

SOURCE WATER ASSESSMENT REPORT

AN EVALUATION OF THE SUSCEPTIBILITY OF PUBLIC DRINKING WATER SOURCES TO POTENTIAL CONTAMINATION

CT1330021

Sprague Water & Sewer Authority

The State of Connecticut Department of Public Health (DPH) in cooperation with the Department of Environmental Protection (DEP) recently completed an assessment of sources of public drinking water maintained and operated by the Sprague Water & Sewer Authority. This one-time assessment is part of a nationwide effort mandated by Congress under the Safe Drinking Water Act Amendments of 1996 to evaluate the susceptibility of all public drinking water sources in Connecticut to potential sources of contamination. DPH began working in partnership with the DEP in 1997 to develop Connecticut's Source Water Assessment Program, which was approved by the U.S. Environmental Protection Agency in 1999. Sources of potential contamination that are of concern to public drinking water supplies here in Connecticut are generally associated with historic waste disposal or commercial, industrial, agricultural and residential properties that store or use hazardous materials like petroleum products, solvents or agricultural chemicals.

The assessment is intended to provide Sprague Water & Sewer Authority consumers with information about where their public drinking water comes from, sources of potential contamination that could impact it, and what can be done to help protect it. This assessment will also assist the public water supply system, regional planners, local government, public health officials and state agencies in evaluating the degree to which the three wells may be at risk from potential sources of contamination. The assessment can be used to target and implement enhanced source water protection measures such as routine inspections, protective land use regulations, acquisition of critical land, proper septic system maintenance, and public education. General sources of contamination with the potential to impact these wells include properties with underground fuel storage tanks, improperly maintained on-site septic systems, improper waste disposal, or commercial/industrial sites that store or use chemicals or generate hazardous wastes.

ASSESSMENT METHODS. The drinking water source assessment methods used by the Department of Public Health Drinking Water Division to evaluate the susceptibility of public drinking water sources to contamination are based on criteria individually tailored to surface water and groundwater sources. The criteria are keyed to sanitary conditions in the source water area, the presence of potential or historic sources of contamination, existing land use coverage's, and the need for additional source protection measures within the source water area. Source-specific data for community and non-community systems were used to determine whether a particular criterion should be rated as low, moderate or high, relative to the risk of potential contamination at the drinking water source. A ranking system was used to compute an average rank for each community drinking water source based on its environmental sensitivity, potential risk of contamination and source protection needs.

ASSESSMENT RESULTS. Individual assessment summaries and recommendations to enhance source protection for the public drinking water source(s) listed below are presented in the attachments.

Location	Name of Drinking water Source(s)	Susceptibility Summary
Sprague	Well #1, #2 & #3	High

Additional information about drinking water quality and treatment for this source(s) is available in the Sprague Water & Sewer Authority's annual Consumer Confidence Report.

The assessment of this source(s) and other comparable drinking water sources throughout Connecticut generally finds that adopting recommendations similar to those presented in the attachment(s) could reduce the susceptibility of most groundwater sources to potential sources of contamination.



Keeping Connecticut Healthy

State of Connecticut Department of Public Health

Drinking Water Division

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Sprague Water & Sewer Authority

Well Name	Well Location	Well Type	DEP Groundwater Classification	Source Water Area (acres)
Well #1	Sprague	Gravel	GB	135

Factor	Source Water Assessment Ratings For This Well	Rating
I	Environmental Sensitivity	High
II	Potential Risk Factors	Moderate
III	Source Protection Needs	High
Overall Susceptibility to Potential Sources of Contamination		High
This rating is intended to indicate susceptibility to potential sources of contamination that may be in the wellfield source water area and does not necessarily imply poor water quality.		

Assessment Factor		Initial Assessment Findings	Recommendations for Enhanced Source Protection
I	Contaminants Detected in Source Water	Nitrate >1 mg/L	Maintain monitoring levels specified in the Connecticut Public Health Code Section 19-13-B102
I	General condition of well and related equipment	Good	Maintain well and equipment according to best management practices
II	DEP-inventoried Contaminant Release Points	There are no DEP-inventoried contaminant release points in the well's source water area	
II	Potential Sources of Contamination	There are 5 potential sources of contamination present in this well's source water area	Periodically inspect these sites and maintain a water quality monitoring program consistent with the level of potential risk
II	Source Water Area Land Use In The Town Of: Sprague (Based on Satellite Imagery developed by University of Conn.)	Commercial/Industrial 9.6% Residential 13.2% Agricultural 19.2% Open or Undeveloped 58.0%	Proactively work with local officials and developers to insure that only low risk development occurs within the source water area. Support and encourage the acquisition of open space land within the source water area.
III	Land Area Around Wellhead	Public water system does not own or control entire 200 foot sanitary radius around well	Where feasible, increase ownership or control of 200 foot sanitary radius around the wellhead
III	Local Aquifer Protection Regulations	There are no local aquifer protection regulations for this source water area	Support the development of local aquifer protection regulations
III	Local Government Source Protection Initiatives	Drinking water source protection policies exist at the local governmental level	
III	Water System Source Protection Initiatives	Status of the public water system's source protection program is unknown	Verify status or develop a source protection program



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SOURCE WATER ASSESSMENT SUMMARY

Sprague Water & Sewer Authority

Well Name	Well Location	Well Type	DEP Groundwater Classification	Source Water Area (acres)
Well #2	Sprague	Gravel	GB	22

Factor	Source Water Assessment Ratings For This Well	Rating
I	Environmental Sensitivity	High
II	Potential Risk Factors	Low
III	Source Protection Needs	High
Overall Susceptibility to Potential Sources of Contamination		High
This rating is intended to indicate susceptibility to potential sources of contamination that may be in the wellfield source water area and does not necessarily imply poor water quality.		

Assessment Factor		Initial Assessment Findings	Recommendations for Enhanced Source Protection
I	Contaminants Detected in Source Water	Nitrate >1 mg/L	Maintain monitoring levels specified in the Connecticut Public Health Code Section 19-13-B102
I	General condition of well and related equipment	Good	Maintain well and equipment according to best management practices
II	DEP-inventoried Contaminant Release Points	There are no DEP-inventoried contaminant release points in the well's source water area	
II	Potential Sources of Contamination	There are no potential sources of contamination present in this well's source water area	
II	Source Water Area Land Use In The Town Of: Sprague <i>(Based on Satellite Imagery developed by University of Conn.)</i>	Commercial/Industrial 8.8% Residential 29.8% Agricultural 35.1% Open or Undeveloped 26.3%	Proactively work with local officials and developers to insure that only low risk development occurs within the source water area. Support and encourage the acquisition of open space land within the source water area.
III	Land Area Around Wellhead	Public water system does not own or control entire 200 foot sanitary radius around well	Where feasible, increase ownership or control of 200 foot sanitary radius around the wellhead
III	Local Aquifer Protection Regulations	There are no local aquifer protection regulations for this source water area	Support the development of local aquifer protection regulations
III	Local Government Source Protection Initiatives	Drinking water source protection policies exist at the local governmental level	
III	Water System Source Protection Initiatives	Status of the public water system's source protection program is unknown	Verify status or develop a source protection program



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Well Name	Well Location	Well Type	DEP Groundwater Classification	Source Water Area (acres)
Well #3	Sprague	Gravel	GB	63

Factor	Source Water Assessment Ratings For This Well	Rating
I	Environmental Sensitivity	High
II	Potential Risk Factors	Low
III	Source Protection Needs	High
Overall Susceptibility to Potential Sources of Contamination		High
This rating is intended to indicate susceptibility to potential sources of contamination that may be in the wellfield source water area and does not necessarily imply poor water quality.		

Assessment Factor		Initial Assessment Findings	Recommendations for Enhanced Source Protection
I	Contaminants Detected in Source Water	Nitrate >1 mg/L	Maintain monitoring levels specified in the Connecticut Public Health Code Section 19-13-B102
I	General condition of well and related equipment	Good	Maintain well and equipment according to best management practices
II	DEP-inventoried Contaminant Release Points	There are no DEP-inventoried contaminant release points in the well's source water area	
II	Potential Sources of Contamination	There is one potential source of contamination present in this well's source water area	Periodically inspect these sites and maintain a water quality monitoring program consistent with the level of potential risk
II	Source Water Area Land Use In The Town Of: Sprague <i>(Based on Satellite Imagery developed by University of Conn.)</i>	Commercial/Industrial 8.6% Residential 15.9% Agricultural 29.6% Open or Undeveloped 45.9%	Proactively work with local officials and developers to insure that only low risk development occurs within the source water area. Support and encourage the acquisition of open space land within the source water area.
III	Land Area Around Wellhead	Public water system does not own or control entire 200 foot sanitary radius around well	Where feasible, increase ownership or control of 200 foot sanitary radius around the wellhead
III	Local Aquifer Protection Regulations	There are no local aquifer protection regulations for this source water area	Support the development of local aquifer protection regulations
III	Local Government Source Protection Initiatives	Drinking water source protection policies exist at the local governmental level	
III	Water System Source Protection Initiatives	Status of the public water system's source protection program is unknown	Verify status or develop a source protection program



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