



NEW YORK STATE DEPARTMENT OF HEALTH

Bureau of Water Supply Protection

Flanigan Square, 547 River Street, Troy, New York 12180-2216

INDIVIDUAL WATER SUPPLY WELLS - FACT SHEET #1 USE OF "ADDITIONAL MEASURES" IN WATER WELL SITING AND CONSTRUCTION

The best way to assure drinking water wells will produce safe water is to maximize separation distances between wells and potential contaminant sources and to install wells in a way that minimizes potential of contamination. Compliance with the well construction standards in New York State regulations (Appendix 5-B of 10 NYCRR Part 5) will help assure that new and replacement wells provide reliable potable drinking water. Water well construction should routinely meet these standards; when they can not be met, additional measures to assure water potability may be necessary. Additional measures can be used as supplemental controls to reduce the risk of contaminants entering a well and provide for a safe and sanitary water supply. These measures are most likely to find use when either separation distances can not reasonably be met or where shallow wells (e.g. whenever aquifer water enters the water well at less than 50 feet below grade) must be used.

"Additional Measures"

- **Using deeper well casing, enhanced grouting, or selective screening** to prevent shallow contaminants from entering the well, or to ensure only desirable water enters the well. Examples of enhanced grouting include grouting deeper than required or selectively grouting sections of the well's borehole. These methods should be performed by a registered well driller only. A list of registered well drillers can be found at http://www.dec.state.ny.us/website/dow/driller_ext.html.
- **Redirection of surface runoff, near-surface groundwater**, or both (e.g. drainage ditches, berms, swales, curtain drains), to minimize the potential for contaminant transport toward a well.
- **Removal or relocation of potential sources of contamination** from areas that could impact a well. Some examples might be the replacement of a failing Onsite Wastewater Treatment System (OWTS), relocation of an existing OWTS farther away or down-gradient from the well, relocation of manure storage areas, and others.
- **Hydrogeologic evaluation** to demonstrate that a well is adequately protected against contamination (e.g. by a thick clay layer over the aquifer). Such investigation may involve evaluation of boring logs, aquifer characteristics (e.g., flow direction), analytical data of soil and water samples, and other local geological and hydrogeological information.
- **Treatment and/or disinfection** (this is the last resort for private unregulated water systems) may be used to ensure that contaminated or potentially contaminated water remains potable. Contact your Local Health Department regarding treatment and monitoring options.

If "additional measures" are necessary because the well does not meet requirements of the regulations, a waiver from the Local Health Department (LHD) may be required. Please contact your Local Health Department to determine the need and extent of any waiver requirements.

Appendix 5-B can be found at <http://www.health.state.ny.us/nysdoh/water/part5/appendix5b.htm>

For questions concerning this Fact Sheet or a copy of Appendix 5-B:

Contact your Local Health Department or

Residential Sanitation Section
Bureau of Water Supply Protection
New York State Department of Health
(518) 402-7650 or FAX (518) 402-7659
E-mail: bpwsp@health.state.ny.us