SOURCE WATER ASSESSMENT REPORT

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

CT0428031

Birmingham Utilities - Spice Hill Division

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 Birmingham Utilities - Spice Hill Division. 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 Birmingham Utilities - Spice Hill Division 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 5 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
East Hampton	Well 1, 2, 5, 6 & 8	Low to Moderate

Additional information about drinking water quality and treatment for this source(s) is available in the Birmingham Utilities - Spice Hill Division'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.

CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

Keeping Connecticut Healthy

State of Connecticut Department of Public Health
Drinking Water Division
410 Capitol Avenue – MS# 51WAT
P.O. Box 340308 Hartford, CT 06134
(860) 509-7333

Produced With Funding Provided By The United States Environmental Protection Agency - May 2003

CT0428031 *SOURCE WATER ASSESSMENT SUMMARY*

Birmingham Utilities - Spice Hill Division

Well Name	Well Location	Well Type	DEP Groundwater Classification	Source Water Area (acres)
Well 1	East Hampton	Bedrock	GAA-Well	22

Factor	Source Water Assessment Ratings For This Well	Rating
I	**Environmental Sensitivity**	Low
II	**Potential Risk Factors**	Low
III	**Source Protection Needs**	High
Overall Susceptibility to Potential Sources of Contamination		Low

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**	None	
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: East Hampton** *(Based on Satellite Imagery developed by University of Conn.)*	Commercial/Industrial 0.0% Residential 0.2% Agricultural 4.1% Open or Undeveloped 95.7%	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**	Level of public water system ownership/control of 200 foot sanitary radius around well is unknown	Verify or increase ownership/control of 200 foot sanitary radius around well
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**	Public water system maintains an adequate source protection program	Continue to maintain and enhance source water protection program

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Well Name	Well Location	Well Type	DEP Groundwater Classification	Source Water Area (acres)
Well 2	East Hampton	Bedrock	GAA-Well	18

Factor	Source Water Assessment Ratings For This Well	Rating
I	**Environmental Sensitivity**	Low
II	**Potential Risk Factors**	Low
III	**Source Protection Needs**	High
Overall Susceptibility to Potential Sources of Contamination		Low

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**	None	
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: East Hampton** *(Based on Satellite Imagery developed by University of Conn.)*	Commercial/Industrial 0.0% Residential 0.0% Agricultural 4.9% Open or Undeveloped 95.1%	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**	Public water system maintains an adequate source protection program	Continue to maintain and enhance source water protection program

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Well Name	Well Location	Well Type	DEP Groundwater Classification	Source Water Area (acres)
Well 5	East Hampton	Bedrock	GAA-Well	18

Factor	Source Water Assessment Ratings For This Well	Rating
I	**Environmental Sensitivity**	Low
II	**Potential Risk Factors**	Low
III	**Source Protection Needs**	High
Overall Susceptibility to Potential Sources of Contamination		Low

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**	None	
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: East Hampton** *(Based on Satellite Imagery developed by University of Conn.)*	Commercial/Industrial 0.0% Residential 0.0% Agricultural 5.0% Open or Undeveloped 95.0%	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**	Public water system maintains an adequate source protection program	Continue to maintain and enhance source water protection program

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Well Name	Well Location	Well Type	DEP Groundwater Classification	Source Water Area (acres)
Well 6	East Hampton	Bedrock	GAA-Well	18

Factor	Source Water Assessment Ratings For This Well	Rating
I	**Environmental Sensitivity**	Low
II	**Potential Risk Factors**	Low
III	**Source Protection Needs**	High
Overall Susceptibility to Potential Sources of Contamination		Low
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**	None	
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: East Hampton** *(Based on Satellite Imagery developed by University of Conn.)*	Commercial/Industrial 0.0% Residential 1.6% Agricultural 5.0% Open or Undeveloped 93.4%	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**	Level of public water system ownership/control of 200 foot sanitary radius around well is unknown	Verify or increase ownership/control of 200 foot sanitary radius around well
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	
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Well Name	Well Location	Well Type	DEP Groundwater Classification	Source Water Area (acres)
Well 8	East Hampton	Bedrock	GAA-Well	22

Factor	Source Water Assessment Ratings For This Well	Rating
I	**Environmental Sensitivity**	Low
II	**Potential Risk Factors**	Low
III	**Source Protection Needs**	High
Overall Susceptibility to Potential Sources of Contamination		Moderate

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**	None	
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: East Hampton** *(Based on Satellite Imagery developed by University of Conn.)*	Commercial/Industrial 0.0% Residential 6.2% Agricultural 13.4% Open or Undeveloped 80.4%	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
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