

Projected Bedrock Water Quality

HOPEDALE

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
420.5	12.3
0	0
0	0
0	0
0	0
No Data	2984.6
Total	3405.1

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

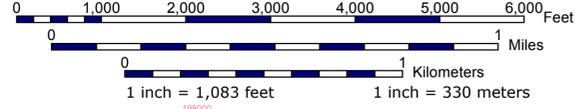


MAP LEGEND

- 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



Map Scale 1:13000



HOPEDALE FALLS WITHIN THE MassDEP CENTRAL 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 Dataset with spatial water supply watersheds where the resolution is approximately 1:100,000. Elevation data generated from digital ortho (DO) photos.

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

POLITICAL BOUNDARIES: MassGIS. This political boundary dataset has been created from latitude and longitude coordinates found in the 66 volume Historic and Land Commission Town Boundary Atlas.

ROADS: Mass Department of Transportation 1:50,000. Road centerlines signed with 1:50,000 Orthophotos. Attributes from DOT roads database.

TRANS AND TRANSLINES: Mass Department of Transportation Trans @ 1:50,000, Pipelines and Powerlines @ 1:25,000

GEOGRAPHIC FEATURES: USGS/MassGIS, 1:25,000 or less. Geographic names information system (GNIS) features extracted to geographic information system (GIS) format.

WETLANDS: USGS Resource Mapping Project/USGS/MassGIS. Source Scale 1:12,000 to 1:40,000. Wetland information shown on this map consists of several wetlands datasets, including DEP Airphoto Wetlands (1:12,000) and USGS Hydrology wetlands (1:25,000).

Map Created March, 2011

