



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Drinking Water Program

Groundwater Under the Direct Influence of Surface Water (GWUDI)
Criteria for Determining Exemption
Factsheet for Community Public Water Systems

INTRODUCTION

The Massachusetts Department of Environmental Protection's Drinking Water Program prepared this factsheet to help community public water systems (PWS) determine if their groundwater sources meet exemption criteria and therefore would not be classified as a GWUDI sources. Sources that are classified as "non-GWUDI" are exempt from meeting the requirements of the Surface Water Treatment Rule (SWTR). In order to be considered "exempt" from treatment, the PWS must complete an application and submit it to the MassDEP. All PWSs with groundwater sources that do not meet the application exemption criteria, must conduct microscopic particulate analyses (MPA) to determine if the groundwater source is GWUDI. Additional details are provided below. To obtain an exemption application, go to: <http://www.mass.gov/dep/water/approvals/dwsforms.htm> and click on "GWUDI".

SAND & GRAVEL WELLS at community systems shall be evaluated using the following three exemption criteria. Community groundwater sources that meet all the conditions of exemption criterion one, two, or three will be exempt from the Microscopic Particulate Analysis (MPA) testing requirement.

- 1:** All community groundwater sources located 150 feet or more horizontally from a surface water feature are exempt from MPA sampling. "Surface water feature" is defined as an area continuously inundated with flowing or standing water. Wetlands or low-lying areas that are only periodically flooded are not considered surface water features.
- 2:** All community groundwater wells constructed with a sanitary seal and the screens of which are separated from surface water features by a confining layer, are exempt from MPA testing. "Confining layer" is defined as a continuous, extensive geologic unit of low permeability.
- 3:** If a community groundwater source cannot meet exemption criterion one or two above, that is to say, the source is located closer than 150 feet horizontally to a surface water body or there is no confining layer and a properly constructed sanitary seal, it must meet all of the following in order to be exempt from MPA testing.
 - a) The top of the well screen must be 50 feet or more below the ground surface.
 - b) The well must be approved by MassDEP to pump or have historically pumped $\leq 720,000$ gallons per day on average, when the well was on line.
 - c) The well must have a properly installed sanitary seal. AND..
 - d) The system, including the well, must not have had any total or fecal coliform or *E.coli* violations over the last three years.

BEDROCK WELLS pumping <100,000 gpd at community systems shall be evaluated using the following four exemption criteria. Bedrock wells are exempt from microscopic particulate analyses (MPA) **if ALL four** of these conditions are met:

- a) The well must be 50 ft or more in depth.
- b) The well must have a properly installed sanitary seal.
- c) The well must be 200 ft or more from a surface water feature. AND....
- d) The system, including the well, must not have had any total or fecal coliform or *E.Coli* violations over the last three years.

BEDROCK WELLS pumping $\geq 100,000$ gpd at community systems must conduct MPA testing.

SPRINGS - All springs must conduct MPA testing.

DUG WELLS - Dug wells are similar to sand and gravel wells and are evaluated using the same criteria.