

Bedrock Water Quality Map WESTBOROUGH 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)

Probability Range	City/Town Statistics Acres	Percent
< 1.0%	5158.1	37.6
1.0% to 4.0%	0	0
5.0% to 10.0%	0	0
10.0% to 25.0%	5291.9	38.6
No Data	3274.2	23.8
Total	13724.2	

MAP LEGEND

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

Cultural Features

Contour Interval 3 Meters
Mass StatePlane NAD83 Coordinates shown in RED

WESTBOROUGH FALLS WITHIN THE MassDEP CENTRAL Region

Map Location

Map Scale 1:19000

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

0 1 2 Miles

0 1 2 Kilometers

1 inch = 1,583 feet 1 inch = 483 meters

Map Created March, 2011

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DATA SOURCES

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

WETLANDS: Mass Resource Mapping Project (MRMP) (USGS/MA Dept. Resources), Source Scale 1:12,000 to 1:40,000. Wetland information drawn on this map consists of several wetlands datasets, including DEP Orthophoto Wetlands (1:25,000) and USGS Hydrology Wetlands (1:25,000).

GEOGRAPHIC FEATURES: USGS/MADEP USGS Geographic Names Information System (GNIS) features merged 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 *Barber 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.