



**CONNECTICUT DEPARTMENT *of* PUBLIC HEALTH**  
**DRINKING WATER SECTION**

**DWS Incident Reporting  
and  
Disseminating Information to LHDs**

# Outline

- Applicable Regulatory Requirements for PWS Notification
  - 19-13-B-46
  - Tier 1 Notification
- DPH Drinking Water Response
- Incident Report
- “Interim Measures”
- Emergency Incident Case Study

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# RCSA Section 19-13-B46

## Notification by Water Officials in Water Supply Emergencies

Whenever the security of a public water system is threatened or suspicious activities are observed on or near water company land or the treatment of a public water supply is interrupted or the source of supply is damaged so as to impair the quality or the sufficiency of the supply, the person, firm or corporation in charge of such public water system shall immediately notify the state department of Public health and the local directors of health of all cities, towns and boroughs where water from such systems is supplied.

Such notification shall be made immediately either by telephone or messenger or whatever other means of rapid communication is available.

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# 19-13-B46: Events that Might Occur

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- Security of a PWS is threatened
  - Facilities broken into: Pumphouse, Treatment Plant, tank hatch
  - Threats to water system
  - SCADA breach
- Suspicious activities observed on or near water company land
  - Trespassers taking suspicious video, leaving bags on edge of reservoir
- Treatment of a PWS is interrupted
  - Chemical overfeed or underfeed
  - Problem with filters at SWTP
- Source of supply is damaged where quality or quantity is impaired
  - Spill in a reservoir, sewage outbreak in area of well
  - Well pump failure, low tank level, large water main break affecting critical customers

# 19-13-B46: Requirements

## What needs to happen:

- The PWS must contact DPH
- The PWS must contact the Local Health Director (LHD) for each town supplied by the water system

## How PWS report:

- A phone call where you talk to a DWS staff person
  - Do not rely on a fax transmission, emails, or a voicemail
  - Going to the DPH or LHD office to report the event.
- Provide follow up documentation with PWS Notification Form.

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# RCSA Section 19-13-B102

“**Tier 1 notice**” is required when a PWS fails to comply with any of the following requirements:

- Acute total coliform MCL for E.coli/fecal coliforms
- MCL for nitrate, nitrite, or total nitrate and nitrite;
- The MRDL for chlorine dioxide
- The MCL for turbidity at PWS using surface water or GWUDI
- Waterborne disease outbreak
- Chemical detected at such a level where it is determined to pose an acute health risk

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# Tier 1 Notification to DPH and Customers

- Provide public notice 24 hours after violation is determined via:
  - Broadcast media
  - Conspicuous posting throughout service area
  - Hand delivery
  - Another method approved by DPH
- Initiate consultation with DPH ASAP (before you send notice)
- Public Notice must contain 10 required elements
  - DPH has templates available on the website under “Public Notification” quick link

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# Getting the Message out to Stakeholders

- 19-13-B46 notifications should go directly to DPH and LHD
- 19-13-B102 (Tier 1 situations) typically go first to DPH
  - DPH staff complete DWS Incident Report
  - Identify:
    - Public Health Impact and Critical Customers
    - Regulatory compliance issues
    - Type of follow up required
    - Determine if any Interim Measures are required
  - Send completed Incident Report to all stakeholders

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**Connecticut Department of Public Health  
Drinking Water Section  
Public Water System Security  
Incident Report Form**

Date:  Time:   
 DWS Staff Receiving Call:   
 Public Water System:  PWSID:   
 Geographical Area Affected/Town:   
 Service Connections:  Population Served:   
 Type of Service Area/Critical Customers:   
 Incident Reported by:   
 Telephone #:

Date of Incident:   
 Description of Incident:

Potential Public Health Impact: Yes  NO   
 Comments:   
 Nature of Impact:   
 Technical Assistance/Site Visit:   
 Other Agencies Involved:   
 Follow-up Required: Yes  NO  Comments:   
 Types of Follow-up:   
 Regulatory Compliance Issues:   
 Situation Resolved: Yes  NO  Comments:   
 Report Status:

**Security Copy List:**

- Yvonne Addo, DPH, Deputy Commissioner
- Janet Brancifort, DPH, Deputy Commissioner
- Ellen Blaschinski, DPH, Chief Operating Officer
- Lori Mathieu, DPH, Drinking Water Section
- Maura Downes, DPH, Office of Health Communications
- Tracey Weeks, DPH, Environmental Health Section – Food Protection Program *(when applicable)*
- Director of Health, Local Health Department(s) *(All applicable jurisdictions)*
- Mark Sceery, EPA (sceery.mark@epa.gov)
- Connecticut Intelligence Center (CTIC@ct.gov)
- Water ISAC (waterisac@waterisac.org)
- Daniel Coleman, (daniel.coleman@ic.fbi.gov)
- Francesca Provenzano, DPH, Public Health Preparedness

# Current DWS Incident Report

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# STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH INCIDENT REPORT

SYSTEM NAME : <PWS Name>		SYSTEM ID : <PWSID>	
PWS CLASS	POPULATION SERVED	TOTAL SERVICE CONNECTIONS	SERVICE AREA
< C, TNC, NTNC >	<Population>	<Total Service Connections>	<Service Area>

Incident Report ID:<Incident Number> Critical Facility Impacted Public Health Impacted:

Incident Date: <Date>  School Media Coverage:

Incident Time: <Time>  Daycare Incident Resolved:

Incident Reported Date: <Date>  Food Services Impact of Incident:

Incident Reported Time: <Time>  Youth Camp

Healthcare Facility

Nursing Home

### Type of Incident

Water Quality: <E.Coli MCL Violation, E. Coli Present in Source, Nitrate/Nitrite MCL Violation, Chlorine Dioxide MRDL Violation, SWTR Turbidity MCL Violation, Waterborne Disease Outbreak>

Physical Impairment: <Service Interruption, Treatment Interruption, Infrastructure Failure, Main Break, Chemical Overfeed, Water Supply Emergency, Source of Supply Damaged, Natural Disaster, Chemical Spill, Cross Connection>

Security: <Security Threatened, Suspicious Activities>

### Incident Description

<Incident Details>

### Action Taken

Action	Advised	Completed	Action	Advised	Completed
Notify Local Health	<input type="checkbox"/>	<input type="checkbox"/>	Additional Sampling	<input type="checkbox"/>	<input type="checkbox"/>
Public Notification	<input type="checkbox"/>	<input type="checkbox"/>	Disinfection	<input type="checkbox"/>	<input type="checkbox"/>
Boil Water Advisory	<input type="checkbox"/>	<input type="checkbox"/>	Installation of temporary treatment	<input type="checkbox"/>	<input type="checkbox"/>
Boil Water Notice	<input type="checkbox"/>	<input type="checkbox"/>	Source Offline	<input type="checkbox"/>	<input type="checkbox"/>
Do Not Drink	<input type="checkbox"/>	<input type="checkbox"/>	Emergency Interconnection	<input type="checkbox"/>	<input type="checkbox"/>
Bottled Water	<input type="checkbox"/>	<input type="checkbox"/>	Notify Police/Emergency Services	<input type="checkbox"/>	<input type="checkbox"/>
Do Not Use	<input type="checkbox"/>	<input type="checkbox"/>	DWS Notification Form	<input type="checkbox"/>	<input type="checkbox"/>
PWS Closed	<input type="checkbox"/>	<input type="checkbox"/>			
Water Hauling	<input type="checkbox"/>	<input type="checkbox"/>			

### Administrative Contact Information:

<AC Name> Business Phone: <Phone Number> Emergency Phone: <Phone Number> Email: <Email Address>

The contact person for this Incident at Drinking Water Section is <DWS Staff>

# DWS Incident Report 2.0!

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# Proposed Incident Report Format

- Highlight Public Health Impacts and Critical Facilities Right Away

**STATE OF CONNECTICUT  
DEPARTMENT OF PUBLIC HEALTH  
INCIDENT REPORT**

<b>SYSTEM NAME : &lt;PWS Name&gt;</b>		<b>SYSTEM ID : &lt;PWSID&gt;</b>	
<b>PWS CLASS</b>	<b>POPULATION SERVED</b>	<b>TOTAL SERVICE CONNECTIONS</b>	<b>SERVICE AREA</b>
<C, TNC, NTNC>	<Population>	<Total Service Connections>	<Service Area>

**Incident Report ID: <Incident Number>**

**Incident Date: <Date>**

**Incident Time: <Time>**

**Incident Reported Date: <Date>**

**Incident Reported Time: <Time>**

**Critical Facility Impacted**

- School
- Daycare
- Food Services
- Youth Camp
- Healthcare Facility
- Nursing Home

**Public Health Impacted:**

- Media Coverage:
- Incident Resolved:
- Impact of Incident:

**Type of Incident**

PWS Info

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# Proposed Incident Report Format

Type of Incident (aligns with B46 and Tier 1 requirements)

**Type of Incident**

**Water Quality:** <E.Coli MCL Violation, E. Coli Present in Source, Nitrate/Nitrite MCL Violation, Chlorine Dioxide MRDL Violation, SWTR Turbidity MCL Violation, Waterborne Disease Outbreak>

**Physical Impairment:** <Service Interruption, Treatment Interruption, Infrastructure Failure, Main Break, Chemical Overfeed, Water Supply Emergency, Source of Supply Damaged, Natural Disaster, Chemical Spill, Cross Connection>

**Security:** <Security Threatened, Suspicious Activities>

**Incident Description**

<Incident Details>

**Action Taken**

Description of Incident

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# Proposed Incident Report Format

Actions Taken Section includes any interim measures deemed necessary

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Action Taken					
Action	Advised	Completed	Action	Advised	Completed
Notify Local Health	<input type="checkbox"/>	<input type="checkbox"/>	Additional Sampling	<input type="checkbox"/>	<input type="checkbox"/>
Public Notification	<input type="checkbox"/>	<input type="checkbox"/>	Disinfection	<input type="checkbox"/>	<input type="checkbox"/>
Boil Water Advisory	<input type="checkbox"/>	<input type="checkbox"/>	Installation of temporary treatment	<input type="checkbox"/>	<input type="checkbox"/>
Boil Water Notice	<input type="checkbox"/>	<input type="checkbox"/>	Source Offline	<input type="checkbox"/>	<input type="checkbox"/>
Do Not Drink	<input type="checkbox"/>	<input type="checkbox"/>	Emergency Interconnection	<input type="checkbox"/>	<input type="checkbox"/>
Bottled Water	<input type="checkbox"/>	<input type="checkbox"/>	Notify Police/Emergency Services	<input type="checkbox"/>	<input type="checkbox"/>
Do Not Use	<input type="checkbox"/>	<input type="checkbox"/>	DWS Notification Form	<input type="checkbox"/>	<input type="checkbox"/>
PWS Closed	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Water Hauling	<input type="checkbox"/>	<input type="checkbox"/>			

**Administrative Contact Information:**

<AC Name>      Business Phone: <Phone Number>      Emergency Phone: <Phone Number>      Email:- <Email Address>

The contact person for this Incident at Drinking Water Section is <DWS Staff>

# Interim Measures

- Different Meanings to the words “Interim Measures” for DPH food protection and drinking water section
- DWS Interim Measures are required to be implemented to maintain public health protection until the PWS implements the necessary corrective action or the risk associated with consumption of the water is reduced to the satisfaction of DWS.
- Interim measures are required per RCSA Section 19-13-B102 as a result of the Ground Water Rule when source is confirmed EC+.

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# DWS Interim Measures:

- Interim Measures include, but are not limited to, the following:
- Provision of an Alternate Source of Water
- Boil Water Notice
- Temporary disinfection of water
- Inactivation of a water source or sources

If implemented, the interim measures shall remain in place until such time that the corrective action has been completed.

# Reminders: Incidents resulting in Boil Water

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- Work directly with DPH Food Protection Program when dealing with food service establishments while the water system has been required to go on boil water advisory or notice.
  - FPP does not accept operating FSE under boil water conditions
- RTCR and GWR have changed the rules with respect to total coliform and E Coli.
  - No more TC MCL violations instead TC+ triggers Level 1 or 2 Assessment
  - Interim Measures until Corrective Action is complete – Source EC +
- Updated Guidance Document “What To Do if Coliform Bacteria are Detected at a PWS” is now available.



# THANK YOU!

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## Any Questions?

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# Emergency Case Study: Danbury Main Break

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# DANBURY WATER LINE BREAK INCIDENT

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- Break is thought to have occurred around 3 pm on 4/23/2018
- Initial size of leak is about 3.5 MGD (about 2400 gallons per minute)
- Danbury Water Department begins attempting to close valves (some broke); leak slows to about 5-600,000 gallons per day
- Boil Water Advisory (BWA) issued morning of 4-24-2018 to 62,000 residents
- Aquarion Water Company (buys water from Danbury) also issues precautionary BWA to six of its systems in Danbury, Ridgefield and Bethel. Their Berkshire system in Bethel is most affected
- Lots of excitement ensues (see photos courtesy of Steve Wallett)
- Leak is isolated on 4-25-2018 and fully repaired on 4-26-2018 (initially thought to be on 16" line but actually on 4" fire service line that was not known to exist)
- BWA is lifted on 4-26-2018

# DANBURY WATER LINE BREAK INCIDENT

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- Residents experience no water, low pressure and discoloration
- Danbury Hospital and other medical facilities affected
- Western Connecticut State University (downtown campus) is affected (just re-opening after norovirus investigation)
- Many Food Service Establishments (FSE) affected (local health recruited additional inspectors to verify affected establishments closed)
- Special valves needed to get the leak under control are manufactured in Buffalo and flown in on a private plane
- DWS works on various “return to service” documents for various types of facilities
- Legionella is a potential concern
- FLIS works with affected medical facilities
- FPP works with local health department and affected FSE



# Tanker at Dialysis Center

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# Temporary Pump Setup from Tanker and Water Delivery

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# Some Facilities Closed

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# Temporary Hydrant to Hydrant Connection to serve Hospital

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# Repair is complicated by presence of other utilities

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# Line exposed in preparation of line stop installation

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# Bottled Water Staged at Danbury Hospital

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# Construction Challenges

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# Dewatering for Construction

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# Questions?

- Thank you again!
- [Vicky.carrier@ct.gov](mailto:Vicky.carrier@ct.gov) or 860-509-7333 or 860-422-0988

