

# Assessments of Public Water Supply Sources - DERRY

This report is a summary of NH Department of Environmental Services' assessments of the vulnerability of each source used by the public water system(s) located in this municipality. The sources listed here are grouped first by the type of public water system and then by the system itself. Each source was ranked according to a number of criteria; a vulnerability ranking is given for each criterion that applies to the source. *An explanation of each column in the report can be found on the last page.*

Source Number	Source Description	Source Type	Date Assessment Completed	Number of Vulnerability Rankings			Susceptibility Ranking Criteria											
				Highs	Mediums	Lows	Detects	Well/Intake	KCSs	PCSs	Highways/RRs	Pesticides	Septics	Urban Land Cover	Ag Land Cover	Animals	Lagoons	Dry discharges
System Type <input type="checkbox"/> C <b>C=Community; P=Non-Transient, Non-Community; N=Transient</b>																		
EPAID <input type="text" value="0611010"/> System Name: <input type="text" value="DERRY WATER DEPT"/>																		
004	MANCHESTER WATER WORKS /LAKE MASSABES	E	12/3/2001	0	0	0												
EPAID <input type="text" value="0612010"/> System Name: <input type="text" value="PEU /OAKWOOD TERRACE"/>																		
502	DERRY WATER WORKS/LAKE MASSABESIC MAN	E	12/3/2001	0	0	0												
EPAID <input type="text" value="0612020"/> System Name: <input type="text" value="PEU /MAPLE HILL ACRES"/>																		
005	BRW	G	8/3/2001	1	2	9	L	L	M	L	L	L	H	L	M	L	L	L
006	BRW	G	8/3/2001	1	2	9	L	L	M	L	L	L	H	L	M	L	L	L
EPAID <input type="text" value="0612040"/> System Name: <input type="text" value="BARKLAND ACRES ASSOC"/>																		
001	BRW	G	8/31/2000	2	1	9	L	L	L	L	L	L	H	L	M	L	L	H
002	BRW	G	8/31/2000	2	1	9	L	L	L	L	L	L	H	L	M	L	L	H
EPAID <input type="text" value="0612050"/> System Name: <input type="text" value="MORNINGSIDE DRIVE WATER ASSOC"/>																		
001	BRW	G	11/5/2001	2	1	9	L	L	L	L	M	L	H	H	L	L	L	L
002	BRW	G	11/5/2001	2	1	9	L	L	L	L	M	L	H	H	L	L	L	L
EPAID <input type="text" value="0612070"/> System Name: <input type="text" value="GLEN RIDGE DEV"/>																		
001	BRW	G	10/12/2000	1	3	8	L	L	L	L	M	L	H	L	M	L	L	M
002	BRW	G	10/12/2000	1	3	8	L	L	L	L	M	L	H	L	M	L	L	M
EPAID <input type="text" value="0612080"/> System Name: <input type="text" value="REDFIELD ESTATES"/>																		

Source Number	Source Description	Source Type	Date Assessment Completed	Number of Vulnerability Rankings			Susceptibility Ranking Criteria													
				Highs	Mediums	Lows	Detects	Well/Intake	KCSs	PCSS	Highways/RRs	Pesticides	Septics	Urban Land Cover	Ag Land Cover	Animals	Lagoons	Dry discharges	Sanitary radius	Trophic status
004	BRW	G	10/12/2000	1	2	9	L	L	L	M	L	L	H	L	M	L	L	L	L	
007	BRW	G	10/12/2000	1	1	10	L	L	L	L	L	L	H	L	M	L	L	L	L	
008	DREW WOODS INTERCONNECTION	E	12/3/2001	0	0	0														
<b>EPAID</b>	0612090	<b>System Name:</b>		HUBBARD HILL																
001	BRW	G	10/12/2000	1	3	8	L	L	L	L	M	L	H	L	M	L	L	L	M	
002	BRW	G	9/15/2006	0	2	10	L	L	L	L	L	L	M	L	M	L	L	L	L	
003	BRW	G	10/12/2000	1	3	8	L	L	L	L	M	L	H	L	M	L	L	L	M	
<b>EPAID</b>	0612110	<b>System Name:</b>		PEU /FARMSTEAD ACRES																
001	BRW	G	8/3/2001	4	0	8	L	L	L	L	L	H	H	H	H	L	L	L	L	
<b>EPAID</b>	0612120	<b>System Name:</b>		MEADOWBROOK																
001	BRW	G	8/3/2001	3	0	9	L	L	L	L	L	H	H	L	H	L	L	L	L	
003	BRW	G	8/3/2001	2	0	10	L	L	L	L	L	L	H	L	H	L	L	L	L	
<b>EPAID</b>	0612130	<b>System Name:</b>		RICHARDSON ESTATES																
001	BRW	G	10/12/2000	0	2	10	L	L	L	L	M	L	L	L	M	L	L	L	L	
<b>EPAID</b>	0612140	<b>System Name:</b>		HI AND LO ESTATES																
001	BRW	G	10/12/2000	2	3	7	L	L	L	M	H	L	H	L	M	L	L	L	M	
002	BRW	G	10/12/2000	2	3	7	L	L	L	M	H	L	H	L	M	L	L	L	M	
003	BRW	G	10/12/2000	2	3	7	L	L	L	M	H	L	H	L	M	L	L	L	M	
004	BRW	G	3/11/2005	2	3	7	L	L	L	M	H	L	H	L	M	L	L	L	M	
<b>EPAID</b>	0612150	<b>System Name:</b>		DREW WOODS																
001	BRW	G	10/11/2000	1	5	6	L	L	L	M	M	M	H	L	M	L	L	L	M	
003	BRW	G	10/12/2000	1	5	6	L	L	L	M	M	M	H	L	M	L	L	L	M	
004	BRW	G	10/12/2000	1	4	7	L	L	L	M	M	M	H	L	M	L	L	L	L	
005	BRW	G	12/20/2001	1	3	8	L	L	L	L	L	L	H	L	M	M	L	L	M	
006	BRW	G	12/20/2001	1	2	9	L	L	L	L	L	L	H	L	M	M	L	L	L	
007	BRW	G	12/20/2001	1	3	8	L	L	L	L	L	L	H	L	M	M	L	L	M	

Source Number	Source Description	Source Type	Date Assessment Completed	Number of Vulnerability Rankings			Susceptibility Ranking Criteria													
				Highs	Mediums	Lows	Detects	Well/Intake	KCSs	PCSS	Highways/RRs	Pesticides	Septics	Urban Land Cover	Ag Land Cover	Animals	Lagoons	Dry discharges	Sanitary radius	Trophic status
<b>EPAID</b> 0612160	<b>System Name:</b> WOODLAND AT DERRY																			
001	BRW	G	8/13/2001	2	0	10	L	L	L	L	L	L	H	L	H	L	L		L	
002	BRW	G	8/13/2001	1	1	10	L	L	L	L	L	L	H	L	M	L	L		L	
<b>EPAID</b> 0612170	<b>System Name:</b> MAPLE HAVEN																			
002	BRW	G	10/12/2000	3	0	9	L	L	L	L	H	L	H	L	H	L	L		L	
003	BRW	G	10/12/2000	2	1	9	L	L	L	L	H	L	M	L	H	L	L		L	
004	BRW	G	10/12/2000	3	0	9	L	L	L	L	H	L	H	L	H	L	L		L	
<b>EPAID</b> 0612190	<b>System Name:</b> BIRCHFIELDS																			
001	BRW	G	10/12/2000	3	1	8	L	L	L	M	L	H	H	L	H	L	L		L	
002	BRW	G	10/12/2000	3	1	8	L	L	L	M	L	H	H	L	H	L	L		L	
<b>EPAID</b> 0612210	<b>System Name:</b> OLD COACH VILLAGE																			
001	BRW	G	2/7/2002	1	2	9	L	L	L	L	L	L	M	L	M	L	L		H	
002	BRW	G	8/3/2001	1	1	10	L	L	L	L	L	L	H	L	M	L	L		L	
<b>EPAID</b> 0612220	<b>System Name:</b> AUTUMN WOODS																			
001	BRW	G	10/10/2002	1	1	10	L	L	L	L	L	L	M	L	H	L	L		L	
002	BRW	G	10/10/2002	1	1	10	L	L	L	L	L	L	M	L	H	L	L		L	
<b>EPAID</b> 0612230	<b>System Name:</b> RAND SHEPARD HILL																			
001	BRW	G	12/20/2001	3	0	9	L	L	L	L	H	L	H	L	H	L	L		L	
002	BRW	G	12/20/2001	3	0	9	L	L	L	L	H	L	H	L	H	L	L		L	
003	BRW	G	12/20/2001	2	2	8	L	L	L	L	M	M	H	L	H	L	L		L	
<b>EPAID</b> 0612240	<b>System Name:</b> WILLOW BEND																			
001	BRW	G	3/15/2001	1	3	8	L	L	L	L	H	L	M	L	M	M	L		L	
<b>EPAID</b> 0613010	<b>System Name:</b> ANNIE OAKLEY MOBILE HOME PARK																			
001	BRW	G	7/12/2000	3	3	6	H	L	H	L	L	L	M	M	M	L	L		H	

Source Number	Source Description	Source Type	Date Assessment Completed	Number of Vulnerability Rankings			Susceptibility Ranking Criteria													
				Highs	Mediums	Lows	Detects	Well/Intake	KCSs	PCSs	Highways/RRs	Pesticides	Septics	Urban Land Cover	Ag Land Cover	Animals	Lagoons	Dry discharges	Sanitary radius	Trophic status
EPAID 0613030	System Name: PEACEFUL ACRES	G	8/3/2001	5	3	4	H	L	H	M	H	L	H	H	M	L	L	M		
001	BRW																			
EPAID 0613050	System Name: FROST RESIDENTS COOPERATIVE	G	10/28/2002	2	3	7	L	L	M	M	H	L	H	L	M	L	L	L		
003	BRW																			
EPAID 0613060	System Name: THE BIG W	G	4/4/2001	5	2	5	H	L	L	M	H	L	H	H	M	L	L	H		
003	BRW																			
System Type		N	C=Community; P=Non-Transient, Non-Community; N=Transient																	
EPAID 0617030	System Name: HIDDEN VALLEY CAMPGROUND	G	1/14/2000	1	0	8	L	L	L	H	L	L	L			L	L			
002	BRW																			
EPAID 0617040	System Name: BOYS CLUB OF GREATER DERRY	G	7/11/2001	1	0	8	L	L	L	H	L	L	L			L	L			
001	BRW																			
EPAID 0617060	System Name: ROBERT FROST FARM	G	6/16/2000	3	0	6	L	H	L	H	H	L	L			L	L			
001	BRW																			
EPAID 0618050	System Name: NEW LEIS GARDEN	G	9/19/2000	2	0	7	L	L	L	H	H	L	L			L	L			
001	BRW																			
EPAID 0618060	System Name: ROBERT FROST MOTOR INN	G	6/16/2000	3	0	6	L	L	H	H	H	L	L			L	L			
001	BRW																			
EPAID 0618080	System Name: BEAVER LAKE MHP AND COTTAGES	G	7/26/2001	1	0	8	L	L	L	H	L	L	L			L	L			
001	BRW																			
EPAID 0618090	System Name: PROMISES TO KEEP	G	1/14/2000	0	0	9	L	L	L	L	L	L	L			L	L			
001	BRW																			
002	BRW	G	6/16/2000	0	0	9	L	L	L	L	L	L	L			L	L			
EPAID 0618100	System Name: KERSHAW'S QUICK STOP																			

Source Number	Source Description	Source Type	Date Assessment Completed	Number of Vulnerability Rankings			Susceptibility Ranking Criteria													
				Highs	Mediums	Lows	Detects	Well/Intake	KCSs	PCSS	Highways/RRs	Pesticides	Septics	Urban Land Cover	Ag Land Cover	Animals	Lagoons	Dry discharges	Sanitary radius	Trophic status
001	BRW	G	7/23/2001	3	0	6	L	L	H	H	H	L	L			L	L			
<b>System Type</b> <input type="checkbox"/> C <input checked="" type="checkbox"/> P <input type="checkbox"/> N <b>C=Community; P=Non-Transient, Non-Community; N=Transient</b>																				
<b>EPAID</b>	<input type="text" value="0615020"/>	<b>System Name:</b> <input type="text" value="CALVARY CHURCH AND SCHOOL"/>																		
001	BRW	G	8/3/2001	2	2	8	L	L	L	L	L	L	H	M	M	L	L		H	
<b>EPAID</b>	<input type="text" value="0615040"/>	<b>System Name:</b> <input type="text" value="CIRCLE OF FRIENDS SCHOOL"/>																		
001	BRW	G	8/3/2001	3	2	7	L	L	L	M	H	L	H	L	H	L	L		M	
<b>EPAID</b>	<input type="text" value="0615060"/>	<b>System Name:</b> <input type="text" value="E DERRY MEMORIAL ELEM SCHOOL"/>																		
001	BRW	G	8/3/2001	1	4	7	L	L	L	M	L	M	H	L	M	L	L		M	
<b>EPAID</b>	<input type="text" value="0615070"/>	<b>System Name:</b> <input type="text" value="OVER THE RAINBOW PRESCHOOL"/>																		
001	BRW	G	11/5/2001	2	4	6	L	L	H	M	H	L	M	L	M	L	L		M	
<b>EPAID</b>	<input type="text" value="0616020"/>	<b>System Name:</b> <input type="text" value="HILLSIDE PLAZA"/>																		
001	BRW	G	3/13/2001	3	3	6	H	L	H	M	H	L	L	L	M	L	L		M	

## Explanatory Notes

*Abbreviations used in the following notes:*

**HAC** = hydrologic area of concern for a surface water source. For small or undeveloped watersheds, the HAC includes the entire watershed. For all other surface sources, the HAC includes only a portion of the watershed close to the water system intake.

**WHPA** = wellhead protection area for a groundwater source. For community and non-transient systems, the WHPA is the area from which water is expected to flow to the well under extremely dry conditions. For transient systems, the WHPA is the area within 500 ft of the well.

**EPAID:** Each public water system is identified by a 7-digit federal ID number.

**Source number:** Each source is further identified by a 3-digit number.

**Source description:** An abbreviated description of the source from NHDES's database. (Some common abbreviations: BRW=bedrock well; GPW=gravel-pack well; GRW=gravel well; DUG=dug well; PTW=point well; SPR=spring; ART=artesian well; INF=infiltration well.)

**Source type:** G=groundwater (well or spring); S=surface water (lakes, reservoirs, ponds, rivers); E = water purchased from another system (*Purchased sources are not assessed per se, but the original sources used by the seller are assessed*).

**Date Assessment Completed:** The date NHDES completed the process of reviewing available data, collecting new data, and entered the assessment information into its database.

**Number of Vulnerability Rankings:** The number of High, Medium, and Low rankings for that source listed in the columns to the right. Each criterion is explained below. Some criteria do not apply to all types of sources or systems.

**Detects:** Confirmed detections of certain contaminants (after treatment) of suspected human origin, not including disinfection byproducts. L = none detected at or above trigger levels in the most recent round of sampling. There is no M ranking for this criterion. H = contaminants were detected at or above trigger levels.

**Well/Intake:** The integrity of the well (if a groundwater source) or the intake (if a surface water source). L = no unresolved deficiencies with the well or intake identified in the most recent sanitary survey. There is no M ranking for this criterion. H = there are unresolved deficiencies.

**KCSs:** Known contamination sources in the vicinity of the source. This includes any site known to DES where contaminants are known or very likely to have been released to the ground, and where remediation is not complete. L = none present in the WHPA (for groundwater sources) or in the HAC (for surface water sources). M (for community and non-transient systems) = one or more KCSs in the WHPA or HAC but not within 1,000 ft of the well or intake. *There is no M ranking for transient systems.* H = one or more KCSs within the WHPA or HAC within 1,000 ft of the well or intake.

**PCSs:** Potential contamination sources in the vicinity of the source. This includes any site known to DES where contaminants are known or very likely to be used in significant quantities, but where there are no known releases to the ground. L (for community and non-transient systems) = no PCSs within 1,000 ft of the well in the WHPA (for groundwater sources) or none present in the HAC (for surface water sources). L (for transient systems) = none present in the WHPA. M (for groundwater sources serving community and non-transient systems) = 10 or fewer PCSs within 1,000 ft of the well in the WHPA. M (for surface water sources) = one or more PCSs in the HAC but not within

1,000 ft of the intake. *There is no M ranking for transient systems.* H (for groundwater sources serving community and non-transient systems) = more than 10 PCSs within 1,000 ft of the well in the WHPA. H (for transient sources) = one or more PCSs in the WHPA. H (for surface water sources) = one or more within 1,000 ft of the intake in the HAC.

**Highways/RRs:** The presence of numbered state highways or active railroads in the vicinity of the source. L = none present in the WHPA or HAC. M (for community and non-transient groundwater sources) = one or more in the WHPA but not within 1,000 ft of the well. M (for surface sources) = one or more in the HAC but not within 300 ft of the source water. *There is no M ranking for transient systems.* H (for transient sources) = one or more in the WHPA. H (for community and non-transient groundwater sources) = one or more in the WHPA within 1,000 ft of the well. H (for surface sources) = one or more in the HAC within 300 ft of the source water.

**Pesticides:** Whether or not pesticides have been routinely applied in the vicinity of the source. This is based on the presence of land parcels owned by registered pesticide applicators. L = no application areas in WHPA or HAC. M (for community and non-transient sources) = application site(s) in WHPA or HAC but not within 500 ft of the well or within 300 ft of the intake. *There is no M ranking for transient systems.* H = application site(s) within 500 ft of the well or within 300 ft of the intake.

**Septics:** The presence or density of septic systems and sewer lines in the vicinity of the source. L (for community and non-transient groundwater sources) = no septic systems or sewer lines located within 500 ft of the well, and fewer than 30 septic systems in the remainder of the WHPA. L (for surface sources) = no septic systems within 500 ft of surface water. L (for transient sources) = no septic systems or sewer lines within 75 ft of the well. M (for community and non-transient groundwater sources) = fewer than 10 septic systems and no sewer line located within 500 ft of well, and fewer than 30 septic systems in remainder of the WHPA. M (for surface sources) = low density of septic systems (lots averaging 2 acres or more) within 500 ft of surface water in the HAC. *There is no M ranking for transient systems.* H (for community and non-transient groundwater sources) = 10 or more septic systems or any sewer line within 500 ft of the well and/or high density of septic systems (more than 30) in the WHPA. H (for surface sources) = densely developed shoreline (lots averaging less than 2 acres) within 500 ft of surface water in the HAC. H (for transient sources) = one or more septic systems or sewer lines within 75 ft of the well.

**Urban Land Cover:** The percentage of urban land cover in the vicinity of the source, based primarily on satellite images. *This criterion does not apply to sources serving transient systems.* L = less than 10% of the WHPA or HAC is urban, and less than 10% of the WHPA within 1,000 ft of the well is urban. M (for community and non-transient groundwater sources) = less than 10% of WHPA is urban but 10% or more of the WHPA within 1,000 ft of the well is urban. M (for surface sources) = between 10% and 20% of HAC is urban. H (for community and non-transient groundwater sources) = 10% or more of WHPA is urban. H (for surface sources) = 20% or more of HAC is urban.

**Ag Land Cover:** The percentage of agricultural land cover in the vicinity of the source (in the WHPA or within 300 ft of surface water in the HAC), based primarily on satellite images. *This criterion does not apply to sources serving transient systems.* L = no ag land. M = less than 10% ag land. H = 10% or more ag land.

**Animals:** The presence of concentrations of 10 or more animal units in the vicinity of the source. L = none in the WHPA or (for a surface source) within 300 ft of surface water in the watershed. M (for community and non-transient groundwater sources) = one or more such farms in the WHPA but not within 1,000 ft of the well. M (for a surface source) = none within 300 ft of surface water in the HAC, but one or more within 300 ft of surface water in the watershed. *There is no M ranking for transient systems.* H = one or more in the WHPA within 1,000 ft of the well or (for a surface source) within 300 ft of surface water in the HAC.

**Lagoons:** The presence of wastewater treatment lagoons or spray irrigation sites in the vicinity of the source. L = none in the WHPA or (for a surface source) in the entire watershed. M (for community and non-transient groundwater sources) = one or more in the WHPA but not within 1,000 ft of the well. M (for a surface source) = none within 300 ft of surface water in the HAC, but one or more in the watershed. *There is no M ranking for transient systems.* H = one or more in the WHPA within 1,000 ft of the well or (for a surface source) within 300 ft of surface water in the HAC.

**Dry Discharge:** The presence of dry-weather stormwater discharge sites in the vicinity of the source. *Only a handful of surface sources were evaluated for such discharges; no discharges were found.*

**Sanitary Radius:** The presence of development not associated with the well within the sanitary radius (within 75 to 400 ft of the well). *Applies only to groundwater sources serving community and non-transient systems.* Of particular concern are sewer lines, septic systems, or storage of regulated substances in this area. L = no inappropriate land uses or practices. No medium ranking. H = inappropriate land uses or practices were discovered during the most recent sanitary survey, and have not been corrected.

**Trophic status:** The projected trophic (nutrient) status of the source as predicted by a computer model using a future land development scenario for the watershed. *This criterion applies only to 24 lakes, ponds, and reservoirs included in the phosphorus loading study.* L = oligotrophic (relatively good clarity and water quality with low algae population). M = mesotrophic (intermediate clarity, quality, and algae population). H = eutrophic