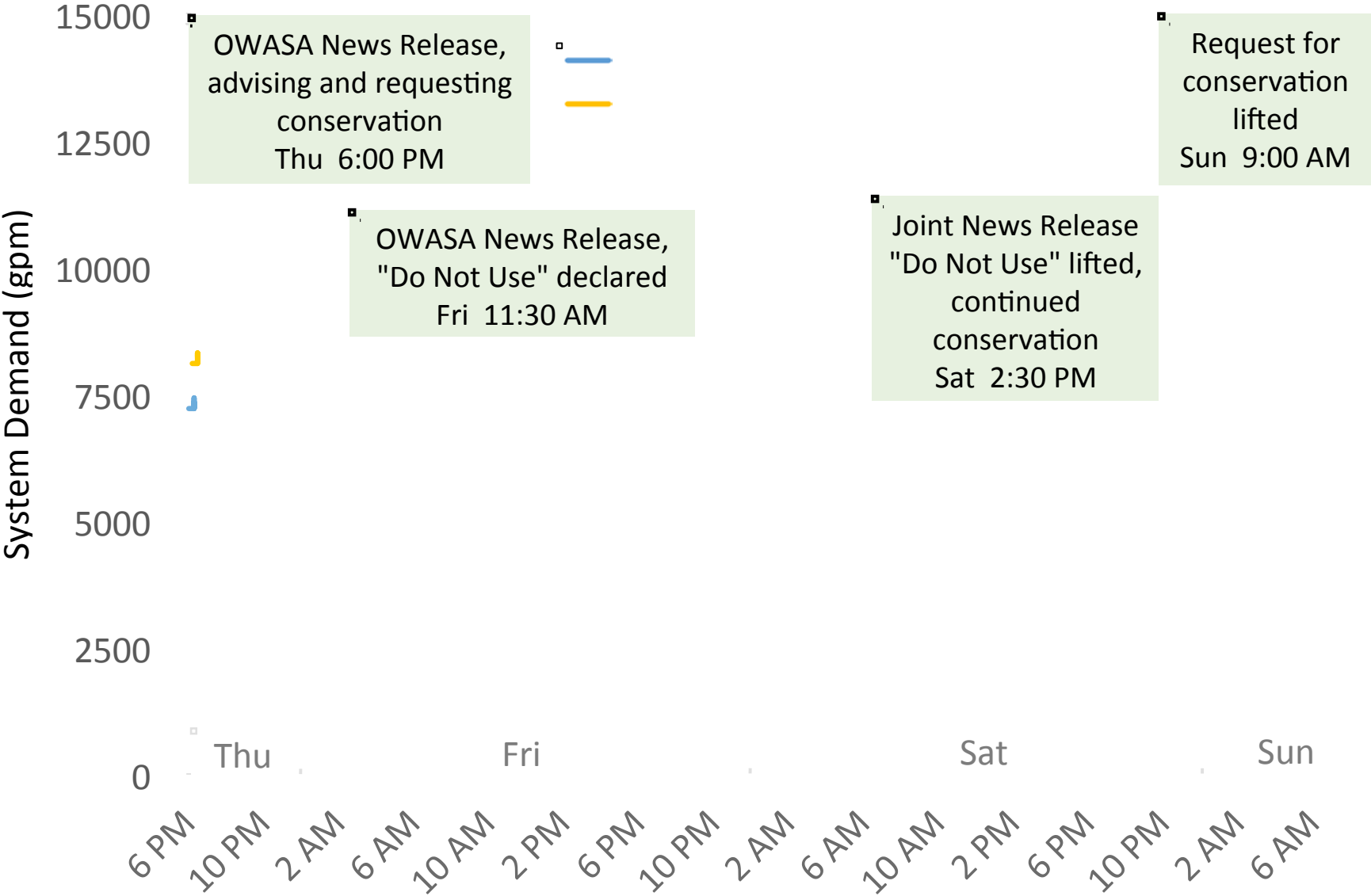


Approved Action Plans for Improvements: *(following public input)*



- Related to water main break (March 23rd)
- Reliability and safety of fluoride feed system (April 13th)
- Strategic communication in OWASA-related emergencies (April 27th)

Customers Reduced Demand by ~37%



Key Take-aways

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- After Action Reviews – powerful continuous improvement tool

Ed Kerwin
Executive Director
919-537-4211
ekerwin@owasa.org
www.owasa.org



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