

Projected Bedrock Water Quality

NORTHFIELD

Arsenic Probability

% Probability of Exceeding the Public Drinking Water Standard of 10 micrograms per liter (10 PPB)

- < 1.0%
- 1.0% to 4.0%
- 5.0% to 10.0%
- 10.0% to 25.0%

City/Town Statistics		
Acres	Percent	
8158.5	36	
0	0	
0	0	
0	0	
No Data	14475	64
Total	22633.5	

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.



Massachusetts Department of Environmental Protection



MAP LEGEND

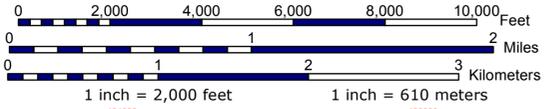
- Reservoir
- Pond, Lake or Ocean
- Fresh Water Wetlands
- Cranberry Bog
- Salt Water Wetlands
- Perennial Stream, Shoreline
- Intermittent Stream
- Intermittent Shoreline
- Ditch/Canal
- Aqueduct
- Dam
- Active Rail Lines
- Pipeline
- Powerline
- Limited Access Highway
- Multi-lane Hwy, Not Limited Access
- Other Numbered Highway
- Major Road, Collector
- Minor Road, Ramp
- MA Town Boundary
- MA Interstate Boundary
- County Boundaries
- DEP Region Boundary

Contour Interval 3 Meters

- Local Police Station
- State Police Station
- County Sheriff Station
- Fire Stations
- Town Halls
- Libraries
- Public School
- Private School
- Charter School
- Collaborative Program School
- Special Education School
- Private College
- Public College
- Hospital with ER
- Hospital
- Nursing Home
- Rest Home
- Prisons
- Airports
- MBTA Station
- Seaports
- Camp

Mass StatePlane NAD83 Coordinates shown in RED

Map Scale 1:24000



Map Location



NORTHFIELD FALLS WITHIN THE MassDEP WESTERN REGION

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.

DATA SOURCES

HYDROGRAPHY: USGS/MassGIS, 1:25,000 or less. Hydrography from the USGS National Hydrography Database except where global water supply watersheds where the resolution is approximately 1:100,000.
 TOPOGRAPHIC CONTOURS: MassGIS, 1:5,000, 3 Meter contour elevations generated from digital ortho 1:75,000.
 POLITICAL BOUNDARIES: MassGIS. This political boundary data has been created from various and updated coordinates found in the 68 volume Harbor and Lands Commission Town Boundary Atlas.
 ROADS: Mass Department of Transportation, 1:50,000. Road centerlines aligned with 1:25,000 Orthophotos. Attributes from GIS road database.
 TRAINS AND TRANSLINES: Mass Department of Transportation. Tracks at 1:50,000. Pipelines and Powerlines at 1:25,000.
 GEOGRAPHIC FEATURES: USGS/MassGIS. USGS Geographic Names Information System (GNIS) features matched to parcel data or orthophoto. Hydrography names taken from H&D features and placed using H&D.
 WETLANDS: USGS Resource Mapping Project/USGS/MassGIS. Source scale of 1:100,000. Wetlands information from the map consists of several wetlands datasets, including 1:25,000 Orthophoto Wetlands (1:12,000) and USGS Hydrology wetlands (1:25,000).

Map Created March, 2011

