

PANDEMIC PLANS, EMERGENCY PLANS, CONTINUITY OF OPERATIONS PLANS, OH MY!

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NHDES Drinking Water and Groundwater Bureau

NHWWA Expo

October 22, 2020



AGENDA

- Emergency Planning & COVID-19
- DWGB Response
- Lessons Learned
- Types of Plans
- Risk Assessments
- Upcoming State & Federal Deadlines (AWIA)

PAST PANDEMIC THREATS

Pilot Pandemic Flu Tabletop Exercise

Manchester, NH – June 10, 2009
Sponsored by U.S. EPA

What is pandemic flu?

Influenza (also known as flu) pandemics occur when there is a notable change in the circulating strain of influenza. Because of this change, a large portion of the human population lacks immunity to the virus and is vulnerable to infection from the new pandemic strain. The virus spreads easily from person to person, causing a pandemic. Influenza pandemics have occurred three times in the last hundred years (1918-1919, 1957-1958, and 1967-1968), and the current H1N1 flu outbreak is being closely monitored by world health leaders.



What is the purpose of this exercise?

The primary purpose of this facilitated exercise is to enhance the ability of utility personnel and stakeholders, such as local and state agencies, to effectively prepare for, manage, and respond to water-infrastructure consequences resulting from a pandemic flu. Additional purposes of this exercise include:

2006 – Avian Flu
2009 – Swine Flu (H1N1)



Access by New Hampshire Hospital

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CONTACT AWWA



AWWA.org

Opflow

Pandemic Planning

Taken Down by Disease can Bird Flu Halt Operations?

Kevin R. Gertig

First published: 01 July 2006 | <https://doi.org/10.1002/j.1551-8701.2006.tb01876.x>



Volume 32, Issue 7
July 2006
Pages 14-18



DWGB RESPONSE

- FAQs
 - Weekly
 - March –July
- Operator Calls
 - Weekly
 - April-June
 - 55-100 attendees



The State of New Hampshire
Department of Environmental Services
Robert R. Scott, Commissioner



NHDES Drinking Water and Groundwater Bureau (DWGB) COVID-19 Answers to FAQs & Information for Public Water Systems *July 21, 2020*

The NHDES Drinking Water and Groundwater Bureau (DWGB) understands that water suppliers may continue to face challenges in the months ahead related to the COVID-19 pandemic. It is as important as ever that we assure that the water people are consuming is safe to drink. Public water systems have a heightened responsibility to protect public health, and access to clean water for drinking, cleaning and handwashing is critical during the COVID-19 pandemic. You may have questions or concerns regarding how to handle various situations. The DWGB will try to address as many as possible in this document. As you are aware, the situation continues to change rapidly, so the DWGB will do its best to adjust and keep you informed. As information changes this document will be updated and reissued. NHDES has a webpage dedicated to COVID-19 updates which can be found at <https://www.des.nh.gov/covid19/index.htm>.

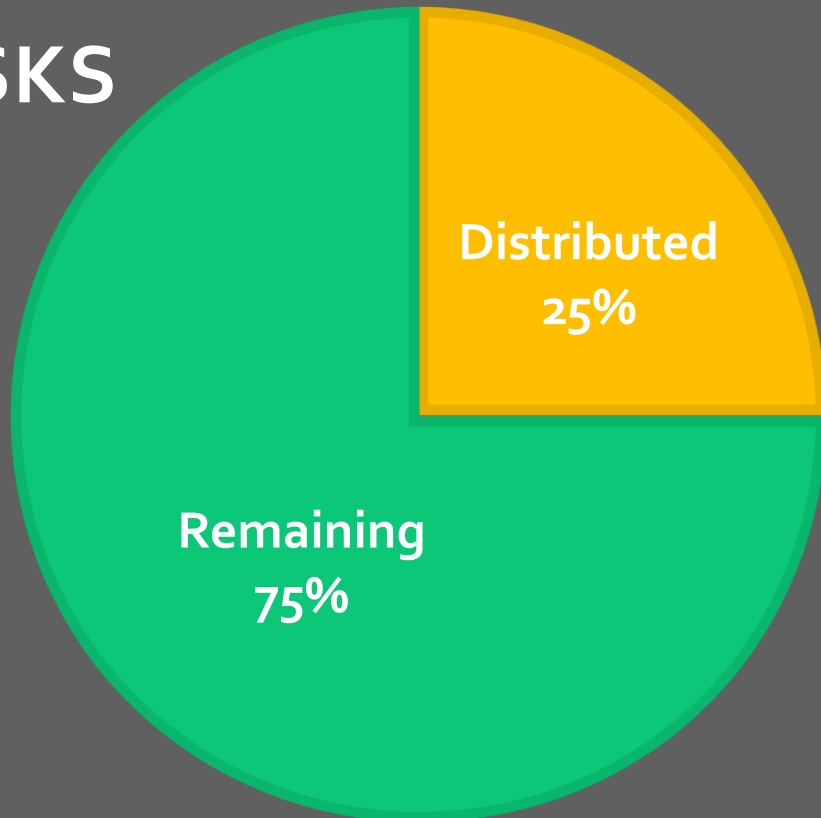
The DWGB is committed to regular communication with water suppliers to help address these challenges. Among other steps, the DWGB is working with our technical assistance and training partners including New Hampshire Water Works Association (NHWWA), Granite State Rural Water Association (GSRWA), RCAP Solutions and New England Water Works Association (NEWWA) to get important information out to drinking water systems. The DWGB has held regular conference calls, most recently including drinking water and wastewater operators, where issues can be raised, discussed and solutions can be developed. These calls will continue as necessary. The DWGB is also committed to using whatever discretion and flexibility we have to appropriately deal with situations as they arise.

THANK YOU for your service and your dedication to ensuring the people of NH have safe drinking water during this unprecedented event!

www.des.nh.gov
29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3503 • Fax: 271-5171 • TDD Access: Relay NH 1-800-735-2964

FREE CLOTH MASKS FROM FEMA

60,000
MASKS



Where Can I Get More Masks?

- [NH Online Forms](#)
- [Search for "mask" in form finder](#)

POLLING QUESTION #1

Did you receive any of the free cloth masks?

- a. Yes and I will be requesting more
- b. Yes and I will not be requesting anymore
- c. No
- d. No, but I will be ordering some

MASKS FOR WATER & WASTEWATER OPERATORS



Mask Distribution Sites:

- Plymouth Village Water & Sewer District
- Concord Water Department
- Keene Public Works
- Dover Public Works
- North Conway Water Precinct
- Winnipesaukee River Basin Program

-
- TA Partners: NHWWA, RCAP, GSRWA



LESSONS LEARNED.....SO FAR

BE PATIENT & FLEXIBLE

- Supply Chain
 - Chemicals
- Operational
 - Reopening's
 - Buildings Staying Closed
- Financial Impact
 - Non-payments
 - Reduced revenues

Workforce Impacts:

Identify essential staff & functions

Polices, Equipment, communications, procedures in the field

Work schedules (A/B teams, staggered shifts, admin leave, standby)

Leave policies, employee's reluctant to come back , family situations (school children/elderly)

POLLING QUESTION #2

What has been your organizations biggest challenge so far with COVID-19?

- a. Workforce issues
- b. PPE
- c. Supplies (chemicals)
- d. Financial
- e. Other

WATER UTILITY COVID-19 FINANCIAL IMPACT TOOL

The screenshot shows an Excel spreadsheet with the following content:

- Title Bar:** wirfc_covid-19_monthly_financial_impacts_on_utilities_080420 - Excel
- Worksheet Name:** Version 1.2
- Header Row (Row 1):** Water Utility 2020 COVID-19 Financial Impact Tool
- Row 2:** Version 1.2
- Text (Rows 4-11):**
 - * The **Water Utility COVID-19 Financial Impact Tool** can be used to assess the financial impact of the COVID-19 pandemic on your utility's cashflow. Use of the spreadsheet is voluntary and its results are provided for your information only. EPA is not collecting either the data entered by utilities or the results.
 - * The spreadsheet has three sections: **Revenue**, **Expenses**, and **Cashflow** and is intended to be used monthly with a running total of the cashflows.
 - * First, work through the **Revenue** and **Expenses** sections to determine the changes to your income statement on a cash basis.
 - * Then, in the **Cashflow** section, apply changes in your utility's cash position that would not be included on an income statement. This will result in an estimated change in net cash.
 - * Due to the nature of COVID-19, communities have not necessarily been experiencing impacts at the same time. Guidance has been issued on Opening Up America Again, which could be useful information for your community.
<https://www.whitehouse.gov/openingamerica/>
- Section Header (Row 12):** How to use the tool
- Text (Rows 13-19):**
 - * Please make sure to **Enable** the macros in this tool.
 - * The only cells into which information can be entered are highlighted in **yellow**. Please note that you are not required to input data into these cells. They are intended only to serve as an indicator for the cells that can have information entered. Cells that automatically populate are not highlighted.
 - * The tool will require data from the previous year and current year financials. You will need access to your utility's financial statements; accounting knowledge will also be useful for filling out this tool.
 - * There are several questions in this tool, many of which will only appear depending on how you answer.
 - * You will begin by entering data into the **2019 Data** tab. You will enter data using 2019's annual data to compare to the current month. The spreadsheet will automatically calculate the average monthly data before COVID-19. This tool will allow you to compare it to the 2020 revenue, expenses, and cashflow. If there is a
- Worksheet Tabs (Bottom):** Introduction, 2019 Data

WHAT DOES THE FUTURE HOLD?

- Surge in Cases ? (let's hope not)
- Drought
- Winter
- Stock up on PPE
- Stock up on supplies
- Vaccines
 - Whose first?

Known Water Use Restrictions

Last Update: 10/15/2020

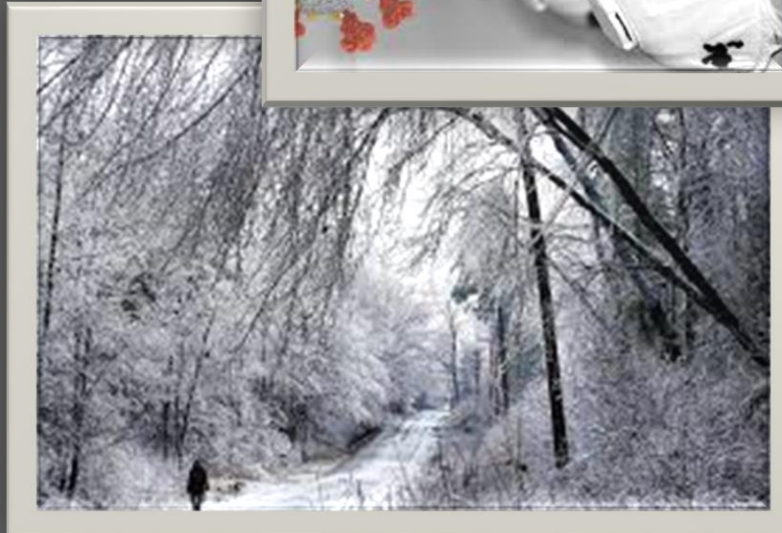
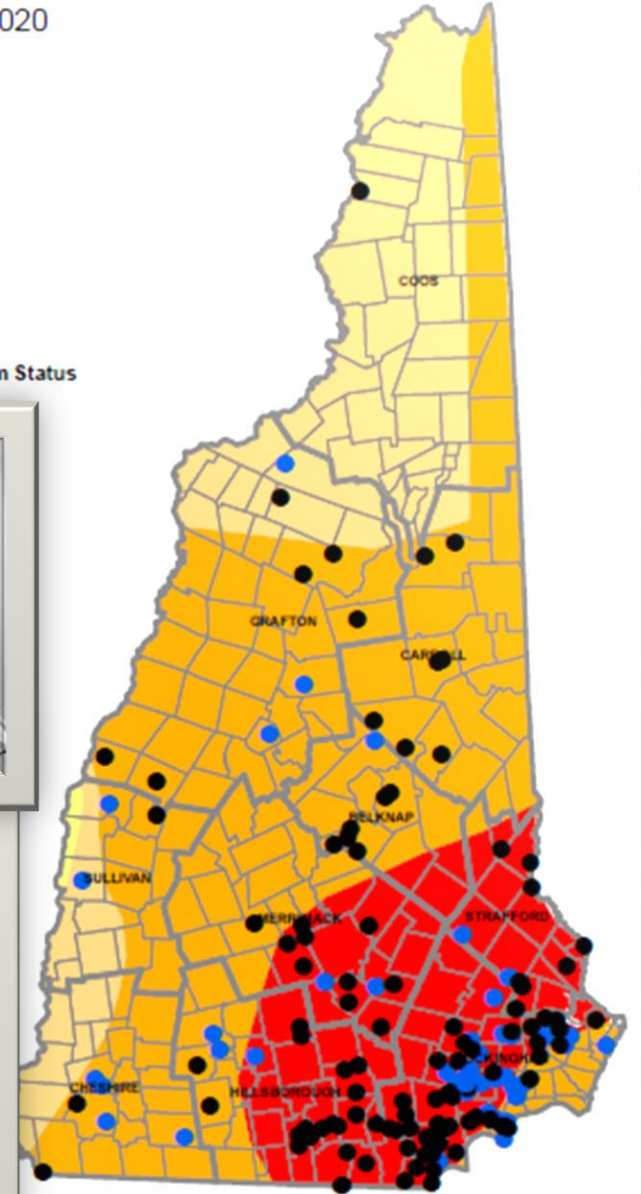
Legend

- County Boundary
- Town Boundary

Drought Condition

- Abnormally Dry
- Moderate Drought
- Severe Drought
- Extreme Drought

Municipality or Water System Status



EMERGENCIES



Tampering, sabotage,
security breach,
suspicious incident

Compromised water
quality or quantity



Interruption of the
system due to
extended power
outage, line break,
or other cause

TYPES OF PLANS

- Emergency Plan – response plan specific to your utility
- Pandemic Plan – type of emergency
- Continuity of Operations Plan (COOP) – support internal operation & management

EMERGENCY PLAN

State requirement for CWSs (Env-Dw 503.21) due every 6 years

- Utility information
- Roles & Responsibilities
- Notification Procedures
- Contact Information
- Critical Users
- Mutual Aid
- System Components
- Alternate Water
- Water Use Restrictions
- Return to Normal Operations

DEVELOPING OR UPDATING EMERGENCY PLAN

NHDES & EPA Templates EPA Incident Action Checklist

Power outage, cybersecurity,
winter storms, pandemic, etc

All encompassing

Include as appendix in your EP!

Incident Action Checklists for Water Utilities

Drinking water and wastewater utilities can use these twelve "rip & run" style checklists to help with emergency preparedness, response and recovery activities.

You may need a PDF reader to view some of the files on this page. See EPA's [About PDF page](#) to learn more.

- [Pandemic Incident Action Checklist \(PDF\)](#) (8 pp, 627 K, 3/26/2020)
Provides preparedness, response and recovery actions water utilities can take during a pandemic incident.
- [Power Outage Incident Action Checklist \(PDF\)](#) (8 pp, 2 MB)
Provides preparedness, response and recovery actions water utilities can take in a power outage.
- [Harmful Algal Bloom Incident Action Checklist \(PDF\)](#) (8 pp, 1 MB)
Provides information on preparedness and response actions water utilities can take during a harmful algal bloom incident.
- [Cybersecurity Incident Action Checklist \(PDF\)](#) (6 pp, 2 MB)
- [Extreme Cold and Winter Storms Incident Action Checklist \(PDF\)](#) (8 pp, 1 MB)
Provides information on preparedness and response actions water utilities can take in extreme cold and winter storms.
- [Earthquake Incident Action Checklist \(PDF\)](#) (8 pp, 1 MB)
Provides information on preparedness and response actions water utilities can take in

PANDEMIC PLAN



GOALS

Staff & Customer Safety

Stay Operational During Pandemic

Pandemic Impacts

- Staff shortages
- Supplies – PPE, chemical treatment
- Social distancing
- Remote Work
- Financial Impacts

DEVELOPING PANDEMIC PLAN

EPA Incident Action Checklist: Pandemic

- Protecting Employee Health
- Maintain Essential Operations
- Supplies, Equipment
- Communication

Actions to Prepare for a Pandemic *(continued)*



Protecting Employee Health

- Reinforce good personal hygiene practices with all staff.
 - [Post proper hand washing techniques](#), with [pictures](#), at all sinks.
 - Share [preventative measures](#) (washing hands, covering cough, not touching face, etc.) provided by the [CDC](#) to minimize risk.
- Ensure availability of adequate proper personal protective equipment (PPE), infection control (hand sanitizer, tissues, disinfecting wipes, electronic cleaners), and cleaning supplies. The disinfection of electronics may require specific supplies.
- Set up a pandemic policy for screening employees for symptoms, setting up extended sick leave and telework, keeping critical staff on-site for an extended period of time (with access to beds, food, water, medical supplies, communications), and social distancing in the office (no meetings, keeping 6 feet apart, etc.).
- Establish pandemic-specific health and safety protocols for field sampling conducted by staff or others providing sampling assistance in the event of staff shortages.
- Work with staff to develop their own family response plans so their families are taken care of during a pandemic while they are working.

Maintaining Essential Operations

- Identify critical positions (plant operator, sampler, in-house and contract laboratory personnel, etc.) and skills, along with back-ups for each of those positions.
- Identify critical functions (disinfection, pumping, sampling and analysis, aeration, purchasing chemicals and supplies, etc.) and the minimum staff required to keep those functions operating.
- Develop a list of critical customers who need a continuous source of potable drinking water (e.g., hospitals, nursing homes, dialysis clinics, manufacturers).
- Assess staffing alternatives:
 - Determine the process to use for your state's WARN to request personnel during a pandemic. Reach out to your state or tribe's assistance providers such as [RCAP](#), [NRWA](#), [RUS](#), [IHS](#), [ITCA](#), and [USET](#) to determine their ability to provide personnel if your staff cannot report to work due to illness, caring for an ill family member, or being quarantined themselves.
 - Cross-train staff to handle multiple positions and critical operations.
 - Ensure redundancy in laboratory personnel and, when possible, have contracts with multiple commercial laboratories as a contingency measure in cases of laboratory staff shortages.

CONTINUITY OF OPERATIONS PLAN (COOP)

Template

- [COOP-Template-Final](#)
- [Crosswalk](#)
- [MEF/ESA Worksheets](#)

COOP Documents

- [COOP-at-a-Glance](#)
- [COOP 2017 Plan Review Checklist](#)

Online Training

- [COOP Training Resources](#)

FEMA Resources

- [FEMA Continuity Guidance Circular 1](#)
- [FEMA Continuity Guidance Circular 2](#)
- [FEMA Continuity Assessment Tool](#)

A plan to ensure essential functions are performed to continue operations during emergency

- Essential Employees & Functions
- Orders of Succession
- Delegations of Authority
- Vital Records Mgmt
- Cross Training
- Alternate Work Location / Remote Work

RISK ASSESSMENT

$$\text{risk} = \text{threat} \times \text{vulnerability} \times \text{consequence}$$

1. Identify critical assets
2. Identify risks
3. Plan accordingly

Requirement for CWSs serving more than 3,300 people
Recommended for all systems!

HOW TO IMPROVE EXISTING PLANS

Practice

Rehearse your plan as if you are experiencing a real emergency
Invite state & local officials who would be involved in the response

Communicate

Strong notification procedure to convey messages internally & externally
More social media

All Hazards Approach

COVID-19 – think of lessons learned & plan for future
Other emergencies – see EPA incident action checklists!

AMERICA'S WATER INFRASTRUCTURE ACT (AWIA)

What Is It?

- New federal law – October 2018
- Replaces a section from the 2002 Bioterrorism Act
- CWS RRA & ERP, certify to EPA – due every (5) years

AWIA: DOES IT IMPACT ME?

Applies to all CWS serving more than 3,300 people

Any CWS that serves less than 3,300 will also have to submit their updated emergency plan to NHDES

NH Rule only

Due March 31, 2021

POLLING QUESTION #3

How many people does your water system serve?

- a. 0-500
- b. 500-3,300
- c. 3,301-50,000
- d. 50,001-100,000
- e. More than 100,000
- f. N/A

AWIA: WHAT DO I HAVE TO DO?

- RRA
- Use the results to update ERP
- Certify to EPA this work was completed

Note: AWIA does not require the use of any standards, methods or tools for the RRA or ERP. Your CWS is responsible for ensuring that the RRA and ERP addresses all the criteria in AWIA Section 2013 (a) and (b)

AWIA: RISK AND RESILIENCE ASSESSMENT

SECTION 2013 (A)

- (1) risk to the system from malevolent acts and natural hazards;
- (2) resilience of the pipes and constructed conveyances, physical barriers, source water, water collection and intake, pretreatment, treatment, storage and distribution facilities, electronic, computer, or other automated systems;
- (3) monitoring practices;
- (4) financial infrastructure;
- (5) use, storage, or handling of various chemicals; and
- (6) operation and maintenance.

AWIA: RISK AND RESILIENCE ASSESSMENT

Small System Checklist

- EPA guidance
- 3,301-49,999 people
- Go through RRA requirements, indicate associated risks from malevolent acts & natural hazards

AWIA: RISK AND RESILIENCE ASSESSMENT

Vulnerability Self Assessment Tool (VSAT)

- EPA guidance
- 50,000+ people
- Comprehensive

POLLING QUESTION #4

Have you completed a Risk and Resilience Assessment?

- a. Started using one of EPA guidance documents (VSAT or small system checklist)
- b. Started using other non-EPA guidance document
- c. Not started – too early to begin
- d. N/A

AWIA: EMERGENCY RESPONSE PLAN

SECTION 2013 (B)

- (1) Improve resilience, including physical security and cybersecurity;
- (2) Plans and equipment to reduce hazards that threaten ability of CWS to deliver safe drinking water;
- (3) Actions and equipment to lessen impact that a hazard has on public health & water safety – alternative source water options, relocation of water intakes and construction of flood protection barriers; and
- (4) Strategies to assist in detecting hazards that threaten system security

AWIA: EMERGENCY RESPONSE PLAN


Available Templates:

- EPA Emergency Response Plan
- NHDES Emergency Plan

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AWIA: HOW TO CERTIFY TO EPA

Water Resilience CONTACT US SHARE 

Water Resilience Home

America's Water Infrastructure Act Risk Assessment and Emergency Response Plan Requirements

Learn about AWIA Section 2018, Spill Notifications

Protect Your Local Water Supply

Basics of Water Resilience

How to Certify Your Risk and Resilience Assessment or Emergency Response Plan

On this page:

- [Electronic submission](#)
- [Email, Regular Mail and Alternate Submissions](#)

Secure online portal (preferred), email, regular mail

UPCOMING DEADLINES

In 2021 you may have several deadlines to meet



****March 31, 2021****

State EP due to DWGB
All CWSs

****December 2020 – December 2021****

Federal Requirements under AWIA
Only CWSs serving more than 3,300 people
Deadlines vary by population!

STATE & FEDERAL REQUIREMENTS

State EP per Env-Dw 503.21

Who? – All CWSs

What?

Submit updated EP to DWGB

When? – March 31, 2021

Federal AWIA Requirements

Who?

CWSs serving more than 3,300 people

What?

Submit certification of RRA & ERP

When? – Deadlines vary

DEADLINE REMINDERS

Population Served	December 31, 2020	March 31, 2021	June 30, 2021	December 30, 2021
50,000-99,999	RRA certification to EPA	State EP due to DWGB	ERP certification to EPA	
3,301-49,999		State EP due to DWGB	RRA certification to EPA	ERP certification to EPA
3,300 and less	--	State EP due to DWGB	--	--

RRA = AWIA risk and resilience assessment

ERP = AWIA emergency response plan

EP = state emergency plan

WAIVE STATE EP DEADLINE

The March 31, 2021 deadline for state EPs can be waived if:

- Your CWS serves more than 3,300 people
- You submit a signed waiver form by December 1, 2020

SOME DES & EPA TOOLS

- NHDES template
- EPA template
- EPA Incident Action Checklist
 - Pandemic, power outage, cyberattacks, drought, hurricanes, etc
- COOP Template
- EPA VSAT
- EPA Small System Checklist
- Waiver Form

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