

# Bedrock Water Quality Map

## BRIMFIELD

### Arsenic Probability

This map is intended to complement the USGS Scientific Investigations Report 2011-5013, *Arsenic and Uranium in Water from Private Wells Completed in Bedrock of East-Central Massachusetts: Concentrations, Correlations with Bedrock Units, and Estimated Probability Maps*. That report presents the results of a statistical study of bedrock water quality based primarily on 478 samples from private wells. This is a relatively small number of samples for such a large and diverse study area. The confidence intervals around probabilities used here are broad. Users are urged to carefully read the original report.

The geologic map underlying this work is at a scale of 1:250,000 or about 4 miles per inch. Although presented on a two dimensional map, bedrock geology is a three dimensional phenomenon. Contact zones almost never go straight down. Because this town map is at a much larger scale than the original, the necessity of presenting 3D geology in only two dimensions, and the wide confidence intervals in the statistical analysis, users should interpret this map as a general indicator of expected water quality. The only way to be sure of the quality of water in any given well is to have that water tested.

% Probability of Exceeding the Public Drinking Water Standard of 10 Micrograms per liter (10 PPB)	City/Town Statistics Acres	Percent
< 1.0%	16816.9	78
1.0% to 4.0%	0	0
5.0% to 10.0%	0	0
10.0% to 25.0%	0	0
No Data	5765.5	22
<b>Total</b>	<b>22582.4</b>	

**MAP LEGEND**

Pond, Lake or Ocean	Town Halls	Cemetery
Reservoir	Fire Stations	Convention Center
Fresh Water Wetlands	Local Police Station	Court House
Cranberry Bog	State Police Station	Field - Playground
Salt Water Wetlands	County Sheriff Station	Fish Hatchery
Perennial Stream; Shoreline	Public School	Golf Course
Intermittent Stream	Private School	Industrial Park
Intermittent Shoreline	Charter School	Lighthouse
Ditch/Canal	Collaborative Program School	Marina
Aqueduct	Special Education School	Monument
Dam	Private College	Museum
Pipeline	Public College	Park
Powerline	Libraries	Parking Lot
Active Rail Lines	Hospital with ER	Pier - Wharf
Limited Access Highway	Multi-lane Hwy, Not Limited Access	Places of Worship
Other Numbered Highway	Major Road, Collector	Nursing Home
Minor Road, Ramp	MA Town Boundary	Public Home
MA Interstate Boundary	MA Interstate Boundary	MBTA Station
County Boundaries	County Boundaries	Airports
DEP Region Boundary	DEP Region Boundary	Prison
		Camp
		Campground

**Cultural Features**

- Town Halls
- Fire Stations
- Local Police Station
- State Police Station
- County Sheriff Station
- Public School
- Private School
- Charter School
- Collaborative Program School
- Special Education School
- Private College
- Public College
- Libraries
- Hospital with ER
- Multi-lane Hwy, Not Limited Access
- Major Road, Collector
- Minor Road, Ramp
- MA Town Boundary
- MA Interstate Boundary
- County Boundaries
- DEP Region Boundary
- Cemetery
- Convention Center
- Court House
- Field - Playground
- Fish Hatchery
- Golf Course
- Industrial Park
- Lighthouse
- Marina
- Monument
- Museum
- Park
- Parking Lot
- Pier - Wharf
- Places of Worship
- Post Office
- Public Pool
- Shopping Center
- Ski Area
- Sports Facility
- Theater
- Tower

Contour Interval 3 Meters  
Mass StatePlane NAD83 Coordinates shown in RED

**BRIMFIELD FALLS WITHIN THE MassDEP WESTERN Region**

**Map Location**

**Map Scale 1:22000**

0 2,000 4,000 6,000 8,000 10,000 Feet

0 1 2 Miles

0 1 2 3 Kilometers

1 inch = 1,833 feet      1 inch = 559 meters

**DATA SOURCES**

TOPOGRAPHIC CONTOURS: MassGIS, 1:5,000, 3 Meter contour elevations, generated from digital ortho DEMs.

WETLANDS: US Mass Resource Mapping Project (UMRP/USGS/MA DEP/MASSGIS, Source Scale 1:1,000 to 1:50,000). Wetland information shown on this map consists of several wetlands databases, including DEP Orthographic Wetlands (1:25,000) and USGS Hydrology wetlands (1:25,000).

GEOGRAPHIC FEATURES: USGS/MASSGIS/USGS Geographic Names Information System (GNIS) features matched to parcel data or orthophoto. Hydrography names taken from USGS WEP features and placed using Maplex.

HYDROGRAPHY: USGS/MassGIS, 1:25,000 or less. Hydrography from the USGS National Hydrography Database except within public water supply watersheds where the resolution is approximately 1:10,000.

POLITICAL BOUNDARIES: MassGIS. This political boundary dataset has been created from latitude and longitude coordinates found in the 88 volume *Boundary and Land Commission Town Boundary Atlas*.

ROADS: Mass Department of Transportation 1:5000. Road centerlines, aligned with 1:5000 Orthophotos. Attributes from DOT roads database.

TRANS AND TRANSLINES: Mass Department of Transportation Trans @ 1:5000, Pipelines and Powerlines @ 1:25000.

**This map is for illustrative purposes only. It represents the best statewide data available at the date of printing. There are other important natural resources that are not shown on this map because the digital spatial data do not exist.**