



EMERGENCY BULK WATER TRANSPORT POLICY & PROCEDURE

PURPOSE: This policy and procedure is written to specify requirements for emergency bulk water transport (hauling) for potable use by public water systems.

SCOPE: This policy and procedure only applies to emergency bulk water transport (hauling) for potable use at public water systems. For requirements regarding sustained (typically year-round) potable water transport or for private water systems, see 22 MRS §2660-A. Non-potable water transport for the following purposes is not covered by this policy (i.e. exempt): well drilling, construction activities, concrete mixing, swimming pool filling, servicing portable toilets, firefighting, hospital operations, aquaculture, agricultural applications, civil emergencies, water distilled as a by-product of a manufacturing process.

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KEY WORDS: Bulk Water Transport, Potable Water, Emergency, Disinfection Procedure, Hauling Water

DEFINITIONS:

Potable Water: Water that is safe for human consumption.

Emergency: Water hauled on a short-term temporary basis, usually lasting no longer than 30 days duration. [Webster Dictionary definition of "emergency": a sudden, generally unexpected occurrence or set of circumstances demanding immediate action.]

Public Water System (PWS): A water system regulated by the Maine Drinking Water Program [pursuant to: 10-44 CMR, Chapter 231, Section 2].

Water Transport and Water Hauling: The transportation of water for commercial purposes by pipeline or other conduit or by tank truck or in a container, greater in size than 10 gallons. For the purpose of this document, water transport and water hauling are considered to be the same.

Mobile Bulk Storage Container: A temporary bulk water storage container, which may include a free-standing polyethylene or stainless steel water tank or bulk water tanker truck.

RESPONSIBILITIES:

- Public Water Systems, water suppliers, water recipients and Bulk Water Transporters are required to adhere to this policy.
- Drinking Water Program (DWP) staff (and designees) should ask public water systems informing the DWP of an emergency bulk water transport event, questions regarding bulk water transportation. DWP staff and designees should also inspect operations when necessary, to help ensure safe drinking water for all public water system consumers. The DWP is also responsible for determining when the emergency is over.

BACKGROUND:

At some point, pump failure, water quality, or quantity problems may make it necessary to transport bulk water to supplement a potable water supply at a public water system (PWS). When an emergency occurs, hauling water to the PWS should only be considered a temporary solution to supplement a water shortage problem. 22 M.R.S. §2660-A authorizes the DWP to determine when the emergency ends.

POLICY:

1. DWP Notification: In case of an emergency, any person may transport water as necessary for the duration of the emergency, but the person transporting the water **must inform** the Drinking Water Program (DWP) within 3 days of the emergency. The DWP is authorized to determine when the emergency is over. DWP notification includes: when transport will occur, how much water is expected to be transported, the source of the water being hauled, PWS supplier's name and phone number, PWS recipient's name and phone number, and water hauler's name and phone number.
2. Source of Water: Transported water must come from a public water system currently regulated by the DWP. If the source of transported water is not a regulated public water system, the receiving public water system must contact the DWP prior to receiving the water. A Do Not Drink Order must be issued prior to serving the water to any customers and the PWS recipient must comply with the DWP Drinking Water Order Policy #DWP0061.
3. Dedicated Equipment: Water transport must be completed using equipment (tank, tanker truck, pumps, hoses, valves, etc.) dedicated for potable water use only. Water haulers (i.e. tanker truck businesses) available for bulk water transport using equipment dedicated to potable water use are listed on the DWP website (www.medwp.com).
4. Non-dedicated Equipment: When equipment (tank, tanker truck, pumps, hoses, valves, etc.) that has not been dedicated exclusively to potable water use (i.e. milk, pond water, etc.) must be used for water transport, the equipment must be disinfected using the procedure in this document. An appropriate Drinking Water Order (Boil Water Order, Do Not Drink Order) may be required by the DWP (reference: DWP Drinking Water Order Policy #DWP0061).
5. Bulk Water Delivery: The transfer of water from the tank or tanker truck to the PWS must be completed using sanitary practices:

- Mobile bulk water storage container (MBSC) left on-site should be labeled with the PWS's owner's name and phone number. MBSC should be sited in a shaded area or have temporary overhead cover to prevent direct sunlight (bacteria, algae growth), and away from other potential sources of contamination (e.g. petroleum products, agriculture, etc.). MBSC should be secured with a lock to prevent unauthorized access. After 1 week on-site, MBSC may need to be drained out and replenished with fresh potable water.
 - It is recommended that a direct hose-fitting connection between the MBSC tank or tanker truck and the public water system be used.
 - MBSC water tanks used in this process must be NSF/ANSI Standard 61 certified or must be made of "food grade" compatible material, polyethylene plastic, or stainless steel. Exceptions may require a drinking water order e.g., Do Not Drink Order (reference: DWP Drinking Water Order Policy #DWP0061).
 - Water may not be delivered directly into a well [pursuant to: 38 MRS §570-L].
 - Any unsanitary conditions observed by the PWS, water hauler, the DWP, or DWP designee such as MRWA, may result in a drinking water order e.g., a Do Not Drink Order (reference: DWP Drinking Water Order Policy #DWP0061).
6. Disinfection Residual: If water is intended for consumption, transported water may have a free chlorine residual between 0.2 – 1.0 mg/liter, measured at the point of departure after the bulk water tanker is filled, or if water is obtained from a PWS disinfecting with ozone, an adequate ozone residual between 0.2 – 1.0 mg/liter.
 7. Inspection: Review and inspection of an emergency bulk water transport process and any equipment utilized for this purpose may be initiated and completed by the DWP staff (or DWP designee such as MRWA) at any time.
 8. Completion: The DWP must be notified when the bulk water transport is finished and the water shortage emergency has been resolved.
 9. Violation: Per 22 MRS §2660-A, Any person who transports water in violation of this section (statute) is guilty of illegal transport of water. Illegal transport of water is a Class D Crime. Each shipment or day of transport, if by pipeline, is a separate offense.
 10. DWP staff document emergency bulk water transport events by sending an e-mail to the DEH Drinking Water Orders distribution list.

PROCEDURE: The following procedure must be used for disinfection and filling MBSC tanks, piping and equipment used in the process of emergency bulk water transport:

1. Visual and Olfactory Inspection: Conduct a thorough inspection (observation and smelling inside) of the MBSC bulk water tanker and equipment to be sure it is water tight, free of debris and not contaminated with foreign substances.
2. Safety Precautions: Use personal protective equipment (PPE) in accordance with OSHA standards.
3. Disinfection Procedure: Disinfect the inside surface of the MBSC bulk water tanker and wetted surfaces of equipment using a 200 mg/l chlorine/water solution. [Adding 1/3 gallon (3 pints) of 6% Clorox bleach to 100 gallons of water will yield a 200 mg/liter solution. For 8% Clorox

Bleach, add ¼ gallon (2 pints) of 8% Clorox bleach to 100 gallons of water to yield a 200 Mg/liter solution. Mix the solution thoroughly.] Allow chlorinated water to flow through all MBSC tank, pipes and overflows for at least 30 minutes. All equipment used for emergency bulk water transport must be appropriately cleaned. For more information about disinfection procedures, refer to AWWA Standard C652. An alternative disinfection procedure may be used with prior approval by the DWP.

4. Flushing: Drain and thoroughly rinse out the MBSC tank, pipes and overflows with potable water. Properly dispose of the chlorinated water (contact the Department of Environmental Protection for more information). As necessary, use a HACH DPD free chlorine residual test kit to ensure excessive residual chlorine is removed from the MBSC tank.
5. Potable Water Fill: Fill the MBSC tanker with potable water from an approved public water system.
6. Disinfection Residual: It is recommended that transported water maintain a free chlorine residual between 0.2 – 1.0 mg/liter, measured at the point of departure after the MBSC bulk water tanker is filled, or if water is obtained from a PWS disinfecting with ozone, an ozone residual between 0.2 – 1.0 mg/liter. Adjust the disinfection residual by increasing chlorine or ozone as needed, and measure concentration using a HACH test kit or equivalent (mentioned in Step 4 above). It is recommended that the water hauler maintain records of chlorine or ozone residual: date and concentration (in mg/liter).

ASSOCIATED DOCUMENTS:

22 MRS §2660-A
 Drinking Water Orders Policy (DWP0061)
 Maine Rules Relating to Drinking Water 10-144 CMR Chapter 231

SUPERCEDED DOCUMENTS: None

RETENTION:

1. This document is retained per the DWP Record Retention Schedules.

REVISION LOG

Section	Page	Rev.	Date	Description Of Change	Approved by:
		Original	3-7-2014		