



West Virginia Department of Health and Human Resources

MANUAL OF ENVIRONMENTAL HEALTH PROCEDURES

Section	Drinking Water	Date	09/22/2009	Procedure #	DW-6		
Subject	Public Water System Wells with Hand Pumps			Page	1	of	2

We recognize that disinfection with chlorination or other methods, in accordance with the “Public Water System Regulations”, is both difficult and impractical on public water system wells with hand pumps. Subsection 7.7 of the aforementioned regulations allow the commissioner to authorize variances in the chlorine disinfection parameters, and to impose additional monitoring requirements, due to such variances. Therefore, the following procedure will be used on public water systems that utilize wells with hand pumps, and do not chlorinate their water.

Public water systems with hand pumps will collect and analyze routine bacteriological samples in the following manner and in the following number:

- Minimum of one (1) routine sample per month when water is available for consumption by the public. The routine sample will be analyzed for both total coliform and e-coli bacteria.
- If **any** result is found to be **e-coli present**, the public water system will contact the Office of Environmental Health Services (OEHS) within 12 hours of receipt of the result, and will remove the handle to the hand pump as soon as practical, but no later than 24 hours of receipt of the result.
- The public water system shall propose a corrective action plan within thirty (30) days of the receipt of the results, in consultation with OEHS, with the corrections to be completed within 120 days of the receipt of the result. The public water system shall not use the well until approval has been granted by the OEHS.
- If elimination of the contamination source **is not** possible, or the contamination source cannot be determined, the public water system shall be ordered to permanently remove the pump handle and properly abandon the water well.
- If the one (1) routine sample per month is found to be **total coliform present** and **e-coli absent**, the public water system shall collect four repeat samples on four consecutive days, with the first sample being collected within 24 hours after receiving the results of the routine analysis. The laboratory analysis of each repeat sample must be for both total coliform and e-coli bacteria. **Any one result with e-coli being found present will follow the above procedures.** If any results are total coliform present and e-coli absent, the follow up actions as required by the Total Coliform Rule 40 CFR141.21 shall apply. An extension to the 24

hour collection time frame may be granted by the OEHS district office on a case-by-case basis and must state, in writing, how much time the system has to collect the first sample. Reasons for extending the time would be: no good sample containers on hand; transportation/delivery to the laboratory would be logistically problematic; or collection of the sample would present a physical danger to the sampler.

References [WV 64 CSR 3, Public Water Systems](#)

History Replaces DW-6 dated April 30, 1982.