



# Connecticut's Public Drinking Water

## *Lessons Learned and After Actions Storms Irene and Alfred Fall of 2011*

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**Drinking Water Section**



# CT DPH Drinking Water Section Responsibilities

- 💧 Regulate 2,585 Public Water Systems with 4,400 sources
- 💧 2.7 million CT residents served – 3.5 million total population
- 💧 96 systems serve over 1,000 people
- 💧 461 systems serve under 1,000 people - small community systems
- 💧 2,028 non-community systems

# Storms Irene & Alfred

- ☉ Storms
- ☉ Procedures & Communications
- ☉ Lessons Learned – After Actions
  - ☉ “First, Right and Credible”

# Storm Irene August 2011

- 💧 137 small community public water systems (cpws) on Boil Water Advisory (30% of small cpws)
- 💧 16,624 people affected
- 💧 99% of CT Residents retained their community public water
- 💧 Majority of large cpws on shoreline lost street power, however operations not affected due to emergency power capacity, street power restored in a few days, flooding had little effect

# Storm Alfred October 2011

- 💧 121 small community public water systems (cpws) on boil water advisory
- 💧 20,212 people affected
- 💧 98% of CT Residents retained their community public water
- 💧 Majority of large cpws along and north of I-84 lost street power, however operations not affected due to emergency power capacity, street power restored slowly some large cpws without street power for 8 to 9 days

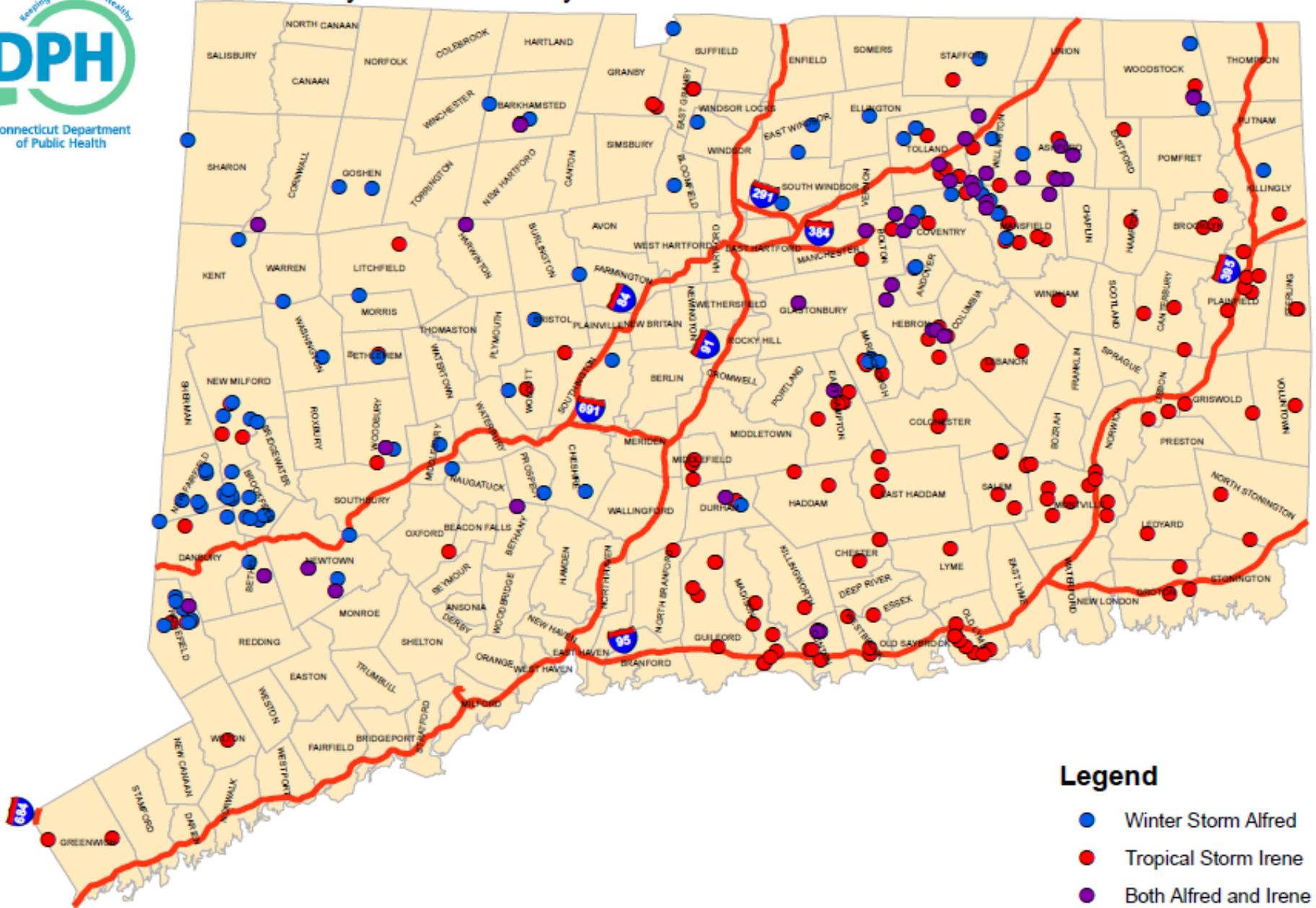


# Storms Irene & Alfred Procedures – Boil Water Advisory

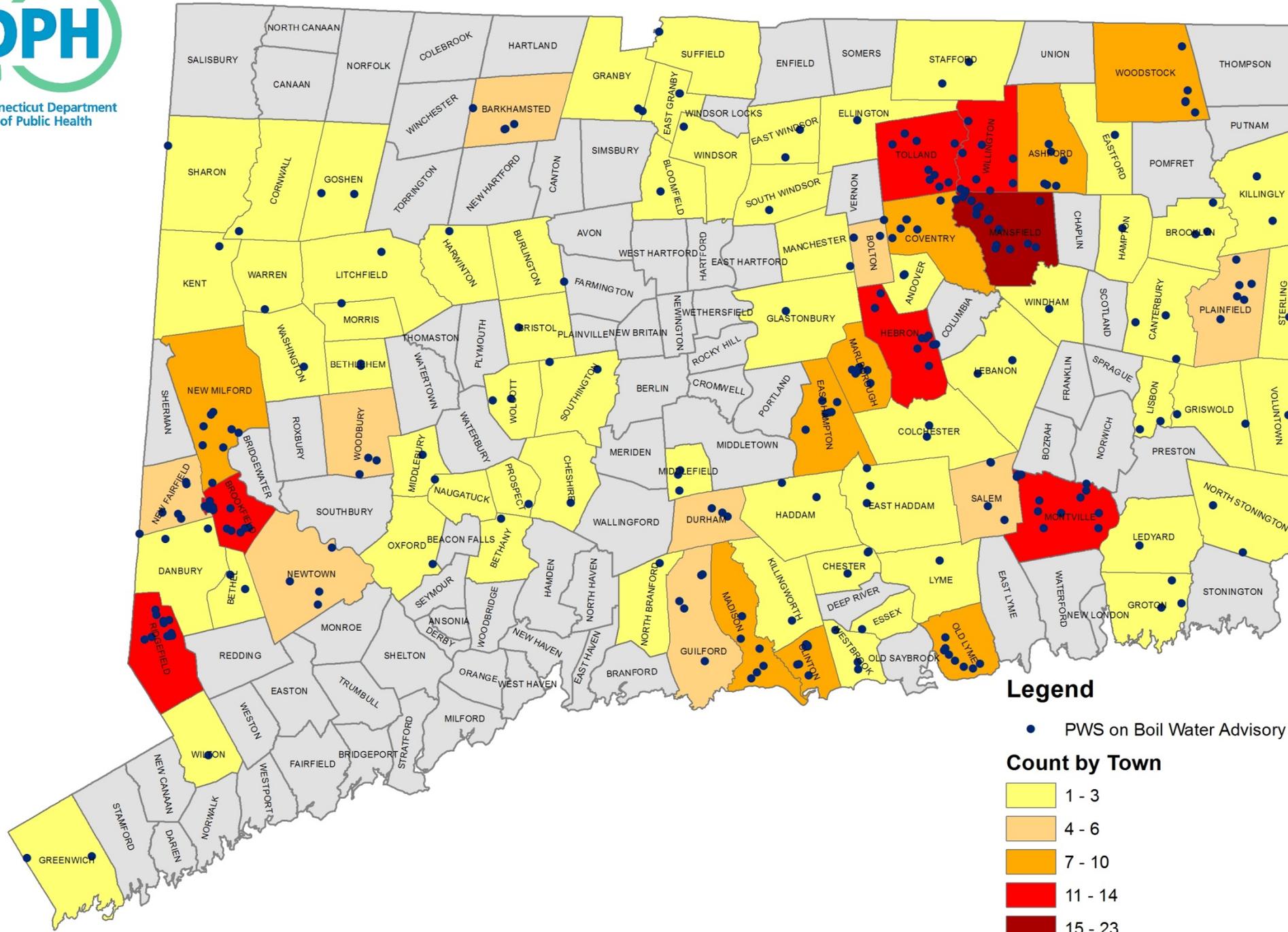
- 💧 Pre-storm notice –standard operating procedure
- 💧 Governor’s Office – system status, twice per day
- 💧 Storm Response - messages
  - 💧 Press releases, phone calls, conference calls, EPA assistance
  - 💧 Web-site, emails and Everbridge
- 💧 Drinking Water staff response – 24/7 availability
  - 💧 DPH EOC
  - 💧 State Armory



# Community Public Water Systems that were on Boil Water Advisories



# Community Public Water Systems that were on Boil Water Advisories





# Lessons Learned - After Actions Plan, Prevent, & Partner

- 💧 Communication –
  - 💧 directly with LHD and PWS early and often
  - 💧 messages prepared, reviewed and sent quickly
  - 💧 Assure correct emergency contact information
  - 💧 Assure communications with staff
- 💧 Organization – staff resources mission critical
  - 💧 DWS ICS and tracking, requests through EMDs
  - 💧 DWS staff at State EOC
  - 💧 Frequent training for multiple staff (ICS, everbridge, WebEOC)
- 💧 Public Health Risk Reduction – Proactive Focus
  - 💧 Preparedness
  - 💧 Communications
  - 💧 Certified Operators
  - 💧 Asset Management – System Owners



# Preparedness

## Small Community PWS

- Develop new regulations to require emergency plans and emergency power capacity – drafted Spring 2012
- Create DWSRF Focus Point - Small system generator funding – initiated 11/2011
- Develop Training program small system owners – ASRWA initiated 10/2012



# Communications

## Small Community PWS

- 💧 Develop new regulation concerning proper notification – drafted 10/2012
- 💧 Create new WebEOC templates – drafted 9/2012
- 💧 Promote collaborative continuous training with State Emergency Managers, power companies, local health, and EMDs – ongoing including CTWARN



# Certified Operators

## Small Community PWS

- 💧 Develop new regulation – direct responsible charge – draft under internal review 10/2012
- 💧 Develop specific training – plans and generators – under development



# Asset Management

## Small Community PWS

- 💧 Create new regulations to require asset management plans – initial draft Spring 2012 under internal review
- 💧 Create a continuous training program – initiated Spring 2012, use EPA training materials
- 💧 Collaborate with partners (EPA, RCAP, TEEEX, ASRWA, and NMEFC) – initiated Fall 2012



# Timeline

- 💧 Regulations – most in place by end of 2013
- 💧 Training - continuous and ongoing
- 💧 DWSRF - Focus Point continuous
- 💧 Future Initiatives – analyze policies for system consolidation



Thank You

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