

# 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

Public water system operators are responsible for the quality of water served to consumers 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 should account for the scope of pressure loss, understand what distribution lines may have been impacted, and determine the logistics and time frame of repair.



## 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

When determining if water is safe for consumers, operators should consider the table below. Upon evaluating the risk factors of an incident, if the overall risk to customers is high, a Boil Water Order should be placed on the affected areas of the water system. If it is determined that the overall risk to customers is low, the flow chart provided on the reverse side of this document can help to further evaluate if a Boil Water Order is needed.

Lower Risk to Public Health	Higher Risk to Public Health
<ul style="list-style-type: none"> <li>▶ Adequate backflow protection</li> <li>▶ Ability to properly flush system<sup>1</sup></li> <li>▶ Thorough knowledge of distribution System piping and equipment (types, locations, and number of connections)</li> <li>▶ Small area of distribution system affected</li> <li>▶ Adequate trench control (if applicable)</li> <li>▶ System has a chlorine residual</li> <li>▶ Event was planned</li> <li>▶ Adequate disinfection of piping and equipment</li> </ul>	<ul style="list-style-type: none"> <li>▶ Little, no, or unknown backflow protection</li> <li>▶ Inability to properly flush system<sup>1</sup></li> <li>▶ Limited knowledge of distribution system Piping and equipment (types, locations, and number of connections)</li> <li>▶ Large areas of distribution system affected</li> <li>▶ Poor trench control (if applicable)</li> <li>▶ System does not have chlorine residual</li> <li>▶ Event was unplanned (i.e. water main break)</li> <li>▶ Inadequate disinfection of piping and equipment</li> </ul>

### 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 must begin as soon as possible and within 24 hours<sup>2</sup>. Public waters systems 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

The system must have:

- ▶ Corrected significant deficiencies
  - ▶ Eliminated the source of contamination
  - ▶ Taken the required number (no less than three) of Boil Water Order Removal Samples and received all negative results
- Consultation with the Drinking Water Program will determine if any further action is required.

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.

