

Protecting Public Health During a Loss of Pressure Event

A Guide for Large Water Systems

Maine CDC Drinking Water Program • 11 SHS Augusta, ME 04330 • 287-2070 • www.medwp.com

A water system's operator is responsible for the quality of all water served and for providing appropriate notification (water orders) when the safety of water is in question. When a public water system loses pressure because of a main break or other event, the operator should consider the possible health risks to all consumers. Operators need to consider the risks, take into account the scope of pressure loss, distribution lines impacted, and the logistics and time frame of repair.



photo by Darin Phegley

Question Triggering Decision Making Process

Was the distribution main, transmission main, storage tank, or well fully or partially dewatered during the incident (repair or emergency event)? **If the answer to this question is yes, the operator must further evaluate the situation.**

Evaluating the Risk

Operators must consider the risk factors in the table below when deciding whether or not the water is safe for consumers. If after evaluating the risk factors for your incident, you feel the overall risk to customers is high, then place a Boil Water Order on the affected areas of the water system. If you feel the overall risk to customers is low, use Appendix B on reverse side of this document to further evaluate if a Boil Water Order is needed.

Lower Risk to Public Health	Higher Risk to Public Health
<input type="checkbox"/> Adequate Backflow Protection <input type="checkbox"/> Ability to Properly Flush System ¹ <input type="checkbox"/> Thorough Knowledge of Distribution System Piping and Equipment (types, locations, and number of connections) <input type="checkbox"/> Small Area of Distribution System Affected <input type="checkbox"/> Adequate Trench Control (if applicable) <input type="checkbox"/> System has a Chlorine Residual <input type="checkbox"/> Event was Planned <input type="checkbox"/> Adequate Disinfection of Piping and Equipment	<input type="checkbox"/> Little, No, or Unknown Backflow Protection <input type="checkbox"/> Inability to Properly Flush System ¹ <input type="checkbox"/> Limited Knowledge of Distribution System Piping and Equipment (types, locations, and number of connections) <input type="checkbox"/> Large Areas of Distribution System Affected <input type="checkbox"/> Poor Trench Control (if applicable) <input type="checkbox"/> System does not have Chlorine Residual <input type="checkbox"/> Event was Unplanned (i.e. water main break) <input type="checkbox"/> Inadequate Disinfection of Piping and Equipment

Situations that May Require Immediate Issuance of Boil Water Order:

- ✓ Affected mains cannot be adequately flushed
- ✓ E. coli positive samples
- ✓ Sewer line broken during incident resulting in wastewater in contact with the water pipe

Issuing a Boil Water Order

If a Boil Water Order is issued, public notification needs to be done as soon as possible and within 24 hours². PWS should plan in advance who will conduct notification and what method will be used so that experienced water operators are free to manage the repair. **With any loss of pressure that results in a boil water notice, the DWP should be notified immediately at 287-2070 or off hours at 557-4214.**

Removing the Boil Water Order

Consultation with the drinking water program will determine actions required, additionally, there are specific criteria:

- Significant deficiencies corrected
- Source of contamination eliminated
- Required number of Boil Water Order Removal Samples all negative (no less than three)

1. Guidance on the proper procedure for shock chlorinating and flushing water systems can be found on the DWP website at www.medwp.com or by calling the DWP at 287-2070.

2. Notification shall be made using the DWP approved Boil Water Order Notice which can be found on the DWP website at www.medwp.com or by calling 287-2070. The notice must be distributed to the consumer either by hand, posting in a common area, or as an announcement on radio or TV.



APPENDIX B
(Use Only After an Appendix A Risk Evaluation Indicates Low Risk)

**PUBLIC WATER
SYSTEM RESPONSE
TO LOSS OF PRESSURE
TO ALL OR PART OF THE
DISTRIBUTION SYSTEM
(Applies to all systems large
And small)**

