



October 2019

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# LONDONDERRY WATER RESOURCE MANAGEMENT and PROTECTION PLAN

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Prepared for:



**Town of Londonderry**

Town Hall, 268B Mammoth Road  
Londonderry, NH 03053

## Table of Contents

Executive Summary .....	vi
1 Introduction.....	1
1.1 Background .....	1
1.2 Plan Update Process .....	1
1.3 Using This Plan .....	3
2 The Town of Londonderry .....	4
2.1 Land Use .....	4
2.2 Soils.....	7
2.3 Bedrock Geology.....	7
2.4 Flood Hazard Areas .....	8
2.5 Wetlands .....	8
2.6 Conservation Land .....	13
2.7 Infrastructure .....	16
2.7.1 Impervious Cover .....	16
2.7.2 Dams.....	19
2.7.3 Wastewater Treatment.....	19
3 Description of Surface Water Resources .....	22
3.1 Surface Water .....	22
3.1.1 Surface Water Impairments .....	25
3.2 Watershed and Surface Water Summaries .....	28
3.2.1 Beaver Brook Headwaters – Kendall Pond Watershed .....	31
3.2.2 Beaver Brook Headwaters – South Watershed .....	35
3.2.3 Cohas Brook Watershed .....	38
3.2.4 Little Cohas Brook Watershed .....	40
3.2.5 Watts Brook Watershed .....	44
3.2.6 Colby Brook Watershed .....	46
3.2.7 Nesenkeag Brook Watershed .....	48
3.2.8 Chase Brook Watershed .....	51
3.3 Surface Water Withdrawals and Discharges .....	52
4 Description of Groundwater Resources .....	53



4.1	Groundwater Properties .....	53
4.2	Groundwater in Londonderry .....	54
4.3	Environmental Baseline Study – Well Water Quality .....	55
5	Assessment of Future Water Demand .....	58
5.1	Current Sources of Drinking Water .....	58
5.1.1	Public Water Suppliers .....	58
5.1.2	Public Water Supply Wells .....	59
5.1.3	Private Wells .....	60
5.1.4	Wellhead Protection Areas .....	60
5.2	Current Water Usage .....	62
5.2.1	Water Usage by Source .....	62
5.2.2	Water Usage by Customer Type .....	64
5.3	Current and Future Water Demands .....	64
5.3.1	Historical and Projected Populations .....	64
5.3.2	Historical Annual Metered Water Usage .....	65
5.3.3	Historical Annual Water Demand .....	67
5.3.4	Projected Future Demands .....	68
5.4	Potential Drinking Water Supplies .....	70
5.4.1	Drinking Water Suppliers .....	70
5.4.2	Groundwater Supplies .....	70
5.4.3	Surface Water Supplies .....	70
6	Identification of Potential Threats to Water Resources .....	73
6.1	Point Source Pollution .....	73
6.2	Nonpoint Source Pollution .....	73
6.2.1	Stormwater Runoff .....	77
6.2.2	Road Salt and Snow Dumps .....	78
6.2.3	Septic Systems .....	79
6.2.4	Agriculture .....	80
6.2.5	Erosion and Sediment Control .....	82
6.2.6	Other .....	82
6.2.7	Solid Waste Disposal Facilities .....	83

6.2.8	Above Ground Storage Tanks (ASTs) .....	84
6.2.9	Underground Storage Tanks (USTs) .....	84
6.2.10	Brownfield and Superfund Sites.....	85
6.2.11	Remediation Sites .....	86
6.2.12	Local Potential Contamination Source (PCS) Inventory Sites .....	86
6.2.13	Hazardous Waste Generators.....	86
7	Regulatory Tools .....	88
7.1	Londonderry Stormwater Management Regulations .....	88
7.2	Londonderry Water Supply Regulations .....	91
8	Recommendations .....	93

## Figures

Figure 2-1 – Land Use in Londonderry, NH .....	4
Figure 2-2 – Land Use in Londonderry, NH .....	6
Figure 2-3 – Soils in Londonderry, NH.....	9
Figure 2-4 – Bedrock Geology in Londonderry, NH.....	10
Figure 2-5 – Flood Hazard Areas in Londonderry, NH .....	11
Figure 2-6 – Wetlands in Londonderry, NH .....	12
Figure 2-7 – Open Space and Conservation Lands in Londonderry, NH .....	15
Figure 2-8 – Impervious Cover in Londonderry, NH .....	18
Figure 2-9 – Public and Private Dams in Londonderry, NH.....	20
Figure 2-10 – Parcels on Public Sewer System and Private Septic Systems .....	21
Figure 3-1 – Major Watersheds in Londonderry .....	24
Figure 3-2 – Major Surface Waterbodies in Londonderry .....	27
Figure 3-3 – Land Use in for Londonderry Watersheds.....	29
Figure 3-4 – Impervious Cover in for Londonderry Watersheds.....	30
Figure 3-5 – Land Use in the Beaver Brook Headwaters – Kendall Pond Watershed .....	32
Figure 3-6 – Land Use in the Beaver Brook Headwaters –South Watershed .....	36
Figure 3-7 – Land Use in the Cohas Brook Watershed .....	38
Figure 3-8 – Land Use in the Little Cohas Brook Watershed .....	40
Figure 3-9 – Watts Brook Watershed Land Use .....	44
Figure 3-10 – Land Use in the Colby Brook Watershed .....	46
Figure 3-11 – Land Use in Nesenkeag Brook Watershed .....	48
Figure 3-12 – Land Use in the Chase Brook Watershed .....	51
Figure 4-1. Aquifer Boundaries in Londonderry, NH.....	56
Figure 4-2. Aquifer Properties in Londonderry, NH .....	57
Figure 5-1. Londonderry Water Supply Service Areas .....	61
Figure 5-2. Estimate of Average Metered Water Use by Customer Type (2009 through 2017) .....	64
Figure 5-3. Annual Metered Water Usage Relative to Customer Growth.....	66
Figure 5-4. Estimated Annual Metered Water Usage Relative to Precipitation .....	67
Figure 5-5. Average and Maximum Day Demands.....	68



Figure 5-6. Estimated Future Average Day Demands .....	69
Figure 5-7. Estimated Future Maximum Day Demands.....	69
Figure 6-1- Potential Threats to Water Resources .....	76
Figure 6-2 – Relationship Between Impervious Cover and Surface Water Runoff.....	77

## Tables

Table 2-1 – Land Use in Londonderry, NH (2010) .....	5
Table 2-2 – Conservation Land in Londonderry by Watershed .....	13
Table 2-3 – Relationship between Total Impervious Area and Water Quality .....	17
Table 3-1 – Major Watersheds in Londonderry .....	23
Table 3-2 – Designated Uses for New Hampshire Surface Waters.....	25
Table 3-3 – List of Impaired Waters in Londonderry, NH (2018) .....	26
Table 3-4 – Watershed Characteristics.....	28
Table 3-5 – Surface Waterbodies in Londonderry in the Beaver Brook Headwaters – Kendall Pond .....	34
Table 3-6 - Surface Waterbodies in the Beaver Brook Headwaters – South Watershed .....	37
Table 3-7 - Surface Waterbodies in the Cohas Brook Watershed.....	39
Table 3-8 - Surface Waterbodies in the Little Cohas Brook Watershed .....	42
Table 3-9 - Surface Waterbodies in the Watts Brook Watershed .....	45
Table 3-10 - Surface Waterbodies in the Colby Brook Watershed .....	47
Table 3-11 - Surface Waterbodies in the Nesenkeag Brook Watershed .....	50
Table 3-12 - Surface Waterbodies in the Chase Brook Watershed.....	52
Table 4-1: Aquifers in Londonderry.....	54
Table 4-2: Aquifers in Londonderry.....	55
Table 5-1. List of Available Data for Water Demand Analysis from Water Suppliers .....	59
Table 5-2. Town Water Supply Sources, Customers, and Estimated Metered Usage (2009-2017) .....	63
Table 5-3. Historical and Projected Population.....	65
Table 5-4: Class A and Class B Water Quality Standards in New Hampshire .....	72
Table 6-1 – Potential Nonpoint Source Pollutant Types by Watershed.....	75
Table 6-2 – Salt Storage Facilities in the Londonderry Watersheds .....	78
Table 6-3 – Solid Waste Disposal Facilities in the Londonderry Watersheds outside of Londonderry .....	84
Table 7-1 – Comparison of Londonderry Site Plan Regulations to Selected SWA Post-Construction Stormwater Standards .....	89

## Executive Summary

Londonderry has experienced rapid population growth since the 1980s and is expected to continue to grow at a rate of approximately 2-5% every five years<sup>1</sup> through 2040. As part of the recent Master Plan update, an update to the 1991 Londonderry Water Resource Management and Protection Plan (WRMPP) was recommended with the goal of providing the following:

- Updated inventory of all surface and ground water resources;
- Updated water resource, land use, impervious cover, soils, and other watershed characteristics maps;
- Identification of existing and new potential threats to surface and groundwater supplies;
- Assessment of existing and future drinking water supply demand; and
- Recommendations for actions that could further enhance the Town's water resource management and protection efforts.

### Surface and Groundwater Inventory

- There are ten major watersheds in Londonderry, all of which extend beyond the town lines with nearby communities such as Derry, Chester, Auburn, Litchfield, and Manchester. Over 200 separate surface waterbodies (rivers, streams, and ponds) in Londonderry were identified within these watersheds.
- Five waterbodies in Londonderry are considered impaired, or not meeting water quality standards for specific parameters, by the New Hampshire Department of Environmental Services (NHDES). The impaired water bodies are Beaver Brook, Little Cohas Brook, Nesenkeag Brook, Nesenkeag Brook-Unnamed Brook, and South Perimeter Brook.
- The majority of Londonderry is underlain by bedrock such as granite. Groundwater is typically accessed in bedrock aquifers through deep wells drilled into fractures or cracks in the bedrock. The groundwater in these wells are highly variable and often produce minimal yield. Four areas of higher yield, stratified drift aquifers were identified in Londonderry and should be assessed for use as a possible water supply.

### Potential Pollutant Sources

- Although most of Londonderry is forested (42%), a large portion of the town is considered residential (26%). Other land uses include transportation (5%), open land (4%), agriculture (4%), and commercial/industrial (3%). Water quality in Londonderry can be influenced by land uses and impervious cover both within the town as well as in areas outside of the town in the upstream portion of its contributing watersheds.
- Impervious surfaces, or paved parking lots, sidewalks, roadways, and rooftops that do not allow precipitation to infiltrate directly into the ground, cover 10.3% of Londonderry.
- Point (direct) and nonpoint (diffuse, indirect) sources of pollution to surface and groundwater in Londonderry include sediment, oil and grease, fertilizers and pesticides, road salt, debris, nutrients, pathogens, solid wastes, hazardous wastes, among others. These sources were inventoried by watershed to determine areas most at risk for pollution.

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<sup>1</sup> Predicted population growth is from two sources – The Southern New Hampshire Planning Commission predicts higher growth, while the New Hampshire Office of Strategic Initiatives predicts lower growth.



## Drinking Water – Current and Future Demand Analysis

Drinking water in Londonderry is supplied by Manchester Water Works (MWW), Pennichuck Water Works (PWW), the Derry Water Department (DWD), public water supply system wells, and private wells. Most of Londonderry's customers (water users) are residential (97%); however, industrial and commercial customers account for approximately 50% of all water use.

*Current and Future Water Demand*

Year	Average Daily Demand (mgd)	Maximum Daily Demand (mgd)
2009-2017	2.9	7.2
By 2040	3.5 (± 10%)	8.9 (± 10%)

An analysis of the Town's current and future water demand predicts that average daily demand will increase by 21% (from 2.9 to 3.5 mgd) by 2040 and maximum daily demand will increase by 24% (from 7.2 to 8.9 mgd).

## Recommendations

Londonderry will need continued efforts to protect its surface and ground water resources as land development increases to accommodate population growth and new commercial land uses. Recommendations based on the WRMP analysis include:

1. Work with existing water suppliers to collect information (not currently available) on the future additional supply that is estimated to be available for Londonderry.
2. Conduct a study to assess the town's groundwater supply and determine the technical feasibility of developing a municipal public water supply.
3. Assess existing surface water quality data and collect additional data as needed to (1) characterize water quality trends and (2) help determine the feasibility of using existing surface waterbodies such as Scobie Pond as a future drinking water source.
4. Conduct an evaluation of public and private dams to determine the feasibility and potential benefits of removal. It is also recommended that the Town conduct an assessment of culverts and stream crossings to identify and prioritize retrofit opportunities for improved wildlife passage and capacity to convey peak flows as needed for climate change resilience.
5. Develop watershed-based plans for each of the impaired waters listed above, with priority given to the three major subwatersheds that comprise a relatively large portion of the town land area (Beaver Brook, Little Cohas Brook, and Nesenkeag Brook). Development of a watershed-based plan is a prerequisite for receiving Section 319 grants, which fund projects to reduce nonpoint source pollution sources to surface waters.
6. Specific recommendations to improve water quality protection provisions within Londonderry's Site Plan Regulations are provided in Section 7 (Table 7-1);
7. The Town of Londonderry should continue to protect priority lands from development, with a high priority for areas near surface water bodies and stratified drift aquifers.
8. It is recommended that the town conduct an assessment to prioritize areas to reduce effective impervious surface through stormwater retrofits using Low Impact Development techniques such as bioretention, infiltrating basins and swales, subsurface infiltrating chambers, sand filters, etc.
9. Conduct a septic system assessment to prioritize areas where system upgrades are most needed and limit the possibility of septic system malfunction.
10. Obtain grant funds (summarized in Section 8) to implement water quality protection efforts as listed above.

# 1 Introduction

## 1.1 Background

The Londonderry Water Resource Management and Protection Plan (WRMPP) was originally written in 1991 to address the requirements established by the New Hampshire Office of State Planning under the authority of RSA 4-C:20, for the preparation of local water resource management and protection plans. The purpose of the original plan was to *“identify and, to the extent possible, evaluate the adequacy of existing and potential water resources to meet the current and future needs of the Town; to identify existing and potential threats to surface and ground water supplies, and to identify regulatory programs that could further enhance water resource management and protection efforts.”*<sup>2</sup>



*Little Cohas Brook*

Today, the requirements for a Water Resource Management and Protection Plan have changed. The New Hampshire Office of State Planning has become the New Hampshire Office of Strategic Initiatives (OSI) under RSA Chapter 4-C of New Hampshire State Statutes. The role of OSI is to provide assistance, leadership, and advice in the land use, planning, and water resources management activities, including municipal oversight. Additionally, a Council on Resources and Development was formed to assist in water resource management planning and other areas (RSA 162-C).

Under the 2018 New Hampshire Revised Statutes, Title LXIV- Planning and Zoning; Chapter 674 – Local Land Use Planning and Regulatory Powers; Section 674:1-2 – Master Plan, a municipality is required to include a natural resources section in their Master Plan, which includes the resources detailed in a WRMPP. While the language does not require the municipality to develop a WRMPP separate from the Master Plan, it does require appropriate levels of planning, management, and protection of all land and water.

Though much of the information in the original plan is relevant, Londonderry's most recently adopted Master Plan<sup>3</sup> recommends that the town create a local WRMPP with the following purpose:

- Provide the Town of Londonderry with updated water resource data;
- Identify existing and new potential threats to surface and groundwater supplies; and
- Update Best Management Practices and regulatory programs that could further enhance water resource management and protection efforts.

## 1.2 Plan Update Process

This 2019 WRMPP update relied on information from NH GRANIT (New Hampshire's Statewide Geographic Information System (GIS) Clearinghouse) and GIS files provided by the Town of Londonderry. A kick-off meeting was held on January 15, 2019 and included representatives from Londonderry municipal departments including Public Works, Planning Department, Town Council, and Conservation Commission. Meeting notes from the kick-off meeting are provided in Appendix A.

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<sup>2</sup> Southern New Hampshire Planning Commission, 1991. Water Resource Management and Protection Plan for the Town of Londonderry, New Hampshire.

<sup>3</sup> Town Planning and Urban Design Collaborative, 2013. Town of Londonderry Comprehensive Master Plan, Adopted March 6, 2013.

A series of maps were developed and analyzed to characterize the Town of Londonderry and the upstream watersheds and identify all surface and groundwater resources. An inventory of all resources, permits, and other pertinent information was conducted through data provided in GIS files or through NHDES OneStop (the NHDES searchable database of environmental information and data compiled by NHDES programs). Further information that could not be found through those sources was obtained through communication with town staff. A review of relevant town regulations was also conducted.

To determine the existing and future water demand for Londonderry, the following information was requested from Pennichuck Water Works, Manchester Water Works, and the Derry Water Department:

1. Customer Metered Annual Totals and Maximum Day Demand for the past 20 years for customers within Londonderry
2. Any non-metered data estimated to occur within Londonderry
3. List of customer locations by address within Londonderry
4. Map of water distribution system areas within Londonderry
5. Future water demand projections.

A buildout analysis conducted by Londonderry's GIS manager in 2006 was used to predict future population and subsequent water demand.



### 1.3 Using This Plan

The Londonderry WRMPP is a comprehensive document that inventories Londonderry's surface and ground water resources, identifies existing and new potential threats to surface and groundwater supplies, outlines regulatory programs that could further enhance water resource management and protection efforts, assesses the growth in demand for water based on population growth, and provides recommendations to protect water resources in the future. Below is a summary of information presented by Section:

Section	Description
1: Introduction	Project background and plan update process.
2: The Town of Londonderry	This section describes the Town of Londonderry, including identifying major land uses, soil types, bedrock geology, flood hazard areas, wetlands, open space and conservation areas, and infrastructure. A discussion of infrastructure includes impervious surfaces, dams, solid waste disposal, wastewater treatment, and public water supply systems.
3: Surface Water Resources	This section describes the surface water resources in Londonderry. To further understand the surface water resources in Londonderry, eight named watersheds and one unnamed watershed were delineated within the municipal boundaries. This section provides an inventory of all surface water bodies in Londonderry and discusses surface water withdrawals and discharges.
4: Groundwater Resources	This section describes the groundwater resources in Londonderry, including a discussion of existing and potential groundwater supplies and public water supply wells.
5: Assessment of Future Water Demand	This section describes the existing water demand for Londonderry. The projected population, housing, commercial, and industrial growth and the subsequent future water demand from this growth is also discussed.
6: Potential Threats to Water Resources	This section describes the point and nonpoint source pollution that may impact Londonderry's water resources.
7: Regulatory Tools	This reviews relevant town ordinances and regulations to identify where the regulations address water quality and quantity and where there may be opportunities to enhance resource protection.
8: Recommendations	This section identifies and evaluates new or revised water protection policies, regulations and procedures, including both regulatory and non-regulatory measures, and other programs that will secure and enhance the quality and quantity of Londonderry's water supplies.

## 2 The Town of Londonderry

Londonderry is located in southeastern New Hampshire in Rockingham County. Londonderry is approximately 42 square miles or almost 27,000 acres and is bordered by Auburn to the northeast, Derry to the east, Windham to the southeast, Hudson to the south, Litchfield to the west, and Manchester to the north. Interstate-93, Interstate-293/NH 101, and the Everett turnpike converge at Manchester-Boston Regional Airport which lies in the northwest corner of the town.

Londonderry is one of the largest towns by population in the state, with over 26,000 residents. Many of Londonderry's residents commute to Boston or Manchester for work as the town lacks any concentrated downtown area or central business district. Historically, Londonderry was known for its agriculture, particularly its apple orchards. Many apple orchards are still in business and large farming operations include Moose Hill Orchards, Elwood Orchards, and Sunnycrest Farms.

### 2.1 Land Use

Based on land use data from the Southern New Hampshire Regional Planning Commission from 2010 (Table 2-1), Londonderry is predominately forested (42%). Residential neighborhoods make up over 26% of the land use in the town and are located primarily along Interstate 93, High Range Road, Mammoth Road, and Route 102. Open land cover approximately 4% of the town and transportation land uses, including roads and the Manchester-Boston Regional Airport occupies 5% of the land. Some agriculture still exists in Londonderry (4%) and includes multiple apple orchards. Agricultural land uses are distributed throughout the town with many located in the southern portion of the town. Commercial and industrial land uses each occupy approximately 3% of the town and are found clustered in the northern portion of town near the airport along Route 102 and Route 28 corridors (Figures 2-1 and 2-2).

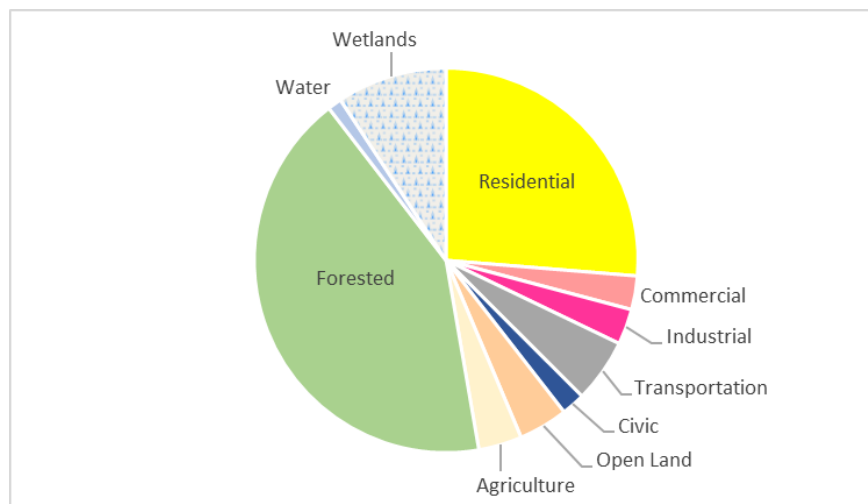


Figure 2-1 – Land Use in Londonderry, NH

### LONDONDERRY FACTS



#### Land Area

Total = 26,958 acres

#### Major Land Uses:

- Forested (42%)
- Residential (26%)

Impervious Cover: 10.3%

#### Major Flood Hazard Area / Soils

- Low Risk for Flooding (93%)
- Group B (moderately well drained (52%))

#### Wastewater Treatment

- Public/Private Sewer (10%)
- Private Septic Systems (90%)

#### Drinking Water Suppliers

- Pennichuck Water Works
- Manchester Water Works
- Derry Water Department
- Public Water Supply Wells
- Private Wells

**Table 2-1 – Land Use in Londonderry, NH (2010)**

<b>Land Use Category</b>	<b>Description</b>	<b>Percent of Londonderry</b>
Forested	<ul style="list-style-type: none"> <li>• Brush or transitional between open and forested</li> <li>• Forest land</li> </ul>	42
Residential	<ul style="list-style-type: none"> <li>• Multi-family, low rise apartment and townhouses</li> <li>• Single family/duplex</li> <li>• Mobile home parks</li> </ul>	26
Wetlands	<ul style="list-style-type: none"> <li>• Wetlands</li> </ul>	9
Transportation	<ul style="list-style-type: none"> <li>• Air transportation</li> <li>• Limited and controlled highway right-of-way</li> <li>• Road right-of-way</li> <li>• Park and ride lot</li> <li>• Parking structure/lot</li> <li>• Auxiliary transportation</li> <li>• Other road transportation</li> <li>• Communication</li> <li>• Water and wastewater utilities</li> </ul>	5
Open Land	<ul style="list-style-type: none"> <li>• Electric, gas, and other utilities</li> <li>• Vacant land</li> <li>• Disturbed land</li> <li>• Other barren lands</li> </ul>	4
Agriculture	<ul style="list-style-type: none"> <li>• Agricultural land</li> <li>• Other agricultural land</li> </ul>	4
Commercial	<ul style="list-style-type: none"> <li>• Commercial retail</li> <li>• Commercial wholesale</li> <li>• Services</li> <li>• Lodging</li> <li>• Other commercial, services, institutional</li> </ul>	3
Industrial	<ul style="list-style-type: none"> <li>• Industrial</li> <li>• Mining</li> <li>• Industrial park</li> <li>• Strip mine/quarry/gravel pit</li> </ul>	3
Civic	<ul style="list-style-type: none"> <li>• Government</li> <li>• Institutional</li> <li>• Educational</li> <li>• Indoor cultural/public assembly</li> <li>• Other mixed uses</li> <li>• Outdoor cultural</li> <li>• Outdoor recreation</li> <li>• Cemeteries</li> </ul>	2
Water	<ul style="list-style-type: none"> <li>• All surface waters</li> </ul>	1



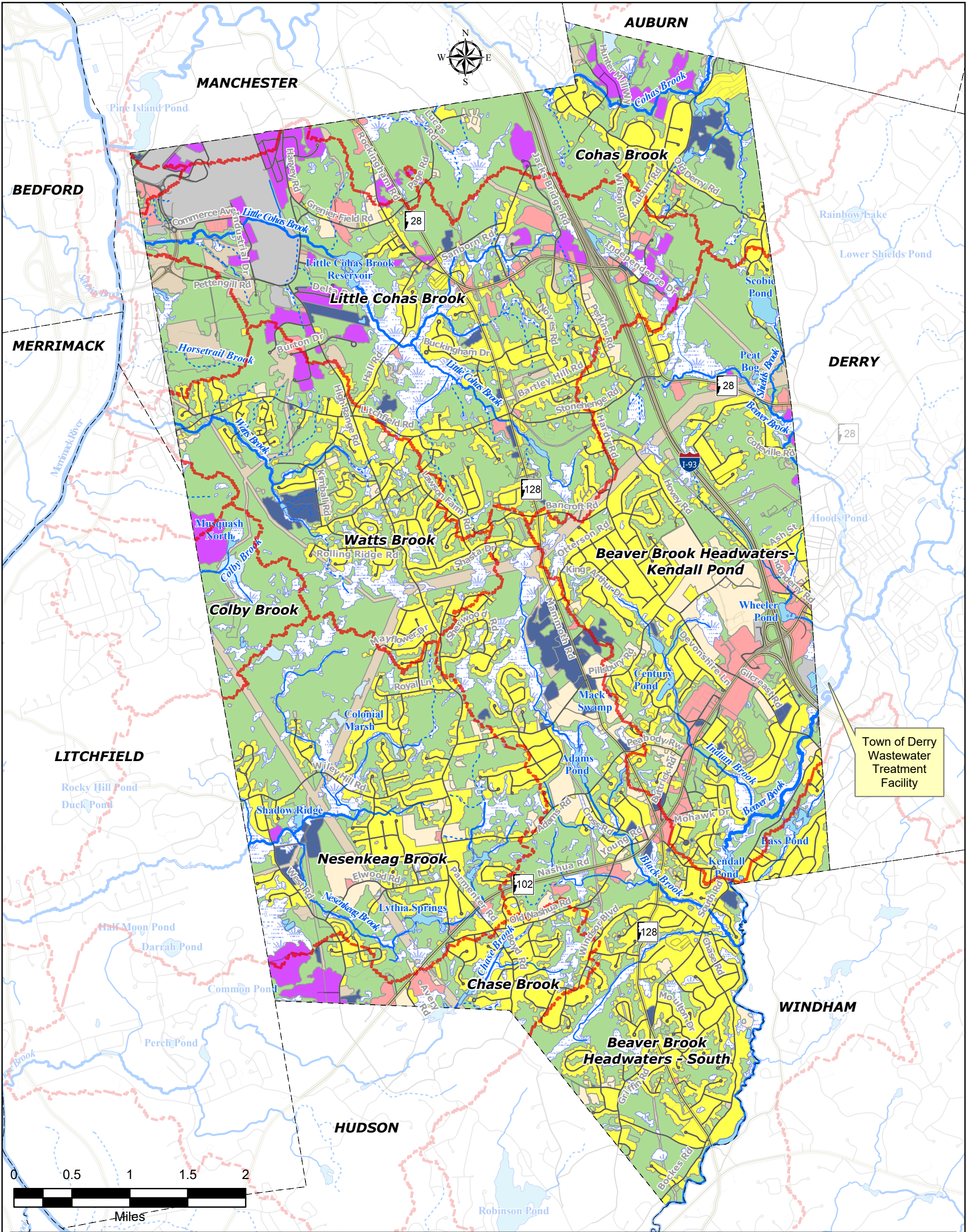


Figure 2-2

2010 Land Use in Londonderry, NH



Comprehensive Environmental Inc.

Data Sources: GRANIT, SNHPC

Legend

- Land Use

  - Residential
  - Commercial
  - Industrial
  - Transportation
  - Civic
- Open Land
  - Agriculture
  - Forested
  - Water
  - Wetlands
  - Watershed
  - Perennial Stream
  - Intermittent Stream



## 2.2 Soils

Soils in Londonderry include a range of soil types which generally fall into one for four classes<sup>4</sup>:

1. **Group A** - sand, loamy sand, or sandy loam types of soils. It has low runoff potential and high infiltration rates even when thoroughly wetted. They consist chiefly of deep, well to excessively drained sands or gravels and have a high rate of water transmission.
2. **Group B** - silt loam or loam. It has a moderate infiltration rate when thoroughly wetted and consists chiefly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures.
3. **Group C** - sandy clay loam. They have low infiltration rates when thoroughly wetted and consist chiefly of soils with a layer that impedes downward movement of water and soils with moderately fine to fine structure.
4. **Group D** - clay loam, silty clay loam, sandy clay, silty clay or clay. This soil group has the highest runoff potential. They have very low infiltration rates when thoroughly wetted and consist chiefly of clay soils with a high swelling potential, soils with a permanent high water table, soils with a claypan or clay layer at or near the surface and shallow soils over nearly impervious material.

Over half (52%) of all soils in Londonderry fall into Group B, which have a moderate infiltration capacity and are moderately drained. Approximately 22% of the soils are classified as Group C, while 13% of the soils are classified as both Group A and Group D (Figure 2-3).

## 2.3 Bedrock Geology

The majority of the bedrock in Londonderry is considered metamorphic (82%) while the remaining bedrock geology is made up of plutonic igneous rock (18%). Metamorphic rocks arise from the transformation of existing rock generally due to intense pressure or heat. The original rock may be a sedimentary rock, igneous, or older metamorphic rock. Common metamorphic rocks include schist, gneiss, slate, and marble. Igneous rocks are formed through the cooling and solidification of magma or lava and include granite and quartz. The northwest corner of Londonderry is characterized by plutonic, igneous bedrock. Small sections of this type of bedrock are also found in the central and southern portions of town. Bedrock in the remainder of the town is characterized by metamorphic rock (Figure 2-4).

Understanding the nature of the bedrock geology is critical to determining the quantity of groundwater that can be pumped from a well at a given place. Water well productivity and groundwater quality are determined by a complex interplay among fractures in the bedrock aquifer, which supply water to the drilled well, and the local soils, which provide storage and recharge to the bedrock fractures. In some parts of the world, bedrock consists of sedimentary layers that have abundant pore spaces between individual mineral grains. These layers can form laterally extensive aquifers, or conduits for groundwater movement, that are at predictable depths, and from which large quantities of high-quality groundwater can be pumped.

In contrast, the bedrock beneath most of New Hampshire contains relatively few pore spaces to conduct groundwater. Extensive subsurface aquifers are rare, and both the quantity of water available at a given site, and the depth of the water-bearing zones, are highly variable and difficult to predict. Water flows through fractures in this type of bedrock, often requiring very deep wells to access groundwater<sup>5</sup>.

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<sup>4</sup> Natural Resources Conservation Service, 2007. Part 630 Hydrology: National Engineering Handbook. Chapter 7: Hydrologic Soil Groups.

<sup>5</sup> Banks, David, and Robins, 2002. An Introduction to Groundwater in Crystalline Bedrock. Geological Survey.

Groundwater quality is influenced by the bedrock and overburden material it moves through. There are a variety of naturally occurring contaminants found in New Hampshire's groundwater. Some of these naturally occurring contaminants, including iron and manganese, can be bothersome in terms of staining and taste. Other contaminants, such as radon and arsenic, can pose a health risk<sup>6</sup>.

## 2.4 Flood Hazard Areas

Flood zones are geographic areas that have been defined according to varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map or Flood Hazard Boundary Map. Each zone reflects the severity or type of flooding in the area. Flood hazard areas are classified as follows<sup>7</sup>:

- X – Minimal risk for flooding
- B – Moderate risk for flooding; 0.2% annual chance of flooding.
- A/AE – Areas with high risk for flooding; 1% annual chance of flooding
  - A - base flood elevation is unknown.
  - AE - base flood elevation is known.

Over 93% of Londonderry is considered Zone X (minimal risk for flooding). Higher risk areas are located upstream of the Little Cohas Brook Reservoir, upstream of Kendall Pond, near the Beaver Brook headwaters, and near Wheeler Pond (Figure 2-5).

## 2.5 Wetlands

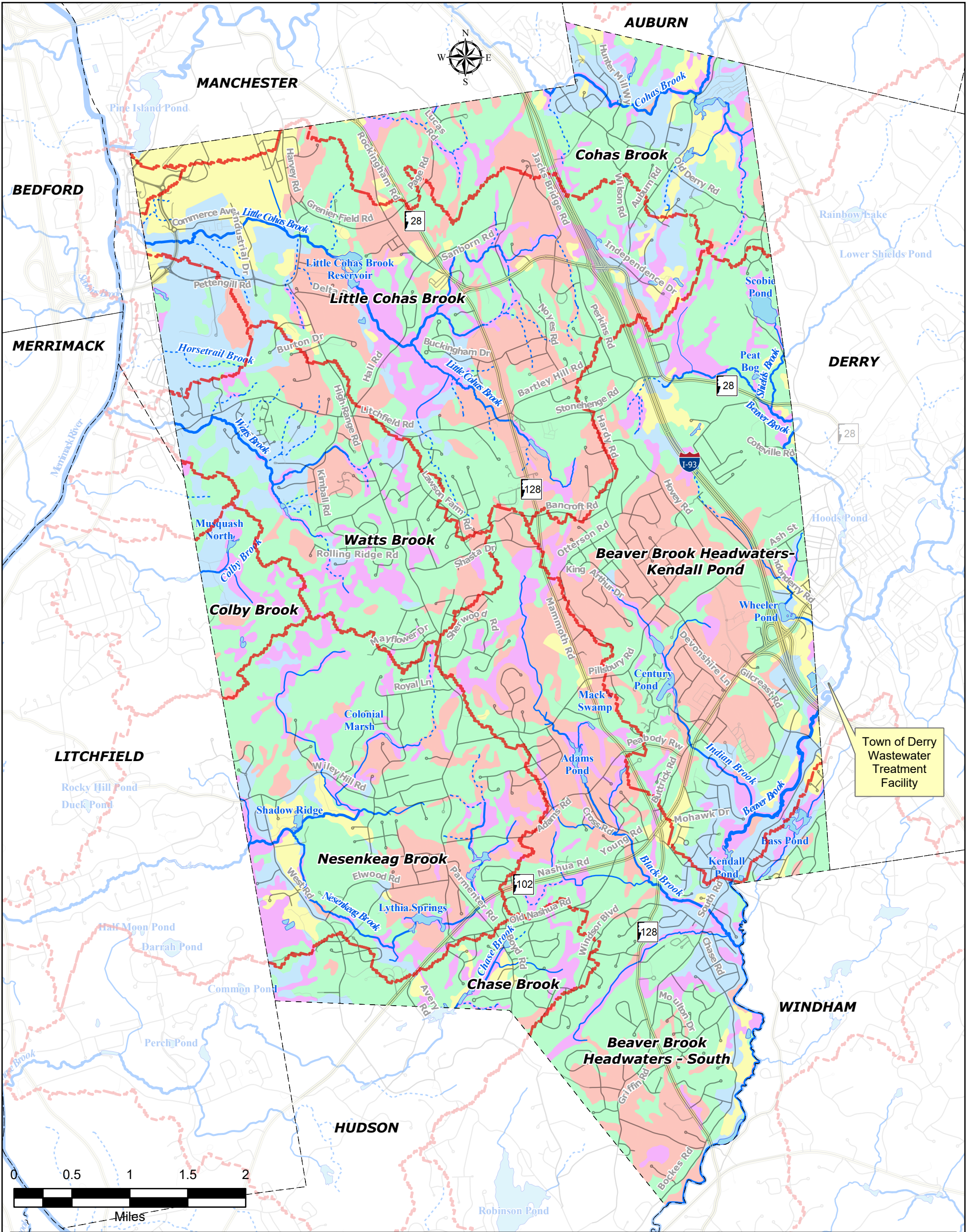
Wetlands occupy approximately 2,501 acres, or 7% of the watershed area in Londonderry (Figure 2-6). The majority are considered freshwater forested and shrub wetlands (60%), while the rest are considered freshwater emergent wetlands. Forested wetlands are the most common form of wetland in the eastern US., particularly along rivers, while shrub wetlands include younger tree species and woody plants and represent a successional stage leading to a forested wetland. Emergent wetlands are dominated by perennial plants and are characterized by rooted, herbaceous hydrophytes, excluding mosses and lichens<sup>8</sup>.

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<sup>6</sup> New Hampshire Department of Environmental Services, 2008. New Hampshire Water Resources Primer.

<sup>7</sup> Corelogic, 2010. Definitions of FEMA Flood Hazard Zone Designations.

<sup>8</sup> Federal Geographic Data Committee, 2013. Classification of Wetlands and Deepwater Habitats of the United States. Adapted from Cowardin, Carter, Golet, and LaRoe, 1979.



Town of Derry  
Wastewater  
Treatment  
Facility

Figure 2-3

Soils in Londonderry, NH



Comprehensive Environmental Inc.

Data Sources: GRANIT, NRCS

Legend

Soils Hydrologic Rating:

- A
- B
- C
- D
- None

- Watershed
- Pond
- Perennial Stream
- Intermittent Stream



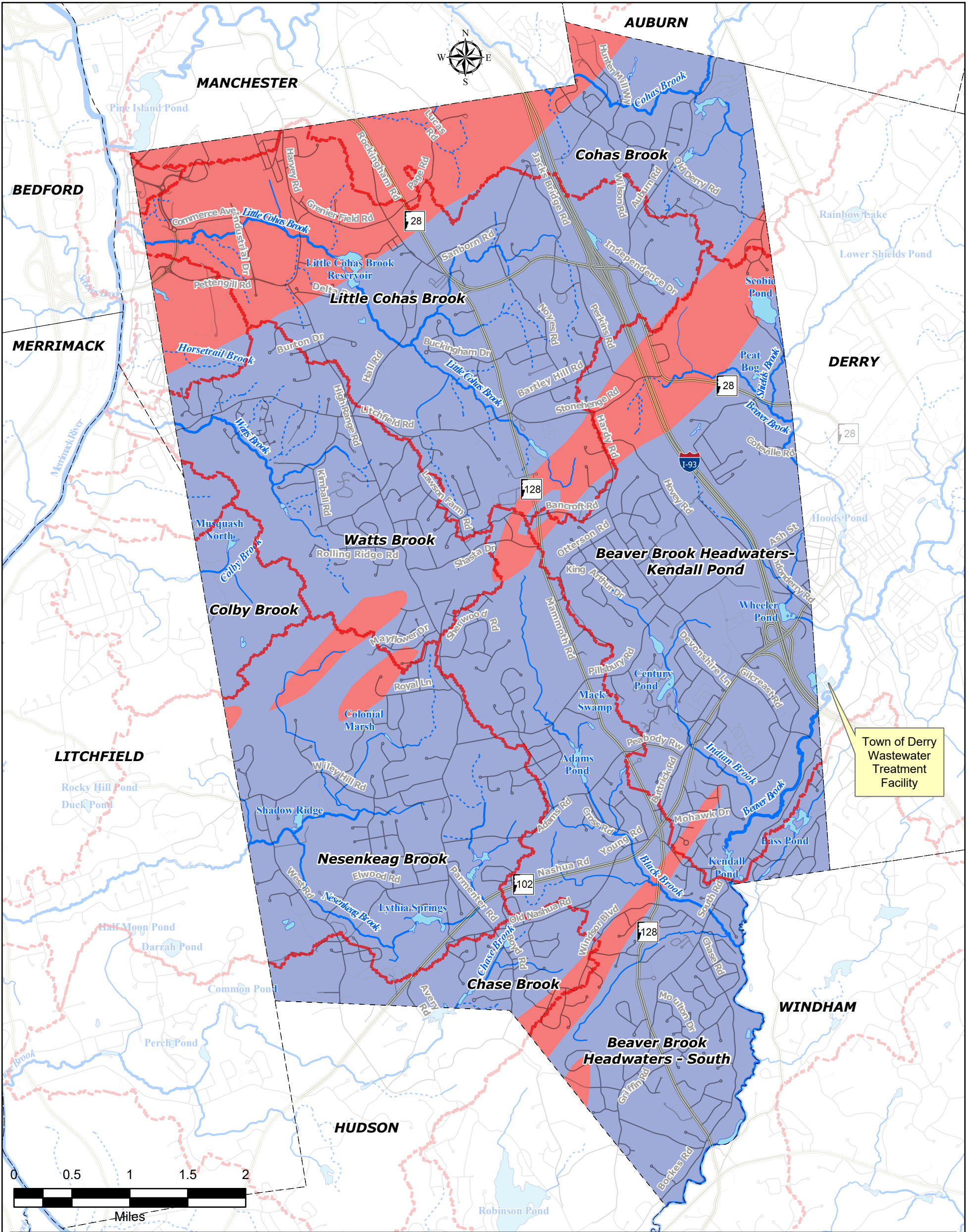


Figure 2-4

Bedrock Geology in Londonderry, NH



Comprehensive Environmental Inc.

Data Source: GRANIT

Legend

- Rock Type:
  - Metamorphic
  - Plutonic
- Watershed
- Pond
- Perennial Stream
- Intermittent Stream



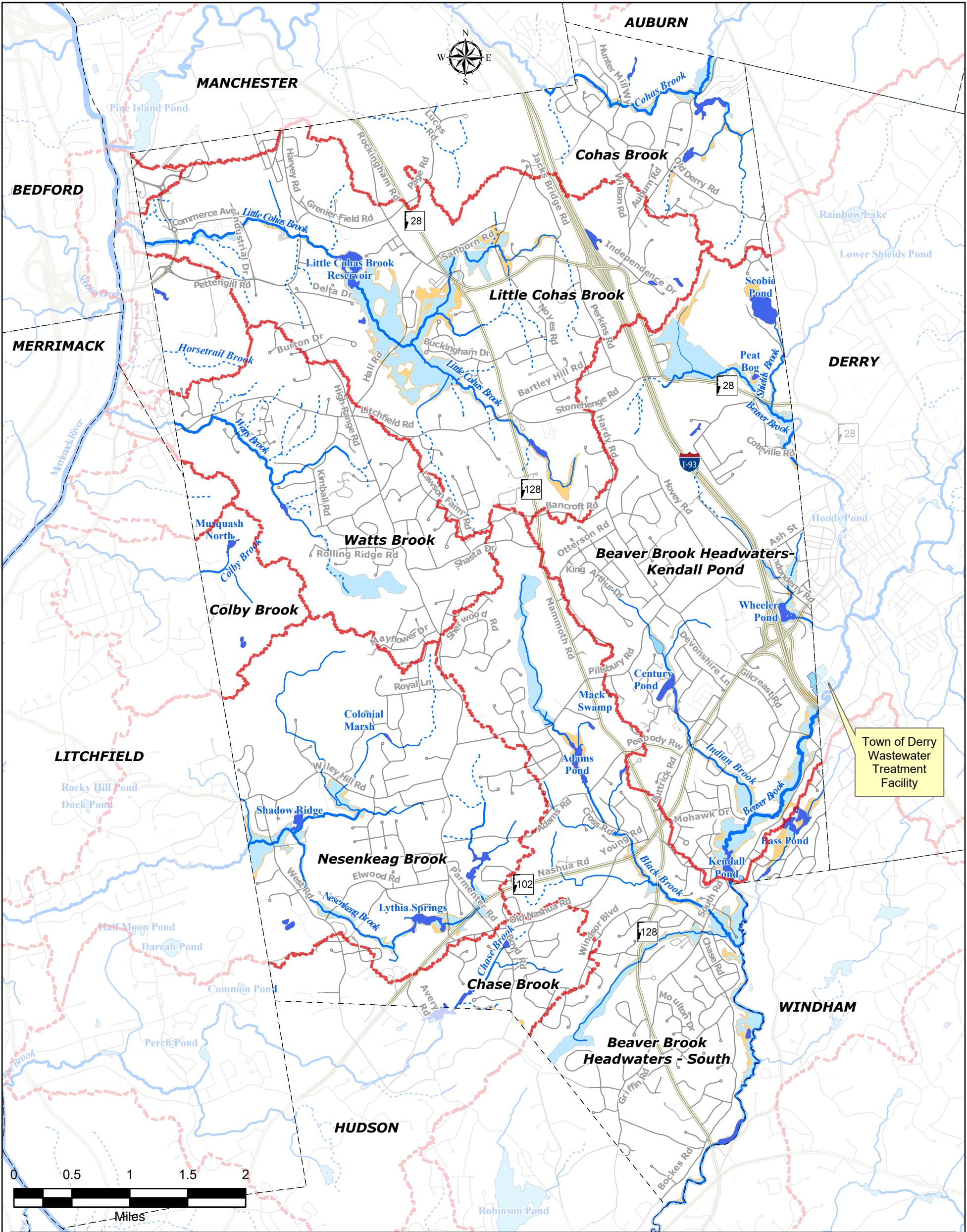


Figure 2-5

Flood Hazard Areas  
in Londonderry, NH



Comprehensive Environmental Inc.

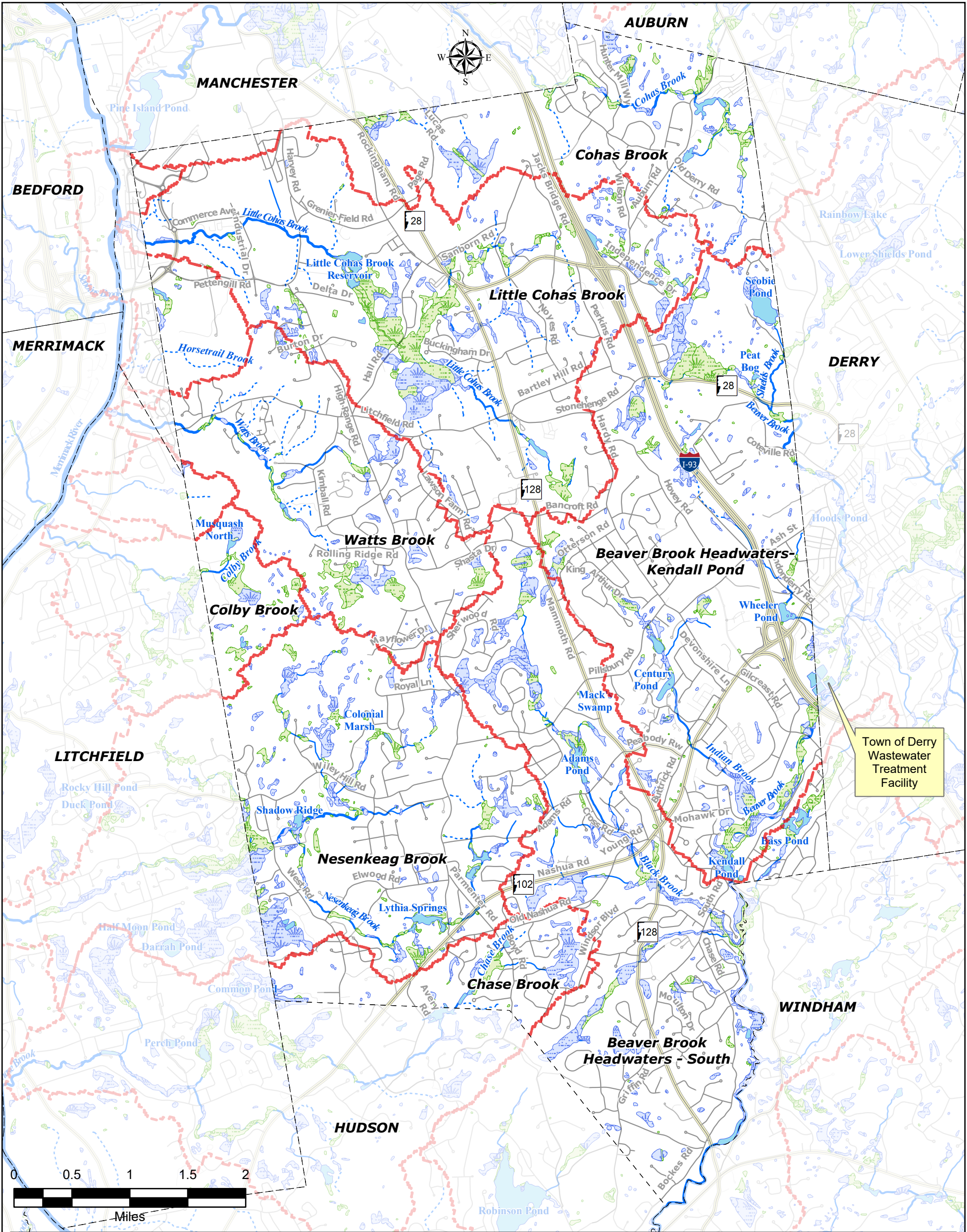
Data Source: GRANIT

Legend

- Flood Zone:

  - A/AE - High risk for flooding
  - B - Moderate risk for flooding
  - X - Minimal risk for flooding
- Watershed
  - Pond
  - Perennial Stream
  - Intermittent Stream





**Figure 2-6**  
**Wetlands in Londonderry, NH**



Comprehensive Environmental Inc.

Data Source: GRANIT, NWIPlus

**Legend**

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Watershed
- Pond
- Perennial Stream
- Intermittent Stream

## 2.6 Conservation Land

Approximately 17% of Londonderry (4,550 acres) is conservation land. This land includes owned lands and lands with conservation easements. Conservation land by watershed in Londonderry is summarized in Table 2-2. Multiple watersheds have greater than 25% of their land area under some type of protection through conservation efforts. Overall, 39% of the conservation lands in Londonderry are owned by the Town, 25% are owned by others, 23% have easements held by the Town, and 12% have easements held by others (Table 2-2).

**Table 2-2 – Conservation Land in Londonderry by Watershed**

Watershed Name	Acres				Total	Percent of Watershed (Londonderry)
	Owned by the Town	Easements Held by Town	Owned by Others	Easements Held by Others		
Beaver Brook Headwaters – Kendall Pond	159	123	146	0	428	8%
Beaver Brook Headwaters - South	127	467	93	0	687	15%
Chase Brook	56	0	17	0	73	8%
Cohas Brook	16	26	142	22	206	8%
Colby Brook	342	1	10	0	353	63%
Little Cohas Brook	68	127	322	271	788	14%
Nesenkeag Brook	561	36	252	92	1070	28%
Watts Brook	457	123	135	65	780	30%
Unnamed Tributaries Draining Directly to the Merrimack River	0	36	32	98	165	26%
<b>Total</b>	<b>1,785 (39%)</b>	<b>1,069 (23%)</b>	<b>1,148 (25%)</b>	<b>548 (12%)</b>	<b>4,550</b>	<b>17%</b>

All conservation lands are listed in Appendix B and shown in Figure 2-7. Some important conservation areas in Londonderry include the following:

- **Musquash Conservation Area** is located in the western central portion of Londonderry in the Little Cohas Brook and Nesenkeag Brook Watersheds. The area is protected by a series of conserved parcels under town ownership or owned by conservation agencies. This area has over 14 miles of recreational trails.
- **Little Cohas Marsh** is located in the northern portion of Londonderry along Little Cohas Brook. It was protected by a series of purchases by the NH Department of Transportation as mitigation for wetland impacts associated with the Manchester Airport Access Road. Currently, there is limited

public access, although future plans include a rail trail which would provide recreational opportunities in the area.

- **Kendall Pond Conservation Area** is located in the southeast corner of Londonderry at the town line with Windham and includes approximately 60-acres of land along Beaver Brook in the Beaver Brook Headwaters-Kendall Pond Watershed. The area is protected through a town appropriation and land conservation grant and is currently used for hiking, bird-watching, and other recreational activities.
- **Moose Hill Orchard** is located in the center of Londonderry and is owned by Moose Hill Orchard Inc. The Town of Londonderry has a series of agricultural easements on some of their orchards. The Mack Family and Londonderry Trailways have developed walking trails and other recreational opportunities on the 180-acre parcel. The parcel is located in the Beaver Brook Headwaters – South Watershed.



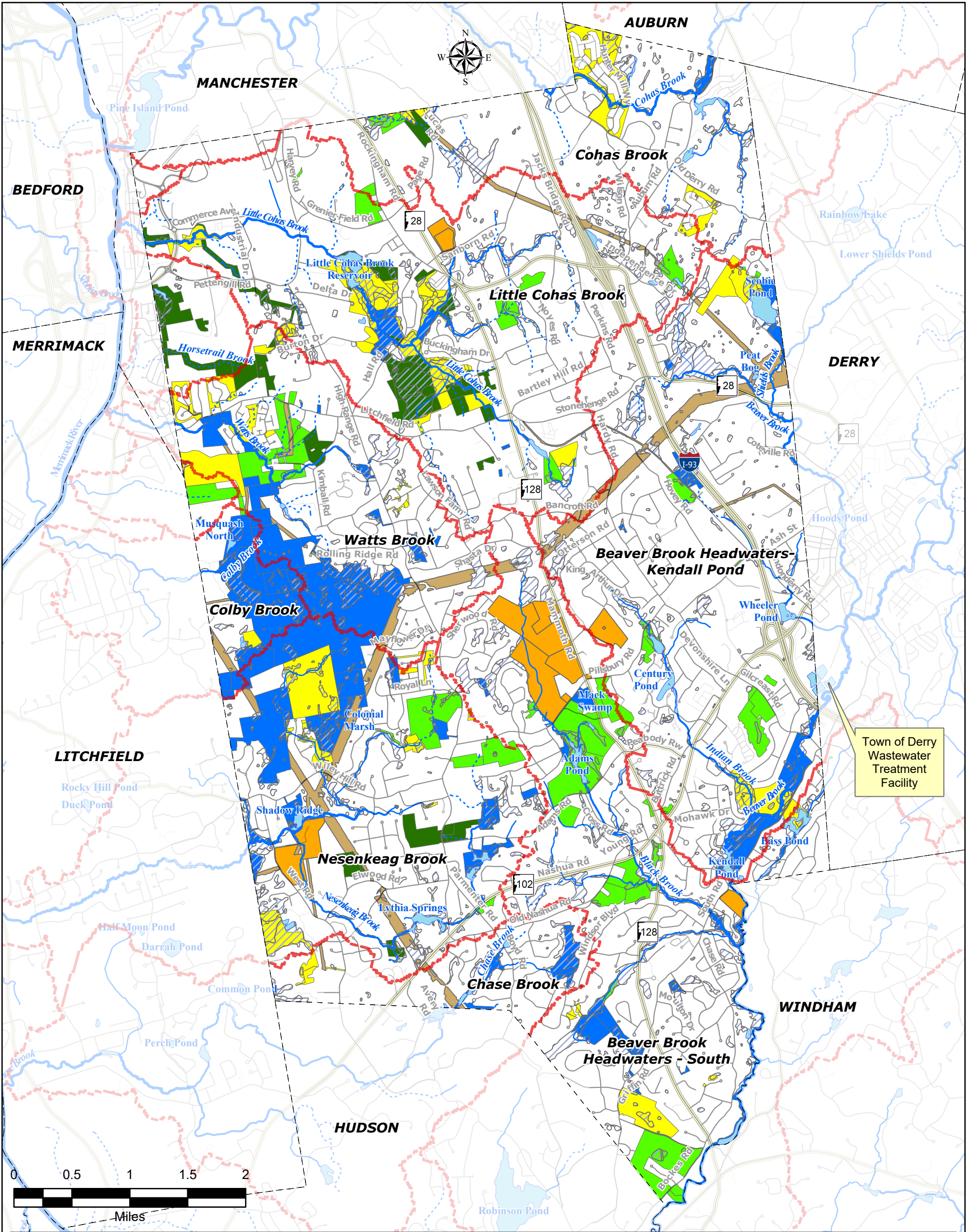


Figure 2-7

Open Land and Conservation Land  
in Londonderry, NH



Comprehensive Environmental Inc.

Data Source: GRANIT, Town of Londonderry

Legend

- |                           |                     |
|---------------------------|---------------------|
| Owned by Town             | Wetlands            |
| Easements held by Town    | Utility Corridors   |
| Owned by Others           | Watershed           |
| Easements held by Others  | Pond                |
| School or Recreation Land | Perennial Stream    |
|                           | Intermittent Stream |

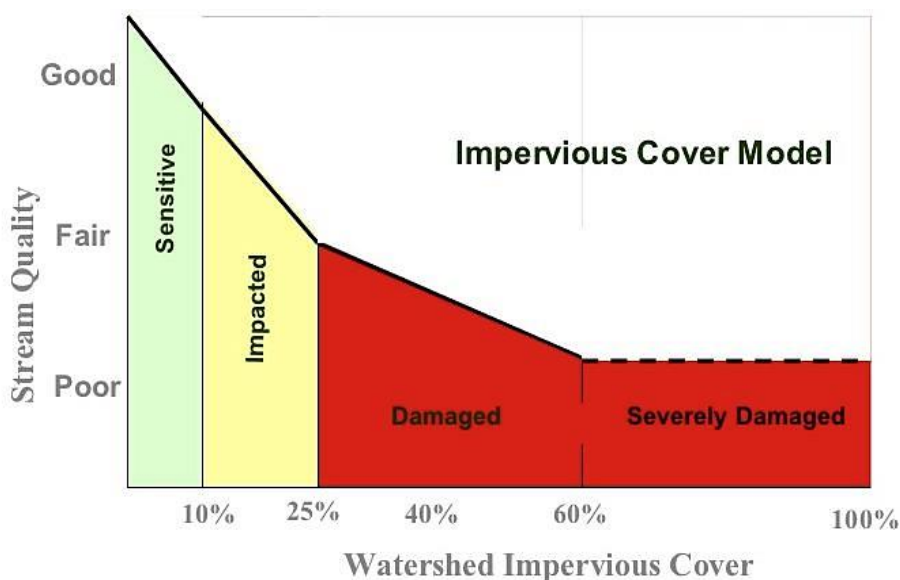
## 2.7 Infrastructure

### 2.7.1 Impervious Cover

Impervious surfaces are paved parking lots, sidewalks, roadways, and rooftops that do not allow precipitation to infiltrate into the ground, disrupting the natural dynamics of the hydrologic cycle. During precipitation events and snow melt, water running off impervious surfaces may carry sediment and pollutants such as chloride, nutrients, and bacteria into streams, lakes, and estuaries.

Total impervious cover of a site or watershed includes all impervious areas on the land surface, such as pavement, roofs, roadways, or other structures. The effective impervious cover (EIC) of a site is the portion of the total impervious cover that is directly connected to a storm drain or which directly discharges to a waterbody. EIC usually includes roadways, driveways and other impervious surfaces, such as rooftops, that are hydraulically connected to the drainage network. However, if a roof drain transporting rooftop runoff is directed to a pervious, vegetated area to infiltrate into the ground, it may be considered disconnected and is not included as EIC.<sup>9</sup>

As a watershed becomes more developed, the amount of total impervious cover (IC) also increases. According to the Impervious Cover Model developed by the Center for Watershed Protection, receiving water quality and biological integrity are “impacted” when watershed IC values are between 10-25%.<sup>10</sup> Overall impervious cover in Londonderry is currently estimated at 10.3%, just slightly above the 10% threshold for “impacted” stream quality (Figure 2-8). Although Londonderry does not have a distinct town center, pockets of more concentrated impervious cover can be found in the northwest corner of the town near the airport and in the southeastern portion of the town along Nashua Road (Route 102).



*Center for Watershed Protection's Impervious Cover Model*

<sup>9</sup> New Hampshire Department of Environmental Services, 2008. New Hampshire Stormwater Manual. Volume 1. Stormwater and Antidegradation.

<sup>10</sup> Center for Watershed Protection. "A Stormwater Design Manual Toolbox". 2006. 24 Feb 2006.

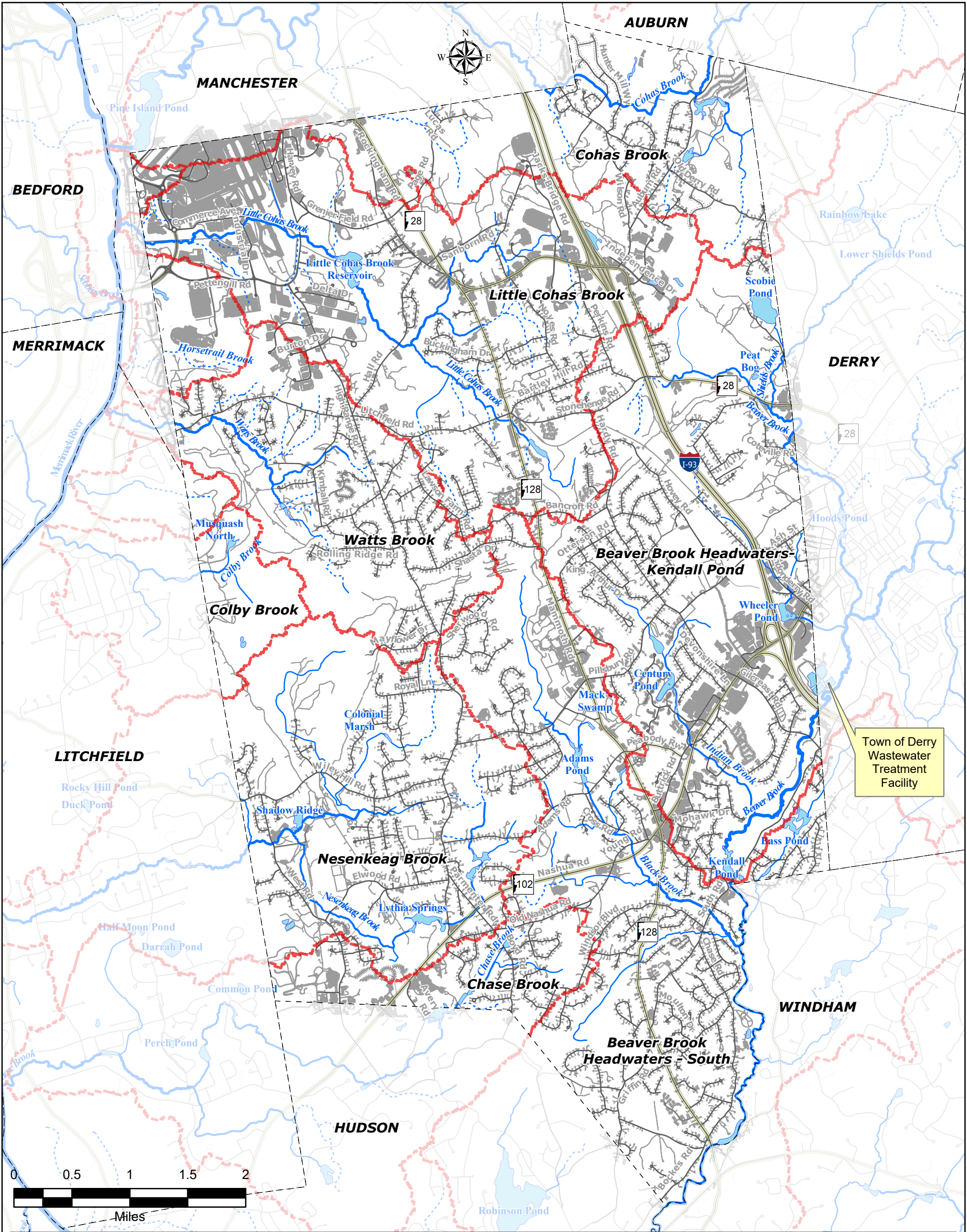


**Table 2-3 – Relationship between Total Impervious Area and Water Quality<sup>11</sup>**

% Total Impervious Area in Watershed	Stream Water Quality
0-10%	Typically high quality, and typified by stable channels, excellent habitat structure, good to excellent water quality, and diverse communities of both fish and aquatic insects.
11-25%	These streams typically show clear signs of degradation. Elevated storm flows begin to alter stream geometry, with evident erosion and channel widening. Streams banks become unstable, and physical stream habitat is degraded. Stream water quality shifts into the fair/good category during both storms and dry weather periods. Stream biodiversity declines to fair levels, with most sensitive fish and aquatic insects disappearing from the stream.
26-60%	These streams typically no longer support a diverse stream community. The stream channel becomes highly unstable, and many stream reaches experience severe widening, downcutting, and streambank erosion. Pool and riffle structure needed to sustain fish is diminished or eliminated and the substrate can no longer provide habitat for aquatic insects, or spawning areas for fish. Biological quality is typically poor, dominated by pollution tolerant insects and fish. Water quality is consistently rated as fair to poor, and water recreation is often no longer possible due to the presence of high bacteria levels.
>60%	These streams are typical of “urban drainage”, with most ecological functions greatly impaired or absent, and the stream channel primarily functioning as a conveyance for stormwater flows.

<sup>11</sup> Schueler, T.R., Fraley-McNeal, L, and K. Cappiella. 2009. Is impervious cover still important? Review of recent research. *Journal of Hydrologic Engineering* 14 (4): 309-315.





Town of Derry  
Wastewater  
Treatment  
Facility

Legend

- Impervious Cover
- Watershed
- Pond
- Perennial Stream
- Intermittent Stream

Figure 2-8

Impervious Area in Londonderry, NH



Comprehensive Environmental Inc.

Data Source: GRANIT, Town of Londonderry

### 2.7.2 Dams

There are 71 dams in Londonderry (Figure 2-9; Appendix C). The majority of these dams are private (66) while five dams are publicly owned by the Town of Londonderry, NHDOT, or the City of Manchester. Many of those listed are for stormwater treatment.

### 2.7.3 Wastewater Treatment

In the U.S., wastewater is generally removed from the home, business, or other building through two mechanisms:

1. Public sewer for treatment at a wastewater treatment plant; or
2. Septic systems for treatment onsite.

More than 30% of all U.S. households rely on septic systems to treat their household waste. Conventional septic systems include a septic tank and leach field. Most treatment occurs in the soil below the leach field. For properties without adequate soil to treat the wastewater or if the system is not properly designed, installed, or maintained, incomplete treatment may occur causing high levels of pollutants to enter groundwater and nearby surface waters.

In Londonderry, an estimated 90% of homes do not have access to public/private sewer systems and rely on private wastewater systems such as septic systems. The remainder of properties rely on public/private sewer systems for treatment at the Manchester and Derry wastewater treatment facilities. Septage, or waste pumped from septic tanks, is disposed of at either the Manchester or Derry wastewater treatment facilities.

Although detailed records for every septic system in Londonderry do not exist, a GIS analysis of parcels in the watershed and the location of the public/private sewer system allowed for an estimate of the location and number of septic systems in the town (Figure 2-10).

Londonderry has 7,070 developed parcels in the town. Of these parcels, 693 parcels have access to the public/private sewer system, leaving 6,377 developed parcels assumed to rely on septic systems for wastewater treatment. The majority of parcels that have access to the public/private sewer are located in the northern portion of the town between Interstate 93 and the airport. Parcels near the town center on Mammoth Road and in the developed area near Nashua Road and Interstate 93 also have access to public sewer.



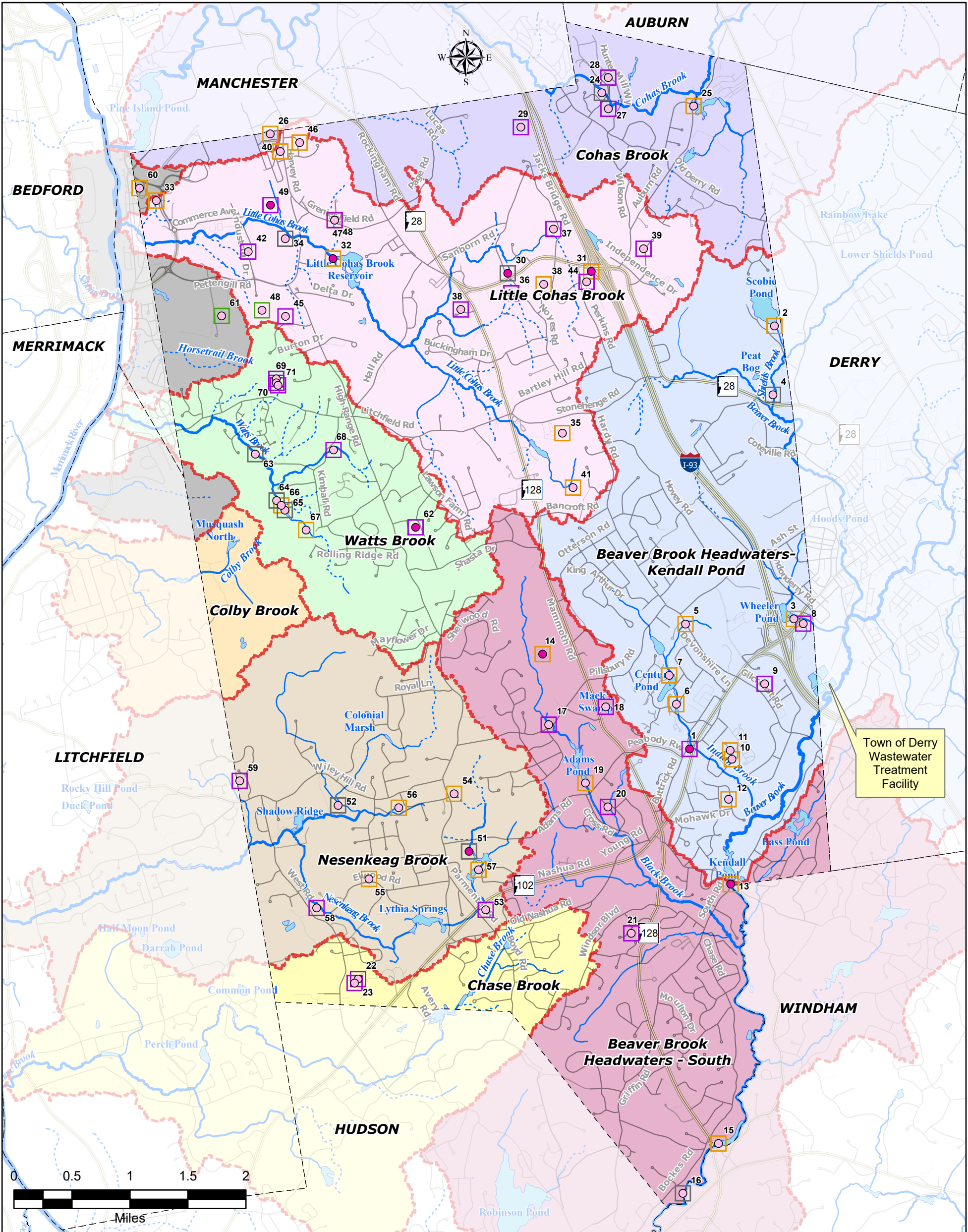


Figure 2-9

Public and Private Dams  
in Londonderry, NH



Comprehensive Environmental Inc.

Data Source: GRANIT

Legend

- Dam Ownership**

  - Public Dams
  - Private Dams

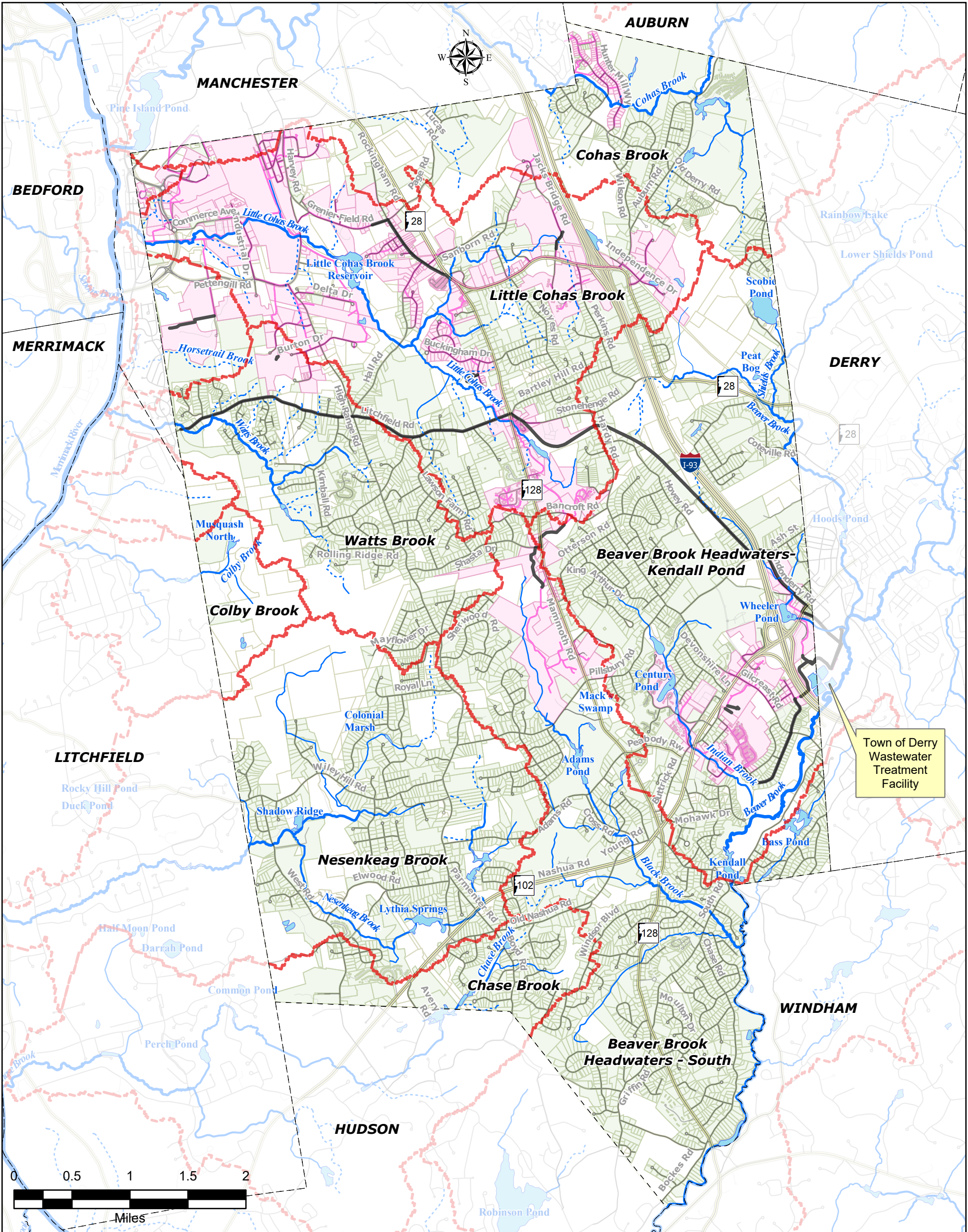
**Dam Status**

  - Active
  - Exempt
  - Pending
  - Ruins

**Other Features**

  - Pond
  - Watershed Boundary
  - Perennial Stream
  - Intermittent Stream
- Beaver Brook Headwaters - Kendall Pond
  - Beaver Brook Headwaters - South
  - Chase Brook
  - Cohas Brook
  - Colby Brook
  - Little Cohas Brook
  - Nesenkeag Brook
  - Watts Brook
  - Unnamed Tributary Draining Directly to Merrimack River





**Figure 2-10**

**Public/Private Sewer System  
in Londonderry, NH**



**Comprehensive Environmental Inc.**

**Data Source: GRANIT, Town of Londonderry**

**Legend**

- |  |                     |
|--|---------------------|
| Sanitary Sewer System                          | Town parcels        |
| Force Mains                                    | Pond                |
| Gravity Mains                                  | Watershed           |
| Parcels with access to public/private sewer    | Perennial Stream    |
| Parcels without access to public/private sewer | Intermittent Stream |



### 3 Description of Surface Water Resources

Londonderry includes approximately 27,000 acres (42 square miles) of which only about 1% (0.3 square miles) is classified as surface water. The town is drained on the east by Beaver Brook, Indian Brook, and Black Brook and on the west by Little Cohas Brook, Watts Brook, Colby Brook, and Nesenkeag Brook, which all flow west to the Merrimack River.



*Kendall Pond*

#### 3.1 Surface Water

Londonderry is located within the Lower Merrimack River Basin. To further characterize the surface water resources in Londonderry, eight named watersheds and one unnamed watershed were delineated to encompass all waterbodies within the municipal boundaries (Table 3-1, Figure 3-1).

These nine watersheds mark the drainage areas of all major surface waters in the town.

As shown in Table 3-1 and Figure 3-1, the watershed boundaries for all nine watersheds extend beyond the borders of the town lines and include portions of Derry, Chester, Auburn, Windham, Pelham, Hudson, Litchfield, Bedford, and Manchester. Although only the major surface waters in Londonderry are described in this section, characteristics of the upstream watershed areas beyond the town are also described to identify possible threats to Londonderry's surface waters.

Within these nine watersheds in Londonderry, 41 ponds and 183 stream reaches are located within municipal boundaries. These surface water bodies were identified using the National Hydrography Dataset in GIS, a comprehensive set of digital spatial data that encodes information about naturally occurring and constructed bodies of water, paths through which water flows, and related entities. The ponds range in size from one to 25 acres and many of these waterbodies are unnamed (Figure 3-2). Of the 183 stream reaches in Londonderry, 131 are considered perennial while 52 are considered intermittent. Perennial streams have continuous flow in parts of its stream bed throughout the year, while intermittent streams may cease flowing for weeks or months throughout the year. Most of the stream reaches are unnamed and less than 0.1 miles in length. The ten named streams in Londonderry include the following:

- Beaver Brook
- Shields Brooks
- Cohas Brook
- Little Cohas Brook
- Colby Brook
- Watts Brook
- Chase Brook
- Nesenkeag Brook
- Indian Brook
- Black Brook

Descriptions of all named watersheds and surface water bodies are provided in Section 3.2.

**Table 3-1 – Major Watersheds in Londonderry**

Watershed Name	Watershed Area (acres)			Other Municipalities in Watershed
	Londonderry	Other Towns	Total Area	
Beaver Brook Headwaters – Kendall Pond	5,400 (27%)	14,004 (73%)	19,804	Derry, Chester, Auburn
Beaver Brook Headwaters - South	4,713 (31%)	10,500 (69%)	15,213	Derry, Windham, Pelham, Hudson
Chase Brook	972 (20%)	3,933 (80%)	4,905	Hudson, Litchfield
Cohas Brook	2,626 (18%)	12,142 (82%)	14,768	Derry, Chester, Auburn, Manchester
Colby Brook	562 (36%)	1,010 (64%)	1,572	Litchfield
Little Cohas Brook	5,579 (99%)	40 (1%)	5,619	Manchester,
Nesenkeag Brook	3,848 (64%)	2,147 (36%)	5,995	Litchfield
Watts Brook	2,616 (96%)	107 (4%)	2,723	Manchester, Litchfield
Unnamed Tributaries Draining Directly to the Merrimack River	641 (43%)	864 (57%)	1,505	Manchester, Bedford, Litchfield
<b>Total</b>	<b>26,958</b>	<b>45,146</b>	<b>72,104</b>	



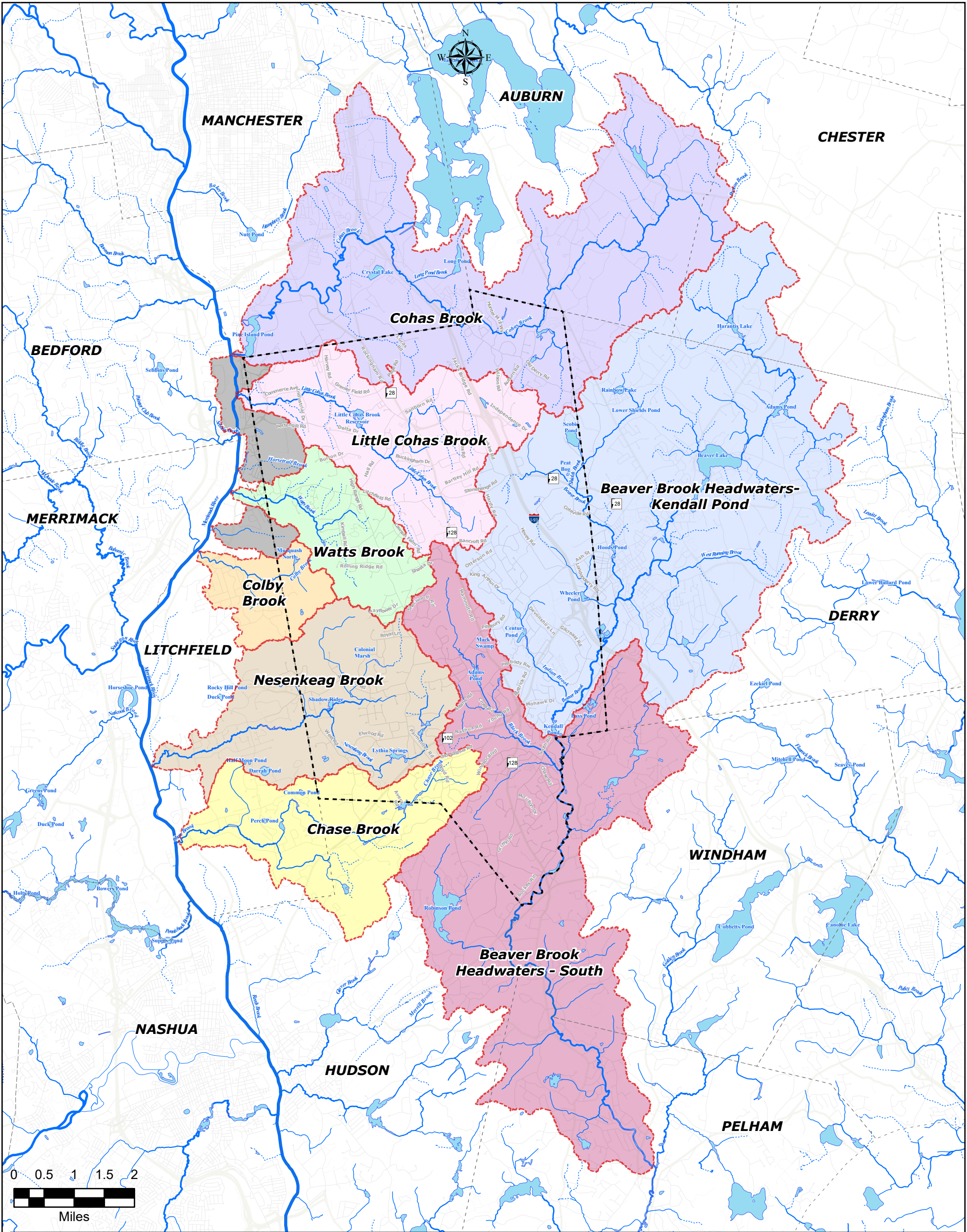


Figure 3-1

Major Watersheds in Londonderry



Comprehensive Environmental Inc.

Data Sources: GRANIT, NHD

Legend

- Beaver Brook Headwaters - Kendall Pond
- Beaver Brook Headwaters - South
- Chase Brook
- Cohas Brook
- Colby Brook
- Little Cohas Brook
- Nesenkeag Brook
- Watts Brook
- Unnamed Tributary Draining Directly to Merrimack River
- Pond
- Watershed
- Londonderry Town Boundary
- Perennial Stream
- Intermittent Stream

### 3.1.1 Surface Water Impairments

The New Hampshire Water Quality Standards provide the baseline quality that all surface waters in the state must meet in order to protect their designated uses. They are the "yardstick" for identifying where water quality impairments exist and for determining the effectiveness of regulatory pollution control and prevention programs. A body of water is considered "impaired" if it fails to meet one or more water quality standards.

New Hampshire assigns designated uses to each waterbody (Table 3-2). Each use has associated narrative and numeric water quality criteria that must be maintained to protect the waterbody and its designated use. Water quality criteria for each classification can be found in RSA 485-A:8, I-V and in the New Hampshire's surface water quality regulations Env-Wq 1700.

**Table 3-2 – Designated Uses for New Hampshire Surface Waters**

Designated Use	NHDES Definition	Applicable Surface Waters
Aquatic Life	Waters that provide suitable chemical and physical conditions for supporting a balanced, integrated, and adaptive community of aquatic organisms.	All surface waters
Fish Consumption	Waters that support fish free from contamination at levels that pose a human health risk to consumers.	All surface waters
Shellfish Consumption	Waters that support a population of shellfish free from toxicants and pathogens that could pose a human health risk to consumers.	All tidal surface waters
Drinking Water Supply after Adequate Treatment	Waters that, with adequate treatment will be suitable for human intake and meet state/federal drinking water regulations.	All surface waters
Primary Contact Recreation (i.e. swimming)	Waters suitable for recreational uses that require or are likely to result in full body contact and/or incidental ingestion of water.	All surface waters
Secondary Contact Recreation (i.e. boating)	Waters that support recreational uses that involve minor contact with the water.	All surface waters
Wildlife	Waters that provide suitable physical and chemical conditions in the water and the riparian corridor to support wildlife as well as aquatic life.	All surface waters

All surface waters of New Hampshire are either classified as Class A or B, with the majority of waters being Class B. All surface waters in Londonderry are classified as Class B. New Hampshire State statute RSA 485-A:8 outlines the designated uses for Class A and B waters are as follows:

- Class A - These are generally of the highest quality and are considered potentially usable for water supply after adequate treatment. Discharge of sewage or wastes is prohibited to waters of this classification.
- Class B - Of the second highest quality, these waters are considered acceptable for fishing, swimming and other recreational purposes, and, after adequate treatment, for use as water supplies.



The Federal Clean Water Act (CWA) is the primary law regulating pollution of waterbodies in the United States. The Act requires states to:

1. Assess all waters of the state to determine if they meet water quality standards (305(b) List);
2. Create a list of impaired waters that do not meet standards and update the list every other year (303(d) List);
3. Set pollutant-reduction goals needed to restore impaired waters, called the Total Maximum Daily Load (TMDL).

Based on the 305(b) assessment, waterbodies that do not meet water quality standards are considered impaired and appear on the NH 303(d) List. In Londonderry, five waterbodies are on the current (2018) NHDES 303(d) List (2018) (Table 3-3). These impairments require the development of TMDLs for every pollutant/waterbody combination on the list. An essential component of the TMDL is the calculation of the maximum amount of a pollutant that can occur in the waterbody while still meeting water quality standards. Once the TMDL is developed, states and municipalities work to reduce the pollutant loading to the waterbody through the use of permits for point sources (direct discharges) and watershed planning efforts to reduce the input of nonpoint sources of pollution which are diffuse, sources throughout the watershed.

**Table 3-3 – List of Impaired Waters in Londonderry, NH (2018)**

Watershed Name	Waterbody Name	Waterbody Size	Use Designation	Impairments	Source Name
Beaver Brook Headwaters – Kendall Pond	Beaver Brook	5.406 miles	Aquatic Life	pH	Landfills
				Chloride	Industrial/Commercial Site Stormwater
					Municipal (Urbanized High Density Area)
				Iron	Source Unknown
Little Cohas Brook	Little Cohas Brook	6.436 miles	Aquatic Life	Benthic-Macroinvertebrate	Source Unknown
				Chloride	Industrial/Commercial Site Stormwater
					Municipal (Urbanized High-Density Area)
				Iron	Source Unknown
				Dissolved oxygen	Source Unknown
				pH	Source Unknown
	South Perimeter Brook	0.770 miles	Aquatic Life	Chloride	Industrial/Commercial Site Stormwater
					Municipal (Urbanized High-Density Area)
				Iron	Source Unknown
Nesenkeag Brook	Nesenkeag Brook	0.482 miles	Aquatic Life	Dissolved oxygen	Source Unknown
				pH	Source Unknown
	Nesenkeag Brook - Unnamed Brook	3.151 miles	Aquatic Life	Dissolved oxygen	Source Unknown
				pH	Source Unknown

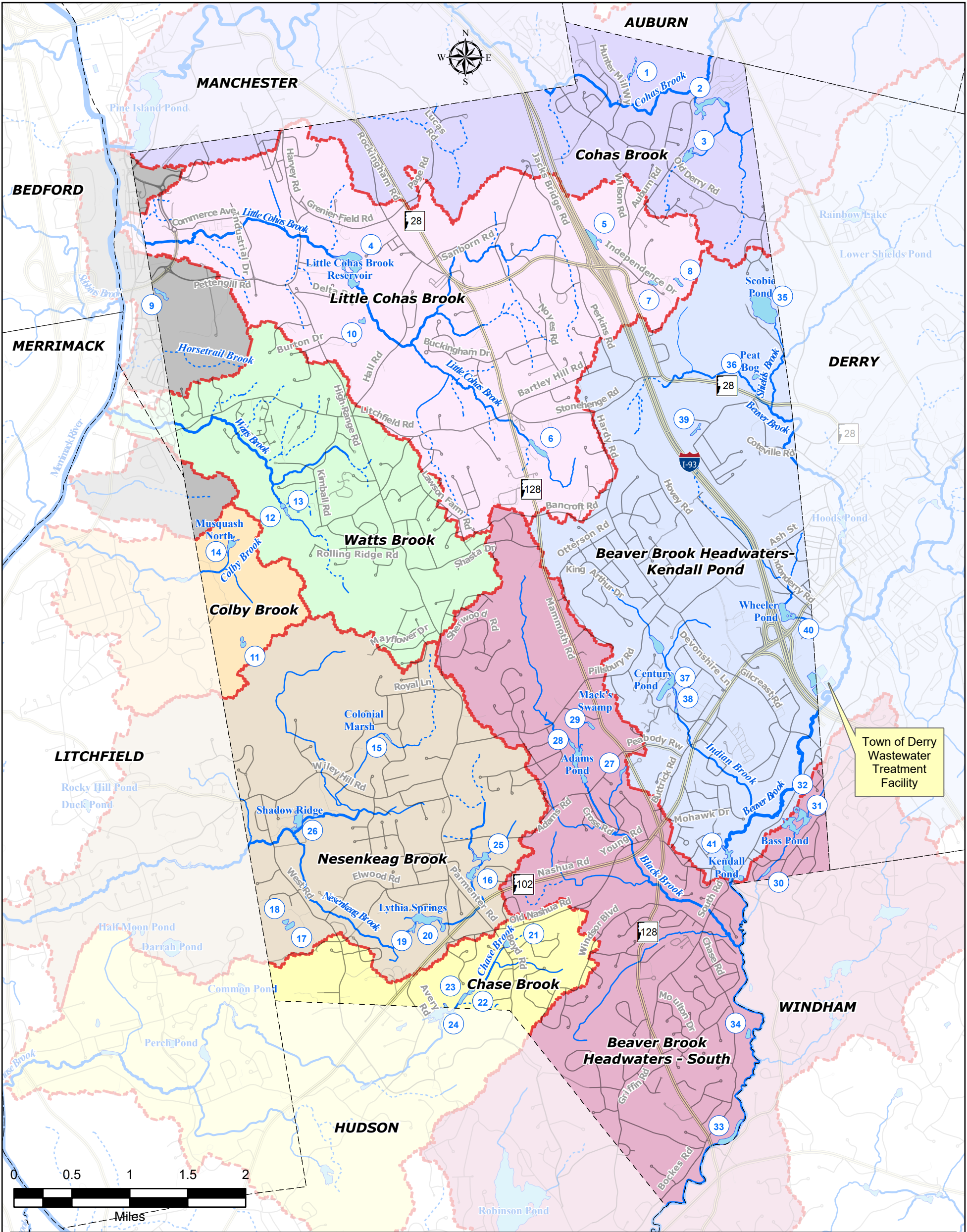


Figure 3-2

Major Surface Waterbodies  
in Londonderry



Comprehensive Environmental Inc.

Data Sources: GRANIT, Town of Londonderry

Legend

- Beaver Brook Headwaters - Kendall Pond
- Beaver Brook Headwaters - South
- Chase Brook
- Cohas Brook
- Colby Brook
- Little Cohas Brook
- Nesenkeag Brook
- Watts Brook
- Unnamed Tributary Draining Directly to Merrimack River
- Watershed
- Pond
- Pond Number
- Perennial Stream
- Intermittent Stream

### 3.2 Watershed and Surface Water Summaries

As described previously, the Town of Londonderry has been divided into nine watersheds (Figure 3-1), based on the major surface waterbodies in the town. The watershed boundaries for all nine watersheds extend beyond the town boundary and include portions of Derry, Chester, Auburn, Windham, Pelham, Hudson, Litchfield, Bedford, and Manchester. In general, all major surface waterbodies in Londonderry ultimately drain west and flow into the Merrimack River (Figure 3-2).

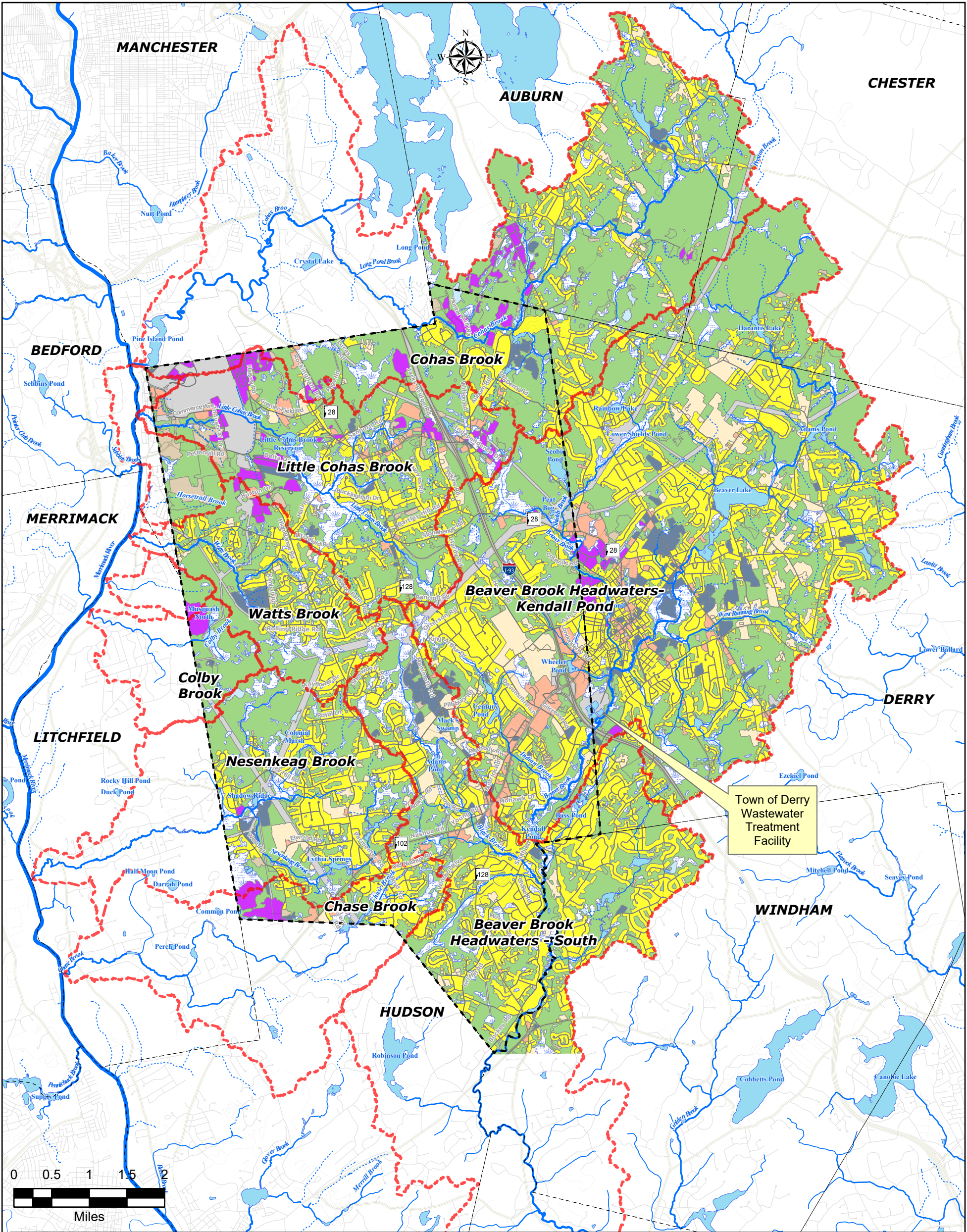
To further identify potential pollutant sources and stressors to specific waterbodies, land use and impervious cover were analyzed by watershed. For this analysis, land characteristics in Londonderry and in the upstream area of the watershed that flow directly into Londonderry were considered as they will likely have an impact on the water quality in Londonderry. For instance, watershed characteristics in Londonderry and in the upstream portions of the Beaver Brook Headwaters- Kendall Pond watershed in Auburn, Chester, and Derry were both analyzed as land use, impervious cover, and potential pollutants in both of these areas may impact water quality in Londonderry. In the Colby Brook watershed, however, land use characteristics, impervious cover, and other pollutant sources were only analyzed in Londonderry as the portion of the watershed in Litchfield is downstream of Londonderry and will not impact water quality in the town (Figures 3-3 and 3-4). The percent of developed parcels on public or private wastewater systems was determined using available data for each watershed for the Town of Londonderry only. These watershed characteristics are summarized in Table 3-4 and discussed in further detail in the following sections. The following sections provide a description of the watersheds and all major surface waterbodies in each watershed.

**Table 3-4 – Watershed Characteristics**

Watershed Name	Land Use (%) <sup>12</sup>								Impervious Cover (%)	Estimated Wastewater (%)	
	Forested	Residential	Industrial/ Commercial	Agriculture	Open Land	Transportation	Water	Wetlands		Developed Parcels with Access to Public/Private Sewer (Londonderry only)	Developed Parcels without Access to Public/Private Sewer (Londonderry only)
<b>Overall Land Use in Londonderry</b>	<b>42</b>	<b>26</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>1</b>	<b>9</b>	<b>10.3</b>	<b>10</b>	<b>90</b>
Beaver Brook Headwaters – Kendall Pond	41	30	9	6	0	1	2	6	11	11	89
Beaver Brook Headwaters - South	35	39	4	6	2	3	1	11	9	1	99
Chase Brook	30	36	16	2	2	3	1	10	12	0	100
Cohas Brook	57	15	11	1	1	6	1	7	5	23	77
Colby Brook	68	0	10	0	6	< 1	5	11	<1	0	100
Little Cohas Brook	43	18	12	1	4	11	1	10	14	34	66
Nesenkeag Brook	45	27	3	5	5	2	2	12	6	0	100
Watts Brook	45	32	5	1	7	3	1	8	8	11	89
Unnamed Tributaries	61	2	6	0	20	7	0	3	7	1	99

<sup>12</sup> Land use categories described in Table 2-1.





**Figure 3-3**  
**2010 Land Use for**  
**Londonderry Watersheds**



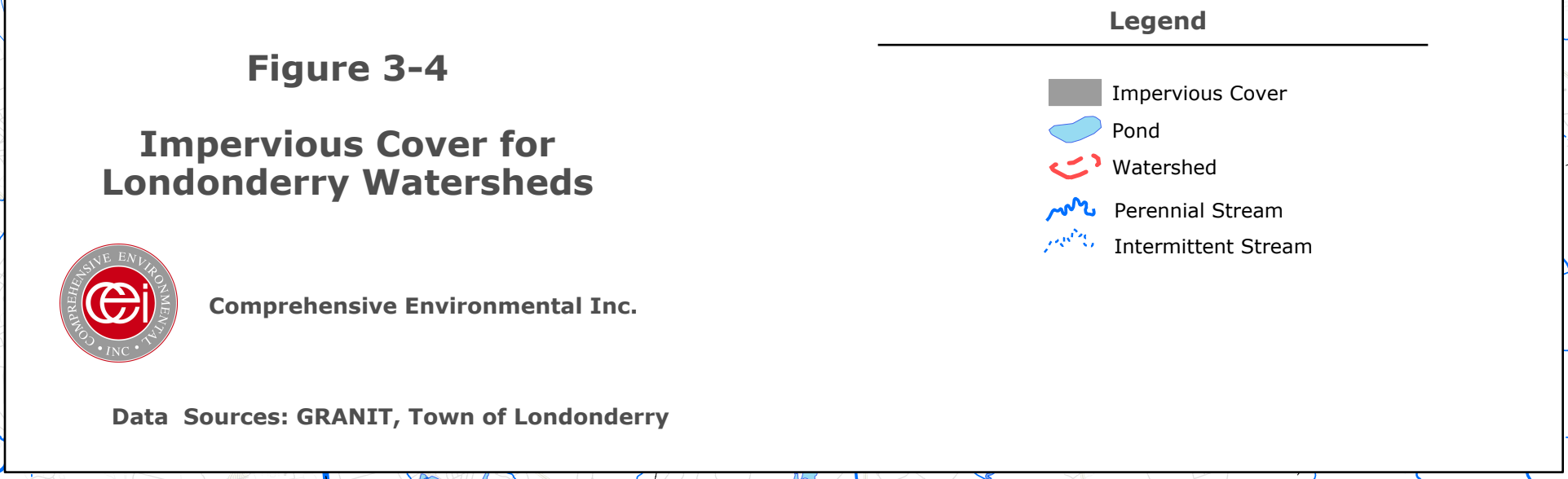
Comprehensive Environmental Inc.

Data Sources: GRANIT, SNHPC

**Legend**

- |                 |                     |
|-----------------|---------------------|
| <b>Land Use</b> | Open Land           |
| Residential     | Agriculture         |
| Commercial      | Forested            |
| Industrial      | Water               |
| Transportation  | Wetlands            |
| Civic           | Watershed           |
|                 | Perennial Stream    |
|                 | Intermittent Stream |







### 3.2.1 Beaver Brook Headwaters – Kendall Pond Watershed

#### Watershed Description

The Beaver Brook Headwaters – Kendall Pond Watershed lies in the eastern portion of Londonderry and drains southwesterly towards Kendall Pond. Approximately 27% (5,400 acres) of the 19,804-acre watershed is within Londonderry, with the remaining 73% in Derry, Chester, and Auburn. The watershed in Londonderry is divided by Interstate 93 and extends to the west to Route 128/Mammoth Road (Figure 3-1).

The major waterbody in the watershed is Beaver Brook. The headwaters of Beaver Brook begin in Chester north of Harantis Lake and flow south into Derry through Adams Pond and Beaver Lake. A western branch of Beaver Brook begins in the northwestern corner of Derry north of Rainbow Lake and Lower Shields Pond. This branch flows southwesterly, crosses into Londonderry just south of Scobie Pond, and then re-enters Derry north of Hoods Pond. The two branches meet in Derry, flow southwesterly joining with a tributary south of Wheeler Pond, and ultimately into Londonderry crossing Interstate 93. Beaver Brook continues southwesterly parallel to South Road where it is joined by Indian Brook, a tributary originating in Londonderry just north of Century Pond. Kendall Pond defines the southern edge of the watershed at the town line with Windham (Figure 3-2).

Land use in the watershed, including upstream portions in Auburn, Chester, and Derry, is predominately forested (41%). Residential neighborhoods are scattered throughout the watershed, with many neighborhoods in Derry. Residential land use makes up approximately 30% of the watershed. Agricultural lands occupy 6% of the watershed and include the Orchard Hill Greenhouses in Londonderry and the Winding Brook Farm Equestrian Center northwest of Beaver Lake in Derry as well as other small farms near Beaver Lake. Other land uses include commercial/industrial (9%), and transportation (1%). Commercial/industrial land uses are concentrated around Interstate 93 (Figures 3-3 and 3-5).

The Derry Wastewater Treatment Plant is located on the town line with Derry near Beaver Brook. The majority of the watershed in Londonderry relies on private septic systems for disposal of wastewater (89%), though some of the watershed along Interstate 93 rely on public sewer (Figure 2-10). Impervious cover in the watershed is 11% with areas of concentrated impervious cover along Nashua Road between Mammoth Road and Interstate 93 and between the town line with Derry and Route 28 (Figure 3-4).

#### BEAVER BROOK HEADWATERS- KENDALL POND WATERSHED FACTS



#### Watershed Area

Total = 19,804 acres

Londonderry: 5,400 acres (27%)

Derry, Chester, Auburn: 14,404 acres (73%)

#### Major Surface Waters (\*impairment)

- Scobie Pond
- Wheeler Pond
- Kendall Pond
- Century Pond
- Beaver Brook\*
- Shields Brook
- Indian Brook

#### Dams

- 11 private
- 1 public

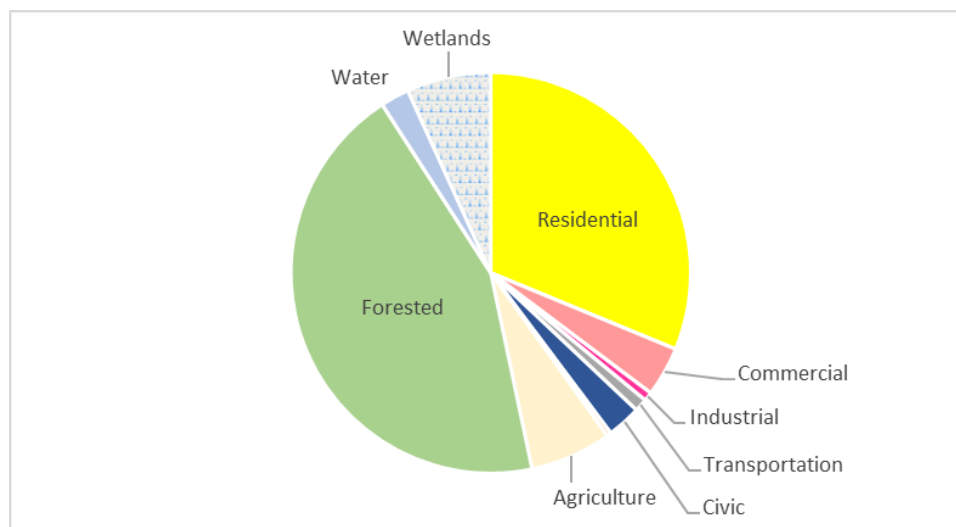
#### Flood Hazard Areas

- X – 91% (low risk)
- B – 2% (moderate risk)
- AE - 7% (high risk)

#### Wastewater Treatment

- Public/Private Sewer (11%)
- Private Septic Systems (89%)

Impervious Cover: 11%



**Figure 3-5 – Land Use in the Beaver Brook Headwaters – Kendall Pond Watershed**

## **Surface Waters in Londonderry**

### ***Ponds***

In Londonderry, seven ponds are located in the Beaver Brook Headwaters – Kendall Pond Watershed, the largest of which is Scobie Pond. Five of the seven ponds are named and include Peat Bog, Century Pond, Wheeler Pond, and Kendall Pond as well as Scobie Pond. The remaining two ponds are unnamed and relatively small. All ponds are shown in Table 3-5 and Figure 3-2. Other ponds in the watershed are Beaver Lake, Rainbow Lake, and Lower Shields Pond in Derry, and Harantis Lake in Chester.



*Kendall Pond Conservation Area*

**Scobie Pond** – Scobie Pond (25 acres) is the largest pond in the watershed. It is the largest surface waterbody in Londonderry and has the only water access through a boat ramp on Brewster Road. A private dam is located at the southern end of the pond and drains to Beaver Brook.

**Peat Bog** – Peat Bog includes a 1.8-acre pond and surrounding wetlands located southwest of Scobie pond just north of Route 28. The pond is located along Beaver Brook just north of the confluence with Shields Brook near the town border with Derry.

**Century Pond** – Century Pond is an 8.0-acre pond located along Indian Brook just south of Pillsbury Road in the southwestern portion of the watershed. The pond is surrounded by residential neighborhoods as well as commercial businesses to the southeast.

**Wheeler Pond** – Wheeler Pond is a 7.9-acre pond located near the town border with Derry at the intersection of Interstate 93 and Route 102. The pond is bordered by commercial businesses and restaurants to the east and south and has two private dams located near the outlet.

**Kendall Pond** – Kendall Pond is an 8.6-acre pond located at the southeastern corner of Londonderry at the border with Windham. The pond is formed by a public dam located at the southern end of the pond, leading to an impoundment of Beaver Brook. It has a dissolved oxygen saturation impairment and is not meeting its designated use for aquatic life. The source of the impairment is unknown (Table 3-3).

The Kendall Pond Conservation Area lies directly north of the pond along 60-acres of Beaver Brook and offers recreational opportunities such as hiking, kayaking, and fishing. This area was protected in the early 1980s through a town appropriation matched by a grant from the Land and Water Conservation Fund.

### **Streams**

In Londonderry, the Beaver Brook Headwaters – Kendall Pond Watershed has 19 perennial stream segments and five intermittent stream segments. Many of these streams are small and unnamed but the major rivers/streams in the watershed are Beaver Brook, Indian Brook, and Shields Brook. The named streams are described in more detail below. All streams are shown in Table 3-5 and Figure 3-2.

**Beaver Brook** – As described previously, the headwaters of Beaver Brook begin in Chester north of Harantis Lake and flows south into Derry through Adams Pond and Beaver Lake. A western branch of Beaver Brook begins in the northwestern corner of Derry north of Rainbow Lake and Lower Shields Pond. This branch flows southeasterly, crosses into Londonderry just south of Scobie Pond, and then re-enters Derry north of Hoods Pond. The two branches meet in Derry, flow southeasterly joining with a tributary south of Wheeler Pond, and ultimately into Londonderry crossing Interstate 93. Beaver Brook continues southeasterly parallel to South Road where it is joined by Indian Brook, a tributary originating in Londonderry just north of Century Pond. Beaver Brook then continues southwest and forms Kendall Pond. Beaver Brook has a pH impairment and is not meeting its designated use for aquatic life. The source of impairment is listed as “Landfills” (Table 3-3).

**Shields Brook** – A small section of Shields Brook flows through Londonderry. This section of the Brook flows southwest from Derry and joins Beaver Brook just west of the town line. There is one privately-owned dam on this section of Shields Brook.

**Indian Brook** – Indian Brook flows south beginning near King Arthur Drive, through Century Pond, and eventually discharges into Beaver Brook north of Reed Street to the east of Nashua Road. Multiple small private dams are located along Indian Brook and Century Pond.



*Scobie Pond*



**Table 3-5 – Surface Waterbodies in Londonderry in the Beaver Brook Headwaters – Kendall Pond**

Beaver Brook Headwaters – Kendall Pond			
Ponds			
Map #	Waterbody Name	Waterbody Size (acres)	
35	Scobie Pond	25	
36	Peat Bog	1.8	
37	Century Pond	8	
38	Unnamed	2	
39	Unnamed	1.6	
40	Wheeler Pond	7.9	
41	Kendall Pond	8.6	
Perennial Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Named Waterbodies			
1070006001159	Beaver Brook	0	1
1070006001159		1.3	2
1070006000394		0.6	3
1070006000393		6.4	4
1070006000395	Shields Brook	0.5	2
1070006000396		0	2
1070006001160	Indian Brook	1.7	2
Unnamed Waterbodies			
1070006000602	Unnamed	0.9	1
1070006001157	Unnamed	0.3	1
1070006001158	Unnamed	0.1	1
1070006001161	Unnamed	0.3	1
1070006001162	Unnamed	0.5	1
1070006003238	Unnamed	0.2	1
1070006003241	Unnamed	0.1	1
1070006006369	Unnamed	0.4	1
1070006006431	Unnamed	0.2	1
1070006006539	Unnamed	0.1	1
1070006015122	Unnamed	0.6	1
1070006006406	Unnamed	0.7	2
Intermittent Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Named Waterbodies			
1070006001159	Beaver Brook	0.3	1
1070006001159		0.4	2
Unnamed Waterbodies			
1070006000602	Unnamed	0.7	1
1070006006197	Unnamed	0.1	1
1070006006202	Unnamed	0.2	1
**“Stream order” is a measure of the relative size of steams. The smallest tributaries are considered first order streams. These small streams are also referred to as headwater streams <sup>13</sup> .			

<sup>13</sup> Bedford County Conservation District, 2018. Stream Order and River Continuum Concept. <https://www.bedfordcountyconservation.com/Watersheds/>

### 3.2.2 Beaver Brook Headwaters – South Watershed

#### Watershed Description

The Beaver Brook Headwaters – South Watershed lies in the southern section of Londonderry and drains southeasterly towards Beaver Brook. Approximately 31% (4,713 acres) of the 15,213-acre watershed is within Londonderry, with the remaining areas in Derry, Pelham, Hudson, and Windham to the south and east. In this watershed, Beaver Brook continues south from Kendall Pond and flows along the town line with Windham. Upstream portions of the watershed in Derry and Windham include small branches of Beaver Brook that ultimately flow into Beaver Brook along the town line with Windham. Within the town limits, Black Brook flows south through the center of the watershed and flows into Beaver Brook south of the outlet with Kendall Pond along the town line with Windham where it continues south along the town line with Hudson and into Pelham. Beaver Brook ultimately flows into the Merrimack River (Figure 3-1).

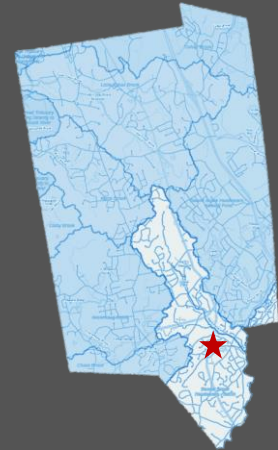
Londonderry High School and Middle School, the Londonderry Town Hall, and Mack's Apples are all located in the watershed along Mammoth Road/Route 128. The watershed includes a portion of Londonderry to the east of Kendall Pond in the southeastern corner of the town along the town lines with Derry and Windham. (Figure 3-2).

Land uses in this watershed, including upstream portions of Derry and Windham, are predominately residential (40%) with residential neighborhoods concentrated in the southern portions of Londonderry and in the northwest corner of Windham. Approximately 40% of the watershed is forested. Agricultural lands occupy 4% of the watershed, including Moose Hill Orchards. Other land uses include open land (1%), commercial/industrial (1%) along Route 102, and transportation (5%) (Figures 3-3 and 3-6). Impervious cover in the watershed is 9% with some concentrated areas of impervious cover located along Mammoth Road (Figure 3-4). The majority of parcels in the watershed rely on private septic system, although the town offices and schools are connected to the public sewer system (Figure 2-10).



*Adams Pond*

#### BEAVER BROOK HEADWATERS (SOUTH) WATERSHED FACTS



##### Watershed Area

Total = 15,213 acres

Londonderry: 4,713 acres (31%)

Derry, Windham, Pelham, Hudson:  
10,500 acres (69%)

##### Major Surface Waters (\*impairment)

- Adams Pond
- Mack's Swamp
- Bass Pond
- Beaver Brook
- Black Brook

##### Dams

- 7 private
- 1 public

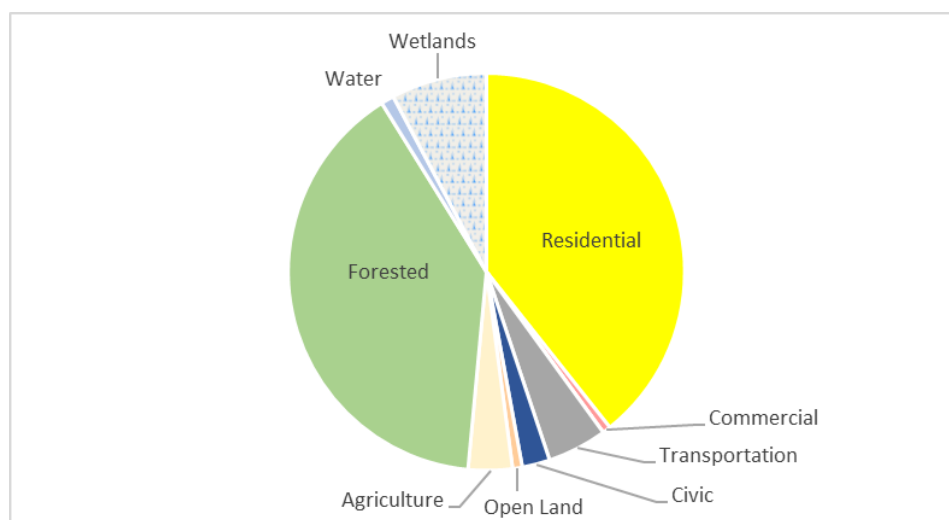
##### Flood Hazard Areas

- X – 91% (low risk)
- B – 2% (moderate risk)
- AE - 7% (high risk)

##### Wastewater Treatment

- Public/Private Sewer (1%)
- Private Septic Systems (99%)

Impervious Cover: 9%



**Figure 3-6 – Land Use in the Beaver Brook Headwaters –South Watershed**

### **Surface Waters in Londonderry**

#### ***Ponds***

In Londonderry, eight ponds have been identified in the Beaver Brook Headwaters – South Watershed, the largest of which is Bass Pond. Other named ponds include Adams Pond and Mack's Swamp which are located on Black Brook near Mack's Apples. The remaining five ponds are unnamed. All ponds are shown in Table 3-6 and Figure 3-2.

**Bass Pond** – Bass Pond is a 12.8-acre pond located near the town lines with Windham and Derry. The pond is formed on a small branch of Beaver Brook which continues from Bass Pond and joins the main stem below Kendall Pond. The area around the northern edge of the pond is forested and open space while the area to the southeast of the pond is predominately low-density residential.

**Adams Pond/Mack's Swamp** – Adams Pond is a 9.2-acre pond located in the center of the watershed along Black Brook. The pond is formed by a private dam owned by Mack's Apples. Mack's Swamp, a 1.1-acre pond also outlets into Adams Pond. The pond is a popular local destination for recreation. Black Brook continues to flow south from the pond's outlet near Adams Road. The area around the pond is predominately agriculture (Mack's Apples) and residential.

#### ***Streams***

In Londonderry, the Beaver Brook Headwaters - South Watershed also has 22 perennial stream segments and one intermittent stream segment. Many of these streams are small and unnamed but the major streams in the watershed are Beaver Brook and Black Brook. The named streams are described in more detail below. All streams are shown in Table 3-6 and Figure 3-2.

**Black Brook** – Black Brook flows south from the northern portion of the watershed and forms Adams Pond. The outlet of Black Brook continues southeasterly and joins Beaver Brook south of the outlet of Kendall Pond.

**Beaver Brook** – Beaver Brook flows south from Kendall Pond in the southeastern corner of Londonderry at the town line with Windham. Beaver Brook then continues south along the town line parallel to Kendall Pond Road in Windham and flows through Andrews Town Forest. Two private dams are located on this section of Beaver Brook, one of which forms a 6.4-acre impoundment (Pond #33 – Figure 3-2).

**Table 3-6 - Surface Waterbodies in the Beaver Brook Headwaters – South Watershed**

Beaver Brook Headwaters – South			
Ponds			
Map #	Waterbody Name	Waterbody Size (acres)	
27	Unnamed	1.3	
28	Adams Pond	9.2	
29	Mack's Swamp	1.1	
30	Unnamed	1.4	
31	Bass Pond	12.8	
32	Unnamed	1.1	
33	Unnamed	6.4	
34	Unnamed	1.8	
Perennial Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Named Waterbodies			
1070006000390	Beaver Brook	3.9	4
1070006000391		0.4	4
1070006000392		0.4	4
1070006001163	Black Brook	0.1	3
1070006001164		1.0	3
1070006001165		0.9	1
1070006001165		1.9	2
Unnamed Waterbodies			
1070006001137	Unnamed	0.8	1
1070006001166	Unnamed	0.9	1
1070006001167	Unnamed	1.3	1
1070006003264	Unnamed	0.3	1
1070006003277	Unnamed	0.0	1
1070006003288	Unnamed	0.6	1
1070006003302	Unnamed	0.0	1
1070006006517	Unnamed	0.1	1
1070006006521	Unnamed	0.1	1
1070006006528	Unnamed	0.3	1
1070006006533	Unnamed	0.0	1
1070006006533	Unnamed	0.1	2
1070006006567	Unnamed	0.6	1
1070006006569	Unnamed	0.9	1
1070006006597	Unnamed	0.5	1
Intermittent Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Unnamed Waterbodies			
01070006001166	Unnamed	0.6	1
**“Stream order” is a measure of the relative size of steams. The smallest tributaries are considered first order streams. These small streams are also referred to as headwater streams <sup>14</sup> .			

<sup>14</sup> Bedford County Conservation District, 2018. Stream Order and River Continuum Concept. <https://www.bedfordcountyconservation.com/Watersheds/>

### 3.2.3 Cohas Brook Watershed

#### Watershed Description

The Cohas Brook Watershed lies in the northeast corner of Londonderry and drains westerly towards the Merrimack River. Approximately 18% (2,626 acres) of the 14,768-acre watershed is within Londonderry, with the remaining areas in Manchester, Derry, Chester, and Auburn. Cohas Brook begins in a series of small tributaries to the east of Lake Massabesic in Auburn. The small branches join to form the main branch of Cohas Brook which flows into Londonderry just west of Route 28. Cohas Brook continues west into Manchester, eventually flowing into the Merrimack River. The watershed in Londonderry includes a portion of Manchester-Boston Regional Airport and extends east beyond Rockingham Road and Interstate 93. (Figure 3-1).

Land use in the watershed, including portions of Auburn, Chester, and Derry, is predominately forested (63%) with a large portion of forested land near the headwaters in Auburn. Residential neighborhoods are concentrated in Auburn and the eastern portion Londonderry and make up approximately 16% of the watershed land use. Other land uses include open land (1%), industrial (4%) concentrated near the town line with Auburn, and transportation (3%) which includes a portion of the airport (Figures 3-3 and 3-7). Impervious cover in the watershed is 5% with the majority of the impervious cover at the airport and in the eastern portion of the watershed (Figure 3-4). The majority of the watershed (77%) relies on private septic systems (Figure 2-10).

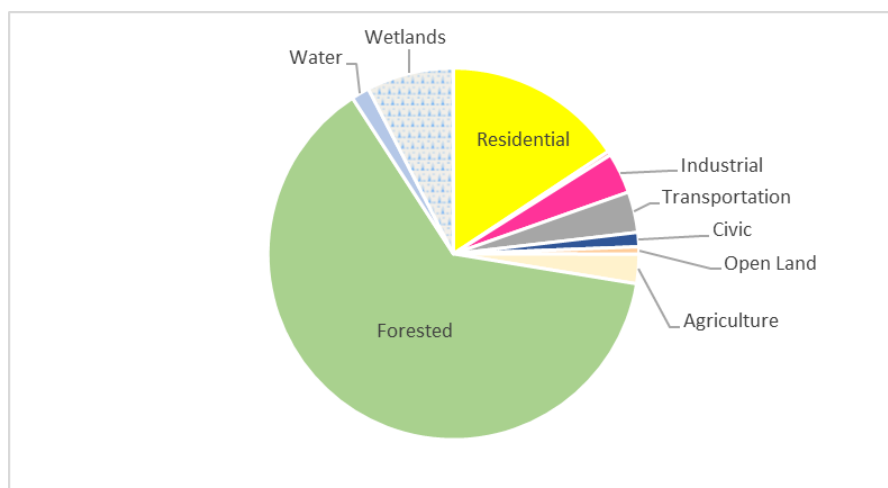


Figure 3-7 – Land Use in the Cohas Brook Watershed

#### Surface Waters in Londonderry

##### **Ponds**

In Londonderry, three unnamed ponds or impoundments have been identified in the Cohas Brook Watershed, the largest of which is a 9.7-acre pond on Cohas Brook. All ponds are shown in Table 3-7 and Figure 3-2.

#### COHAS BROOK WATERSHED FACTS



##### Watershed Area

Total = 14,768 acres

Londonderry: 2,626 acres (18%)

Manchester, Auburn, Chester,  
Derry: 12,142 acres (82%)

##### Major Surface Waters

- Cohas Brook

##### Dams

- 6 private
- 0 public

##### Flood Hazard Areas

- X – 97% (low risk)
- B – 1% (moderate risk)
- AE - 2% (high risk)

##### Wastewater Treatment

- Public/Private Sewer (23%)
- Private Septic Systems (77%)

Impervious Cover: 5%



## Streams

In Londonderry, the Cohas Brook Watershed also has 12 perennial stream segments and seven intermittent stream segments. Many of these streams are small and unnamed but the major stream in the watershed is Cohas Brook which is described in more detail below. All streams are shown in Table 3-7 and Figure 3-2.

**Cohas Brook** – Cohas Brook originates in Auburn just south of Route 121 and flows southwesterly into Londonderry at the northeast corner of the town. The Brook then flows northwesterly into Manchester where it ultimately discharges to the Merrimack River. Smaller reaches of the Brook flow south from an impoundment (Pond #2 - Figure 3-2) formed by one of the four private dams on Cohas Brook.

**Table 3-7 - Surface Waterbodies in the Cohas Brook Watershed**

Cohas Brook			
Ponds			
Map #	Waterbody Name	Waterbody Size (acres)	
1	Unnamed	2	
2	Unnamed	9.7	
3	Unnamed	4.6	
Perennial Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Named Waterbodies			
01070006001044	Cohas Brook	1.6	3
01070006001045		0.4	3
Unnamed Waterbodies			
01070006001047	Unnamed	0.6	1
01070006001047	Unnamed	0.6	2
01070006003169	Unnamed	0.0	1
01070006003172	Unnamed	0.0	1
01070006003177	Unnamed	0.3	1
01070006003180	Unnamed	0.0	1
01070006003189	Unnamed	0.1	1
01070006005149	Unnamed	0.1	1
01070006005150	Unnamed	0.2	2
01070006005278	Unnamed	0.2	1
01070006005695	Unnamed	0.0	1
Intermittent Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Unnamed Waterbodies			
01070006001040	Unnamed	1.2	1
01070006001047	Unnamed	0.5	1
01070006005146	Unnamed	0.3	1
01070006005572	Unnamed	0.2	1
01070006005585	Unnamed	0.7	1
01070006005695	Unnamed	0.4	1
01070006005778	Unnamed	0.7	1
**“Stream order” is a measure of the relative size of steams. The smallest tributaries are considered first order streams. These small streams are also referred to as headwater streams.			

### 3.2.4 Little Cohas Brook Watershed

#### Watershed Description

The Little Cohas Brook Watershed lies in the northwest corner of Londonderry and drains westerly towards the Merrimack River. Approximately 99% (5,579 acres) of the 5,619-acre watershed is within Londonderry, with the remaining area in Manchester. The watershed extends east beyond Interstate 93, south near the intersection of Route 128/Mammoth Road and Shasta Drive, north to Grenier Field Road and part of the Manchester-Boston Regional Airport, and west to Lawson Farm Road and Litchfield Road. The major waterbody in the watershed is Little Cohas Brook which flows through Little Cohas Brook Reservoir before flowing into the Merrimack River (Figures 3-1 and 3-2).

Land use in the Little Cohas Brook Watershed is predominately forested (43%). Residential neighborhoods are concentrated in the central and southern portions of the watershed and make up approximately 18% of the watershed land use. Other land uses include open land (4%), commercial (10%), and transportation (13%) which includes a portion of the airport (Figures 3-3 and 3-8). The airport runways and portions of Stonyfield Farm are located in the watershed. Impervious cover in the watershed is 14% with the majority of the impervious cover associated with the airport (Figure 3-4). The majority of parcels in the watershed rely on private septic systems (66%), although this watershed has the highest percentage of parcels with access to the public/private sewer system (34%) (Figure 2-10).

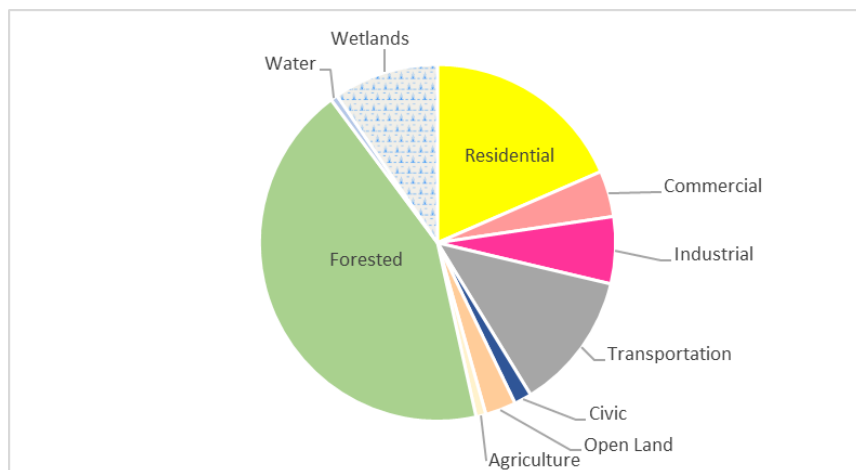


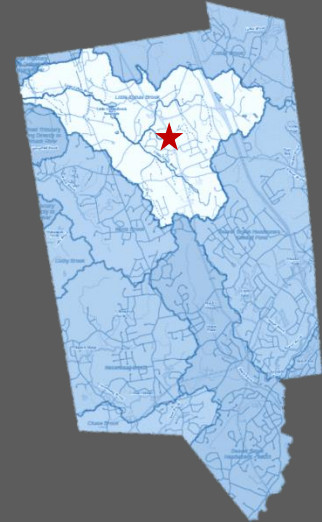
Figure 3-8 – Land Use in the Little Cohas Brook Watershed

#### Surface Water in Londonderry

##### **Ponds**

In Londonderry, six ponds or impoundments are located in the Little Cohas Brook Watershed, the largest of which is Little Cohas Brook Reservoir. The remaining five ponds are unnamed and most are less than five acres. All ponds are shown in Table 3-8 and Figure 3-2.

#### **LITTLE COHAS BROOK WATERSHED FACTS**



##### Watershed Area

Total = 5,619 acres

Londonderry: 5,579 acres (99%)

Manchester: 40 acres (1%)

##### Major Surface Waters (\*impairment)

- Little Cohas Brook\*
- Little Cohas Brook Reservoir
- South Perimeter Brook\*

##### Dams

- 16 private
- 4 public

##### Flood Hazard Areas

- X – 91% (low risk)
- B – 3% (moderate risk)
- AE - 6% (high risk)

##### Wastewater Treatment

- Public/Private Sewer (34%)
- Private Septic Systems (66%)

Impervious Cover: 14%

**Little Cohas Brook Reservoir** - The only named pond in the watershed is Little Cohas Brook Reservoir which is the largest waterbody in the watershed and is created by a public dam on Little Cohas Brook. The 18.6-acre reservoir covers 18.6-acres in northwestern Londonderry, just southeast of the Manchester-Boston Regional Airport.

### **Streams**

In Londonderry, the Little Cohas Brook Watershed has 24 perennial stream segments and 21 intermittent stream segments. Little Cohas Brook and South Perimeter Brook are the only named streams in the watershed. All streams are shown in Table 3-8 and Figure 3-2.



*Little Cohas Brook*

**Little Cohas Brook** - The main stem of Little Cohas Brook begins just east of Route 128/Mammoth Road near the center of Londonderry and flows northwest where it is met by a smaller, northern branch of the brook. The main stem of the brook continues northwest and forms the Little Cohas Brook Reservoir south of Grenier Field Road and west of Harvey Road just east of the Manchester-Boston Regional Airport's runways. The brook then flows just south of the airport and empties into the Merrimack River in Bedford. There are 11 private and four public dams on the various branches of the brook.

Little Cohas Brook is not meeting its designated use for Aquatic Life and is considered impaired for benthic-macroinvertebrate, chloride, dissolved oxygen, iron, and pH. Sources include industrial/commercial site stormwater, municipal, and unknown (Table 3-3).

**South Perimeter Brook** – South Perimeter Brook, a small stream located near the airport, is also considered impaired and does not meet its designated use for Aquatic Life. Impairments include chloride and iron. Sources are listed as industrial/commercial site stormwater and municipal (chloride) and unknown (iron).

Table 3-8 - Surface Waterbodies in the Little Cohas Brook Watershed

Little Cohas Brook			
Ponds			
Map #	Waterbody Name	Waterbody Size (acres)	
4	Little Cohas Brook Reservoir	18.6	
5	Unnamed	5.2	
6	Unnamed	5.2	
7	Unnamed	1.6	
8	Unnamed	1.5	
10	Unnamed	1.4	
Perennial Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Named Waterbodies			
01070006000557	Little Cohas Brook	1.0	3
01070006000558		1.6	3
01070006000559		0.4	3
01070006000560		0.8	3
01070006000561		0.9	1
01070006000561		1.5	2
01070006006065	South Perimeter Brook	0.7	1
Unnamed Waterbodies			
01070006001070	Unnamed	0.1	1
01070006001071	Unnamed	0.4	3
01070006001072	Unnamed	0.6	2
01070006001073	Unnamed	0.6	1
01070006001073	Unnamed	1.3	2
01070006003200	Unnamed	0.0	1
01070006003201	Unnamed	0.1	1
01070006003215	Unnamed	0.0	1
01070006003217	Unnamed	0.5	1
01070006003222	Unnamed	0.0	1
01070006005844	Unnamed	0.0	1
01070006005970	Unnamed	0.5	1
01070006005981	Unnamed	0.0	1
01070006006080	Unnamed	0.0	1
01070006006088	Unnamed	0.0	1
01070006006309	Unnamed	0.0	1
01070006006320	Unnamed	0.0	1
01070006006337	Unnamed	0.0	1

Intermittent Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Unnamed Waterbodies			
01070006000600	Unnamed	1.1	1
01070006001070	Unnamed	0.7	1
01070006001072	Unnamed	0.6	1
01070006001072	Unnamed	0.2	2
01070006001073	Unnamed	0.9	1
01070006005929	Unnamed	0.2	1
01070006005981	Unnamed	0.3	1
01070006006000	Unnamed	0.7	1
01070006006030	Unnamed	0.3	2
01070006006048	Unnamed	0.1	1
01070006006067	Unnamed	0.4	1
01070006006080	Unnamed	0.7	1
01070006006088	Unnamed	0.0	1
01070006006130	Unnamed	0.2	1
01070006006210	Unnamed	0.6	1
01070006006246	Unnamed	0.4	1
01070006006309	Unnamed	0.3	1
01070006006320	Unnamed	0.3	1
01070006006337	Unnamed	0.3	1
01070006015108	Unnamed	0.3	0
**"Stream order" is a measure of the relative size of streams. The smallest tributaries are considered first order streams. These small streams are also referred to as headwater streams.			



### 3.2.5 Watts Brook Watershed

#### Watershed Description

The Watts Brook Watershed lies in the western portion of Londonderry and drains westerly towards the Merrimack River. Approximately 96% (2,616 acres) of the 2,723-acre watershed is within Londonderry, with the remaining areas in Manchester and Litchfield. The watershed extends east from the town line with Manchester to the intersection of Hall Road, High Range Road, and Litchfield Road. The southern boundary of the watershed is located near Mayflower Drive. The major surface waterbody in the watershed is Watts Brook which flows across the town line with Manchester and ultimately flows into the Merrimack River in Litchfield (Figure 3-1).

The watershed is predominately forested (45%) with multiple residential neighborhoods throughout the watershed (32%). Agriculture makes up 1% of the land use. The Londonderry Country Club is located in the western section of the watershed and the Musquash Conservation Area is located in the southern portion of the watershed near Hickory Hill Drive (Figures 3-3 and 3-9). Impervious cover in the watershed is 8%. Most of the impervious cover is dispersed throughout the residential neighborhoods in the watershed, though larger tracts of impervious cover are found in the northern portion of the watershed (Figure 3-4). The majority of the parcels in the watershed do not have access to public/private sewer and likely rely on private septic systems (Figure 2-10).

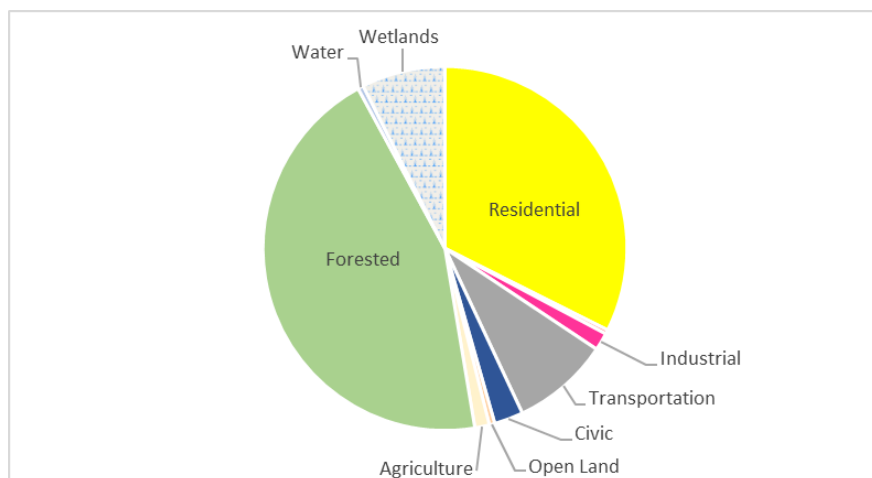
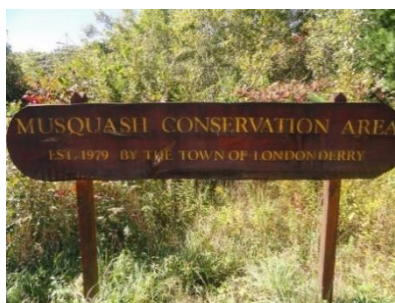


Figure 3-9 – Watts Brook Watershed Land Use

#### Surface Waters in Londonderry

##### **Ponds**

In Londonderry, two ponds or impoundments are located in the Watts Brook Watershed. Both are located on the northeastern branch of Watts Brook upstream of private dams. All ponds are shown in Table 3-9 and Figure 3-2.

#### WATTS BROOK WATERSHED FACTS



##### Watershed Area

Total = 2,723 acres

Londonderry: 2,616 acres (96%)

Manchester and Litchfield: 107 acres (4%)

##### Major Surface Waters

- Watts Brook

##### Dams

- 9 private
- 1 public

##### Flood Hazard Areas

- X – 97% (low risk)
- B – 0% (moderate risk)
- AE - 3% (high risk)

##### Wastewater Treatment

- Public/Private Sewer (1%)
- Private Septic Systems (99%)

Impervious Cover: 8%

## Streams

In Londonderry, 22 stream segments are located in the Watts Brook Watershed, eleven of which are perennial and eleven of which are intermittent. The only named stream in the watershed is Watts Brook. Watts Brook begins as two branches that join west of High Range Road in the southwestern corner of the watershed. The brook flows through the Londonderry Country Club, west across the municipal border before it empties into the Merrimack River. There are nine private dams on the various branches of the brook. All streams are shown in Table 3-9 and Figure 3-2.

**Table 3-9 - Surface Waterbodies in the Watts Brook Watershed**

Watts Brook			
Ponds			
Map #	Waterbody Name	Waterbody Size (acres)	
12	Unnamed	1	
13	Unnamed	1.3	
Perennial Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Named Waterbodies			
01070006001075	Watts Brook	1.4	3
01070006001076		0.5	1
01070006001076		0.3	2
01070006003254		0.1	1
Unnamed Waterbodies			
01070006001077	Unnamed	0.9	2
01070006006358	Unnamed	0.0	1
01070006006371	Unnamed	0.0	1
01070006006377	Unnamed	0.0	1
01070006006415	Unnamed	0.0	1
01070006006416	Unnamed	0.0	1
01070006006416	Unnamed	0.0	2
Intermittent Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Named Waterbodies			
01070006001076	Watts Brook	0.7	1
Unnamed Waterbodies			
01070006001077	Unnamed	0.2	1
01070006001077	Unnamed	0.2	2
01070006006358	Unnamed	0.5	1
01070006006370	Unnamed	0.7	1
01070006006371	Unnamed	0.1	1
01070006006377	Unnamed	0.5	1
01070006006378	Unnamed	0.7	1
01070006006390	Unnamed	0.1	2
01070006006415	Unnamed	0.4	1
01070006006416	Unnamed	0.3	1
**"Stream order" is a measure of the relative size of steams. The smallest tributaries are considered first order streams. These small streams are also referred to as headwater streams.			

### 3.2.6 Colby Brook Watershed

#### Watershed Description

The Colby Brook Watershed is located in the western portion of Londonderry on the border with Litchfield. Approximately 36% (562 acres) of the 1,572 acre watershed is within Londonderry, with the remaining area in Litchfield (Figure 3-1). The watershed is mostly undeveloped and flows through the Londonderry Fish and Game Club. The Fish and Game Club includes three separate shooting ranges and a skeet and trap shooting field. The major surface waterbody in the watershed is Colby Brook which flows westerly across the town line with Litchfield and flows into the Merrimack River (Figure 3-2).

The watershed is predominately forested (67%). There are no residential neighborhoods in the watershed. Water occupies 5% and wetlands occupies 11% of the land use in the watershed and the remainder of the watershed area is industrial (9%) and transportation (6%) (Figures 3-3 and 3-10). The Musquash Conservation Area makes up a large portion of this watershed (Figure 2-7). Impervious cover in the watershed is <1% as the only roads are those associated with the Londonderry Fish and Game Club (Figure 3-4). There is no public sewer system in the watershed (Figure 2-10).

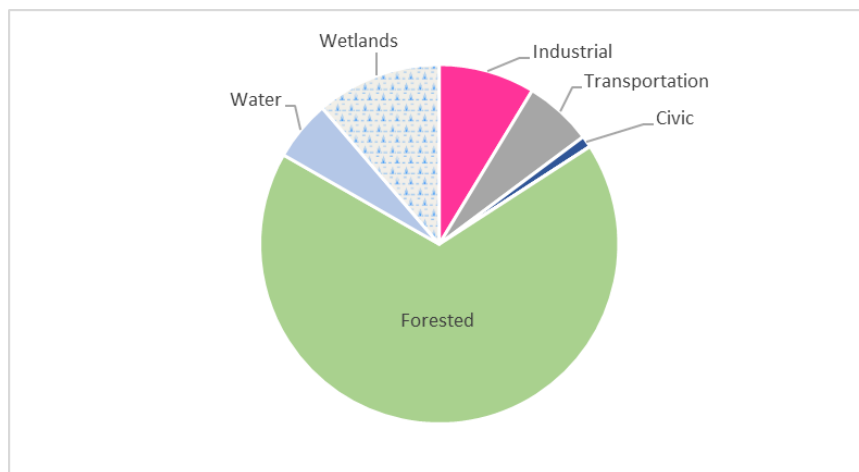


Figure 3-10 – Land Use in the Colby Brook Watershed

#### Surface Waters in Londonderry

##### **Ponds**

In Londonderry, two ponds or impoundments are located in the Colby Brook Watershed. Musquash North is a 3.1-acre pond the northern branch of Colby Brook. The other pond is an unnamed 1.9-acre pond located in the southern portion of the watershed. All ponds are shown in Table 3-10 and Figure 3-2.

#### COLBY BROOK WATERSHED FACTS



##### Watershed Area

Total = 1,572 acres

Londonderry: 562 acres (36%)

Litchfield: 1,010 acres (64%)

##### Major Surface Waters

- Colby Brook
- Musquash North

##### Flood Hazard Areas

- X – 100% (low risk)
- B – 0% (moderate risk)
- AE – 0% (high risk)

##### Wastewater Treatment

- Public/Private Sewer (0%)
- Private Septic Systems (100%)

Impervious Cover: <1%



## Streams

In Londonderry, nine perennial stream segments are located in the Colby Brook Watershed. The only named stream is Colby Brook. Colby Brook begins as two branches near the Londonderry Fish and Game Club in the center of the watershed. The two branches join and continue west through Litchfield to the Merrimack River. All streams are shown in Table 3-10 and Figure 3-2.

**Table 3-10 - Surface Waterbodies in the Colby Brook Watershed**

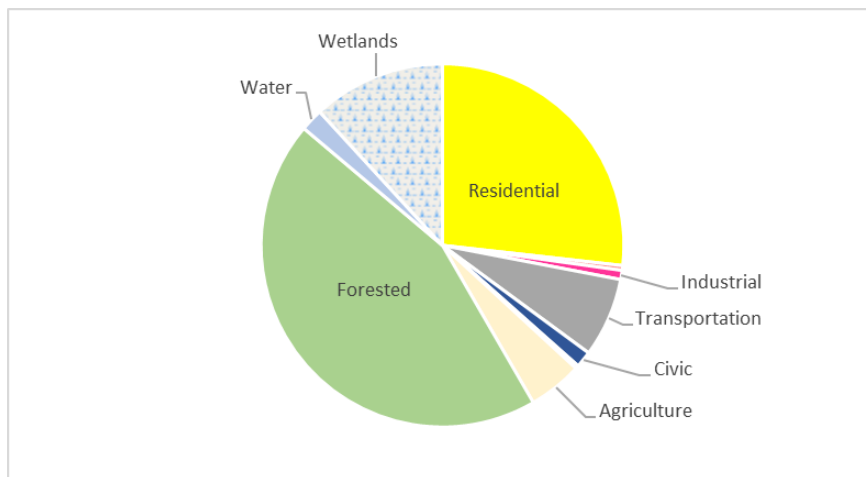
Colby Brook			
Ponds			
Map #	Waterbody Name	Waterbody Size (acres)	
11	Unnamed	1.9	
14	Musquash North	3.1	
Perennial Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Named Waterbodies			
01070006006491	Colby Brook	0.1	2
Unnamed Waterbodies			
01070006003249	Unnamed	0.2	1
01070006003258	Unnamed	0.0	2
01070006003265	Unnamed	0.0	1
01070006006458	Unnamed	0.0	1
01070006006472	Unnamed	0.0	2
01070006014309	Unnamed	0.1	1
01070006014310	Unnamed	0.0	2
01070006014311	Unnamed	0.4	1
**"Stream order" is a measure of the relative size of steams. The smallest tributaries are considered first order streams. These small streams are also referred to as headwater streams.			

### 3.2.7 Nesenkeag Brook Watershed

#### Watershed Description

The Nesenkeag Brook Watershed lies in the southwest corner of Londonderry and drains westerly towards the Merrimack River. Approximately 64% (3,848 acres) of the 5,995-acre watershed is within Londonderry, with the remaining area in Litchfield. The watershed extends east from the town line with Litchfield to High Range Road. Mayflower Drive forms the northern border of the watershed while the southeastern corner of the watershed extends to Route 102/Nashua Road. (Figure 3-1).

Land use in the Londonderry portion of Nesenkeag Brook Watershed is predominately forested (45%). Residential land use (27%) is scattered throughout the watershed with denser neighborhoods located in the central and eastern portions of the watershed. Other land uses include agriculture (5%), and transportation (7%) (Figures 3-3 and 3-11). The Continental Paving Batch Plant, Elwood Orchards, Carriage Shack Farm, the Londonderry West Soccer Fields, and Sunnycrest Farm are all located in the watershed. Impervious cover in the watershed is 6% (Figure 3-4) and the entire watershed does not have access to public/private sewer and are assumed to rely on private septic systems (Figure 2-10).



**Figure 3-11 – Land Use in Nesenkeag Brook Watershed**

#### NESENKEAG BROOK WATERSHED FACTS



#### Watershed Area

Total = 5,995 acres

Londonderry: 3,848 acres (64%)

Litchfield: 2,147 acres (36%)

#### Major Surface Waters (\*impairment)

- Nesenkeag Brook\*

#### Dams

- 8 private
- 1 public

#### Flood Hazard Areas

- X – 95% (low risk)
- B – 1% (moderate risk)
- AE - 4% (high risk)

#### Wastewater Treatment

- Public/Private Sewer (0%)
- Private Septic Systems (100%)

Impervious Cover: 6%

## **Surface Waters in Londonderry**

### ***Ponds***

In Londonderry, eight ponds or impoundments have been identified in the Nesenkeag Brook Watershed, five of which are unnamed. The largest is a 10.8-acre pond on Nesenkeag Brook called Lythia Springs. Two other named ponds, Colonial Marsh (1.1 acres) and Shadow Ridge (6.5 acres) are located on Nesenkeag Brook. The remaining ponds are unnamed and range in size from 1 to 4 acres. All ponds are shown in Table 3-11 and Figure 3-2.

### **Streams**

In Londonderry, the Nesenkeag Brook Watershed has 27 perennial stream segments and four intermittent stream segments. Many of these streams are small and unnamed and the major streams in the watershed is Nesenkeag Brook. The named streams are described in more detail below. All streams are shown in Table 3-11 and Figure 3-2.

**Nesenkeag Brook** – Nesenkeag Brook begins north of Nashua Road and flows southerly and then northwest just west of Elwood Orchards and Carriage Shack Farm and east of the Londonderry West Soccer Fields. It is joined by an unnamed section near Continental Recreation Park near the West Recreation Fields. The Brook then flows west towards the Litchfield town line and eventually flows into the Merrimack River.

Nesenkeag Brook and a small unnamed brook (listed as Nesenkeag Brook - Unnamed Brook on NHDES's 303(d) list) are considered impaired and not meeting their designated uses of aquatic life. Both have dissolved oxygen and pH impairments and their impairment sources are listed as unknown (Table 3-3).



*Londonderry Soccer Fields on West Road*

Table 3-11 - Surface Waterbodies in the Nesenkeag Brook Watershed

Nesenkeag Brook			
Ponds			
Map #	Waterbody Name	Waterbody Size (acres)	
15	Colonial Marsh	1.1	
16	Unnamed	4.1	
17	Unnamed	2.2	
18	Unnamed	1.2	
19	Unnamed	1.4	
20	Lythia Springs	10.8	
25	Unnamed	4.4	
26	Shadow Ridge	6.5	
Perennial Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Named Waterbodies			
01070006000572	Nesenkeag Brook	0.0	3
01070006000573		0.5	3
01070006006568		0.0	1
01070006008118		0.4	2
01070006008119		0.3	2
01070006008120		1.2	2
01070006008121		0.4	2
01070006008122		1.6	2
Unnamed Waterbodies			
01070006001082	Unnamed	1.4	1
01070006001082	Unnamed	0.7	3
01070006001083	Unnamed	0.4	1
01070006003267	Unnamed	0.0	1
01070006003270	Unnamed	0.3	1
01070006003273	Unnamed	0.1	1
01070006003279	Unnamed	0.0	1
01070006003297	Unnamed	0.0	1
01070006006527	Unnamed	0.5	1
01070006006555	Unnamed	0.8	1
01070006006584	Unnamed	0.3	1
01070006006585	Unnamed	0.1	1
01070006006588	Unnamed	0.4	1
01070006006589	Unnamed	0.3	2
01070006006592	Unnamed	0.0	1
01070006006598	Unnamed	0.1	1
01070006006642	Unnamed	0.1	1
01070006006666	Unnamed	0.2	1
01070006008117	Unnamed	0.0	1
Intermittent Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Named Waterbodies			
01070006006568	Nesenkeag Brook	0.5	1
Unnamed Waterbodies			
01070006001082	Unnamed	0.9	1
01070006006592	Unnamed	0.2	1
01070006008117	Unnamed	0.4	1
**"Stream order" is a measure of the relative size of steams. The smallest tributaries are considered first order streams. These small streams are also referred to as headwater streams.			



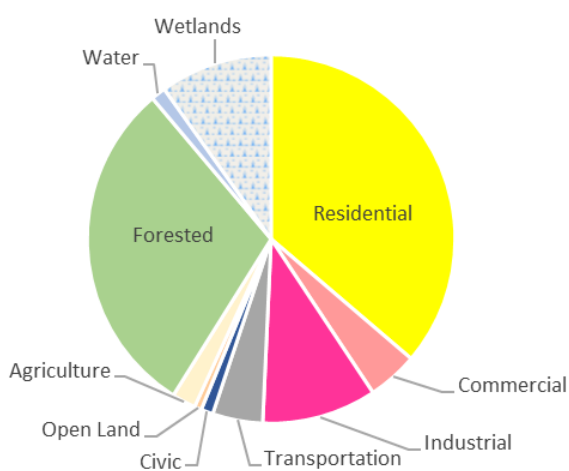
### 3.2.8 Chase Brook Watershed

#### Watershed Description

The Chase Brook Watershed is located in the southwestern corner of Londonderry and drains westerly to the Merrimack River. Approximately 20% (972 acres) of the 4,905-acre watershed is within Londonderry, with the remaining downstream areas in Litchfield and Hudson. The north and eastern boundaries of the watershed are just north of Old Nashua Road and just east of Windsor Boulevard, respectively (Figure 3-1).

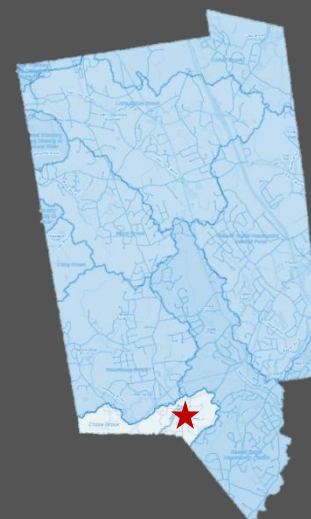
Chase Brook flows southwest from just above Parmenter Road into a small pond along the town border with Hudson near Avery Road. Chase Brook continues west through Hudson into Litchfield before flowing into the Merrimack River (Figure 3-2).

Only the upstream portion of the Chase Brook Watershed lies in Londonderry. Land use in this portion of Chase Brook Watershed is predominately residential (36%), with most residential neighborhoods located in the eastern portion of the watershed. Approximately 30% of the watershed is forested. Industrial/commercial land use is 16% and is concentrated in the western portion of the watershed in Londonderry. Other land uses include open land (1%), agriculture (2%), and transportation (3%) (Figures 3-3 and 3-12). The Londonderry Flea Market and Continental Paving are located in the Londonderry portion of the watershed and a former landfill is located in the watershed just over the town line with Hudson. Impervious cover in the watershed is 12% (Figure 3-4). The entire watershed in Londonderry does not have access to public/private sewer and is assumed to rely on private septic systems (Figure 2-10).



**Figure 3-12 – Land Use in the Chase Brook Watershed**

#### CHASE BROOK WATERSHED FACTS



#### Watershed Area

Total = 4,905 acres

Londonderry: 972 acres (20%)

Litchfield and Hudson: 3,933 acres (80%)

#### Major Surface Waters

- Chase Brook

#### Dams

- 2 private
- 0 public

#### Flood Hazard Areas

- X – 98% (low risk)
- B – 1% (moderate risk)
- AE - 1% (high risk)

#### Wastewater Treatment

- Public/Private Sewer (0%)
- Private Septic Systems (100%)

Impervious Cover: 12%

## Surface Waters in Londonderry

### Ponds

In Londonderry, three unnamed ponds are located in the Chase Brook Watershed. All ponds are less than three acres and are located along Chase Brook. One unnamed pond is located on the town border with Hudson along Chase Brook. This is the largest pond in the watershed at 9 acres. All ponds are shown in Table 3-12 and Figure 3-2.

### Streams

In Londonderry, six perennial stream segments and two intermittent stream segments are located in the Chase Brook Watershed. The major stream, Chase Brook, begins in a residential neighborhood near Pendleton Lane. It flows southwesterly forming a series of small ponds and crosses the town line with Hudson before eventually discharging to the Merrimack River. All streams are shown in Table 3-12 and Figure 3-2.

**Table 3-12 - Surface Waterbodies in the Chase Brook Watershed**

Chase Brook			
Ponds			
Map #	Waterbody Name	Waterbody Size (acres)	
21	Unnamed	2.4	
22	Unnamed	1.7	
23	Unnamed	2	
24	Unnamed	9	
Perennial Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Named Waterbodies			
01070006001085	Chase Brook	0.2	1
01070006001085		0.6	2
Unnamed Waterbodies			
01070006003287	Unnamed	0.1	1
01070006003300	Unnamed	0.0	1
01070006006651	Unnamed	0.5	1
01070006006674	Unnamed	0.0	1
Intermittent Streams			
Reach #	Waterbody Name	Length (mi)	Stream Order*
Named Waterbodies			
01070006001085	Chase Brook	0.2	1
Unnamed Waterbodies			
01070006006674	Unnamed	0.3	1
**“Stream order” is a measure of the relative size of steams. The smallest tributaries are considered first order streams. These small streams are also referred to as headwater streams.			

### 3.3 Surface Water Withdrawals and Discharges

As of March 2019, the National Pollutant Discharge Elimination System (NPDES) and State Surface Waters Discharge Permits do not list any discharge permits to waterbodies in Londonderry, NH. NPDES permits are issued by the U.S. Environmental Protection Agency under the NPDES program for surface water discharges.

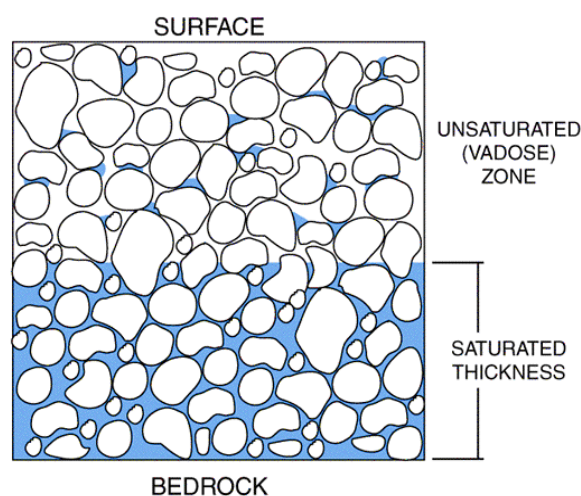
## 4 Description of Groundwater Resources

Many residents of Londonderry rely on groundwater for drinking water. Groundwater is the water found underground in the fractures in the bedrock and between particles of soil, sediment, and rock that lie on top of bedrock. Groundwater properties and characteristics as well as groundwater resources in Londonderry are described in the following section.

### 4.1 Groundwater Properties

Groundwater is stored in aquifers, an underground layer of rock that is saturated with water that can be brought to the surface through natural springs or by pumping. The amount of space and the connection between spaces varies with the rock and soil type of the aquifer. This influences how much water can be stored or withdrawn and the rate at which groundwater moves.

In New Hampshire, groundwater occurs in bedrock fractures and in the material left behind by retreating glaciers known as glacial till and stratified drift. Till was deposited as the glacial ice melted and dropped rock fragments of various sizes while stratified drift material was sorted according to the size and weight of the fragments deposited by glacial meltwater. Wells in New Hampshire are typically found in three types of aquifers: bedrock, bedrock-till and stratified drift. Wells that are drilled into deep bedrock are generally low yield as the water transport in this type of aquifer occurs in the fractures and faults of the bedrock. Bedrock-till aquifers are made up of different rock types such as granite and are covered by till. These aquifers are generally low-yield aquifers. Stratified-drift aquifers consist primarily of sorted sand and gravel deposits that were deposited in layers by meltwater streams flowing from the retreating glacial ice. Depending on the type of stratified drift material in the deposits, large quantities of groundwater may be present and conveyed to wells. In New Hampshire, stratified drift materials underlie approximately 14 percent of the state and are typically located in lowlands and river valleys. However, approximately 79 percent of the high-capacity wells in New Hampshire are located in stratified-drift materials<sup>15</sup>.



*Saturated and Unsaturated Aquifer Zones*

The type of material making up the aquifer determines other characteristics of the aquifer, including the depth of the saturated and unsaturated zones, shown in the diagram above. In the saturated zone, all of the pore spaces are filled with water and the elevation of that water is referred to as the saturated thickness of the aquifer. The boundary between the saturated and unsaturated zones is known as the water table. Under natural conditions, the elevation of the water table varies as a function of recharge, discharge, and evapotranspiration and fluctuates over time and season. Transmissivity describes the ability of the aquifer to transmit groundwater throughout its entire saturated thickness and is a function of the thickness of the aquifer and its hydraulic conductivity. Lower yield aquifers will have a lower transmissivity as water is more difficult to withdraw from the groundwater.

<sup>15</sup> NHDES, 2008. Water Resources Primer. Chapter 4: Groundwater.



## 4.2 Groundwater in Londonderry

Groundwater is drawn from stratified drift aquifers, bedrock, and bedrock-till aquifers (Table 4-1). To determine the location of aquifers and depth to bedrock, seismic refraction, a geophysical method used for investigating subsurface ground conditions by utilizing surface-sourced seismic waves is often used. Seismic refraction surveys use pulses of low frequency seismic energy emitted at the surface. The waves propagate downward until they are reflected or refracted off subsurface layers. The location of these surveys to determine subsurface properties in Londonderry are shown on Figure 4-1 as seismic refraction lines.

As shown in Figure 4-1, four major stratified drift aquifers are located in Londonderry, primarily near municipal borders. Small sections of bedrock-till aquifers are found within the larger stratified drift aquifers. The remaining wells access water from deeper wells drilled directly into bedrock. Bedrock, such as granite, is hard and compact and contains recoverable water only in open fractures. The size, number, distribution, and connectedness of the fractures are highly variable and often minimal. Thus, though bedrock and bedrock-till aquifers are often appropriate for individual water supplies (e.g. single-family home), they are generally not sufficient to provide drinking water to a municipal system.

**Table 4-1: Aquifers in Londonderry**

Aquifer Type	Acres	Percent of Londonderry
Stratified Drift	6,504	24%
Bedrock Till	1,172	4%
Bedrock	19,282	72%

As noted previously, stratified-drift aquifers are higher yield aquifers than bedrock or bedrock-till aquifers. The majority of the stratified-drift aquifers in Londonderry are considered low-yield aquifers (Table 4-2; shown in yellow on Figure 4-2). The largest low-yield aquifer in Londonderry is located in the northwest corner of the town extending from Manchester Airport South to Litchfield Road and is associated with Watts Brook and Little Cohas Brook.

Medium-yield aquifers are found near Watts Brook, Nesenkeag Brook, Beaver Brook, and Cohas Brook, the largest of which is associated with Beaver Brook. Four small high-yield aquifers are found in Londonderry. The largest is associated with Nesenkeag Brook and is located near the Londonderry West Soccer Fields. A smaller high-yield aquifer is associated with Beaver Brook northwest of Kendall Pond on South Road. Two small high-yield aquifers are located in the northeast corner of the town and are associated with Cohas Brook. All aquifers in Londonderry have a saturated thickness ranging from 20 to 40 feet and a water table elevation ranging from 200 to 240 feet (Figure 4-2).

### LONDONDERRY GROUNDWATER FACTS

#### Aquifers

Stratified Drift = 6,504 acres

Bedrock-Till = 1,172 acres

Bedrock = 19,282 acres

#### Groundwater Yield

Low = 20%

Medium = 4%

High = <1%

#### Water Table

Average Elevation = 231 feet

#### Saturated Thickness

Average Thickness = 24 feet

#### Public Water Supply Wells

22 Community

3 Noncommunity

6 Transient Noncommunity

#### Private Wells

2,995

**Table 4-2: Aquifers in Londonderry**

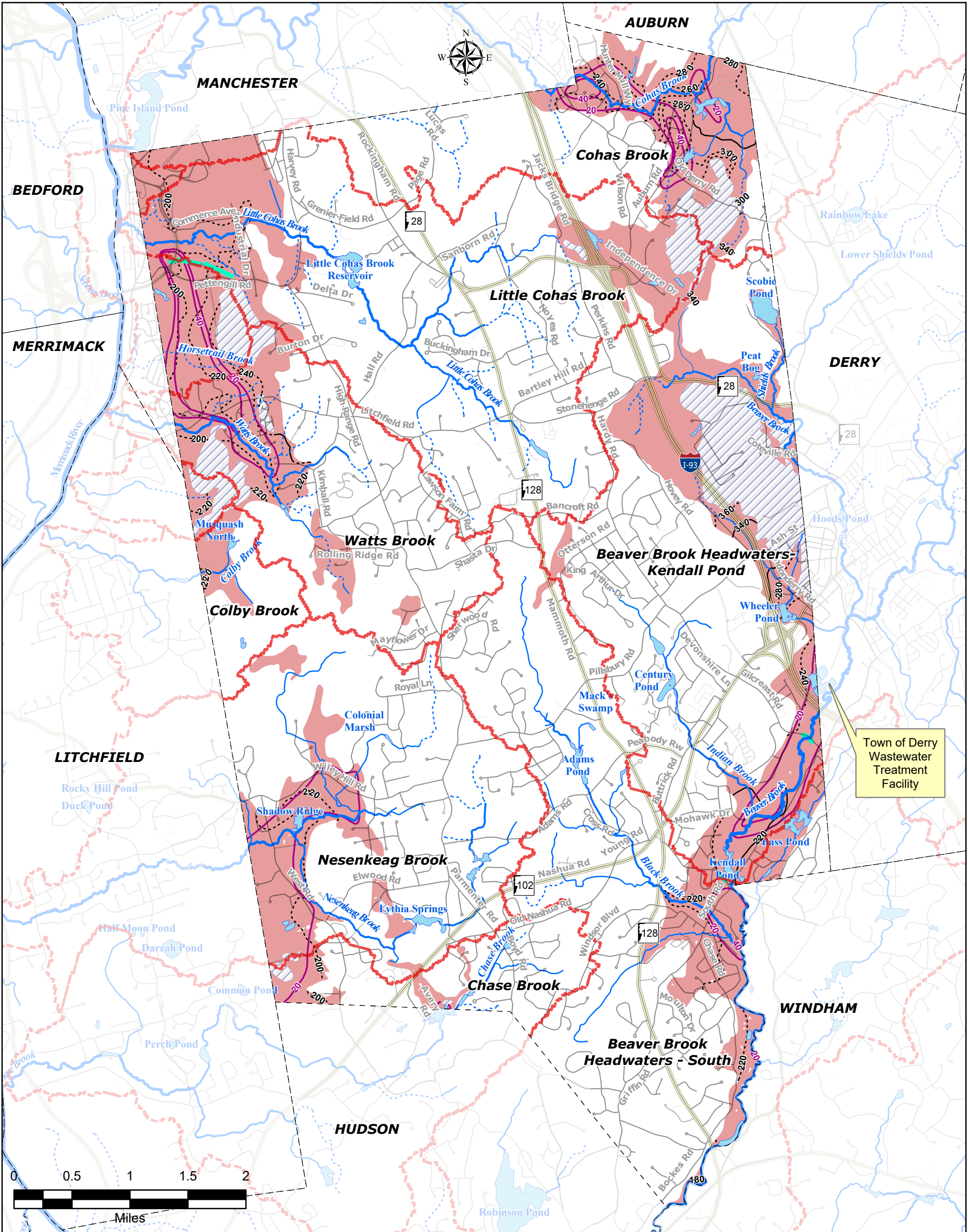
<b>Yield</b>	<b>Transmissivity (ft<sup>2</sup>/day)</b>	<b>Percent of Londonderry</b>
Low	0-1,000	20%
Medium	1,000-2,000	4%
High	2,000-4,000	<1%

### 4.3 Environmental Baseline Study – Well Water Quality

An Environmental Baseline Study Committee (EBSC) was established in March 2001 with the goal of establishing a quantitative measure of the “State of the Environment” in Londonderry. In the first year of operation, the EBSC conducted a well water quality study, a surface water quality study, and developed an Environmental Baseline Sampling and Analysis Master Plan for Londonderry.

The well water quality study involved randomly selecting homeowners to participate in a “no cost” well water sampling program that was coordinated by the committee. Samples were analyzed for 13 United States Environmental Protection Agency (USEPA) priority metals, 63 volatile organic compounds (VOCs), and 17 polyaromatic hydrocarbons (PAHs). A total of 154 households participated in this program. No PAHs were detected in any sample. Lead was detected in eleven wells, six of which were above the Maximum Contaminant Level (MCL) recommended by NHDES and arsenic was detected in 61 wells (40%). Seven of the wells exceeded the previous NHDES MCL for arsenic of 50 ppb, while 42 exceeded the proposed MCL at the time of 10 ppb. In 2019, NHDES has recently proposed a new MCL of 5 ppb for arsenic.

Other metals, including copper, zinc, cadmium, and nickel were detected but were below the Maximum Contaminant Limit (MCL) recommended by NHDES. Methyl tert-butyl ether (MTBE), a type of VOC in gasoline, was detected in 12 wells, the majority of which were located along the Route 102 corridor. The average MtBE concentration was 6 ppb, which is significantly lower than the NHDES and USEPA MCLs. Further well testing was conducted in 2002. An update to the Environmental Baseline Study is currently being conducted by the EBSC.



**Figure 4-1**  
**Aquifer Boundaries**  
**in Londonderry, NH**



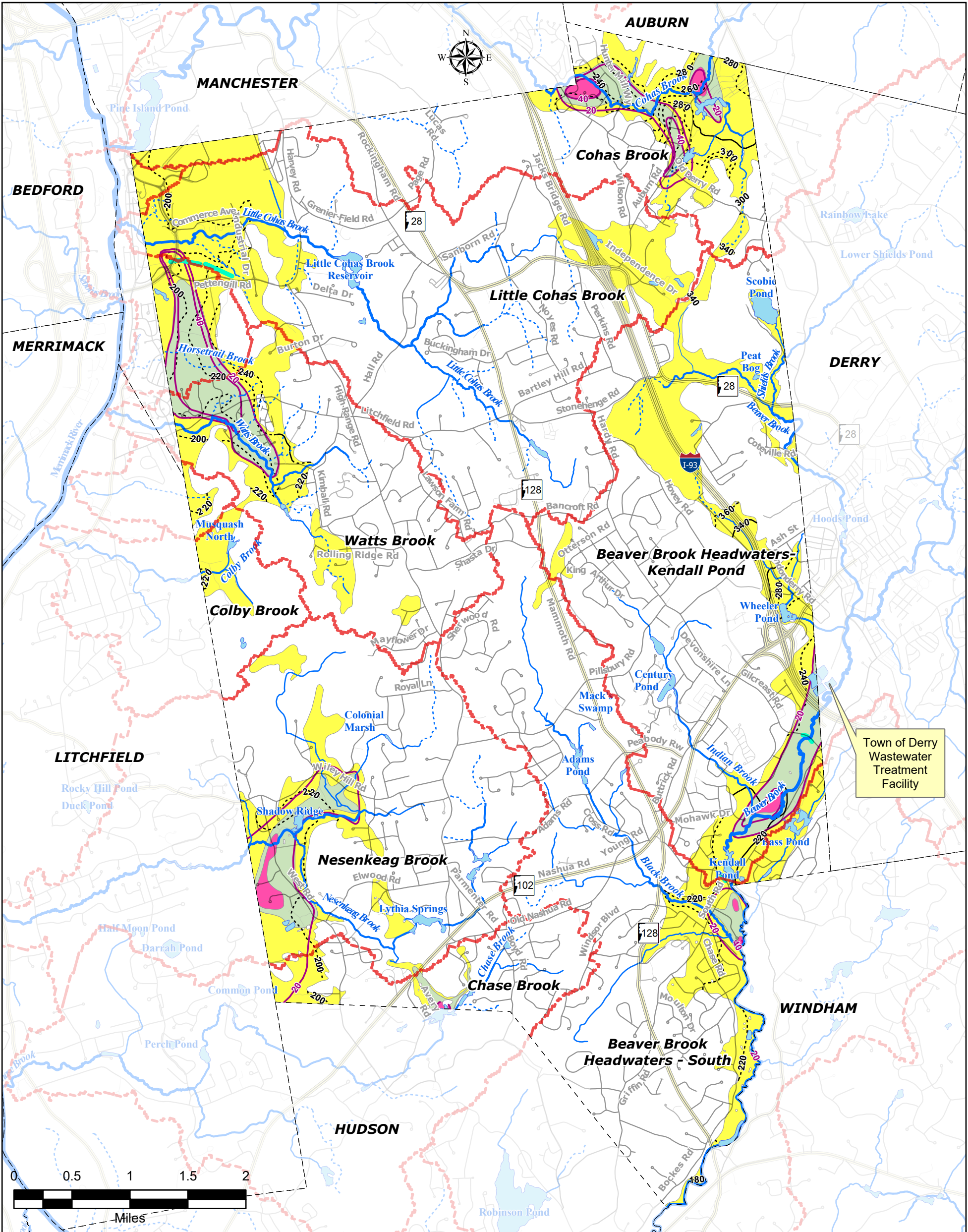
**Comprehensive Environmental Inc.**

**Data Source: GRANIT**

**Legend**

- Seismic Refraction Line
- Saturated Thickness (ft)
- Water Table Elevation (ft):
  - Known contour
  - Inferred contour
- Aquifer Material:
  - Till
  - Stratified-Drift
- Pond
- Watershed
- Perennial Stream
- Intermittent Stream





**Figure 4-2**  
**Aquifer Properties**  
**in Londonderry, NH**



Comprehensive Environmental Inc.

Data Source: GRANIT

**Legend**

- |                             |                                 |
|-----------------------------|---------------------------------|
| Seismic Refraction Line     | Transmissivity (sq ft)<br>RANGE |
| Saturated Thickness (ft)    |                                 |
| Water Table Elevation (ft): |                                 |
| Known contour               | 0-1,000                         |
| Inferred contour            | 1,000-2,000                     |
| Perennial Stream            | 2,000-4,000                     |
| Intermittent Stream         | Pond                            |
|                             | Watershed                       |

## 5 Assessment of Future Water Demand

An assessment was performed to evaluate existing water demand in Londonderry and to estimate future increases based on projected population trends. A water supply system's water demands come from many different consumers, including residential, commercial, industrial, agricultural and municipal. Water is also used at treatment facilities and throughout the distribution system through flushing, firefighting, street sweeping, flow testing and other uses. Additionally, some water is lost due to leaks and breaks.

### 5.1 Current Sources of Drinking Water

Drinking water in Londonderry is supplied by Manchester Water Works (MWW), the Derry Water Department (DWD), Pennichuck Water Works (PWW), public water supply system wells, and private wells (Figure 5-1).

#### 5.1.1 Public Water Suppliers

A data request was issued to MWW, PWW, and DWD to initiate this assessment and the collected data is summarized in Table 5-1. Because of the complicated supplier interconnection system in Londonderry, some requested data were not available. For example, each supplier calculates maximum daily demands and non-metered usage for their overall water supply system. However, these data were not available for Londonderry specific customers. Assumptions were used to fill these data gaps as described in subsequent sections of this assessment. Annual customer water usage data were available from all three suppliers from the period 2009 through 2017. Subsequent analysis from this assessment uses this time period to calculate historical water usage and demands.

MWW provides drinking water to the northern portion of Londonderry, DWD provides drinking water to a small section of town near Wheeler Pond and near Old Derry Road (i.e., Lorden Commons) on the Derry border, and PWW provides drinking water to multiple areas of town (Figure 5-1). Approximate service areas for the three public water suppliers are provided by Figure 5-1. The MWW water supply source is Lake Massabesic. The PWW supply is split into nine different water systems that draw water from different sources. These sources include purchase from MWW via Lake Massabesic, public water supply wells located in Londonderry, and purchase of water from the Town of Hudson via a wellfield in Litchfield. The DWD water supply is purchased from MWW via Lake Massabesic.

**Table 5-1. List of Available Data for Water Demand Analysis from Water Suppliers**

Item Requested	Data Availability		
	MWW	DWD	PWW
Map of water distribution system areas	Obtained	Obtained	Obtained
Customer metered annual totals for 20 years	Obtained from 1999 through 2018	Obtained from 2004 through 2018	Obtained from 2007 through 2017
System's non-metered data estimated to occur within Town limits (i.e., losses)	Unavailable	Unavailable	Obtained from 2007 through 2017
Maximum day demands for 20 years	Unavailable	Unavailable	Unavailable
List of customer services locations by address	Obtained from 1999 through 2018	Obtained from 2004 through 2018	Obtained for 2018
Demand projections	Unavailable	Unavailable	Unavailable

### 5.1.2 Public Water Supply Wells

A GIS based shapefile (i.e., “point” database) entitled “public water supplies” was requested and obtained from the New Hampshire Department of Environmental Services (NHDES) in December 2018<sup>16</sup>. The Statewide database includes wells and surface water intakes that are part of a public water supply system (PWS) permitted through NHDES’s Water Supply Engineering Bureau. These PWS wells typically supply larger entities such as condominium complexes. Relevant information provided by the database includes location, water supply type, estimated population served, and yield. Given the sensitive nature of public water supply data, NHDES restricts dissemination of specific well information to the public (e.g., location, characteristics). Specific information for each well is therefore not provided by this assessment.

There are 31 PWS wells in Londonderry that include 22 community systems, 3 non-community systems, and 6 transient non-community systems.

- Community systems supply water to the same population year-round.
- Non-community water systems provide water to at least 25 of the same people at least six months per year. Some examples include schools, factories, office buildings, and hospitals with their own water systems.
- Transient water systems provide water in a place such as a gas station or campground where people do not remain for long periods of time.

Five of Londonderry’s PWS wells are operated by PWW. These include the Pine Haven, Ministerial Heights, and Harvest Village community systems. A majority of PWS wells are bedrock wells (28) and three are point wells. Each well serves an estimated average of 159 people. Yields are relatively low, with an average

<sup>16</sup> NH DES (2018). “Public Water Supplies”. Shapefile obtained upon request to NH DES, December 2018.



of 22 gallons per minute. The 31 PWS wells supply water to approximately 867 developed<sup>17</sup> parcels (excluding PWW PWS wells). This estimate was obtained by identifying parcels assumed to be associated with each well's location address and name of the area that it supplies (e.g., ABC condominiums).

### 5.1.3 Private Wells

Though detailed records for private drinking water wells in Londonderry were not available, a GIS analysis of parcels relative to known water supply areas was performed. Londonderry currently has 2,995 developed parcels that are not located within the service areas of the three water suppliers or public water supply system wells (See Figure 5-1).

### 5.1.4 Wellhead Protection Areas

Groundwater quality is affected by the bedrock and overburden material it flows through as well as land use. Groundwater is primarily recharged by precipitation. The amount of precipitation that enters the ground to replenish groundwater will change significantly as land use changes and impervious cover increases. Arsenic and other contaminants found in groundwater may be naturally occurring. Other contaminants may be introduced to the groundwater through agriculture, septic systems, stormwater runoff, and other human activities. As development has increased, it has become more important to protect groundwater resources from contamination.

In 1986, the USEPA amended the Safe Water Drinking Act to include Wellhead Protection Areas. A wellhead is the physical structure of the well above ground and the Wellhead Protection Area is the area around the wellhead where land use activities have the potential to affect the quality of water that flows into the well. The amount of land involved in a wellhead protection area is determined by a variety of factors such as the way the land rises or falls, the amount of water being pumped, the type of aquifer, the type of soil surrounding the well, and the direction and speed that groundwater travels. All of these factors help to determine how long it takes water to move underground to the well itself and how much land around the wellhead should be protected. In Londonderry, 28 of the 31 public water supply wells have Wellhead Protection Areas. The three non-community systems do not have Wellhead Protection Areas.

Source Water Protection Areas are areas of land that likely recharges or passes groundwater and surface water through it to the public water source, including surface and groundwater. There are two primary Source Water Protection Areas in Londonderry. The western portion of the town is considered source water for Pennichuck Water Works and a small section of the Cohas Brook watershed at the northern section of town is considered source water for Manchester Water Works.

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<sup>17</sup> Developed parcels are defined as parcels with buildings on them. Building data were provided by the Town on January 17, 2019.

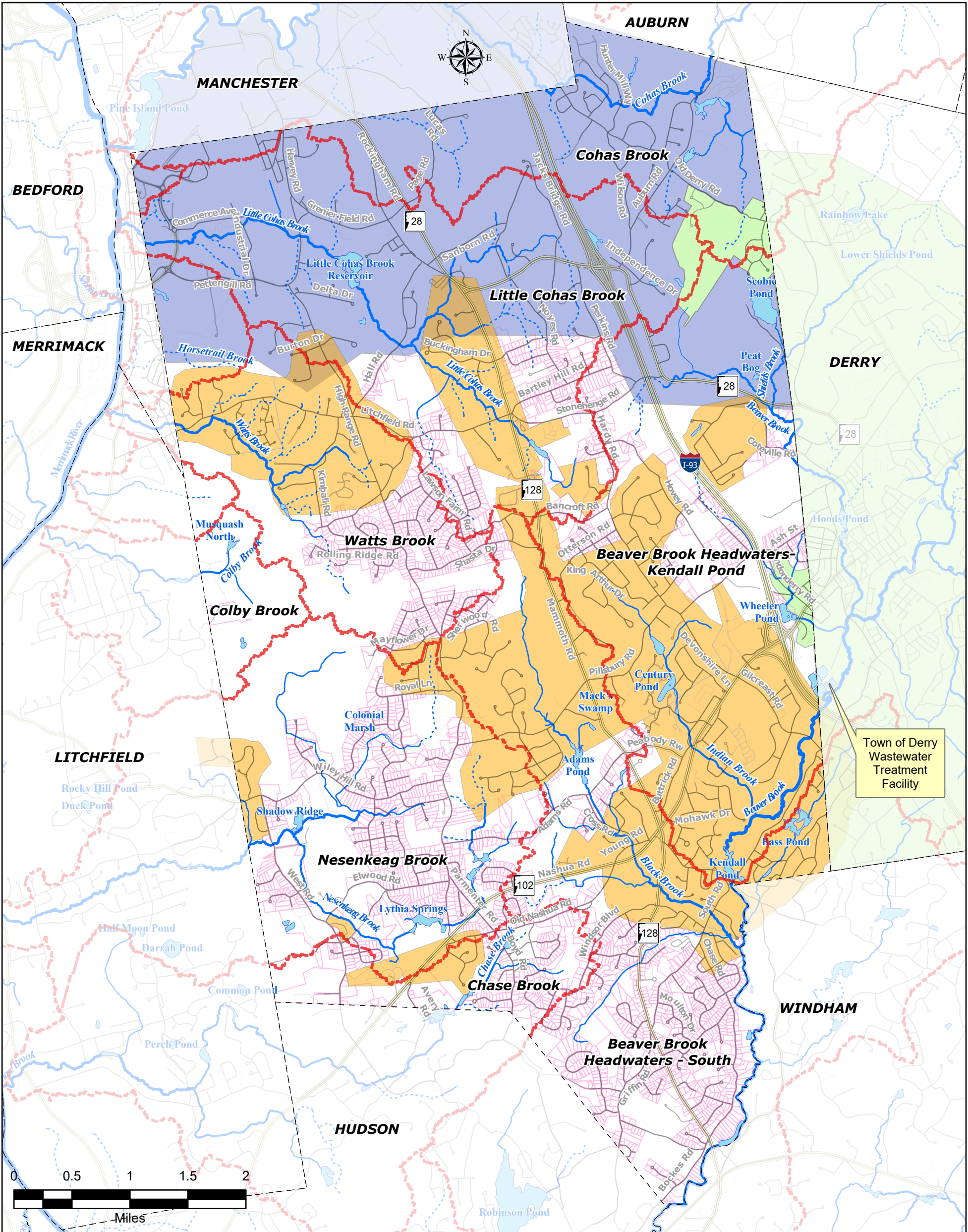


Figure 5-1

Public Water Supplies  
and Service Areas



Comprehensive Environmental Inc.

Data Sources: GRANIT, Pennichuck Water Works,  
Towns of Londonderry and Derry, City of Manchester.

**Legend**

Assumed Private Well Parcels	Pond
Derry Waterworks Service Area	Watershed
Manchester Waterworks Service Area	Perennial Stream
Pennichuck Waterworks Service Area	Intermittent Stream

**Note:** Derry and Manchester Service Areas are approximate.  
Public water supply information omitted from map  
per NHDES Data Agreement.



## 5.2 Current Water Usage

An analysis of average metered water usage from 2009 through 2017 per supply source and customer type was performed based on available data.

### 5.2.1 Water Usage by Source

As summarized by Table 5-2, a majority of Londonderry's customers (water users) are supplied by PWW, private wells, and public water supply wells serving community systems; however, MWW supplies the most water. MWW metered daily water usage accounts for approximately 54% of water use in Londonderry as compared to 19% for PWW, 27% for public and private wells, and < 1% for DWD. Almost half of MWW's customers are industrial and commercial facilities. Therefore, MWW supplies significantly more water per customer than PWW and DWD who supply mostly residential customers. For example, MWW supplies the Coca-Cola Bottling Company which used approximately 0.40 mgd of MWW's 1.35 mgd average daily metered usage (30%) in 2017.

Daily metered water usage for systems served by PWS wells was estimated by multiplying the estimated population served by each well<sup>18</sup> by an assumed residential gallon per capita day (RGPCD) water use of 55 gallons per day (RGPCD) in accordance with past studies<sup>19</sup>. This planning level estimate does not account for potential differences among public water system types (i.e., community vs. non-community vs. non-community transient). It was assumed that water usage from public water supply system wells has remained constant over time.

Private well usage was estimated based on the 2,995 parcels assumed to be currently serviced by private drinking water wells. Most assumed parcels served by private wells are in residential land use areas. Water usage was therefore estimated by assuming an average 55 RGPCD and multiplying it by the assumed population served by private wells. Each of the 2,995 parcels was assumed to represent a household. The estimated persons per household in Londonderry in July 2018 was 2.77 based on U.S. Census Data<sup>20</sup>. A population growth rate of 1% per year was assumed for private well usage (See Section 5.3.1). This planning level estimate does not account for potential "high water use" parcels served by private wells not in residential areas such as concrete batching plants, car washes, farms, playing fields, golf courses, and retail property. Estimates of "high water use" parcels served by private drinking water wells are outside the scope of this study, but are expected to represent a small fraction of overall water use in Londonderry.

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<sup>18</sup> NH DES (2018). "Public Water Supplies". Shapefile obtained upon request to NH DES, December 2018.

<sup>19</sup> Comprehensive Environmental, Inc. (2018). Inventory of Below WMA Threshold Water Withdrawal Sources in the Ipswich and Parker River Watersheds. Completed for UMass Donahue Institute and MassDEP, October, 2018.

<sup>20</sup> U.S. Census per household estimate: <https://www.census.gov/quickfacts/fact/table/US/PST045218>



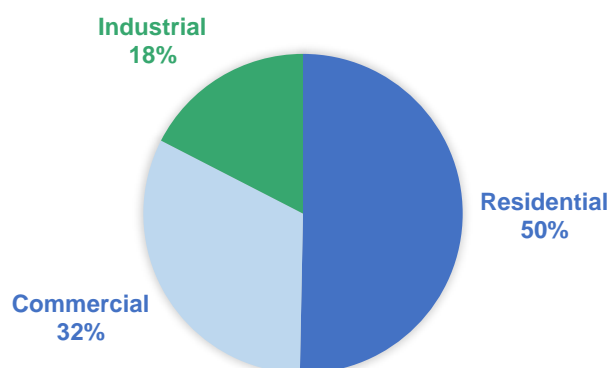
**Table 5-2. Town Water Supply Sources, Customers, and Estimated Metered Usage (2009-2017)**

Supplier	Water Supply Source	Average Number of Customers	Average Daily Metered Water Usage	
			<i>mgd</i>	<i>% of total</i>
Manchester Water Works <sup>1</sup>	Lake Massabesic	422	1.35	54%
Derry Water Department	Lake Massabesic via purchase from MWW	285	< 0.01	< 1%
Pennichuck Water Works	Purchased from MWW (via Lake Massabesic); Community wells in Londonderry (3); and Purchased of water from the Town of Hudson (wellfield in Litchfield)	1,920	0.48	19%
Public Water Supply Wells <sup>2</sup>	31 total wells serving community systems (22), non-community systems (3), and transient non-community systems (6).	869	0.23	9%
Private Wells <sup>3</sup>	Private Drinking Water Wells	2,875	0.44	18%
<b>Totals</b>		<b>6,371</b>	<b>2.49</b>	<b>100%</b>
Notes: 1. MWW number of 2017 customers and metered water usage excludes three wholesale meters used by PWW to purchase water from MWW. 2. Public water supply well numbers estimated by multiplying estimated population served by each well (provided by NHDES) by an assumed use of 55 gallons per day per capita. Number of parcels ("customers") estimated in GIS based on each well's address (e.g., the number of parcels in a particular condominium association were counted). Number of parcels and associated water usage assumed to remain constant each year. 3. Private well numbers estimated by multiplying number of developed parcels (i.e., "customers" / "households") by an assumed number of persons per household of 2.77 and an assumed use of 55 gallons per day per capita. Number of parcels ("customers") estimated to grow by 1% per year based on population projections.				

### 5.2.2 Water Usage by Customer Type

Metered use by customer type was estimated based on available data. Although customer types for PWW and DWD are unknown, it is assumed that most customers are residential. As previously indicated, all public and private well usage was assumed to be residential for this analysis. Assuming that all of PWW, DWD, and public/private well uses are residential, Figure 5-2 provides an estimated breakdown of metered water use by customer types served by Londonderry based on average metered daily water usage from 2009 through 2017. It is estimated that approximately 50% of all metered water use is attributed to residential customers, while 50% of use is attributed to industrial and commercial customers.

Although estimated water usage is split evenly between residential and industrial/commercial users, it should be noted that 6,166 of Londonderry's 6,371 average customers from 2009 to 2017 are residential (97%) as compared to just 205 commercial/industrial customers (3%).



**Figure 5-2. Estimate of Average Metered Water Use by Customer Type (2009 through 2017)**

## 5.3 Current and Future Water Demands

Available data and population projections were used to evaluate historical water system demands and to estimate future anticipated water demands through a 20-year planning horizon.

### 5.3.1 Historical and Projected Populations

Historical population data for Londonderry was used to estimate future population. Historical population data were compiled from the U.S. Census Bureau Decennial Census. Population projections were obtained from the Southern New Hampshire Planning Commission (SNHPC)<sup>21</sup> and the New Hampshire Office of Strategic Initiatives (NH OSI)<sup>22</sup>. Refer to Table 5-3 for historical population and future projections from these sources.

Londonderry experienced rapid growth in the 1980s and 1990s with population increasing by over 60%. Population growth slowed in the 2000s. It is expected that population growth will remain steady through 2040, with increases of approximately 2% (NH OSI) to 5% (SNHCP) every five years. Population projections differ between NH OSI and SNHCP significantly. NH OSI predicts a population of 27,036 in 2040 as

<sup>21</sup> SNHPC population projections available at <http://www.snhpc.org/index.php?page=population>

<sup>22</sup> NH OSI population projections available at: <https://www.nh.gov/osi/data-center/documents/2016-subcounty-projections-final-report.pdf>

compared to SNHCP's projection of 31,477. This analysis has incorporated the higher population projections when calculating potential future water demands for conservatism.

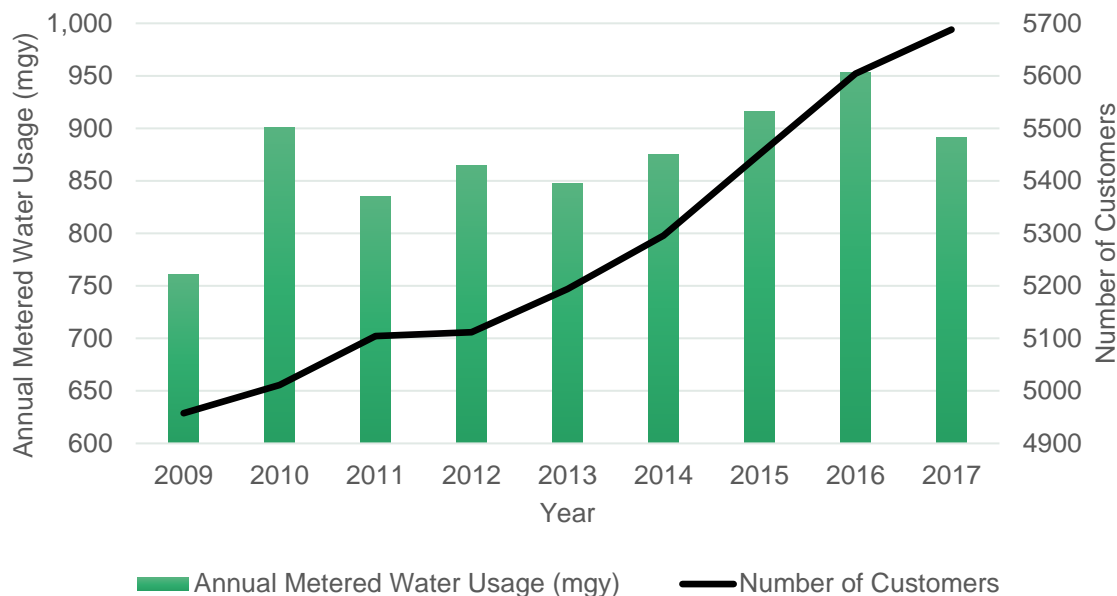
**Table 5-3. Historical and Projected Population**

Type	Year	Population	Percent Change
Historical (US. Census Bureau)	1980	13,598	--
	1990	19,781	45.5%
	2000	23,236	17.5%
	2010	24,129	3.8%
	2015	25,132	4.2%
Projected (SNHPC)	2020	26,082	3.8%
	2025	27,267	4.5%
	2030	28,438	4.3%
	2035	29,925	5.2%
	2040	31,477	5.2%
Projected (NH OSI)	2020	25,434	1.2%
	2025	26,057	2.4%
	2030	26,639	2.2%
	2035	26,973	1.3%
	2040	27,036	0.2%

### 5.3.2 Historical Annual Metered Water Usage

Historical annual metered water usage from 2009 through 2017 relative to number of customers is summarized by Figure 5-3 for primary Londonderry water suppliers (i.e., MWW, PWW, DWD, public wells, private wells). Metered water usage grew annually at an approximate average rate of 2.3% from 2009-2017. This rate is slightly faster than current average annual population growth rates of approximately 1.0% from 2009 through 2017 as interpolated from Table 5-3.

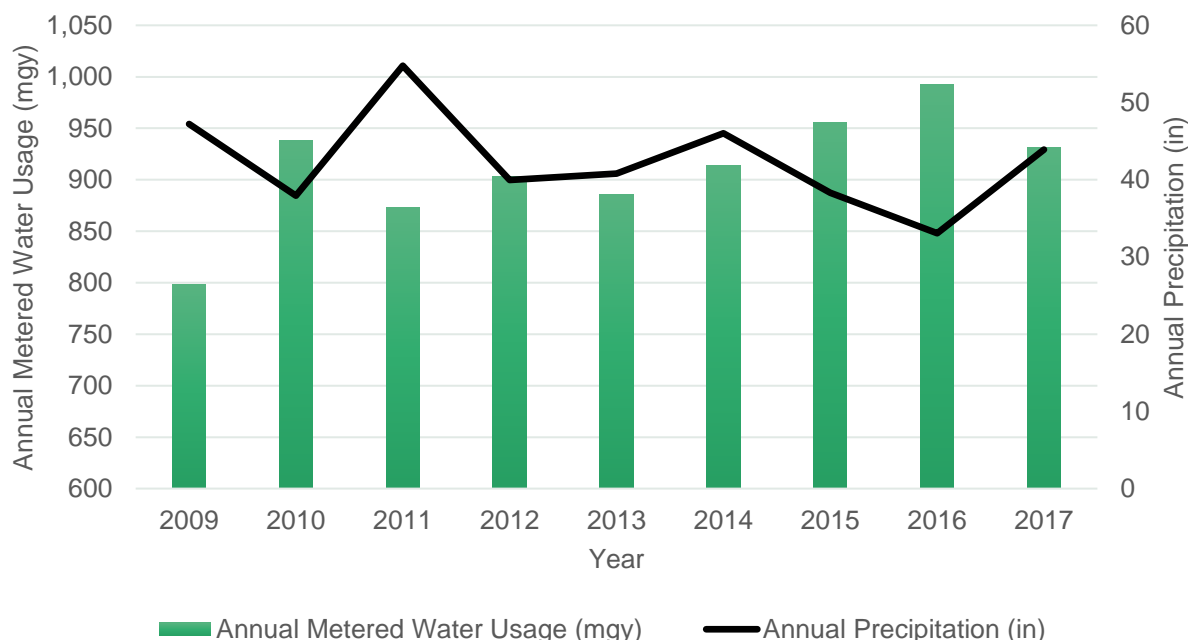




**Figure 5-3. Annual Metered Water Usage Relative to Customer Growth**

*(Includes metered usage data obtained from MWW, PWW, DWD, and estimated public/private well usage)*

Historical annual metered water usage was also examined relative to precipitation. Precipitation data were obtained from the National Climatic Data Center (NCDC) weather station in Concord, approximately 28 miles north of Londonderry. Weather typically has a noticeable impact on water usage. Wet years generally correspond with lower water demands and dry periods typically result in increased water usage. It is important for water suppliers to be prepared for both contingencies. Dry years typically result in increased supply pumpage and are critical when evaluating supply availability and redundancy. Wet years can negatively impact revenues since customers use less water. As observed from Figure 5-4, metered water usage decreased in 2011 during a wetter than average year (54.8 inches of rain) and peaked in 2016, presumably as a result of drought conditions (33.1 inches of rain). For reference, “climate normal” data obtained from the Northeast Regional Climate Center (NRCC) from 1980 through 2000, indicate that average precipitation in Concord is approximately 40.6 inches.



**Figure 5-4. Estimated Annual Metered Water Usage Relative to Precipitation**

*(Includes metered usage data obtained from MWW, PWW, DWD, and estimated public/private well usage)*

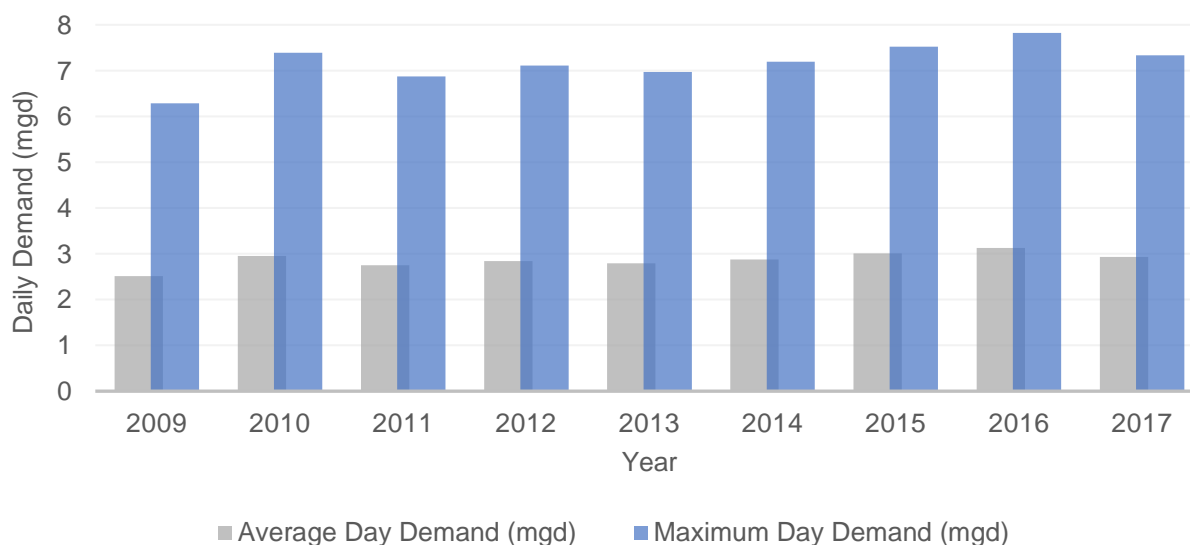
### 5.3.3 Historical Annual Water Demand

Estimates of historical metered usage were used to estimate “typical” Average Day Demand (ADD) and Maximum Day Demand (MDD). The ADD represents the total demand of the water system including metered use (i.e., water used by customers) and unmetered use. Unmetered use is typically separated into two categories: 1) Confidently Estimated Municipal Uses (CEMUs); and 2) Unaccounted for Water (UAW). CEMU fluctuate annually based on many factors (i.e. fires, flushing, flow testing, etc.). One year’s CEMU may not be an indicator of future years (i.e., CEMU can be highly variable). UAW includes both real losses (leaks, breaks and tank overflows) and apparent losses (unauthorized consumption, customer metering inaccuracies and data handling errors).

As previously indicated, unmetered water use data were unavailable for this analysis for all three primary water suppliers with the exception of PWW. Therefore, unmetered uses were estimated to be 15% of ADD. UAW was estimated to account for 10% of ADD based on Massachusetts Water Conservation Standards that require public water suppliers to minimize UAW by 10% or less<sup>23</sup>; while CEMU was estimated to account for 5% of ADD based on past project data for a variety of water supply systems. Note that similar water conservation standards with UAW do not currently exist in New Hampshire. MDD is defined as the largest 24-hour demand for the year. MDD data were unavailable for this analysis for all three primary water suppliers. Therefore, a commonly used industry rule of thumb estimate was used by multiplying ADD by a factor of 2.5. This factor typically ranges from 1.2 for large systems to 3 or higher.

<sup>23</sup> Massachusetts Water Conservation Standards: <https://www.mass.gov/files/documents/2018/09/11/ma-water-conservation-standards-2018.pdf>

The resulting calculated historical ADD and MDD from 2009 through 2017 are displayed by Figure 5-5. Average Londonderry ADD and MDD from 2009 through 2017 were 2.9 mgd and 7.2 mgd, respectively.



**Figure 5-5. Average and Maximum Day Demands**

*(ADD was calculated by increasing metered use by 15% to account for UAW and CEMU; MDD was calculated by multiplying ADD by 2.5)*

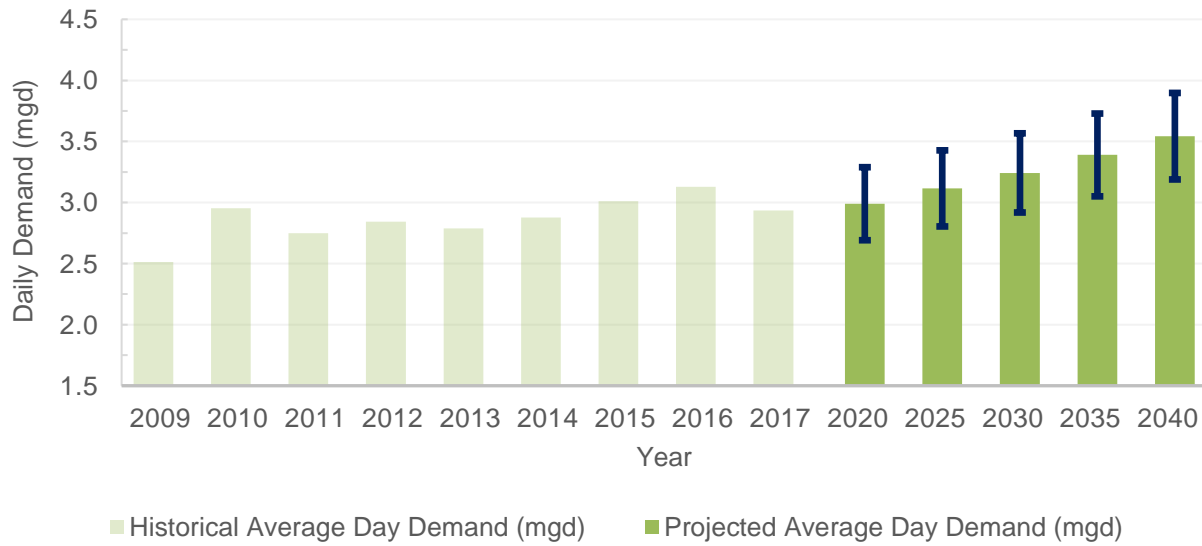
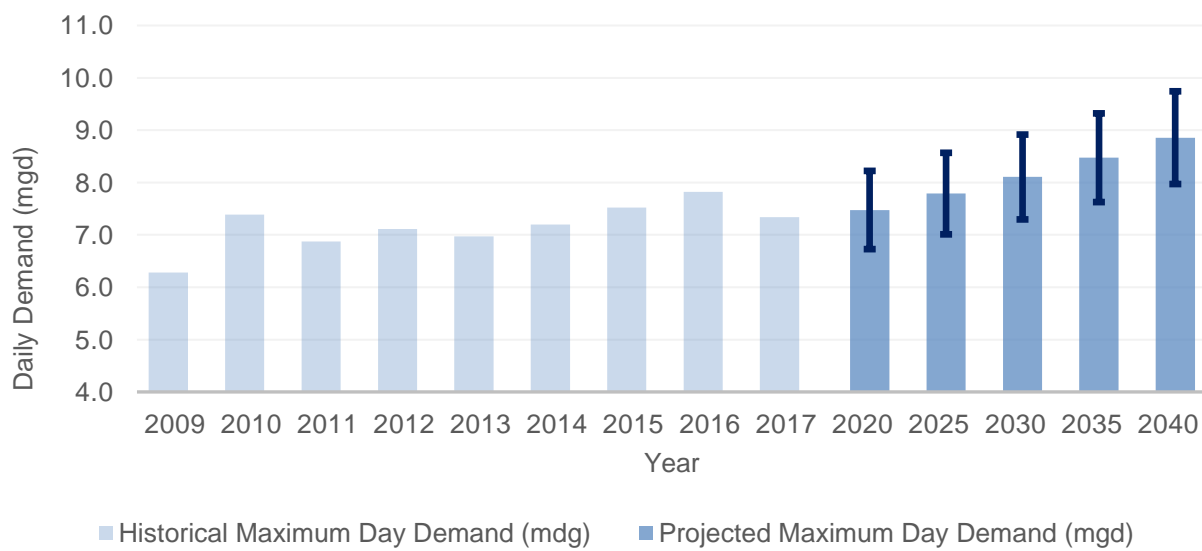
#### 5.3.4 Projected Future Demands

Future water demands will be affected by various factors including population growth, commercial/industrial development, weather patterns, and others. Projected residential water demands were estimated based on future Town population projection percentage increases as shown in Table 5-3. Commercial/industrial projected water demands were estimated using an average annual percentage increase in employment of 0.77% established for the Southern New Hampshire Planning Commission by New Hampshire Employment Security<sup>24</sup>.

Figure 5-6 shows historic and projected average day demands through 2040. All projected values were graphed with error bars ( $\pm 10\%$ ) to account for uncertainty associated with population projections, private well use data, UAW, CEMU, and other factors such as weather induced variability. It is expected that average daily demand in Londonderry could increase from 2.9 mgd in 2017 to 3.5 mgd ( $\pm 10\%$ ) in 2040. Similarly, Figure 5-7 shows historic projected maximum day demands through 2040 with  $\pm 10\%$  error bars. It is expected that maximum daily demand in Londonderry could increase from 7.2 mgd in 2017 to 8.9 mgd ( $\pm 10\%$ ) in 2040.

<sup>24</sup> Projected employment increase of 7.7% from 2016 to 2026 established for the Southern New Hampshire Planning Commission by New Hampshire Employment Security: <https://www.nhes.nh.gov/elmi/products/documents/occ-projections-plan-region-southern.pdf>.



**Figure 5-6. Estimated Future Average Day Demands****Figure 5-7. Estimated Future Maximum Day Demands**

## 5.4 Potential Drinking Water Supplies

As noted previously, drinking water in Londonderry is primarily supplied by Manchester Water Works (MWW), the Derry Water Department (DWD), Pennichuck Water Works (PWW), public water supply system wells, and private wells. Population is expected to continue to increase by a rate of approximately 4-5% every five years and a population of over 31,000 is expected by 2040 (Table 5-3). The majority of this water is supplied by MWW (57%), PWW (20%), and private wells (14%). Public water supply wells provide 9% of Londonderry's water needs and the DWD supplies less than 1% (Table 5-2). Current average water demand (2009-2017) is 2.9 mgd (ADD) and 7.2 mgd (MDD). By 2040, water demand is expected to increase to 3.5 mgd (ADD) ( $\pm 10\%$ ) and 8.9 mgd ( $\pm 10\%$ ) (MDD). To accommodate this future water demand, Londonderry will need to evaluate the availability of additional supply from drinking water suppliers, groundwater, and surface water supplies.

### 5.4.1 Drinking Water Suppliers

Future demand projections and capacity availability from the all public water suppliers were not available at the time of this analysis. However, PWW has noted that they potentially have a current surplus of 1.6 mgd (approximate) to accommodate future growth in water demand. As depicted by Figure 5-1, the service areas of each public water supplier are split amongst various sections of Town. It is recommended that future efforts examine future demand projections relative to potential available capacity in each service area to determine if and where additional sources of supply or storage may be needed.

### 5.4.2 Groundwater Supplies

The majority of the aquifers in Londonderry are bedrock aquifers (Figure 4-1). The remaining wells are stratified drift or bedrock till aquifers. Bedrock aquifers are typically low-yield and are often appropriate only for individual water supplies. They are generally not sufficient to provide drinking water to a municipal system. Since Londonderry has no plans to develop a municipal water supply, no assessment has been made concerning the suitability or the capability of the potential high- and medium-yield aquifers to meet municipal water supply requirements. Should these aquifers be given future consideration as sources of municipal water supply, additional studies would be necessary. Such consideration and assessment would also necessitate that appropriate revisions be made in this plan.

### 5.4.3 Surface Water Supplies

As noted in Section 3, all surface waters of New Hampshire are either classified as Class A or B, with the majority of waters being Class B. New Hampshire State statute RSA 485-A:8 outlines the designated uses for Class A and B waters are as follows (Table 5-4):

- Class A - These are generally of the highest quality and are considered potentially usable for water supply after adequate treatment. Discharge of sewage or wastes is prohibited to waters of this classification.
- Class B - Of the second highest quality, these waters are considered acceptable for fishing, swimming and other recreational purposes, and, after adequate treatment, for use as water supplies.

All surface waters in Londonderry are currently classified as Class B. According to the NH 2016 Consolidated Assessment and Listing Methodology, Section 3.2.5.: Drinking Water After Adequate Treatment is defined as waters that with adequate treatment will be suitable for human intake and meet state/federal drinking water regulations. As no definition of "adequate" exists in RSA 485-A:8 or Env-Wq 1700, all surface waters are considered treatable for assessment purposes.

In New Hampshire, approximately 60 surface water supplies are used as sources of public water supply. For instance, Penacook Lake is the primary water source for the City of Concord. Penacook Lake is classified as a “Class A” waterbody and is approximately 360 acres in size. Lake Massabesic serves as the water supply for Manchester and portions of six surrounding towns including Londonderry. Lake Massabesic is classified as a “Class A” water body and is approximately 2,500 acres in size. The lake surface water is treated at Manchester’s Water Treatment Plant before it is distributed.

In Londonderry, Scobie Pond is the largest surface water body at approximately 25 acres and is classified as a “Class B” surface water body. For Londonderry to consider using Scobie Pond or any pond as a drinking water supply, the following steps would have to be followed:

1. Conduct a viability study to determine the safe yield the pond could produce;
2. Conduct a financial analysis to compare the capital and operational costs of a surface water treatment plant to the “purchased” costs of continuing to purchase water from other systems; and
3. Change the classification of the pond from Class B to Class A.

The process for changing classification from Class B to Class A is outlined in New Hampshire Statutes Chapter 485-A: Water Pollution and Waste Disposal Sections A:8-A:11. Section 485-A:10 specifically outlines the reclassification procedures:

*“After adoption of a classification for any surface water or section of such water by the legislature, the department may, by its own motion, or upon the petition of not less than 100 persons, legal inhabitants of the county or counties in which the surface water in question is situated, reinvestigate the conditions of pollution in said surface water or section of such water by following the procedure above outlined, and may at any time make recommendation to the legislature for reclassification.”*

Once the petition is accepted, the classification procedures outlined in Section 485-A:9 must be followed:

1. A notice setting forth the contemplated classification of any stream, lake, pond, tidal water or section of such water, shall be published for three successive weeks in a newspaper circulated within the county or counties in which the surface water in question is situated. The last notice shall be published at least seven days before the hearing date. The notice shall stipulate the time and place where a public hearing on the contemplated classification shall be held.
2. A public hearing shall be conducted by the department, at which hearing all interested parties shall be heard relative to their views on classification of the area or areas in question.
3. Following the hearings, the department shall review the pertinent evidence and data presented.
4. After such hearing and review of evidence the department shall determine which classification is for the best interest of the public giving consideration to the health, industrial, economic, geographical and social factors involved.

As part of the re-classification process, a “document of justification” would need to be prepared. This document would outline existing water quality data and compare it to the water quality requirements for a Class A waterbody (Table 5-4). It would also include an explanation of the impetus for the change.



**Table 5-4: Class A and Class B Water Quality Standards in New Hampshire**

Parameter	Class A	Class B
<i>E. coli</i>	47 colonies/100 mL (GM of at least 3 samples over 60 days) OR 153 colonies/100 mL (SSM)	126 colonies/100 mL (GM of at least 3 samples over 60 days) OR 406 colonies/100 mL (SSM)
Dissolved Oxygen	75% saturation (daily average) AND 6 mg/L (instantaneous minimum)	75% saturation (daily average) AND 5 mg/L (instantaneous minimum)
	Cold water fish spawning areas: From 10/1 to 5/14, < 9.5 mg/L (GM 7 days)	Cold water fish spawning areas: From 10/1 to 5/14, < 8 mg/L (GM 7 days)
pH	As naturally occurring	6.5 to 8.0
Nutrients	No phosphorus or nitrogen unless naturally occurring.	No phosphorus or nitrogen which encourage cultural eutrophication.
Turbidity	Only natural levels.	< 10 NTU over naturally occurring conditions.
Other	No discharge of sewage or wastes.	No discharge of sewage or wastes, except those that have received adequate treatment.

Pleasant Lake, a 479-acre lake in Deerfield, New Hampshire, recently petitioned the state to change its classification from Class B to Class A. This effort was led by the local watershed association in an effort to upgrade their water quality status for stricter enforcement of water quality standards. The process for Pleasant Lake included:

1. Review of lake water quality data;
2. Collection of additional water quality data to fill in data gaps;
3. Preparation of a document of justification;
4. Petition of over 100 people;
5. Collaboration with a state senator to sponsor a proposal for the classification change; and
6. Followed proposal through the state senate and speaking in support of the change.

## 6 Identification of Potential Threats to Water Resources

Since passage of the federal Clean Water Act in 1972, tremendous advances have been made to protect waters from point source discharges, which are direct pollution from an obvious source such as a pipe from a factory or sewage treatment. Today, nonpoint source pollution is the leading cause of water quality problems. Nonpoint source pollution comes from many diffuse sources and is caused by rainfall or snowmelt moving over and through the ground, carrying pollutants and ultimately depositing them into lakes, rivers, coastal waters and ground water. Sources of this type of pollution are described below.

### 6.1 Point Source Pollution

Point source pollution, or direct pollution from an obvious source such as a pipe from a factory or sewage treatment are not a major concern in Londonderry. As of March 2019, the National Pollutant Discharge Elimination System (NPDES) and State Surface Waters Discharge Permits do not list any discharge permits to water bodies in Londonderry. NPDES permits are issued by the U.S. Environmental Protection Agency under the NPDES program for surface water discharges.

Upstream from Londonderry, the Town of Derry has a NPDES permit for stormwater discharge (Permit # NH0100056) which is regulated under the 2017 New Hampshire MS4 Permit. Derry is one of several New Hampshire communities regulated under the USEPA's National Pollutant Discharge Elimination System (NPDES) Phase II rule (40 CFR 122). The rule requires regulated operators of municipal separate storm sewer systems (MS4) to develop a Stormwater Management Program (SWMP) and Best Management Practices (BMPs) to reduce the impacts of stormwater discharges. The requirements are outlined in the NPDES General Permits for Stormwater Discharges from MS4s, which was signed on January 18, 2017 with an effective date of July 1, 2018. The following link includes the most updated information on NPDES permits for New Hampshire: <https://www.epa.gov/npdes-permits/new-hampshire-final-individual-npdes-permits>.

### 6.2 Nonpoint Source Pollution

Nonpoint source (NPS) pollution, or pollution from diffuse sources throughout a watershed, are a major source of pollution to waterbodies. Sources of NPS pollution include stormwater runoff, roads, septic systems, agriculture, landfills, and erosion and sediment. Major categories of pollutants associated with NPS include the following:

- **Sediment:** Sedimentation is the redistribution of soil particles through erosion. Sediment sources from roads include road sanding, runoff from unpaved roads and areas where soil has been exposed during construction. In addition to physical problems associated with sediment deposition, sediment particles readily transport pollutants such as metals, nutrients, and pathogens. Sedimentation also contributes to turbidity in water bodies. This reduces photosynthesis by phytoplankton and aquatic plants, and can contribute to low oxygen conditions that are harmful to aquatic organisms.
- **Oil and Grease:** Oil and grease pollution is caused by leaky car and truck engines, oil and grease spills at gas stations, or when oil and grease have not been properly disposed. During rain and snow-melt, these pollutants are transported directly into surface and groundwater.



*Example of sediment-laden water in a river*

- **Fertilizers, Pesticides, and Herbicides:** Fertilizers, pesticides and herbicides should be used with discretion and according to label specifications when conducting right-of-way and roadside maintenance. When applied improperly or excessively, these products can be carried by runoff and can contaminate water sources. These pollutants can be harmful to both human and aquatic life and contribute to algal blooms, excessive plant growth, and eutrophication of rivers, streams, lakes, and bays.
- **Road Deicers and Anti-icing Agents (Road Salt):** Road salts can be a major pollutant in both urban and rural areas. Rain and snow runoff carries salt, which contains high concentrations of sodium and chloride, into ponds, lakes, bays and groundwater. These pollutants often result in adverse ecological responses as they negatively affect aquatic biogeochemistry.
- **Debris:** Debris pollution can result from a variety of litter sources such as food containers, household wastes, and grass and shrub clippings. Debris associated with infrastructure industries, such as construction materials, can contribute to the pollutant load from these types of practices.
- **Nutrients:** Excessive nutrients in a waterbody can have disrupting effects on the natural environment, such as causing a rapid increase in the abundance of aquatic plants and algae. By fueling increased biological productivity, excess nutrients accelerate the natural aging process of water bodies, known as eutrophication.
  - **Nitrogen** is a plant nutrient that can contribute to eutrophication, especially coastal embayments or brackish waters, and reduce dissolved oxygen levels in surface waters. Excessive amounts of nitrogen can also harm human health. For instance, ingesting excessive levels of nitrate (a form of nitrogen often found in fertilizer) from drinking water can cause serious illness and sometimes death. In infants, the conversion of nitrate to nitrite by the body can interfere with the oxygen-carrying capacity of the child's blood.
  - **Phosphorus** is an important plant nutrient that, like nitrogen, can contribute to eutrophication and dissolved oxygen depletion in surface waters. For most freshwater ecosystems, phosphorus is the essential plant nutrient which is in shortest supply relative to the growth needs of plants and algae. As the "limiting nutrient", increases in its supply will directly increase plant and algae abundance. In saltwater coastal ecosystems, nitrogen is typically the limiting nutrient. Fortunately, phosphorus is rapidly used by plants and can easily be bound to fine soil particles. However, research has also shown that there is a limit to the amount of phosphorus that can be bound in the soil, after which the phosphorus will move with the groundwater and eventually discharge to a waterbody.
- **Pathogens:** Human fecal matter and urine contain harmful pathogenic microorganisms that can cause dysentery, hepatitis, food poisoning and parasite infections in humans. Pathogens include parasites, bacteria and viruses that can cause communicable disease through direct or indirect body contact or ingestion of contaminated water or shellfish. Pathogens can be transported for considerable distances in groundwater or surface water.



*Algae blooms in lakes are a symptom of nutrient enrichment.*



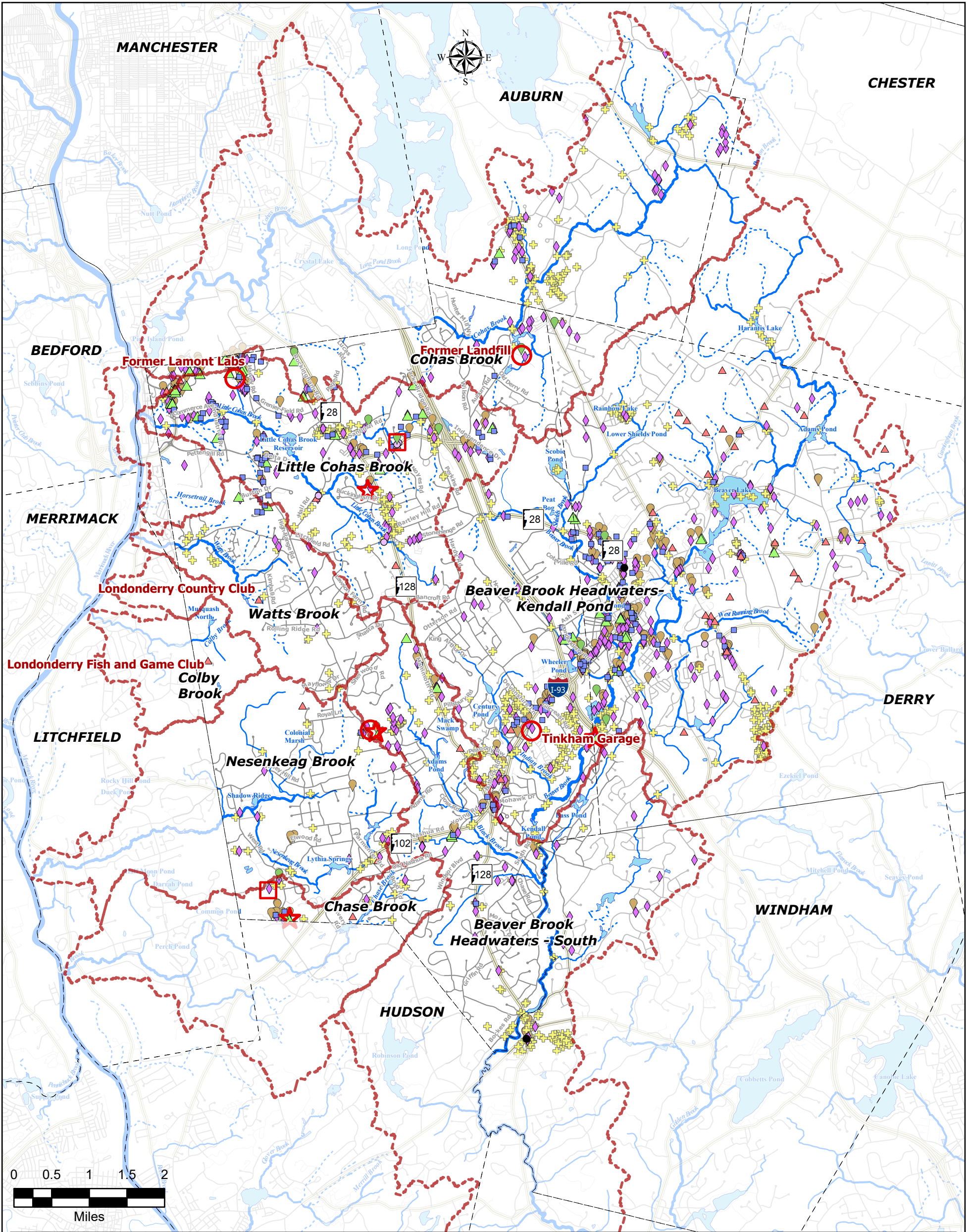
- **Solid and Hazardous Wastes:** Solid waste refers to any garbage or refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, resulting from industrial, commercial, mining, and agricultural operations, and from community activities. A hazardous waste is a solid waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment<sup>25</sup>. Hazardous waste is generated from many sources, ranging from industrial manufacturing process wastes to batteries and may come in many forms, including liquids, solids gases, and sludges.
- **Other:** Gasoline, oil, and other fuel products can pose both a human health and environmental threat to water quality. Above ground storage tanks (ASTs) and underground storage tanks (USTs) that store gas and oil may contribute to this type of nonpoint source pollution if not properly maintained.

Potential nonpoint sources of pollution in Londonderry are discussed below and shown in Table 6-1 and Figure 6-1.

**Table 6-1 – Potential Nonpoint Source Pollutant Types by Watershed**

Watershed Name	Potential Nonpoint Source Pollutant Type										
	Stormwater Runoff (IC > 10%)	Road Salt	Septic Systems	Sewer Line	Solid Waste Disposal	Agriculture (LU > 3%)	ASTs/USTs	Superfund and Brownfields	Remediation Sites	NHDES Potential Contamination Source	Hazardous Waste
Town of Londonderry	x	x	x	x	x	x	x	x	x	x	x
Beaver Brook Headwaters – Kendall Pond	x	x	x	x	x	x	x	x	x	x	x
Beaver Brook Headwaters - South		x	x	x		x	x	x	x	x	x
Chase Brook	x	x	x		x	x	x		x	x	x
Cohas Brook		x	x	x	x		x	x	x		x
Colby Brook		x	x								x
Little Cohas Brook	x	x	x	x	x		x	x	x	x	x
Nesenkeag Brook		x	x			x			x	x	x
Watts Brook		x	x	x					x		x

<sup>25</sup> USEPA, 2019. The Basics of Hazardous Waste. <https://www.epa.gov/hw/learn-basics-hazardous-waste>.



**Figure 6-1**

**Potential Pollutant Sources for the Londonderry Watersheds**



**Comprehensive Environmental Inc.**

**Data Sources: GRANIT, NHDES, SNHPC, Town of Londonderry.**

**Legend**

- |                                     |                                  |
|-------------------------------------|----------------------------------|
| ★ Salt Storage Facilities           | ■ Hazardous Waste Generators     |
| □ Solid Waste Disposal Site         | ▲ Aboveground Storage Tanks      |
| ○ Superfund Site                    | ◆ Remediation Sites              |
| ● Other Solid Waste Facilities      | ⊕ Environmental Monitoring Sites |
| ○ Auto Salvage Yards                | ● Underground Storage Tanks      |
| ● NPDES Outfalls                    | ● Pond                           |
| ▲ Other Potential Pollutant Sources | - - - Watershed                  |
|                                     | ~ Perennial Stream               |
|                                     | ... Intermittent Stream          |



### 6.2.1 Stormwater Runoff

Stormwater is water from rain or melting snow that does not soak into the ground. Stormwater can become polluted when it runs off streets, lawns, farms, and construction sites as it picks up pollutants such as dirt, oil, nutrients, pesticides, and bacteria. If untreated, it can cause water quality impairments when it flows into our lakes and rivers. As a watershed becomes more developed, the natural hydrology is changed as the amount of impervious surfaces are increased and the amount of groundwater recharge and base flow to rivers decreases (Figure 6-2).

As discussed previously, impervious surfaces are paved parking lots, sidewalks, roadways, and rooftops that do not allow precipitation to infiltrate into the ground, disrupting the natural dynamics of the hydrologic cycle. As little as ten percent impervious cover in a watershed can result in water quality degradation and will carry large amounts of pollutants. Today, impervious cover in Londonderry is 10.3% (Figure 2-8) and three watersheds have impervious cover greater than 10% (Beaver Brook Headwaters-Kendall Pond, Chase Brook, and Little Cohas Brook). These watersheds are most at risk for water quality impacts associated with stormwater runoff.

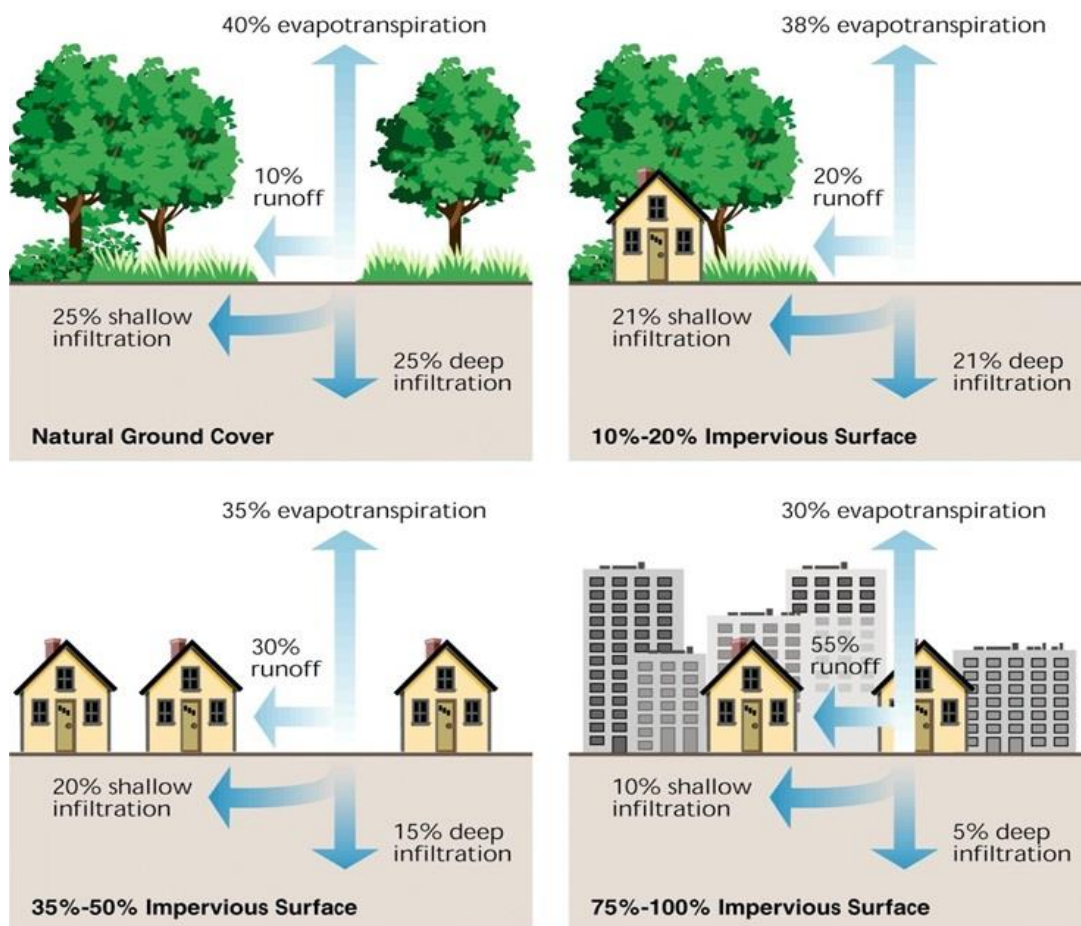


Figure 6-2 – Relationship between impervious cover and surface water runoff<sup>26</sup>

<sup>26</sup> MassDEP, 2016. Clean Water Toolkit. Online: <http://prj.geosyntec.com/npsmanual/default.aspx>



### 6.2.2 Road Salt and Snow Dumps

In addition to increasing stormwater runoff, roads can be a significant source of nonpoint source pollution in New England due to winter road maintenance. Road salts can be a major pollutant in both urban and rural areas. Rain and snow runoff carry salt, which contains high concentrations of sodium and chloride, into ponds, lakes, bays and groundwater. These pollutants often result in adverse ecological responses as they negatively affect aquatic biogeochemistry. Unpaved roads can also contribute sediment and nutrients which may harm water quality.

The Londonderry Department of Public Works has the responsibility for maintaining approximately 185 miles of town roadways. Sand and salt are purchased by the town on an annual basis and stockpiled at the Town Garage on High Range Road (Figure 5-1) located in the Beaver Brook Headwaters-South watershed. Salt is stored under cover and is mixed with sand on an impervious surface at the Garage and immediately loaded for dispersal or kept under cover.

The use of salt, sand or salt-sand mixtures is a discretionary decision that is dependent upon factors including road conditions, weather conditions, and anticipated changes in these conditions. The decision also depends upon the effects of peak traffic periods, approaching nightfall, daybreak, predicted temperature changes, and the anticipated time for the end of the storm. Salt is the chemical of choice for most storm situations. Salt is used to prevent snow and ice build-up on the pavement and to aid removal of any build-up that occurs. Salt is most effective for melting purposes at temperatures above 20° F, becoming slower acting at temperatures below 20° F.

Some municipalities use snow dumping sites as a means of disposal for snow removed from roadways and parking lots. These dumps may contain higher concentrations of salts and other deicing compounds. Londonderry does not currently have any snow dumping sites.

There are four salt storage facilities in the Londonderry watersheds (Table 6-2 and Figure 6-1). Three of these facilities are located in the Town of Londonderry and one is located in Derry. Though all watersheds are at risk for pollution due to winter road maintenance activities, surface waters near these salt storage facilities should be monitored.

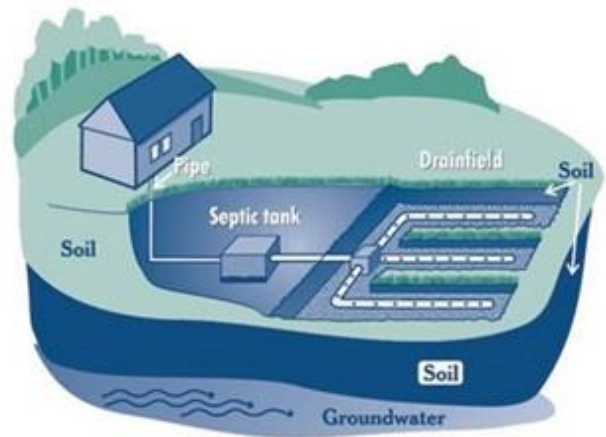
**Table 6-2 – Salt Storage Facilities in the Londonderry Watersheds**

Owner	Location	Municipality
<b>Beaver Brook Headwaters - Kendall Pond</b>		
NHDOT	41 Kendall Pond Road	Derry
<b>Beaver Brook Headwaters - South</b>		
Town of Londonderry	120 High Range Road	Londonderry
<b>Chase Brook</b>		
NHDOT	4 West Road	Londonderry
<b>Little Cohas Brook</b>		
NHDOT	469 Mammoth Road	Londonderry

### 6.2.3 Septic Systems

Septic systems are the primary method for treating wastewater in areas without a sewer system. If properly installed and maintained, septic systems remove many of the pollutants that could cause water quality problems. However, if systems are not working properly, nutrients and bacteria could enter nearby waterbodies.

Conventional septic systems consist of a septic tank, a distribution box and a soil absorption system, all connected by pipes (called conveyance lines). A conventional septic system is capable of removal of suspended solids, biodegradable organic compounds, and pathogens if properly designed, sited, operated and maintained.



*Conventional Septic System and Leachfield*

Septic systems treat household wastewater by temporarily holding it in the septic tank where heavy solids and lighter scum separate from the wastewater. This separation process is known as primary treatment. Solids stored in the tank are decomposed by bacteria and later removed, along with the lighter scum, by a septic tank pumper.

After partially treated wastewater leaves the tank, it flows into a distribution box and then into a network of soil absorption system trenches or chambers. Drainage holes at the bottom of each line allow the wastewater to drain into trenches for temporary storage. These trenches are commonly filled with aggregate (gravel/crushed stone), or use other approved materials such as molded polyethylene. This effluent then slowly seeps into the subsurface soil where it is further treated and purified (secondary treatment).

Currently, septic systems are regulated by the State of New Hampshire under Chapter Env-Wq 1000 Subdivision; Individual Sewage Disposal Systems in the New Hampshire Code of Administrative Rules and promulgated under the authority of Statute Title 50, Water Management and Protection, Chapter 485A, Water Pollution and Waste Disposal. These regulations outline all aspects of septic system installation and maintenance. Some key regulations are summarized below.

- **Setbacks** - Chapter Env-Wq 1008 addresses setbacks for septic tanks and leachfields. These regulations require a setback of 75 feet from all surface waters (for both tank and leachfield) and a setback of 50 to 75 feet from all wetlands depending on the type of wetland soils.
- **Leachfields** - Chapter Env-Wq 1014 addresses the requirements for the leachfield including the requirements for the receiving soil layer. Chapter 1014.07 requires at least two feet of permeable soil above any impermeable sub-soil and four feet of soil above bedrock. The regulations do not specify the nature of the “permeable” soil although “impermeable” soil is defined as having a percolation rate of greater than 60 minutes per inch. Chapter 1014.08 addresses the distance above the seasonal high water table (SHWT) which is defined under Env-Wq 1002.61 as the level at which the uppermost soil horizon contains 2% or more distinct or prominent redoximorphic features that increase in percentage with increasing depth. The state requires the bottom of the Effluent Disposal Area (EDA) to be at least four feet above the SHWT and in no case less than two feet above the SHWT if a conventional system is used.
- **Maintenance** - NH State Statute RSA-A:37 Maintenance and Operation of Subsurface Septic Systems requires that all subsurface septic systems must be operated and maintained to prevent a nuisance or potential health hazard due to a failing system. Further, the state and its agents may

enter properties for the purpose of inspecting and evaluating the maintenance and operating conditions of all septic systems, and where appropriate, issue compliance orders.

- **Failure** - Chapter Env-Wq 1004.20: Replacement of Systems in Failure cites NH State Statute RSA 485-A:2, IV. Failure is defined as “the condition produced when a subsurface sewage or waste disposal system does not properly contain or treat sewage or causes the discharge of sewage on the ground surface or directly into surface waters, or the effluent disposal area is located in the seasonal high groundwater table. If a system is identified as failing, the use of the current septic system and leachfield must be stopped, and efforts to pump out and install a replacement system must be made.

In Londonderry, over 90% of homes are estimated to rely on septic systems to treat their wastewater as they do not have access to public/private sewer. The remainder of properties have access to public/private sewer for treatment at the City of Manchester’s Treatment Facility (northern portion of town) and with the Town of Derry’s Wastewater Treatment Facility (southeastern portion of town) (Figure 2-10). The majority of parcels that have access to public/private sewer are located in the northern portion of the town between Interstate 93 and the airport. Parcels near the town center on Mammoth Road and in the developed area near Nashua Road and Interstate 93 also rely on public sewer.

#### 6.2.4 Agriculture

Agriculture includes activities that occur on land and water that focus on the production of crops and livestock, as well as the storage, management, and use of materials such as animal feed, fertilizer, pesticides, and waste products. Many of the day-to-day activities associate with agriculture manage NPS pollution with voluntary BMPs, tailored to the unique aspects of a given operation. Some NPS pollution from agriculture comes from the unintentional misuse of regulated chemicals or inappropriate application of fertilizers or other inputs. Possible pathways for NPS pollution to enter surface and groundwater from agriculture include:

- **Cropland** - The two major sources of potential surface and groundwater contamination from agricultural cropland are nutrient and pesticide/herbicide runoff. Nutrient contamination may result from the over application of inorganic (commercial fertilizers) and organic (manure) fertilizers. These fertilizers may contain highly water-soluble nitrogen compounds that have the potential to leach to groundwater. Less water-soluble nitrogen compounds are subject to surface runoff into water bodies. Pesticide and herbicide contamination may result from products that are used to control insects and undesirable plants. If not properly applied, excess chemicals can be carried into surface and groundwater from rain or irrigation. Runoff from water used to rinse pesticide/herbicide spraying equipment is often drained in a small land area that may lead to groundwater contamination. Lastly, cropland is subject to sheet, rill, and gully erosion when surface runoff is not properly managed, resulting in sediment deposition and loading of associated pollutants to adjacent waterbodies. Conservation tillage practices and cover crops can greatly reduce this NPS pollution threat.
- **Barnyards/Animal Feeding Operations** - Runoff of animal wastes may result in the direct runoff of nutrients and bacteria into surface waters. Manure piles and holding areas in close proximity to



*Sunnycrest Farm*



surface waters, or that drain into conduits to surface water bodies, pose a particularly large threat. These threats are magnified for manure storage lagoons that hold large amounts of animal wastes. Significant groundwater impacts from animal holding or animal waste storage areas are also possible in areas where the water table is high or where infiltration rates are high. Lastly, animal watering and feeding areas can become denuded of vegetation due to high traffic and can become sources of soil erosion.

- **Production** - Another potential NPS pollution source is wash and processing water. Milk room wash water and crop cleaning and processing wash water have the potential for contaminating surface or groundwater when not properly treated or managed.
- **Grazing** - Pollution of surface and groundwater may occur from overgrazing, grazing near waterways, removal of riparian vegetation, overstocking of pastureland resulting in the loss of cover, and the direct discharge of animal manures to waterways and water bodies. Animals allowed in or near streams will directly contaminate water, and will cause watershed instability when hoofs destroy riparian vegetation that would otherwise stabilize banks and channels.
- **Irrigation/Drainage** - Cropland that receives additional water through alterations to drainage or application via pumps and other appurtenances is more vulnerable to erosion and runoff of chemicals and nutrients. Excess water that cannot be used by plants or absorbed into soil can carry NPS pollutants to surface waters. Sub-surface drainage, such as field tiles, can enhance the transport of NPS pollutants to both surface and groundwater.
- **Specialty Crops** - Apples are an example of a specialty crop that may have direct impacts on surface waters. Large amounts of water may be required for irrigation and harvesting. Excessive or improper application of fertilizers and pesticides, as well as accidents and vandalism, may result in direct introduction of pesticides and fertilizer to adjacent surface waters. Aerial application of pesticides to apple orchards or other specialty farms can result in pesticide drift to adjacent water bodies.

Through the cooperative efforts of farmers with a variety of state and federal programs, considerable progress has been made in applying farming practices that reduce or minimize NPS pollution from agricultural activities. However, if improperly managed, these activities have the potential to be a significant source of pollutants to New Hampshire water bodies. In New Hampshire, municipal officials typically work cooperatively with farmers through local conservation districts and state/federal programs. Agricultural operations are required to conform to the best management practices determined by the USDA Natural Resources Conservation Service, the UNH Cooperative Extension, and the New Hampshire Department of Agriculture Markets and Food (RSA 431:33-35). Some municipalities in New Hampshire have established an Agricultural Commission under RSA 674:44-e in order to advise town boards and staff and advocate for the interests and needs of agriculture in the community. An Agricultural Commission has no regulatory or enforcement powers but can play an important role in educating the public on matters relating to farming and agriculture.



*Apples sold at Mack's Apples, the retail side of Moose Hill Orchards, is an example of a specialty crop in Londonderry.*

In Londonderry, 4% of the total land area is used for agriculture. These operations include Sunnycrest Farm and multiple apple orchards including Moose Hill Orchards. In some portions of town, up to 7% of the land area is used for agriculture. The Beaver Brook Headwaters-South and Kendall Pond, Chase Brook, and Nesenkeag Brook watersheds all have agricultural land use greater than 3%. In these areas, agriculture should be considered a potential source of NPS pollution to water bodies in Londonderry.

### 6.2.5 Erosion and Sediment Control

Construction activities often involve disturbing soils and the clearing of vegetation. If not handled properly, these activities can result in serious nonpoint source pollution problems such as soil erosion and the deposition of sediment to water bodies, wetlands, and other sensitive areas. Normally, vegetation stabilizes soil so that stormwater is less likely to pick up and transport it to downgradient locations. When vegetation is removed, soil is exposed and can be easily eroded. Runoff from construction sites is by far the largest source of sediment from areas under development. All land clearing activities that disturb more than one acre must obtain a Construction General Permit from the USEPA. Erosion, sedimentation, and hazardous materials are the primary concerns related to construction and site development.

- Erosion is the gradual wearing away of land by water, wind or ice. During construction, land can be disturbed by excavation, filling and paving. This can increase erosion by exposing the soil to stormwater, which picks it up and carries it to another location. Nutrients are also a potential pollution problem associated with erosion, because nutrients such as phosphorus have the ability to cling to eroding sediment particles and can be transported to sensitive downgradient areas (e.g. waterbodies and wetlands).
- Sedimentation is the deposition of particles that have been eroded. After stormwater picks up sediment from a construction site, it has to be deposited somewhere. Sediment that is deposited in a waterbody can impact aquatic habitat and water quality by causing high turbidity, loss of depth, covering of fish spawning areas, and increased algal productivity.
- In addition to sediments and nutrients, there are a variety of other pollutants associated with construction activities. These substances, which can generate hazardous pollution if they are not handled properly, include pesticides, fertilizers, hydrocarbons (e.g., oils, gasoline, hydraulic fluid) from construction vehicles, toxic construction chemicals such as sealers and paints, and garbage. Most construction sites also require concrete washouts and adequate containers for waste materials and demolition debris.

### 6.2.6 Other

- **Golf courses** have the potential to be a nonpoint source of pollution. Golf course superintendents often apply nutrients to the soil to make up for nutrient deficiencies. They primarily apply nitrogen (N), phosphorus (P) and potassium (K) to the soil. Without proper management, these nutrients may leach into groundwater or run off into surface waters. Pesticides, including herbicides, insecticides and fungicides, may leach into surface and ground waters. The Londonderry Country Club is an 18-hole golf course located in the Watts Brook watershed along Watts Brook. Ensuring that the Country Club and any future golf courses follow Best Management Practices for golf courses will protect the quality of surface and groundwaters<sup>27</sup>.
- **Shooting ranges** such as the Londonderry Fish and Game Club have the potential to introduce nonpoint source pollution into a watershed. Potential risks associated with the historical and continued use of lead shot and bullets at outdoor ranges has become a growing concern. In

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<sup>27</sup> US EPA, 2005. National Management Measures to Control Nonpoint Source Pollution from Urban Areas. EPA 841-B-05\_004.

Londonderry, the Fish and Game Club is located in the Colby Brook watershed. Encouraging the use of Best Management Practices for outdoor shooting ranges will help protect the quality of surface and ground waters<sup>28</sup>.

- **Wildlife** may be a significant source of pollution in some watersheds. This is particularly true when human activities, including the feeding of wildlife and habitat modification, result in the congregation of wildlife. Concentrations of geese, gulls, and ducks are of particular concern because they often deposit their waste directly into surface waters. Wildlife waste deposited on land can also be washed off and transported to surface waters by stormwater runoff. Roads and drainage structures that expedite the transport of natural sources of bacteria to surface waters may exacerbate the impact of these sources on water quality.
- **Pet waste** can be a significant contributor of bacteria to surface waters in residential areas. For example, each dog is estimated to produce 200 grams of feces per day and pet feces can contain up to 23,000,000 fecal coliform colonies per gram. If pet waste is not properly disposed, these bacteria can be washed off the land and transported to surface waters by stormwater runoff. Pet waste can also enter surface waters by direct deposition of fecal matter from pets standing or swimming in surface water.

### 6.2.7 Solid Waste Disposal Facilities

Landfills and other solid waste disposal facilities such as town dumps have the potential to affect water quality. Modern landfills use a complex system of liners and waste treatment to keep the liquid form of decomposing trash, leachate, from contaminating natural resources.

The most serious form of water pollution from landfills is direct leachate contamination, considered a major environmental and human-health hazard. Leachate is a highly odorous black or brown liquid that commonly contains heavy metals, such as lead, and volatile organic compounds or VOCs. This form of contamination is rare because modern landfills contain leachate treatment systems and thick protective barriers to prevent leachate from coming in contact with ground or surface water.

The Town of Londonderry uses Waste Management Inc. for collection and disposal of solid waste. Recycling is picked up bi-weekly and includes recyclable items such as acceptable paper, cardboard, plastic, cans, and glass. Solid waste is hauled to the Turnkey Landfill in Rochester, NH.

Solid waste disposal facilities in the Londonderry watersheds are listed in Table 6-3 and shown in Figure 6-1. There are currently three operating facilities in Londonderry and three in Derry. Londonderry and neighboring Derry co-hosts Household Hazardous Waste Days to collect toxic products such as fertilizers, insect sprays, driveway sealers, gasoline, rug cleaners, oil-based paints, wood strippers, and other hazardous wastes each spring.

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<sup>28</sup> US EPA, 2005. Best Management Practices for Lead at Outdoor Shooting Ranges. EPA 902-B-01\_001.



**Table 6-3 – Solid Waste Disposal Facilities in the Londonderry Watersheds**

Facility Name	Location	City	Facility Status
<b>Beaver Brook Headwaters - Kendall Pond</b>			
Derry Municipal Landfill	Kendall Pond Rd	Derry	Not Operating
Derry Transfer Station	43 Transfer Ln	Derry	Operating
Recore Trading Co, LLC	22 Manchester Street, Unit 7	Derry	Operating
RMG Enterprise LLC	109-113 Hillside Ave	Londonderry	Operating
<b>Chase Brook</b>			
Londonderry Drop-off Center	13 Recovery Way	Londonderry	Operating
<b>Cohas Brook</b>			
Big W Mobile Home Park (Recycling)	209 Route 28 Bypass	Derry	Operating
Londonderry Municipal Landfill	Auburn Rd	Londonderry	Not Operating
Thibeault Corp. Ne	603 Mammoth Road	Londonderry	Not Operating
<b>Little Cohas Brook</b>			
Londonderry Transfer Facility (WMI)	160 Rockingham Rd	Londonderry	Not Operating
S&S Metals Recycling, Inc.	196 Rockingham Rd	Londonderry	Operating
Former LeClair Property	30 Sanborn Rd	Londonderry	Not Operating

### 6.2.8 Above Ground Storage Tanks (ASTs)

Facilities with aboveground storage tanks (ASTs) holding oils of any kind may be subject to USEPA's Spill Prevention, Control, and Countermeasure (SPCC) regulation (40 CFR Part 112). The SPCC regulation does not specifically use the term AST, but includes ASTs under the term bulk storage container. A bulk storage container is "any container used to store oil. These containers are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. Oil-filled electrical, operating, or manufacturing equipment is not a bulk storage container."

Londonderry's watersheds have a total of 69 ASTs, 52 of which are within Londonderry. Within the watersheds, Derry and Auburn have 16 and 1 AST respectively (Figure 6-1 and Appendix D).

### 6.2.9 Underground Storage Tanks (USTs)

An underground storage tank system (UST) is a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground. Federal regulations apply only to UST systems storing either petroleum or certain hazardous substances. UST owners include marketers who sell gasoline to the public (such as service stations and convenience stores) and non-marketers who use tanks solely for their own needs (such as fleet service operators and local governments). The greatest potential hazard from a leaking UST is that the petroleum or other hazardous substance can seep into the soil and contaminate groundwater. A leaking UST can present other health and environmental risks, including the potential for fire and explosion.

Londonderry's watersheds have a total of 320 USTs, 173 of which are within Londonderry. Within the watersheds, USTs outside of the town boundaries are located in Derry (128), Auburn (6), Manchester (6), and Windham (7) (Figure 6-1 and Appendix E).

#### 6.2.10 Brownfield and Superfund Sites

One site in Londonderry is designated as a Brownfields Site. A "brownfield" is any land in the United States that is abandoned, idled, or under used because redevelopment and/or expansion is complicated by environmental contamination that is either real or perceived. Brownfields differ from Superfund sites in the degree of contamination. Superfund sites pose a real threat to human health and/or the environment. Brownfields, on the other hand, do not pose serious health or environmental threat. Instead they represent an economic or social threat, since they prevent development and therefore stifle local economies. In Londonderry, Former Lamont Labs on Perimeter Road is a Brownfields Site (Figure 6-1).

Londonderry has three listed Superfund Sites. Sites designated as Superfund, formally called the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA), are contaminated due to hazardous waste being dumped or improperly managed. These sites include manufacturing facilities, processing plants, and landfills. CERCLA allows the USEPA to address contamination at the site and forces the parties responsible for the contamination to either clean up the contamination or pay the government to clean it up.

The three Superfund Sites in Londonderry are described below and shown in Figure 6-1.

##### **Auburn Road Landfill**

The Auburn Road Landfill in Londonderry is a 200-acre site that consists of three disposal areas that cover about 12 acres. The three areas include:

1. The former Londonderry Town Dump, which operated during the 1960s and was used for the disposal of over 1,000 drums of chemical waste;
2. A tire disposal area, where tires and demolition debris and several hundred drums of chemical waste were dumped;
3. and a solid waste landfill which is the largest disposal area.

The State of New Hampshire ordered the landfill closed in 1980 after hazardous wastes were identified in the soil and toxic organic substances were found in surface water and ground water. In 1986, USEPA determined that contaminated ground water was flowing off-site toward drinking water supply wells at the Whispering Pines Mobile Home Park, and potentially towards other private residential wells in the area. The area surrounding the landfill is residential and commercial, and the nearby homes primarily used groundwater for drinking water until municipal water was supplied in 1987. Two unnamed streams drain from the site and flow into Cohas Brook, which empties into the Merrimack River. A former septage lagoon, just northeast of the solid waste landfill, was excavated and disposed of within the solid waste landfill by the town before 1996. Drums of chemical waste were removed from the landfills from 1986 to 1988.

##### **Tinkham Garage**

Tinkham Garage is a 375-acre site is located on Route 102 in Londonderry. During 1978 and 1979, oil, oily wastes, washings from septic tank trucks, and other substances were discharged at the site. In 1978, residents complained of foam and odors in a small unnamed brook, which prompted an investigation. This investigation revealed that improper waste disposal had occurred. The State of New Hampshire ordered the site owner to prevent further degradation of the surface water and groundwater in the area. In early

1983, drinking water wells at the Londonderry Green Apartment complex and several other private supply wells were closed due to contamination, and residents were provided access to a municipal water supply.

In 2015, five residential water supply wells northeast of the site were found impacted by contaminants similar to those found in groundwater at the site. A 2016 report called for providing these residents connection to a water line supply and required the initiation of supplemental remedial investigations to determine if additional remedial actions are needed at the site to protect human health, control migration or attain cleanup criteria. The supplemental remedial investigations are ongoing.

### **Town Garage/Radio Beacon**

The Town Garage/Radio Beacon Superfund Site is located in Holton Circle in Londonderry. The area includes the Holton Circle neighborhood, the Town Garage property on High Range Road, a development of 20 homes called Saddlebrook, and a wetland area. The site includes a series of residential wells and one commercial well, known as the Town Garage Well. State tests in 1984 found contamination in several of the wells. The Town Garage property is believed to be the source area for this contamination. An open floor drain was removed from the Town Garage in 1996. The Department of Defense previously owned the Town Garage property, located 1,000 feet west of the Holton Circle development, from the early 1940s to 1968 and operated a radio beacon there during World War II. Following extension of public water supplies to affected areas, ground water cleanup levels were attained and the site was deleted from the National Priorities List in July 2014.

#### **6.2.11 Remediation Sites**

NHDES lists remediation sites as part of their groundwater hazard inventory database. ASTs and USTs have been separated from this inventory database. Remediation sites include a range of hazardous waste sources including oil spill and release, leaking USTs, underground injection control or discharges of benign wastewaters not requiring a discharge permit, and many others.

There are almost 500 sites classified as “Remediation Sites” by NHDES in the Londonderry watersheds (Appendix F). These sites include 248 in Londonderry, 190 in Derry, 35 in Auburn, 13 in Windham, and 8 in Manchester.

#### **6.2.12 Local Potential Contamination Source (PCS) Inventory Sites**

The Local Potential Contamination Source Inventory Sites represent a potential threat to drinking water supplies as they may use, handle, or store hazardous substances. The locations are based on marked up drawings provided by the Water Suppliers to NHDES. For NHDES to develop this inventory, these documents were reviewed and their location interpolated from a combination of aerial photography and vector base map data (Department of Transportation (DOT) roadways and town political boundaries). At best, they represent an approximate location of the actual potential contamination source (PCS). The PCS layer may contain data submitted by local entities that may exist in other DES databases (e.g., Aboveground Storage Tanks, Underground Storage Tanks, Contaminated Sites and Areas (SWHI), Hazardous Waste Points and Areas (RCRA), and Auto Salvage (Junkyards)).

There are 38 PCS Sites in the Londonderry watersheds, with 10 located in Londonderry and the remaining 28 in Derry. The PCS Sites are listed in Appendix G and shown in Figure 6-1.

#### **6.2.13 Hazardous Waste Generators**

Many industries generate hazardous waste. The USEPA regulates hazardous waste under the Resource Conservation and Recovery Act (RCRA) to ensure these wastes are managed in ways that protect human health and the environment. Generators of hazardous waste are regulated based on the amount of



hazardous waste they generate in a calendar month, not the size of their business or facility. In the Londonderry watersheds, there are approximately 158 hazardous waste sites including those regulated by RCRA and other state regulations. 96 of these sites are in Londonderry, 57 in Derry, and 5 in Auburn (Appendix H and Figure 6-1).

## 7 Regulatory Tools

Local ordinances can provide effective protection against nonpoint source pollution and other factors that can impact water quality and water supply quantity. This section provides a review and assessment of Londonderry's regulations regarding water quality and quantity. Upon reviewing Londonderry's regulations and through discussion with town staff, the primary regulations reviewed were the Site Plan Regulations adopted in January 2018. Where present, other relevant town regulations such as the Subdivision Regulations generally mimic those in the Site Plan Regulations.



### 7.1 Londonderry Stormwater Management Regulations

Table 7-1 summarizes a comparison of existing Town regulations to model stormwater standards developed by the Southeast Watershed Alliance (SWA) in cooperation with the UNH Stormwater Center and Rockingham Planning Commission. These model stormwater standards were developed to help guide the development of stronger municipal stormwater standards for protection of surface waters for New Hampshire communities and should be further discussed with Town Planning and Engineering Staff and the Planning Board for adoption of potential amendments.

Table 7-1 – Comparison of Londonderry Site Plan Regulations to Selected SWA Post-Construction Stormwater Standards<sup>1</sup>

	SWA Post-Construction Stormwater Standards <sup>1</sup>	Town of Londonderry Site Plan Regulations (January 2018)	Recommendations / Discussion
A. Stormwater BMP Design Criteria	<b>Applicability Thresholds:</b> Any development or redevelopment subject to Site Plan Review that disturbs <b>more than 5,000 square feet</b> or disturbs more than <b>2,500 square feet</b> within 100 feet of a surface water body.	<b>§ 1.01 Authority</b> Site Plan regulations govern non-residential site plans for the development or change or expansion of use of tracts for non-residential uses or for multi-family dwelling units.	Consider strengthening the ordinance by adopting more detailed stormwater-specific standards and associated review thresholds based on the SWA draft standards.
	<b>Impervious Cover (IC) Runoff Standards:</b> Runoff from IC shall be treated to achieve <b>≥ 80%</b> TSS removal and <b>≥ 60%</b> removal of both total nitrogen and total phosphorus	<i>No applicable standard</i>	Consider adopting performance standards for treatment of IC runoff.
	<b>Low Impact Development (LID) Design Standards:</b> LID site planning and design strategies must be used to the maximum extent practicable to reduce stormwater runoff volumes, protect water quality, and maintain predevelopment site hydrology.  LID techniques that preserve existing vegetation, reduce the development footprint, minimize or disconnect impervious area, and use enhanced stormwater BMP's (such as raingardens, bioretention systems, tree box filters, and similar stormwater management landscaping techniques) shall be incorporated into landscaped areas. Capture and reuse of stormwater is strongly encouraged. The applicant must document in writing why LID strategies are not appropriate when not used to manage stormwater.	Londonderry does not currently have LID-specific design standards or related definitions.	Consider adopting a definition of LID (including a list of LID techniques) and associated design standards which acknowledge the multiple benefits of LID techniques. Consider applying such standards to all projects for which the Site Plan Regulations and associated Storm Drain System regulations are applicable.
	<b>Post-development Peak Runoff Rate:</b>  Control post-development peak runoff rate to not exceed pre-development runoff. Drainage calculations shall compare pre- and post-development stormwater runoff rates and volumes for the 1-inch rainstorm and 2-year, 10-year, 25-year, and 50-year 24-hour storm events.	<b>§ 3.07 Storm Drain System</b>  a. General  1. The drainage system shall be designed so that the post development runoff rate does not exceed the pre-development runoff rate.  b. Design Computations ( <i>shall include</i> )  3. A summary table comparing the existing and post-development rates of runoff for each individual drainage basin/watershed to abutting properties.  9. Runoff calculations shall be completed for the existing and post-development conditions using Natural Resource Conservation Service (NRCS) methods as described in the New Hampshire Stormwater Manual, Volumes 1, 2 and 3, dated December 2008 (or latest revision) for the appropriate design storms as required by the regulations.  e. Design Runoff. The rainfall frequency to be used with this formula shall be as follows:  1. Commercial areas - 25 years 2. Industrial areas - 25 years 3. Flood protection Works - 50 years 4. Multi-Family Residential - 25 years	Consider strengthening the referenced post-development peak runoff rate standards to require comparison of pre- and post-development stormwater runoff rates and volumes for the 1-inch rainstorm and 2-year, 10-year, 25-year, and 50-year 24-hour storm events.  Consider adding 48-hour storm events, given the likelihood that multi-day events are more likely in the future and that the probabilities associated with the recommended intervals will likely increase.

1. Southeast (NH) Watershed Alliance - Model Stormwater Standards, 2017 Update. Rockingham Planning Commission and University of New Hampshire Stormwater Center, Draft: May 31, 2017.



	Draft 2017 Post-Construction Stormwater Standards (SWA) <sup>1</sup>	Town of Londonderry Site Plan Regulations (2009)	Discussion / Recommendation
B. Post-Construction  Operation, Maintenance and Reporting Requirements	The Stormwater Management Plan (SMP) shall include a <b>long-term stormwater management BMP inspection and maintenance plan</b> that describes the responsible parties and contact information for the qualified individuals who will perform future BMP inspections. The inspection frequency, maintenance and reporting protocols shall be included.	§ 301 General  b. Installation and Maintenance: The applicant is responsible for the satisfactory installation of all required improvements and maintenance of these improvements in a satisfactory condition without cost to the Town.	Consider strengthening § 301 and 6.02 by specifying:  1. Requirements for the <u>long-term</u> inspection of stormwater BMPs, including “ <i>the responsible parties and contact information for the qualified individuals who will perform future BMP inspections. The inspection frequency, maintenance and reporting protocols shall be included.</i> ”  2. Requirements for a stormwater system O&M plan which incorporates “ <i>all maintenance easements required to access and inspect the stormwater treatment practices, and to perform routine maintenance as necessary to ensure proper functioning of the stormwater system.</i> ”
	All stormwater management and treatment practices shall have an <b>enforceable operations and maintenance plan</b> (OMP) and agreement to ensure the system functions as designed. This agreement will include all maintenance easements required to access and inspect the stormwater treatment practices, and to perform routine maintenance as necessary to ensure proper functioning of the stormwater system. The OMP shall specify the parties responsible for maintenance of all stormwater treatment practices.	Section 6 - Assurances for Completion and Maintenance of Improvements  § 6.01 General  c. On-Site Improvements: All site plans shall be required to submit an erosion control and site restoration bond, in an amount and form determined by the Department of Public Works, prior to commencing construction on the site. Also, in accordance with NH RSA § 676:13, no certificate of occupancy shall be issued by the Building Department until all on-site improvements specified on the approved site-plan are completed and inspected in accordance with section 6.02.  § 6.02 Inspection  a.1. All applicants shall be required to deposit an inspection fee escrow with the Town. This fee shall cover all costs incurred by the Town and the cost of the Town's designated agent who shall monitor and inspect improvements for compliance with the approved plans and required engineering standards.	
	The applicant shall provide <b>legally binding documents for filing with the registry of deeds</b> which demonstrate that the obligation for maintenance of stormwater BMPs and infrastructure runs with the land and that the Town has legal access to inspect the property to ensure their proper function or maintain onsite stormwater infrastructure when necessary to address emergency situations or conditions.	<i>No applicable standard.</i>	Consider adding regulations which:  1. Require a narrative of stormwater management and E/S controls to be recorded on the deed; and  2. Specify the Town department with authority to require inspections to verify <u>ongoing maintenance of water quality protection measures</u> . The applicant, manager, or owner of the property should bear the cost of these inspections, and should pay in a manner acceptable to the Town.
	Landowners shall be responsible for submitting an <b>annual report</b> to the Planning Board by September 1 each year by a qualified engineer that all stormwater management and erosion control measures are functioning per the approved SMP. The report shall note if any stormwater infrastructure has needed any repairs other than routine maintenance and the results of repairs. If the stormwater infrastructure is not functioning per the approved SMP, the landowner shall report on the malfunction in the annual report and describe when the infrastructure shall be repaired and functioning as approved.	<i>No applicable standard.</i>	Consider adopting performance standards for annual inspection/reporting related to stormwater infrastructure.

1. Southeast (NH) Watershed Alliance - Model Stormwater Standards, 2017 Update. Rockingham Planning Commission and University of New Hampshire Stormwater Center, Draft: May 31, 2017.

## 7.2 Londonderry Water Supply Regulations

Section 3.05 of the Londonderry Site Plan Regulations and Section 3.6 of the Londonderry Subdivision Regulations include the following identical language regarding requirements for water supply systems:

### **WATER SYSTEM:**

- A. **Municipal Water System**: When a project is to be served by public water, the Applicant shall show the location of all existing and proposed water lines and all appurtenant structures on the plan. A Utility Clearance Letter shall be submitted from the appropriate water company approving the proposed water plan. The municipal water system shall be designed and constructed in accordance with the appropriate water company standards and the standards of the New Hampshire Department of Environmental Services.
- B. **Individual Well**: When a project is to be served by an individual well, the well location and protective radius shall be shown on the plan. The State subdivision approval number shall be shown on the plan. Private individual wells shall be designed and constructed in accordance with the New Hampshire Department of Environmental Services Regulations and the Town of Londonderry Regulations. Protective well radius shall not encroach on right-of-ways.
- C. **Common Water System**: When a common private water supply is to be utilized, plans similar to those for municipal water supply shall be submitted indicating the source of water, details of any pumping station and other distribution and treatment facilities. Certification from the New Hampshire Department of Environmental Services shall be submitted. The State subdivision approval number shall be shown on the plan. Common water systems shall be designed and constructed in accordance with the New Hampshire Department of Environmental Services Regulations.
- D. **Fire Protection**: Flow rate for fire protection and hydrant locations shall be coordinated with and approved by the Town of Londonderry Fire Department. The Applicant shall provide a written report documenting the required information.

In addition to the above requirements, the Site Plan and Subdivision regulations also specify Site Plan documentation related to water supply, documentation of NHDES water supply permit authorization, and related documentation. In general, these local regulations appear to be adequate based on the requirement for systems to “*be designed and constructed in accordance with the appropriate water company standards and the standards of the New Hampshire Department of Environmental Services*”. The state standards for community well siting include detailed requirements related to setbacks, wellhead protection areas, identification of potential contaminant sources, flow rate testing, water quality sampling, etc. For reference, links to the relevant New Hampshire state statutes and administrative rules related to water supply development are listed below:

- [RSA 485:8](#) New Hampshire Safe Drinking Water Act/Public Water Supply Protection Program /Approval of Construction Plans
- [RSA 485:48](#) New Hampshire Safe Drinking Water Act/Public Water Supply Protection Program /Wellhead Protection
- [Env-Dw 305](#) Small Production Wells for Small Community Water Systems
- [Env-Dw 302](#) Large Production Wells for Community Water Systems

With regard to development of private domestic water supply wells, it is worth noting that the State of New Hampshire currently has no mandated minimum flow rate for such wells. The New Hampshire Water Well Board has published a recommended minimum volume, for in door domestic use, of 600 gallons of water deliverable to the home by the water system within a 2-hour period at least once per day (see fact sheet, [Recommended Minimum Water Supply Capacity for Private Wells](#)). The Town should consider adopting this recommended minimum volume as a municipal standard for inclusion under Section 3.05 B. of the Site Plan Regulations and Section 3.6 B. of the Subdivision Regulations.



## 8 Recommendations

Since the 1980s, Londonderry has grown in population by over 60%. The town's population is expected to continue to increase by a rate of approximately 4-5% every five years and a population of over 31,000 is expected by 2040 (Table 5-3). Londonderry will need continued efforts to protect its surface and ground water resources as land development increases to accommodate population growth and new commercial land uses. Recommendations based on the analysis provided in this report are provided below.

### 1. Evaluate Future Supply from Water Suppliers and Existing Drinking Water Infrastructure

Drinking water demand is expected to increase significantly by 2040 (see Figures 5-6 and 5-7), driven by continued population and commercial growth in Londonderry. Although Pennichuck Water Works has already provided an estimate of the additional future water supply that is available for Londonderry, such estimates are not currently available from Manchester Water Works (MWW) and the Derry Water Department (DWD). Londonderry should work with MWW and the DWD to obtain future available supply information. Once future supply estimates are available from all of the town's water suppliers, the future water demand estimates provided in this report can be used to determine if additional supply or storage will be needed. It is also recommended that the town should conduct a study to evaluate the adequacy of existing infrastructure to handle future water demand.

### 2. Conduct a Study to Assess Groundwater Supply

As discussed in Section 5, Londonderry's Average Daily Demand for drinking water is expected to increase from 2.9 mgd to 3.5 mgd by 2040 and Maximum Daily Demand is expected to increase from 7.2 mgd to 8.9 mgd. Once the evaluation of potential future supply from current water suppliers is completed (as recommended above), an evaluation of Londonderry's groundwater supply should be conducted to determine if Londonderry could develop their own groundwater supply.

The first step in a groundwater supply assessment is to conduct a test well investigation program in areas of town with stratified drift aquifers. This type of investigation will provide information on the quantity and quality of groundwater in these areas. If this investigation suggests that developing a municipal public water supply is technically feasible, a cost-benefit analysis to determine the benefit of developing the supply over purchasing additional water from PWW, MWW or DWD should be conducted.

### 3. Assess Current Surface Water Quality Data and Conduct Further Studies

This update to the Londonderry Water Resource Management Protection Plan did not include an analysis or assessment of any surface water quality data. As discussed in Section 3, multiple waterbodies in Londonderry are considered impaired by the State of New Hampshire. Conducting an analysis of existing studies and assessing the need for further sampling is recommended. The update to the Environmental Baseline Study could serve as a mechanism for this study. This study could also be scoped to help determine the feasibility of using existing surface waterbodies such as Scobie Pond as a future drinking water source.

### 4. Assess Dams and Stream Crossings

Dams and stream crossings structures such as culverts and bridges can impact the health of stream and river ecosystems. Ensuring that this type of infrastructure is properly designed and appropriate for use on a particular stream is essential to ensuring ecological health. Dams and culverts may also contribute to flooding and other safety risks if they are undersized and/or in poor condition.

The New Hampshire Stream Crossing Initiative, an interagency workgroup developed to collaboratively manage the state's stream crossing assessment efforts, is comprised of representatives from the NHDES, New Hampshire Department of Transportation, New Hampshire Geological Survey, New Hampshire Fish and Game Department, New Hampshire Department of Safety – Division of Homeland Security and Emergency Management, Association of New Hampshire Regional Planning Commissions, and UNH Technology Transfer Center. As part of this Initiative, stream crossing surveys are being conducted throughout the state to collect information on geomorphic compatibility, aquatic organism passage, overall condition, and hydraulic capacity of the structure to transport predicted flows under storm events. For more information on this program, follow the link below:

[https://www.des.nh.gov/organization/divisions/water/wetlands/streams\\_crossings.htm](https://www.des.nh.gov/organization/divisions/water/wetlands/streams_crossings.htm).

As shown in Section 2, Londonderry has approximately 71 dams which range in size, complexity, and degree of disrepair. Although safety and liability concerns are often the primary factor influencing decisions to remove dams, some government agencies and environmental organizations lead dam removal efforts to restore fish passage and improve overall riverine ecology. While there are some limited, short-term ecological impacts of dam removal, the long-term ecological benefits can include improvements in water quality, sediment transport, and habitat for fish and other aquatic wildlife<sup>[1]</sup>.

It is recommended that the Town conduct an evaluation of public and private dams to determine the feasibility and potential benefits of removal. Similarly, it is recommended that the Town review the results of the New Hampshire Stream Crossing Initiative's culvert assessment for Londonderry to identify and prioritize retrofit opportunities for improved wildlife passage and capacity to convey peak flows as needed for climate change resilience.

## **5. Develop Watershed-Based Plans for Impaired Waters**

As listed in Table 3-3, the Londonderry water bodies included in the NHDES Draft 2018 Section 303(d) List of Threatened or Impaired Waters are Beaver Brook, Little Cohas Brook, Nesenkeag Brook, Nesenkeag Brook-Unnamed Brook, and South Perimeter Brook. An important first step to addressing the impairments to these water bodies is the development a "watershed-based plan". Watershed-based plans determine the level of pollutant load reduction or habitat restoration required, specific locations where best management practices are needed, and how to measure water quality improvement. Development of a watershed-based plan which includes the "nine elements" specified by the USEPA is a prerequisite for Section 319 grant funding (*see recommendation 10 below for more information on grants*).

The Town should consider developing watershed-based plans for each of the impaired waters listed above, with priority given to the three major subwatersheds that comprise a relatively large portion of the town land area (Beaver Brook, Little Cohas Brook, and Nesenkeag Brook).

More information on development of a nine-element watershed-based plan can be found at:

[https://www.des.nh.gov/organization/divisions/water/wmb/was/wbp\\_section319\\_guidance.htm](https://www.des.nh.gov/organization/divisions/water/wmb/was/wbp_section319_guidance.htm)

## **6. Strengthen Local Ordinances and Adopt New Ordinances**

Local ordinances and regulations can provide effective protection against nonpoint source pollution. A review of existing ordinances and specific recommendations for Londonderry's Site Plan Regulations are provided in Table 7-1. Other examples of local ordinances and regulations that could protect water resources include:

- **Zoning Ordinances** are used to regulate the land use activities and development density allowed in each section of a town. Zoning regulations typically applies only to future site development and redevelopments.
- **Board of Health Regulations** may be enacted where existing state laws are determined to be insufficient for the protection of public health. For example, Boards of Health can regulate septic systems more stringently than required under state law, and can further regulate the use, storage and handling of fuel and other hazardous materials in specified areas. Many communities have adopted septic system pump out regulations, requiring residents to pump their septic systems regularly (typically once every three years) and provide documentation to the town.
- **Non-Zoning Local Bylaws or Ordinances** may be enacted by municipalities for a variety of water resource protection purposes. A common example is a local wetland bylaw which regulates activities in or near wetlands and water bodies. This type of bylaw may incorporate provisions from state wetland regulations and may also expand jurisdiction, add wetland values to be protected, establish filing fees, establish permit and hearing procedures, etc.
- **Lawn Fertilizer Reduction Regulations** can address fertilizers which can be a significant source of phosphorus and nitrogen from areas of residential development and other areas where grass lawns are maintained (e.g., golf courses, office parks, sports fields, etc.). Landscaping fertilizer ordinances can reduce or restrict the use of fertilizers in sensitive areas. There are numerous successful regulations nationally that limit the use of fertilizer on lawns.

## **7. Continue to Prioritize Land Conservation**

Land conservation practices are important and effective tools for water quality protection. Natural landscapes remove pollutants through processes such as infiltration into the soil and plant uptake of nutrients. Protecting “buffer zone” areas along the shoreline of a waterbody is particularly important as natural buffers reduce the amount of pollutants that enter the waterbody.

Land conservation efforts can include strategies to protect and limit future development of highly sensitive parcels through purchase, donations, conservation easements, deed restrictions, and other real estate legal agreements. Currently over 4,500 acres, or 17% of the land in Londonderry, is protected through some type of conservation effort. It is recommended that the Town of Londonderry continue to protect lands from development, with a high priority for areas near surface water bodies and stratified drift aquifers.



## **8. Assess Opportunities to Reduce Effective Impervious Cover**

As a watershed becomes more developed, the amount of total impervious cover (IC) also increases. According to the Impervious Cover Model developed by the Center for Watershed Protection, receiving water quality and biological integrity are “impacted” when IC values are between 10-25%. Overall impervious cover in Londonderry is currently estimated at 10.3%, just slightly above the 10% threshold for “impacted” stream quality. Three watersheds have impervious cover greater than 10% (Beaver Brook Headwaters-Kendall Pond, Chase Brook, and Little Cohas Brook). These watersheds are most at risk for water quality impacts associated with stormwater runoff.

As Londonderry continues to develop, it will be important for the town to identify opportunities to reduce the Effective Impervious Cover (EIC) of existing developed areas and future development. The EIC of a site is the portion of the total impervious cover that is directly connected to the storm drain network or which

directly drains to a waterbody. Impervious areas that are directed to a pervious, vegetated area to infiltrate into the ground are considered disconnected and are not included as EIC. With careful planning and stormwater management to minimize EIC, the water quality and ecological impacts of impervious cover can be reduced for existing and new developments.

It is recommended that the town conduct an assessment to prioritize areas to reduce effective impervious through stormwater retrofits using Low Impact Development techniques such as bioretention, infiltration basins and swales, subsurface infiltrating chambers, sand filters, etc.

## **9. Conduct a Septic System Assessment**

As noted in Section 2, an estimated 90% of homes in Londonderry do not have access to public/private sewer systems and rely on private wastewater systems such as septic systems. For properties without adequate soil to treat the wastewater, or if the system is not properly designed, installed, or maintained, incomplete treatment may occur result in high levels of pollutants entering groundwater and nearby surface waters.

Currently, detailed records for every septic system in Londonderry do not exist. Multiple tools exist to assess the possibility of septic system failure or malfunction, including GIS analysis of soil characteristics, slope, and other factors to determine areas of town most at risk for septic failure. Other tools, such as the development of a septic system database for the town, the development of pump-out ordinances or other local regulations, and targeted water quality sampling can help to limit the possibility of septic system malfunction and prioritize areas where system upgrades are most needed.

## **10. Seek Future Funding Sources**

New Hampshire has multiple funding sources to assist municipalities with protecting their water resources. Several key funding sources are summarized below.

### **Section 319 Watershed Grants**

In 1978, Congress amended the Clean Water Act to establish the Section 319 Nonpoint Source Management Program. Under Section 319, states received grant money to support a wide variety of activities including technical assistance, financial assistance, education, training, demonstration projects, and monitoring. NHDES administers the Watershed Assistance Grants Program to provide financial assistance (subgrants of Section 319 funds) to help grantees conduct on-the-ground projects to reduce nonpoint source (NPS) pollution. NPS projects implement actions to restore or protect water quality by addressing sources of NPS pollution, hydrologic modification of rivers and streams, and habitat losses. Currently, Section 319 grants in New Hampshire focus on implementing the recommendations of an existing watershed-based plan for the target watershed. Very limited funds are available for watershed planning.

More information and resources related to Section 319 grants can be found at:

[https://www.des.nh.gov/organization/divisions/water/wmb/was/grant\\_resources.htm](https://www.des.nh.gov/organization/divisions/water/wmb/was/grant_resources.htm)

### **Clean Water State Revolving Fund (CWSRF)**

The CWSRF program provides low-interest loans to communities, nonprofits, and other local government entities to improve and replace collection systems and wastewater treatment plants with the ultimate goal of protecting public health and improving water quality. A portion of the CWSRF program is used to fund nonpoint source, watershed protection and restoration, and estuary management projects that help improve and protect water quality in New Hampshire. This includes



funding for sections of all of a watershed-based plan. Although the CWSRF is a loan program, there are a range of principal forgiveness percentages (up to 100% for certain types of projects).

Projects eligible for CWSRF funding are generally planning, design, and construction projects including:

- CSO mitigations;
- New wastewater treatment facilities;
- Upgrades to existing wastewater treatment facilities;
- Infiltration/inflow correction;
- Wastewater collection systems; and
- Stormwater remediation.

Nonpoint source projects identified in the 2014 New Hampshire Nonpoint Source Management Plan, an approved watershed-based plan, the 2010 PREP Comprehensive Conservation and Management Plan, or an estuary conservation and management plan are also eligible for CWSRF funding. Applicable project categories include:

- Address nonpoint source pollution;
- Restore hydraulic conductivity; and
- Restore estuarine habitats.

More information on the CWSRF can be found at:

<https://www.des.nh.gov/organization/divisions/water/wweb/grants.htm>

### **Drinking Water State Revolving Fund (DWSRF)**

The DWSRF was established in 1996 as an amendment to the Safe Drinking Water Act and provides assistance in the form of low interest loans to public water systems to finance the cost of drinking water infrastructure. Principal forgiveness is available. Public water systems eligible for this program include all community public water systems and non-transient non-profit public water systems. Funds are used to promote proactive drinking water measures such as source water protection, operator certification, small system technical assistance/capacity development, and program administration.

Projects eligible for DWSRF funding includes:

- Drinking water infrastructure projects such as replacement of aging pipes and meters, installation of new wells, pumphouse and treatment system upgrades, interconnections, and construction of storage tanks.
- Compliance with drinking water standards;
- PFAS and emerging contaminants;
- Non-construction projects that help improve and protect drinking water:
  - Asset Management Grants;
  - Source Water Protection Grants;
  - Leak Detection Survey Grants; and
  - Record Drawing Grants

More information on the DWSRF can be found at:

<https://www.des.nh.gov/organization/divisions/water/dwgb/capacity/dwsrf.htm>

### New Hampshire Drinking Water and Groundwater Trust Fund Program

The New Hampshire Drinking Water and Groundwater Trust Fund is intended to provide for the protection, preservation, and enhancement of all drinking water and groundwater resources of the state. The general scope of projects funded by the program include infrastructure, drinking water source protection, contaminant mapping, and emergency remedial action. A 19-member Advisory Commission is responsible for funding decisions and program vision. For the 2018 loan and grant round, construction projects received approximately \$24 million in grants and loans and non-construction projects received approximately \$2.4 million.

#### *Eligible Projects (three categories)*

1. **Construction Projects:** For 2019, it is anticipated that \$16.7 million will be issued as loans and \$16.9 million will be issued as grants.

Construction projects eligible under the program include (but are not limited to):

- Installation, replacement, rehabilitation, or enhancement of treatment facilities so as to meet MCLs or SMCLs;
- Rehabilitation or replacement of distribution systems and facilities;
- Source exploration, development and enhancement;
- Installation, rehabilitation, or enhancement of storage facilities;
- Interconnections between water systems owned by eligible entities;
- Meters and meter reading equipment;
- Projects that increase water use efficiency, reduce energy usage, or supplement existing infrastructure.

Construction projects NOT eligible under the program include (but are not limited to):

- Expansion of community water systems in anticipation of future population growth;
- Improvement project related to emerging contaminants; and
- Construction or rehabilitation of drinking water reservoir dams.

2. **Source Water Protection Projects:** For 2019, it is anticipated that \$2 million will be issued as grants. Projects cannot exceed \$500,000.

Non-construction projects eligible under the grant program include:

- Prioritizes lands directly associated with water supplies such as Wellhead Protection Areas for wells and Hydrologic Areas of Concern for surface waters.
- Prioritizes the protection of high yield aquifers for future supplies or other types of projects.

3. **NHDES Special Projects:** For 2019, it is anticipated that \$1.4 million will be issued as loans and \$0.25 million will be issued as grants. In 2018, NHDES used funding to sample drinking water wells throughout New Hampshire (\$500,000).

More information on the New Hampshire Drinking Water and Groundwater Trust Fund can be found at: <https://www4.des.state.nh.us/nh-dwg-trust/>

## **List of Appendices**

Appendix A – Kickoff Meeting Notes

Appendix B - Conservation Lands in Londonderry, NH

Appendix C - Public and Private Dams in Londonderry, NH

Appendix D - Above Ground Storage Tanks in Londonderry, NH

Appendix E - Underground Storage Tanks in Londonderry, NH

Appendix F - NHDES Listed Remediation Sites in the Londonderry Watersheds

Appendix G - Local Potential Contamination Source Inventory Sites for Londonderry Watersheds

Appendix H - Hazardous Waste Sites in the Londonderry Watersheds

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## Appendix A

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### **Kickoff Meeting Minutes**



**Londonderry Water Resources Management and Protection Plan Update  
Kickoff Meeting Minutes, January 15, 2019**



**1. Attendees**

- Amy Kizak, GIS Manager/Comprehensive Planner, Town of Londonderry
- John Trottier, Assistant Director of Public Works and Engineering, Town of Londonderry
- Collen Mailloux, Town Planner, Town of Londonderry
- Mike Speltz, Conservation Commission, Town of Londonderry
- Marge Badois, Conservation Commission, Town of Londonderry
- Ted Combes, Town Council, Town of Londonderry
- Bob Hartzel, Project Manager, Comprehensive Environmental, Inc.
- Emily DiFranco, Senior Scientist, Comprehensive Environmental, Inc.

**2. Scope of Work Overview**

- Proposed watershed boundaries
  - New map delineates watersheds based on all named streams and the NHDES HUC 12 watersheds.
- Discussion of main goal of plan
  - Need to know how to address water needs of growing town.
  - Will it be necessary to expand the public system or change regulations to ensure the water supply is protected?
- Discussion of unnamed streams – locally named streams identified
  - Black Brook
  - Indian Brook
- Public and private dams – ED to verify through metadata and will follow up with JT.
- Discussion of public water supply systems
  - Pennichuck Water Works
    - Main contact is John Bouvier.
    - PWW is constructing a 2 MG storage tanks by Wedgewood (on Judy Dr) to eliminate need for a pump station.
  - Manchester Water Works
    - Main contact is Dave Paris.
    - 1 MG storage tank off of Josephine.

- Discussion of methodology to change surface water classification for drinking water supply (ED)
  - Summary of NHDES protocols for changing classification from Class B to Class A.
  - All major ponds will be assessed for feasibility (based on above protocols)
- Discussion of open space land use classification
  - Need to identify land that has the potential to be developed.
  - Land use categories should include “permanently protected” and “potentially developable land.”
- Discussion of septic system/sewer data availability
  - Town does not have a map or electronic database of all septic systems.
  - Town will identify significant septic users (high water users on septic)
  - For the plan, it will be assumed that any parcel not connected to sewer is on septic.
  - Current and future sewer usage
    - South end of town sends waste to Derry WWTF (minimal capacity remaining)
    - North end of town sends waste to Manchester WWTF (has capacity to receive additional waste)
    - Future development will need plan to send waste north to Manchester WWTF.
- Other Topics
  - Rough mass balance of water in vs water out
  - Quantifying salt application rates/GreenPro approval
  - Future source water protection grants to examine groundwater depletion over time

### **3. Next Steps**

- AK will provide all relevant GIS layers/data to CEI
  - Sewer lines
  - Town Parcels
  - Roads
  - Rec Fields
  - Salt storage facilities
  - Zoning
  - Buildout analysis
  - Any other relevant data

- Once all data are received from the Town and the water suppliers, CEI will initiate another meeting to discuss (likely in February).
- ED will contact JT and other town staff as needed.

## **Appendix B**

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### **Conservation Lands in Londonderry, NH**

Data Source: Town of Londonderry, GRANIT



## Conservation Lands in Londonderry, NH

Name	Owner	Acres	Year	Protection Type
<b>Beaver Brook Headwaters - Kendall Pond</b>				
Access to Kendall Pond	Town of Londonderry	0.17	1989	Fee Ownership Town
Laycock	Town of Londonderry	62.49	1982	Fee Ownership Town
West Access to Kendall Pond	Town of Londonderry	1.45	1977	Fee Ownership Town
Moose Hill Orchards Phase I	Moose Hill Orchards, Inc.	10.88	1998	Conservation Easement
159 South Rd	Town of Londonderry	38.88	2002	Fee Ownership Town
Gilcrest Project	Gilcrest Realty Holdings LLC	21.18	2003	Conservation Easement
155 South Rd	Town of Londonderry	6.09	2002	Fee Ownership Town
Higgins / Forest Easement	Higgins Richard G + Debra L	11.25	2002	Conservation Easement
Higgins / Agricultural	Higgins Richard G + Debra L	8.48	2002	Conservation Easement
Dumont	Dumont Ronald A + Cristeta A	18.86	2004	Conservation Easement
Dumont	Town of Londonderry	5.32	1981	Fee Ownership Town
Dumont	Town of Londonderry	1.17	--	Fee Ownership Town
	Town of Londonderry	13.50	1997	Fee Ownership Town
	Town of Londonderry	3.27	1994	Town Owned, de facto Conservation
	Town of Londonderry	0.52	2000	Town Owned, de facto Conservation
	Town of Londonderry	12.10	1995	Town Owned, de facto Conservation
Hannaford Easement		3.28	--	Conservation Easement
Home Depot On-Site	Home Depot USA, No -Cut Zone	2.40	2001	Conservation Easement
28 Partridge Lane	Brackett Lawrence R + Susan P	0.89	2001	Conservation Easement
29 Partridge Lane	Hunt Gregory L + Mary V	1.15	2001	Conservation Easement
27 Partridge Lane	Wilson David M + Susan D	0.96	2001	Conservation Easement
Nevins	The Nevins Retirement Cooperative Assoc	37.15	2004	Conservation Easement
	State of New Hampshire	24.18	--	Fee Ownership Other
	Town of Londonderry	1.46	2007	Town Owned, de facto Conservation
31 Buttrick Rd Elliot	Tarrytown Realest Holdings Inc	3.08	2007	Conservation Easement
	Town of Londonderry	8.62	1995	Town Owned, de facto Conservation
	Town of Londonderry	1.13	1995	Town Owned, de facto Conservation
	Town of Londonderry	0.40	1998	Town Owned, de facto Conservation
Reed Easement		2.29	2009	Conservation Easement

Name	Owner	Acres	Year	Protection Type
2 Gilcreast Rd Rear	Town of Londonderry	2.41	1997	Fee Ownership Town
Hovey Road Viewshed Easement		0.51	2010	Conservation Easement
Hovey Road Viewshed Easement		0.23	2010	Conservation Easement
Hovey Road Viewshed Easement		0.43	2010	Conservation Easement
	State Of New Hampshire	33.27	2010	Deed Restriction
	State Of New Hampshire	33.07	2010	Deed Restriction
	State Of New Hampshire	8.27	2001	Deed Restriction
	State Of New Hampshire	7.29	2001	Deed Restriction
	State Of New Hampshire	40.22	2001	Deed Restriction
Gilcreast Project	Gilcreast Realty Holdings LLC	0.0008	2003	Conservation Easement
Nevins	The Nevins Retirement Cooperative Assoc	0.0008	2004	Conservation Easement
<b>Beaver Brook Headwaters - South</b>				
Ingersoll / Bockes Forest Addition	Society for the Protection of New Hampshire Forests	104.44	2003	Conservation Easement
	Town of Londonderry	1.38	1998	Town Owned, de facto Conservation
Beaver Brook Floodplain	Town of Londonderry	4.35	1977	Fee Ownership Town
	Town of Londonderry	5.03	1999	Town Owned, de facto Conservation
Gramercy Park	Chau Vaughn K + Jennifer A	1.55	--	Deed Restriction
Access to Kendall Pond	Town of Londonderry	0.13	1989	Fee Ownership Town
Beaver Brook	Town of Londonderry	3.54	1978	Fee Ownership Town
Moose Hill Orchards Phase I	Moose Hill Orchards, Inc.	26.03	1998	Conservation Easement
CVS Easement	183 Mammoth Junction Llc	2.74	1999	Conservation Easement
Moose Hill Orchards Phase III	Moose Hill Orchards, Inc	17.65	1999	Conservation Easement
	Town of Londonderry	0.0012	1979	Town Owned, de facto Conservation
Town Forest	Town of Londonderry	13.43	1985	Fee Ownership Town
	Town of Londonderry	4.54	1992	Town Owned, de facto Conservation
	Kutney Kenneth J + Diane L	1.83	--	Deed Restriction
	Lovely Lisa J	0.30	--	Deed Restriction
Moose Hill Orchards Phase IV	Moose Hill Orchards, Inc	86.64	1999	Conservation Easement
Moose Hill Phase II / Flax Field	Londonderry School District	23.86	1999	Conservation Easement
Moose Hill Orchards Phase I	Mack Walla P III	8.23	1998	Conservation Easement
Moose Hill Orchard Phase III	Moose Hill Orchards, Inc	93.88	2000	Conservation Easement
SPNHF / Bockes	Society for the Protection of New Hampshire Forests	68.41	--	Fee Ownership Other
Walgreens Easement	Arc Wgldbnh001 LLC	8.21	2006	Conservation Easement
Jewel Court/Raintree Common Land	Nesenkeag Hill Associates, Inc	0.11	--	Common Land

Name	Owner	Acres	Year	Protection Type
Ingersoll Easement	Penney Curtis A.	4.71	2004	Conservation Easement
Ingersoll Easement	Society for the Protection of New Hampshire Forests	4.65	2004	Conservation Easement
Plummer	Plummer George K, III	2.45	2005	Conservation Easement
	Town of Londonderry	3.33	1975	Fee Ownership Town
Long Swamp Easement (Lantern Ln)	Garofalo David	2.68	--	Conservation Easement
Long Swamp Easement (Lantern Ln)	Morrison Susan E + Kenneth G	2.56	--	Conservation Easement
31 Buttrick Rd Elliot	Tarrytown Realest Holdings Inc	0.15	2007	Conservation Easement
	Town of Londonderry	4.51	1976	Town Owned, de facto Conservation
Brookview Deed Restriction	Town of Londonderry	13.87	1975	Town Owned, de facto Conservation
Estey Easements	Estey Lumber Inc	29.28	2009	Conservation Easement
Estey Easements	Estey Lumber Inc	19.68	2009	Conservation Easement
Estey Easements	Estey Lumber Inc	23.86	2009	Conservation Easement
No-Cut Zone		0.38	2005	No-Cut Zone
No-Cut Zone		0.17	2005	No-Cut Zone
No-Cut Zone		0.10	2005	No-Cut Zone
		1.51	--	Deed Restriction
		1.08	--	Deed Restriction
		0.01	--	Deed Restriction
		1.01	--	Deed Restriction
Gramercy Park	Mckinney Michael C + Cathy M	0.18	--	Deed Restriction
Gramercy Park	Mckinney Michael C + Cathy M	0.13	--	Deed Restriction
	State of New Hampshire	16.24	2001	Deed Restriction
Jake Rd Easement		5.72	--	Conservation Easement
Griffin Road	Town of Londonderry	32.76	2018	Fee Ownership Town
Griffin Road	Town of Londonderry	39.91	2018	Fee Ownership Town
<b>Chase Brook</b>				
	Town of Londonderry	1.75	1998	Town Owned, de facto Conservation
	Town of Londonderry	9.74	1999	Town Owned, de facto Conservation
	Town of Londonderry	3.98	1978	Town Owned, de facto Conservation
West Rd / Continental Paving	Continental Paving, Inc	6.28	1997	Deed Restriction
West Rd / Continental Paving	Continental Paving, Inc	9.86	--	Deed Restriction
West Rd / Continental Paving	Continental Paving, Inc	1.14	1997	Deed Restriction
Pine Swamp	Town of Londonderry	40.86	2003	Town Owned, de facto Conservation
<b>Cohas Brook</b>				
Little Cohas CA	Town of Londonderry	16.08	1992	Fee Ownership Town
28 Partridge Lane	Brackett Lawrence R + Susan P	0.08	2001	Conservation Easement

Name	Owner	Acres	Year	Protection Type
Thibeault Easement	342 Rockingham Rd LLC	19.28	2004	Conservation Easement
Merrill Farm	Merrill William O, Et Al	22.40	2005	Fee Ownership Other
Edgell - SPNHF Easement	Edgell Elizabeth S Revoc Living Trust Agmt	1.50	--	Fee Ownership Other
Edgell - SPNHF Easement	Edgell Elizabeth S Revoc Living Trust Agmt	5.46	--	Fee Ownership Other
Edgell - SPNHF Easement	Edgell Elizabeth S Revoc Living Trust Agmt	3.39	--	Fee Ownership Other
Merrill Farm	Merrill William, Everett	6.70	2005	Conservation Easement
Lorden Commons Open Space		19.21	2013	Deed Restriction
Mill Pond Open Space		70.35	1999	Deed Restriction
Mill Pond Open Space		4.46	1999	Deed Restriction
Mill Pond Open Space		11.06	1999	Deed Restriction
Mill Pond Open Space		22.32	1999	Deed Restriction
	State of New Hampshire	3.77	2010	Deed Restriction
	State of New Hampshire	0.00013	2010	Deed Restriction
<b>Colby Brook</b>				
Plummer Easement	Town of Londonderry	31.01	1979	Fee Ownership Town
Sawmill Brook	Town of Londonderry	10.12	1999	Fee Ownership Town
Musquash CA	Town of Londonderry	158.60	1978	Fee Ownership Town
Musquash CPI	Town of Londonderry	43.56	2000	Fee Ownership Town
Musquash CPI	Town of Londonderry	38.51	2000	Fee Ownership Town
AES Faucher Rd	Town of Londonderry	3.93	2002	Fee Ownership Town
Continental Paving	Continental Paving, Inc	1.13	--	Conservation Easement
R&M Burchell	Town of Londonderry	22.91	2003	Fee Ownership Town
Sawmill Brook	Town of Londonderry	33.22	1999	Fee Ownership Town
Mathers Land	State of New Hampshire	10.32	2017	Fee Ownership Other
<b>Little Cohas Brook</b>				
	Town of Londonderry	1.05	2000	Town Owned, de facto Conservation
Little Cohas CA	Town of Londonderry	14.52	1979	Fee Ownership Town
Little Cohas CA	Town of Londonderry	3.04	1979	Fee Ownership Town
Little Cohas CA	Town of Londonderry	0.98	1979	Fee Ownership Town
Little Cohas CA	Town of Londonderry	3.49	2002	Fee Ownership Town
Little Cohas CA	Town of Londonderry	2.72	1984	Fee Ownership Town
Little Cohas CA	Town of Londonderry	27.71	1981	Fee Ownership Town
Home Depot / Off Site	Borysewicz Frank J Revoc Trust	28.59	2002	Conservation Easement
Airport Access Road Mitigation Area	State of New Hampshire	1.09	2001	NH DOT Mitigation Properties
	Town of Londonderry	0.02	1985	Town Owned, de facto Conservation
	Hamel Paul C + Nicole	1.49	--	Deed Restriction
	Ware Michele D + David J	0.87	--	Deed Restriction
	Fitzgerald Kevin P + Carrie L	0.69	--	Deed Restriction
	Andary Edgard R	0.53	--	Deed Restriction
	Forgues Charles L + Renee M	0.66	--	Deed Restriction
	Kilgus Donald	1.08	--	Deed Restriction
	Carpino Robert + Marie	0.24	--	Deed Restriction



Name	Owner	Acres	Year	Protection Type
	Harrington Scott R	0.43	--	Deed Restriction
	Thumma Prashant R + Vidhi	0.81	--	Deed Restriction
	Peabody Christopher J + Eleanor	0.26	--	Deed Restriction
	Baker Graham A	0.74	--	Deed Restriction
Buckingham Estates	Datta Susanta + Snigdha	0.88	--	Deed Restriction
	Vernet David M + Carolyn M	0.13	--	Deed Restriction
	Lundstedt John	0.18	--	Deed Restriction
	Kenison Bruce A + Frances M	0.12	--	Deed Restriction
	Wehbi Fayez A + Jeanne M	0.06	--	Deed Restriction
	Neverman Michael D	0.14	--	Deed Restriction
	Hartman Terrence L + Maria L	0.32	--	Deed Restriction
	Sonia Brian C + Kelly M	0.29	--	Deed Restriction
	Pearce Timothy J + Amy W	0.25	--	Deed Restriction
	Nitso Paul M + Susan A	0.18	--	Deed Restriction
	Neveu Diane E	0.29	--	Deed Restriction
Airport Access Road Mitigation Area	United States of America	3.65	2007	Deed Restriction
Airport Access Road Mitigation Area	Town of Londonderry	12.72	2007	Fee Ownership Town
	Parrish Hills, LLC	22.54	2003	Common Land
Little Cohas / Streamside Protection	City of Manchester	1.05	1997	Conservation Easement
Little Cohas / Streamside Protection	Overnite Transportation Co	0.63	1994	Conservation Easement
Vista Ridge Easement	Vista Ridge LLC	12.61	2002	Conservation Easement
Airport Access Road Mitigation Area	State of New Hampshire	7.50	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Pincence Lorayne	103.54	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	23.94	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area		7.81	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	17.60	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	5.91	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	23.09	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	0.98	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	3.94	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	4.84	2007	NH DOT Mitigation Properties

Name	Owner	Acres	Year	Protection Type
Airport Access Road Mitigation Area	State of New Hampshire	1.66	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Pincence Lorayne	3.20	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	7.17	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	2.67	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	3.09	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	11.49	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Crowning Holding, Inc	4.46	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Nahlik John J Jr	10.82	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Buyck William L + Anne Marie	0.15	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Korean Methodist Church of NH	5.11	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Gagnon Jean	14.94	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	41.03	2007	NH DOT Mitigation Properties
144 Harvey Rd	Alston Properties LLC	1.54	--	Conservation Easement
	Town of Londonderry	1.24	--	Town Owned, de facto Conservation
Airport Access Road Mitigation Area	State of New Hampshire	16.60	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	7.00	2007	NH DOT Mitigation Properties
Whittemore Estates	Londonderry Lending Trust	18.00	2005	Conservation Easement
Airport Access Road Mitigation Area	State of New Hampshire	17.28	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	DMC Trust	7.48	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	7.22	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Land-Air Terminals Ltd	0.0022	--	Conservation Easement
Airport Access Road Mitigation Area	Gagnon Jean	29.25	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	13.66	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	City of Manchester	8.06	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Brady-Sullivan Corporation	3.55	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Ballinger Properties	12.17	2007	NH DOT Mitigation Properties

Name	Owner	Acres	Year	Protection Type
Airport Access Road Mitigation Area	State of New Hampshire	3.17	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	5.09	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	2.17	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Ballinger Properties	10.29	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	2.36	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	5.67	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	0.32	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	J L Realty Corporation	0.35	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Yenolam Real Estate LLC	0.07	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	J + L Realty Corporation	1.14	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Sarnia Seacoast, LLC	1.41	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Ballinger Properties	1.21	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	City of Manchester	8.06	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	18.72	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Gagnon-Griffin Assoc. Inc	5.23	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Frost Gerald R III + Lori Ann	5.38	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	2.43	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Victory Baptist Church	3.39	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Victory Baptist Church	14.92	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Ballinger Properties	0.41	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Freudenberg North America LP	0.43	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Ecco Real Estate LLC	0.60	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	4.07	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Smith Kendall P 1994 Trust	0.92	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Beckley James E 1993 Trust Beckley, James E Trust*	0.13	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Smith Russell C Revoc Trust	0.15	2007	NH DOT Mitigation Properties

Name	Owner	Acres	Year	Protection Type
Airport Access Road Mitigation Area	State of New Hampshire	0.64	2007	NH DOT Mitigation Properties
Merrill Farm	Merrill William, Everett	26.54	2005	Conservation Easement
Kamco / Independence Dr	19 Independence Drive Realty Scaia, James F, Trust	26.14	2003	Conservation Easement
Lorden Commons Open Space		7.15	2013	Deed Restriction
Beal Tower		4.85	2013	No-Cut Zone
		1.44	--	Conservation Easement
Planeview Mitigation		3.76	2017	Deed Restriction
Little Cohas CA	Town of Londonderry	0.000001	2002	Fee Ownership Town
Airport Access Road Mitigation Area	United States of America	0.000001	2007	Deed Restriction
Little Cohas CA	Town of Londonderry	0.0017	2002	Fee Ownership Town
Airport Access Road Mitigation Area	State of New Hampshire	0.0017	2007	NH DOT Mitigation Properties
Little Cohas / Streamside Protection	City of Manchester	3.29	1997	Conservation Easement
Airport Access Road Mitigation Area	State of New Hampshire	3.29	2007	NH DOT Mitigation Properties
Little Cohas / Streamside Protection	City of Manchester	0.86	1997	Conservation Easement
Airport Access Road Mitigation Area	State of New Hampshire	0.86	2007	NH DOT Mitigation Properties
Little Cohas / Streamside Protection	City of Manchester	7.34	1997	Conservation Easement
Airport Access Road Mitigation Area	State of New Hampshire	7.34	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	0.00035	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Nahlik John J Jr	0.00035	2007	NH DOT Mitigation Properties
Little Cohas / Streamside Protection	Land-Air Terminals Ltd	0.44	--	Conservation Easement
		0.44	--	Conservation Easement
Airport Access Road Mitigation Area	Brady-Sullivan Corporation	0.000258	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	0.000258	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Sarnia Seacoast, LLC	0.000895	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	City of Manchester	0.000895	2007	NH DOT Mitigation Properties
Little Cohas / Streamside Protection	City of Manchester	0.000557	1997	Conservation Easement
Airport Access Road Mitigation Area	Brady-Sullivan Corporation	0.000557	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	0.000557	2007	NH DOT Mitigation Properties



Name	Owner	Acres	Year	Protection Type
Little Cohas / Streamside Protection	City of Manchester	0.000014	1997	Conservation Easement
Airport Access Road Mitigation Area	State of New Hampshire	0.000014	2007	NH DOT Mitigation Properties
		0.000014	--	Conservation Easement
Little Cohas / Streamside Protection	City of Manchester	0.000013	1997	Conservation Easement
Little Cohas / Streamside Protection	Land-Air Terminals Ltd	0.000013	--	Conservation Easement
Airport Access Road Mitigation Area	State of New Hampshire	0.000013	2007	NH DOT Mitigation Properties
		0.000013	--	Conservation Easement
101 West Rd	Town of Londonderry	9.51	1990	Fee Ownership Town
Behind Alan Cir	Town of Londonderry	1.06	1977	Fee Ownership Town
Sunnycrest Phase II	Sunnycrest Farm, Inc	16.41	2003	Conservation Easement
Sunnycrest Phase I	Sunnycrest Farm, Inc	19.92	2003	Conservation Easement
Sunnycrest Phase I		0.73	2004	Conservation Easement
Sunnycrest Phase III	Sunnycrest Farm, Inc	37.33	2004	Conservation Easement
Sunnycrest Phase I		0.35	2004	Conservation Easement
West Rd Ca	Town of Londonderry	24.11	2004	Fee Ownership Town
Adams Rd Ca	Town of Londonderry	14.51	1990	Fee Ownership Town
	Town of Londonderry	6.31	1979	Town Owned, de facto Conservation
	Town of Londonderry	11.47	1979	Town Owned, de facto Conservation
Musquash Ca	Town of Londonderry	159.42	1978	Fee Ownership Town
West Road Athletic Fields	Town of Londonderry	16.22	2005	Conservation Easement
Behind Alan Cir	Town of Londonderry	2.70	1977	Fee Ownership Town
Behind Alan Cir	Town of Londonderry	3.81	1990	Fee Ownership Town
Watercrest Preserve - Phase II	Winn Stephen + Kimberly	3.33	1998	Deed Restriction
Watercrest Preserve - Phase II	Muse Patrick E + Lisa A	12.04	1998	Deed Restriction
Watercrest Preserve - Phase I	Lelic Muhidin A	2.57	--	Deed Restriction
Watercrest Preserve - Phase I	Henault Kenneth + Kathleen	1.56	--	Deed Restriction
Watercrest Preserve - Phase I	Keeley James T + Laura	0.57	--	Deed Restriction
Watercrest Preserve - Phase I	Slavoski John J + Shelley A	0.97	--	Deed Restriction
Watercrest Preserve - Phase I	AAA Nominee Trust	1.19	--	Deed Restriction
Watercrest Preserve - Phase I	Kaufmann Chris	0.16	--	Deed Restriction
Watercrest Preserve - Phase I	Harnish Adam J + Michelle R	0.63	--	Deed Restriction
Watercrest Preserve - Phase I	Cooper Glenn T + Jennifer N	1.29	--	Deed Restriction
Watercrest Preserve - Phase I	Cava Anthony + Dawn M	1.57	--	Deed Restriction
Watercrest Preserve Phase II		0.70	--	Deed Restriction
Orchard View Farms	Ziolek Jerzy + Beata E	1.07	1996	Deed Restriction
Orchard View Farms	Dolliver Kristen M	1.21	1996	Deed Restriction
West Rd / Continental Paving	Continental Paving, Inc	52.28	--	Deed Restriction
Lorden	Town of Londonderry	65.09	2001	Fee Ownership Town
<b>Nesenkeag Brook</b>				

Name	Owner	Acres	Year	Protection Type
Jewel Court/Raintree Common Land	Nesenkeag Hill Associates, Inc	0.18	--	Common Land
Jewel Court/Raintree Common Land	Nesenkeag Hill Associates, Inc	8.78	--	Common Land
Jewel Court/Raintree Common Land	Nesenkeag Hill Associates, Inc	1.41	--	Common Land
Jewel Court/Raintree Common Land	Nesenkeag Hill Associates, Inc	3.85	--	Common Land
Tanager Way	Town of Londonderry	3.88	2007	Fee Ownership Town
George / Tanager Way	Town of Londonderry	138.95	2006	Fee Ownership Town
Plummer	Plummer George K III	16.31	2005	Conservation Easement
Plummer	Plummer George K, III	37.66	2005	Conservation Easement
Towne Square Prof Park Easement	Towne Sq Prof Park Condominium	3.74	2007	Conservation Easement
Royal Lane Easement	Esielionis David F + Vonnie M	0.25	1994	Conservation Easement
Carousel Estates II Easement	Kamieneski Wayne J + Terry Sue	8.18	--	No-Cut Zone
Sunnycrest Phase II	Sun-Way Properties LLC	1.01	--	Conservation Easement
Royal Lane Easement	Marsh Amy F + Andrew J	0.35	--	Conservation Easement
Royal Lane Easement	Corliss Alan E + Cathy Cooper	0.17	1994	Conservation Easement
Royal Lane Easement	Cummings Steven P + Katherine	0.04	1994	Conservation Easement
Royal Lane Easement	Haarman Paul	0.20	1994	Conservation Easement
Sawmill Brook	Town of Londonderry	32.93	1999	Fee Ownership Town
Colby-Litchfield Parcel	Town of Londonderry	33.76	2009	Fee Ownership Town
No-Cut Zone		0.28	2005	No-Cut Zone
No-Cut Zone		0.46	2005	No-Cut Zone
No-Cut Zone		0.76	2005	No-Cut Zone
	Town of Londonderry	24.13	1994	Fee Ownership Town
Hickory Woods Easement		10.55	2013	Conservation Easement
Hicks Parcel		12.09	2013	Fee Ownership Town
		0.83	--	No-Cut Zone
		0.14	--	No-Cut Zone
		0.82	--	No-Cut Zone
		0.60	--	No-Cut Zone
		0.12	--	No-Cut Zone
		0.08	--	No-Cut Zone
		0.35	--	No-Cut Zone
Carousel Estates II Easement		5.17	--	No-Cut Zone
Carousel Estates II Easement		0.15	--	No-Cut Zone
Adams Rd Ca	Town of Londonderry	7.82	1995	Fee Ownership Town
Adams Rd Ca	Town of Londonderry	9.32	1989	Fee Ownership Town
Plummer Easement	Plummer Peter N	87.55	1989	Conservation Easement
Mathers Land	State of New Hampshire	141.64	2017	Fee Ownership Other
Watercrest Preserve - Phase II	Muse Patrick E + Lisa A	0.002	1998	Deed Restriction
Watercrest Preserve - Phase I	Lelic Muhidin A	0.002	--	Deed Restriction

Name	Owner	Acres	Year	Protection Type
George / Tanager Way	Town of Londonderry	0.01	2006	Fee Ownership Town
Mathers Land	State of New Hampshire	0.01	2017	Fee Ownership Other
Carousel Estates li Easement	Kamieneski Wayne J + Terry Sue	0.003	--	No-Cut Zone
Plummer Easement	Plummer Peter N	0.003	1989	Conservation Easement
<b>Unnamed Tributary Draining Directly to the Merrimack</b>				
CPI/Musquash	Continental Paving, Inc	35.59	2003	Conservation Easement
The Pathway Common Land		5.32	--	Common Land
The Pathway Common Land	Gypsum Construction Corp.	0.83	--	Common Land
Airport Access Road Mitigation Area	Gypsum Construction Corp.	1.50	2007	Common Land
Airport Access Road Mitigation Area	State of New Hampshire	23.82	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Codner Nicholas F Jr	6.40	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	City of Manchester	47.92	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	0.0004	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Ballinger Properties	5.45	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Tana Properties Ltd Partnership	15.65	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Ballinger Properties	4.13	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Tana Properties Ltd Partnership	1.69	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Tana Properties Ltd Partnership	2.89	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Tana Properties Ltd Partnership	1.14	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Tana Properties Ltd Partnership	12.30	2007	NH DOT Mitigation Properties
<b>Watts Brook</b>				
	Town of Londonderry	1.42	1979	Town Owned, de facto Conservation
Plummer Easement	Town of Londonderry	1.76	1979	Fee Ownership Town
Musquash Ca	Town of Londonderry	248.53	1978	Fee Ownership Town
	Town of Londonderry	6.56	1977	Town Owned, de facto Conservation
CPI/Musquash	Continental Paving, Inc	1.40	2003	Conservation Easement
AES - Faucher Rd		7.02	2002	Fee Ownership Town
Musquash CPI	Town of Londonderry	0.06	2000	Fee Ownership Town
AES Faucher Rd	Town of Londonderry	12.98	2002	Fee Ownership Town
AES Faucher Rd	Town of Londonderry	23.43	2002	Fee Ownership Town
Musquash Sara Beth Connector	Town of Londonderry	1.71	2007	Fee Ownership Town
		6.58	1994	Town Owned, de facto Conservation
	Town of Londonderry	6.92	1977	Town Owned, de facto Conservation

Name	Owner	Acres	Year	Protection Type
	Town of Londonderry	3.11	1988	Town Owned, de facto Conservation
Hidden Meadows	Willbrant Gerald B	0.35	--	Deed Restriction
Hidden Meadows	Willbrant Gerald B	0.19	--	Deed Restriction
Hidden Meadows	Brown Robert M + Kerin M	0.32	--	Deed Restriction
Hidden Meadows	Ottney Joseph C + Carolyn E	0.19	--	Deed Restriction
Hidden Meadows	Ottney Joseph C + Carolyn E	0.44	--	Deed Restriction
Hidden Meadows	Gordon Alan R + Pamela S	0.63	--	Deed Restriction
Hidden Meadows	Hogan Kerry T	1.20	--	Deed Restriction
Hidden Meadows	Singer Jon A	0.54	--	Deed Restriction
Hidden Meadows	P+D Realty Trust	0.80	--	Deed Restriction
Hidden Meadows	Toth Michael + Kelly	0.29	--	Deed Restriction
Hidden Meadows	Willbrant Gerald B	0.31	--	Deed Restriction
Hidden Meadows	Scarfo Gregory H + Maureen M	0.17	--	Deed Restriction
Hidden Meadows	Reese Jason A + Angela M	0.64	--	Deed Restriction
Hidden Meadows	Tillis Alan J + Remi	0.16	--	Deed Restriction
Marcou	Town of Londonderry	15.96	1999	Fee Ownership Town
	Town of Londonderry	5.41	1976	Town Owned, de facto Conservation
The Pathway Common Land		13.36	--	Common Land
The Pathway Common Land	Gypsum Construction Corp.	5.68	--	Common Land
Airport Access Road Mitigation Area	Gypsum Construction Corp.	9.45	2007	Common Land
	Granite Ridge Energy LLC	32.82	2008	Conservation Easement
	Granite Ridge Energy LLC	2.39	2008	Conservation Easement
	Granite Ridge Energy LLC	3.78	2008	Conservation Easement
	Granite Ridge Energy LLC	1.69	2008	Conservation Easement
	Granite Ridge Energy LLC	1.73	2008	Conservation Easement
Continental Paving	Continental Paving, Inc	2.72	--	Conservation Easement
Airport Access Road Mitigation Area	State of New Hampshire	2.63	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	61.17	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Codner Nicholas F Jr	19.89	2007	NH DOT Mitigation Properties
Sara Beth Ln Open Space		5.91	1989	Fee Ownership Town
Jewel Court/Raintree Common Land	Nesenkeag Hill Associates, Inc	2.07	--	Common Land
Jewel Court/Raintree Common Land	Nesenkeag Hill Associates, Inc	0.67	--	Common Land
	Town of Londonderry	1.27	2001	Town Owned, de facto Conservation
Airport Access Road Mitigation Area	State of New Hampshire	6.05	2007	NH DOT Mitigation Properties
R&M Burchell	Town of Londonderry	66.99	2003	Fee Ownership Town
Sales Parcel	Town of Londonderry	7.07	2008	Fee Ownership Town
Airport Access Road Mitigation Area	State of New Hampshire	2.10	2007	NH DOT Mitigation Properties



Name	Owner	Acres	Year	Protection Type
Airport Access Road Mitigation Area	Rolling Frito-Lay Sales LP	1.73	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	State of New Hampshire	3.39	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Tana Properties Ltd Partnership	0.002	2007	NH DOT Mitigation Properties
Airport Access Road Mitigation Area	Granite Ridge Energy LLC	17.80	2007	NH DOT Mitigation Properties
Brook Park Estates Common Land	Brook Park Estates Homeowners	2.29	--	Common Land
Watts Road	Granite Ridge Energy LLC	59.87	2008	Conservation Easement
	Granite Ridge Energy LLC	16.13	2008	Conservation Easement
	Granite Ridge Energy LLC	0.47	2008	Conservation Easement
Cooper Parcel	Town of Londonderry	34.02	2008	Fee Ownership Town
Brook Park Estates Common Land	Brook Park Estates	3.43	--	Common Land
Brook Park Estates Common Land	Brook Park Estates	5.03	--	Common Land
Brook Park Estates Common Land	Brook Park Estates Homeowners	11.10	--	Common Land
Leah Doyle Farm	Leah R Doyle	25.85	2017	Conservation Easement
CPI/Musquash	Continental Paving, Inc	0.003	2003	Conservation Easement
Continental Paving	Continental Paving, Inc	0.003	--	Conservation Easement
AES Faucher Rd	Town of Londonderry	0.001	2002	Fee Ownership Town
Watts Road	Granite Ridge Energy LLC	0.001	2008	Conservation Easement
	Granite Ridge Energy LLC	0.005	2008	Conservation Easement
	Granite Ridge Energy LLC	0.005	2008	Conservation Easement
Continental Paving	Continental Paving, Inc	0.001	--	Conservation Easement
Airport Access Road Mitigation Area	State of New Hampshire	0.001	2007	NH DOT Mitigation Properties

## Appendix C

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### **Public and Private Dams in Londonderry, NH**

Data Source: GRANIT

## Public and Private Dams in Londonderry by Watershed

Map Ref #	Dam Name	Dam Owner	Status	Use	Associated Waterbody
<b>Beaver Brook Headwaters - Kendall Pond Watershed</b>					
<i>Public Dams</i>					
1	Roslee Dam	Town of Londonderry	Exempt	Recreation	Indian Brook
<i>Private Dams</i>					
2	Scobie Pond Dam	Ms. Rita O'Brien	Active	Recreation	Beaver Brook
3	Wheeler Pond Dam	Cracker Barrel Old Country Store	Active	Recreation	Branch Beaver Brook
4	Shields Brook Dam	Peter Sam Investment Properties	Ruins	Recreation	Shields Brook
5	Tr Beaver Brook	Woodmont Orchards Inc	Active	Conservation/ Agriculture	Tr Beaver Brook
6	Winding Brook Road Dam	Century Comm Assoc	Active	Conservation/ Agriculture	Unnamed Stream
7	Century Village Dam	Century Comm Assoc	Active	Recreation	Unnamed Stream
8	Auto Auction Det Pond Dam	Windham Realty LLC	Exempt	Detention	Runoff
9	Hampton Place Det Pond 2	Vickerry Realty Co Trust	Exempt	Detention	Runoff
10	Eayers Range Dr Roadway Emb Dam	Gilcreast Realty Holdings li LLC	Active/ Multiple	Detention	Runoff
11	Nevis Drive Det Pond Dam	Gilcreast Realty Holdings li LLC	Active/ Multiple	Detention	Runoff
12	Stg Realty LLC Detention Pond Dam	Stg Realty Associates LLC	Active	Detention	Runoff
<b>Beaver Brook Headwaters – South Watershed</b>					
<i>Public Dams</i>					
13	Kendall Pond Dam	Town of Londonderry	Active	Recreation	Beaver Brook
14	High School Pond Dam	Londonderry School District	Active	Detention	Runoff
<i>Private Dams</i>					
15	Beaver Brook Dam	Ms Kathryn Buckless	Active	Recreation	Beaver Brook
16	Beaver Brook Dam	Mr P Oshea	Ruins	Recreation	Beaver Brook
17	Branch Beaver Brook Dam	Moose Hill Orchard Inc	Exempt	Conservation/ Agriculture	Tr Beaver Brook
18	Moose Hill Orchard Farm Pond Dam	Moose Hill Orchard Inc	Exempt	Conservation/ Agriculture	Natural Swale
19	Black Brook Dam	Mack Apples	Active	Conservation/ Agriculture	Black Brook
20	Detention Pond Dam	Francis & Annan Kwapniewski	Exempt	Detention	Runoff
21	Sugar Plum Hill Det Pond Dam	Sugar Plum LLC	Exempt	Detention	Runoff
<b>Chase Brook Watershed</b>					
<i>Private Dams</i>					
22	Glenwood Village Pond 1	HSL Real Estate Trust	Exempt	Detention	N/A
23	Glenwood Village Pond 2	HSL Real Estate Trust	Exempt	Detention	Runoff
<b>Cohas Brook Watershed</b>					
<i>Private Dams</i>					

Map Ref #	Dam Name	Dam Owner	Status	Use	Associated Waterbody
24	Cohas Brook Dam	Paul & Donald Cowette	Ruins	Mill	Cohas Brook
25	Branch Cohas Brook Dam	Whispering Pines Mobile Home Village	Active	Recreation	Branch Cohas Brook
26	Harvey Rd Indust Prk Det Pnd	HTS Real Estate Trust	Active	Detention	Runoff
27	Mill Pond Sub Det Pond 1	Brook Hollow Corp	Exempt	Detention	Runoff
28	Mill Pond Sub Det Pond 2	Brook Hollow Corp	Exempt	Detention	Runoff
29	Harvey Industries Det Pond Dam	Harvey Industries	Exempt	Detention	Runoff
<b>Little Cohas Brook Watershed</b>					
<i>Public Dams</i>					
30	Little Cohas Brook Dam	Town of Londonderry	Ruins	Recreation	Little Cohas Brook
31	Exit 5 Park and Ride Det Pond	NH DOT	Active	Detention	Runoff
32	Little Cohas Brook Dam	NH DOT	Active	Recreation	Little Cohas Brook
33	Manchester Airport Det Pond 2	City of Manchester	Exempt	Detention	Runoff
<i>Private Dams</i>					
34	Little Cohas Brook Dam	Connecticut National Bank	Ruins	Recreation	Little Cohas Brook
35	Farm Pond	Mr Herbert Hauser	Active	Conservation/ Agriculture	Unnamed Brook
36	Berm	Brian & Mark & Neil Harvey	Exempt	Detention	Runoff
37	Kw Detention Pond	Coca Cola Bottling Co Of Northern Ne	Exempt	Detention	Runoff
38	Cohas Landing Det Pond Dam	Jean Gagnon	Exempt	Detention	Runoff
39	Waste Management Det Pond	Waste Management of NH Inc	Exempt	Detention	Runoff
40	Af Res Det Pond Dam	94Th Us Army Regional Support	Active	Detention	Runoff
41	Ministerial Heights No 2 Dam	Armo Realty Inc	Active	Detention	Runoff
42	Brita Detention Pond Dam	Brita Corporation	Exempt	Detention	Runoff
43	Vista Ridge Det Pond	Mr Jean Gagnon	Active	Detention	Runoff
44	Choice Hotel Det Pond	Jiten Hotel Management Inc	Exempt	Detention	Runoff
45	Astoria Det Pond Dam	Astoria Londonderry Inc	Exempt	Detention	Runoff
46	Ferrotec Park	Ferrotec International	Active	Detention	Runoff
47	The Landings Detention Pond	Water Wonders, LLC	Exempt	Detention	Runoff
48	FedEx Detention Pond Dam	Schoninger Co LLC	Active	Detention	Runoff
49	Manchester Airport Det Pond Dam	Manchester Boston Regional Airport	Active	Detention	Tr To Little Cohas Brook



Map Ref #	Dam Name	Dam Owner	Status	Use	Associated Waterbody
50	Fed Ex Detention Basin A	Scannell Properties	Pending	Detention	Runoff
<b>Nesenkeag Brook Watershed</b>					
<i>Public Dams</i>					
51	Boyd Brook Dam	Town of Londonderry	Ruins	Recreation	Boyd Brook
<i>Private Dams</i>					
52	Watts Brook Dam	PSNH	Ruins	Mill	Watts Brook
53	Recreation Pond Dam	Town Square Condominium Assoc	Exempt	Recreation	Natural Swale
54	Brooks Recreation Pond Dam	Mr John A Brooks	Active	Recreation	Unnamed Brook
55	Elwood Irrigation Pond Dam	Wayland Elwood	Active	Conservation/ Agriculture	Unnamed Stream
56	Orchard View Farms Dam	Tyler Road Development Corp	Active	Conservation/ Agriculture	Unnamed Stream
57	Vicente Dam	Ms Margaret Vicente	Active	Recreation	Nesenkeag
58	Forest Hill Det Pond Dam	The Lewis Companies	Exempt	Detention	Runoff
59	Tanager Landing Det Pond	R&D Londonderry Development, LLC	Exempt	Detention	Runoff
<b>Unnamed Tributary Draining Directly to Merrimack River Watershed</b>					
<i>Private Dams</i>					
60	The Highlander Det Pond	Highlander Green Assoc	Active	Detention	Runoff
61	Fed Ex Detention Basin B	Scannell Properties	Pending	Detention	Runoff
<b>Watts Brook Watershed</b>					
<i>Public Dams</i>					
62	Lawson Farm Gardens Dam	Town of Londonderry	Exempt	Conservation/ Agriculture	Unnamed Stream
<i>Private Dams</i>					
63	Little Cohas Brook Dam	Hanson Mills Realty Trust	Ruins	Recreation	Little Cohas Brook
64	Watts Brook Dam	Mr Melvin Watts	Ruins	Mill	Watts Brook
65	Unnamed Stream Dam	Unknown	Ruins	Recreation	Unnamed Stream
66	Recreation Pond Dam	Mr Roger Faucher	Active	Recreation	Wheeler Brook
67	Country Club Pond Dam	Mr Thomas Kimball	Active	Recreation	Wheeler Brook
68	Olde Town Estates Det Pond	Dime Savings Bank	Exempt	Detention	Runoff
69	Indian Detention Pond 1	Sustainable Design & Development Inc	Exempt	Detention	Runoff
70	Indian Detention Pond 2	Sustainable Design & Development Inc	Exempt	Detention	Runoff
71	Indian Detention Pond 3	Sustainable Design & Development Inc	Exempt	Detention	Runoff

## Appendix D

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### **Above Ground Storage Tanks in Londonderry, NH**

Data Source: NHDES

## Above Ground Storage Tanks (ASTs) in the Londonderry Watersheds

Facility Number	Facility Name	Town	Facility Type
<b>Beaver Brook Headwaters - Kendall Pond</b>			
840136A	NH Boring Inc Fmr Derry Dpw	Derry	Commercial
940769A	Duston Oil Facility	Derry	Local Government
950320A	Palmer Oil Corp	Derry	Petroleum Distributor
9712071	Scobie 115 Kv Substation	Derry	Utilities
960662A	Former Fred Fuller Oil Bulk Plant	Derry	Local Government
960738A	H NH DOT PS 528	Derry	State Government
0000276	Consolidated Communications Of Northern	Derry	Utilities
980660A	East Derry Fire Precinct	Derry	Local Government
9812030	PSNH Ash Street Substation	Derry	Utilities
990631A	First Student Inc 20619	Derry	Trucking / Transport
9812044	PSNH High Street Substation	Derry	Utilities
000823A	Former Coastal Oil Terminal Property	Derry	Petroleum Distributor
0000067	Valvoline Instant Oil Change	Derry	Oil Change Facility
990631A	First Student Inc 20619	Derry	Trucking / Transport
990631A	First Student Inc 20619	Derry	Trucking / Transport
940775A	F & S Transit Mix Co Inc	Londonderry	Asphalt Batching
9712070	Scobie Pond 345 Substation	Londonderry	Utilities
9812064	PSNH Scobie Pond 12Kv Substation	Derry	Utilities
001226A	Independent Wireless One	Londonderry	Commercial
<b>Beaver Brook Headwaters - South</b>			
870216A	Londonderry Central Fire Dept	Londonderry	Local Government
850901A	Londonderry Town Garage	Londonderry	Local Government
9712063	PSNH Mammoth Rd Substation	Londonderry	Utilities
970511A	Wallboard Supply Co Inc	Londonderry	Commercial
970511A	Wallboard Supply Co Inc	Londonderry	Commercial
970511A	Wallboard Supply Co Inc	Londonderry	Commercial
<b>Chase Brook</b>			
960733A	NH NH DOT PS 516	Londonderry	State Government
9812124	Ryder Student Transportation	Londonderry	Trucking / Transport
<b>Cohas Brook</b>			
0000721	Bri-Weld Industries	Auburn	Industrial
970710A	Manchester Boston Regional Airport	Manchester	Aviation
990728A	Manchester Airport Lighting Unit	Londonderry	Aviation
991224A	Signature Flight Support	Londonderry	Aviation
0000071	Budget/National/Avis Manchester Apo Qta	Manchester	Gas Station
0000071	Budget/National/Avis Manchester Apo Qta	Manchester	Gas Station
0000071	Budget/National/Avis Manchester Apo Qta	Manchester	Commercial
0000073	Budget/National/Avis Manchester Apo Qta	Manchester	Gas Station
0000073	Budget/National/Avis Manchester Apo Qta	Manchester	Gas Station
0000073	Budget/National/Avis Manchester Apo Qta	Manchester	Commercial
0000072	Budget/National/Avis Manchester Apo Qta	Manchester	Gas Station
0000072	Budget/National/Avis Manchester Apo Qta	Manchester	Gas Station
0000072	Budget/National/Avis Manchester Apo Qta	Manchester	Commercial
0000071	Budget/National/Avis Manchester Apo Qta	Manchester	Gas Station
0000071	Budget/National/Avis Manchester Apo Qta	Manchester	Gas Station
0000071	Budget/National/Avis Manchester Apo Qta	Manchester	Commercial
0000139	Thibeault Corp Of Ne	Londonderry	Contractor
0000236	Moose Hill Orchards Inc	Londonderry	Farms And Isolated Sites
0000259	Freudenberg Nok General Partnership	Manchester	Industrial
0000259	Freudenberg Nok General Partnership	Manchester	Industrial
<b>Little Cohas Brook</b>			
921115A	Glenbervie Inc	Londonderry	Other
921115A	Glenbervie Inc	Londonderry	Commercial
0000759	Glenbervie Inc	Londonderry	Other
0000759	Glenbervie Inc	Londonderry	Commercial

Facility Number	Facility Name	Town	Facility Type
0000950	Former New England Pine Sales	Londonderry	Commercial
970516A	Hertz Rent A Car	Londonderry	Commercial
970516A	Hertz Rent A Car	Londonderry	Commercial
970516A	Hertz Rent A Car	Londonderry	Commercial
970516A	Hertz Rent A Car	Londonderry	Commercial
950242A	Waste Management of NH Inc	Londonderry	Trucking / Transport
991027A	Safelite Aviation & Pilot Training	Londonderry	Aviation
9811031	Armored Motor Service Of America	Londonderry	Trucking / Transport
980644A	Land Air Express	Londonderry	Trucking / Transport
0105008	Terminal Building Garage	Londonderry	Aviation
0000161	Amsco Inc	Londonderry	Industrial
0000090	Wiggins Airways Fuel Facility	Londonderry	Aviation
0000090	Wiggins Airways Fuel Facility	Londonderry	Aviation
0000090	Wiggins Airways Fuel Facility	Londonderry	Aviation
0000090	Wiggins Airways Fuel Facility	Londonderry	Aviation
0000090	Wiggins Airways Fuel Facility	Londonderry	Aviation
0000090	Wiggins Airways Fuel Facility	Londonderry	Aviation
0000090	Wiggins Airways Fuel Facility	Londonderry	Aviation
0000090	Wiggins Airways Fuel Facility	Londonderry	Aviation
960652A	Coca Cola Bottling Co Of Northern Ne	Londonderry	Trucking / Transport
0000149	Kluber Lubrication North America	Londonderry	Industrial
0000699	Penske Truck Service Facility	Londonderry	Trucking / Transport
0000699	Penske Truck Service Facility	Londonderry	Trucking / Transport
0000699	Penske Truck Service Facility	Londonderry	Trucking / Transport
0000699	Penske Truck Service Facility	Londonderry	Trucking / Transport
0001170	DDA Services Inc	Londonderry	Other
0001170	DDA Services Inc	Londonderry	Other
0000090	Wiggins Airways Fuel Facility	Londonderry	Aviation
0000090	Wiggins Airways Fuel Facility	Londonderry	Aviation
0000090	Wiggins Airways Fuel Facility	Londonderry	Aviation
<b>Unnamed Tributary Draining Directly to Merrimack River</b>			
0000090	Wiggins Airways Fuel Facility	Londonderry	Aviation
<b>Watts Brook</b>			
010343A	Kluber Lubrication North Amer	Londonderry	Industrial
0000303	Granite Ridge Energy	Londonderry	Utilities



## Appendix E

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### **Underground Storage Tanks in Londonderry, NH**

Data Source: NHDES

**Underground Storage Tanks (USTs) in the Londonderry Watersheds**

Facility Number	Facility Name	Town	Facility Type
<b>Beaver Brook Headwaters - Kendall Pond</b>			
0115560	Derry WW Pump Station	Derry	Local Government
0113467	Nh Boring Inc Fmr Derry DPW	Derry	Commercial
0113467	Nh Boring Inc Fmr Derry DPW	Derry	Commercial
0110006	Standard Sash and Door	Derry	Commercial
0110173	Hood School	Derry	Local Government
0110174	Sau 10	Derry	Local Government
0110175	Floyd School	Derry	Local Government
0113267	Grinnel School	Derry	Local Government
0110431	Derry Associates	Derry	Commercial
0110775	Klev Bro Shoe	Derry	Industrial
0110824	Lannan Corp	Derry	Commercial
0220408	Watts Auto Salvage Inc	Derry	Commercial
0111895	Evans Gulf Service Inc	Derry	Gas Station
0112419	Calvary Bible Church	Derry	Other
0112483	J & F Farms Inc	Derry	Commercial
0112507	St Thomas Aquinas Parish School	Derry	School
0113080	Kachanian Realty Trust	Derry	Commercial
0220086	Derry Fire Dept	Derry	Local Government
0220088	Allen Motors Inc	Derry	Auto Dealership
0220497	D & J Automotive	Derry	Commercial
0113466	West Side Community Center	Derry	Local Government
0111111	Pinkerton Academy	Derry	School
0111111	Pinkerton Academy	Derry	School
0111111	Pinkerton Academy	Derry	School
0111111	Pinkerton Academy	Derry	School
0111111	Pinkerton Academy	Derry	School
0111111	Pinkerton Academy	Derry	School
0111111	Pinkerton Academy	Derry	School
0118091	Steves Foreign Auto	Derry	Gas Station
0111824	Hawthorne Properties	Derry	Commercial
0113463	Gibbs Oil Co Ltd Partnership	Derry	Gas Station
0113463	Gibbs Oil Co Ltd Partnership	Derry	Gas Station
0113463	Gibbs Oil Co Ltd Partnership	Derry	Gas Station
0113463	Gibbs Oil Co Ltd Partnership	Derry	Gas Station
0110333	Gibbs Oil Site Fmr Bp 00933	Derry	Gas Station
0110437	PSNH	Derry	Utilities
0113722	Mobil 11138	Derry	Gas Station
0113722	Mobil 11138	Derry	Gas Station
0113722	Mobil 11138	Derry	Gas Station
0113722	Mobil 11138	Derry	Gas Station
0113722	Mobil 11138	Derry	Gas Station
0113887	Derry LDS Meeting House	Derry	Church
0113887	Derry LDS Meeting House	Derry	Church
0110963	Shell Service Station 100022	Derry	Gas Station
0110963	Shell Service Station 100022	Derry	Gas Station
0110963	Shell Service Station 100022	Derry	Gas Station
0110963	Shell Service Station 100022	Derry	Gas Station
0110963	Shell Service Station 100022	Derry	Gas Station
0110176	Derry Village School	Derry	Local Government
0110577	20 A Street	Derry	Industrial

Facility Number	Facility Name	Town	Facility Type
0110051	Joe Eddie's Marketplace	Derry	Gas Station
0110627	Derry Public Library	Derry	Local Government
0110178	South Range School	Derry	Local Government
0110178	South Range School	Derry	Local Government
0115963	7 Eleven 32500	Derry	Gas Station
0115963	7 Eleven 32500	Derry	Gas Station
0110757	7 Eleven 32500	Derry	Gas Station
0110757	7 Eleven 32500	Derry	Gas Station
0110757	7 Eleven 32500	Derry	Gas Station
0110757	7 Eleven 32500	Derry	Gas Station
0110757	7 Eleven 32500	Derry	Gas Station
0110757	7 Eleven 32500	Derry	Gas Station
0115963	7 Eleven 32500	Derry	Gas Station
0115963	7 Eleven 32500	Derry	Gas Station
0115963	7 Eleven 32500	Derry	Gas Station
0111589	Buckley's Egg Express	Derry	Commercial
0112071	Mobil 10965	Derry	Gas Station
0112071	Mobil 10965	Derry	Gas Station
0112071	Mobil 10965	Derry	Gas Station
0112071	Mobil 10965	Derry	Gas Station
0112071	Mobil 10965	Derry	Gas Station
0110734	Cornerstone Bank	Derry	Commercial
0110295	Derry Paving and Construction	Derry	Contractor
0112421	Derry Fire Dept	Derry	Local Government
0112500	Birchwood Nursing Home	Derry	Other
0220365	Consolidated Communications Of Northern	Derry	Utilities
0111308	Green Valley 55211 Frm Getty	Derry	Gas Station
0111308	Green Valley 55211 Frm Getty	Derry	Gas Station
0111308	Green Valley 55211 Frm Getty	Derry	Gas Station
0112038	Palmer Oil Corp	Derry	Petroleum Distributor
0114791	Former Thirty Pines Texaco	Derry	Gas Station
0112406	True & Noyes Inc	Derry	Contractor
0113170	NH DOT Ps 528	Derry	State Government
0113170	NH DOT Ps 528	Derry	State Government
0113170	NH DOT Ps 528	Derry	State Government
0112650	Sovereign Bank	Derry	Commercial
0220089	East Derry Fire Precinct	Derry	Local Government
0112763	Ames Department Store	Derry	Commercial
0220087	Merrimack Tile Co Inc	Derry	Commercial
0112134	Parkland Medical Center	Derry	Hospital
0112134	Parkland Medical Center	Derry	Hospital
0113295	Abdallah Construction Corp	Derry	Contractor
0110259	First Student Inc 20619	Derry	Trucking / Transport
0111296	Cumberland Farms 2828	Derry	Gas Station
0111296	Cumberland Farms 2828	Derry	Gas Station
0111296	Cumberland Farms 2828	Derry	Gas Station
0111296	Cumberland Farms 2828	Derry	Gas Station
0115469	7 Eleven 33233	Derry	Gas Station
0115469	7 Eleven 33233	Derry	Gas Station
0115469	7 Eleven 33233	Derry	Gas Station
0115493	Former Optima 0779 7483	Derry	Gas Station
0115638	Derry Circle K	Derry	Gas Station
0115638	Derry Circle K	Derry	Gas Station

Facility Number	Facility Name	Town	Facility Type
0115638	Derry Circle K	Derry	Gas Station
0115638	Derry Circle K	Derry	Gas Station
0115638	Derry Circle K	Derry	Gas Station
0115647	Ernest P Barka School	Derry	Local Government
0115647	Ernest P Barka School	Derry	Local Government
0115650	Adeline Realty Trust	Derry	Commercial
0115733	Red Oak Property Mgt	Derry	Commercial
0115734	Red Oak Property Mgt	Derry	Commercial
0115795	Hess 29204	Derry	Gas Station
0115795	Hess 29204	Derry	Gas Station
0115795	Hess 29204	Derry	Gas Station
0115795	Hess 29204	Derry	Gas Station
0115925	Derry Wastewater Treatment Facility	Derry	Local Government
0113170	NH DOT Ps 528	Derry	State Government
0113170	NH DOT Ps 528	Derry	State Government
0113467	NH Boring Inc Fmr Derry DPW	Derry	Commercial
0113467	NH Boring Inc Fmr Derry DPW	Derry	Commercial
0113467	NH Boring Inc Fmr Derry DPW	Derry	Commercial
0111111	Pinkerton Academy	Derry	School
0111111	Pinkerton Academy	Derry	School
0112419	Calvary Bible Church	Derry	Other
0112419	Calvary Bible Church	Derry	Other
0110006	Standard Sash and Door	Derry	Commercial
0110006	Standard Sash and Door	Derry	Commercial
0115560	Derry WW Pump Station	Derry	Local Government
0115560	Derry WW Pump Station	Derry	Local Government
0110156	Londonderry Car Wash	Londond+G136:G308Erry	Gas Station
0111083	Moore's Trucking	Londonderry	Trucking / Transport
0113363	Bayfield Development Co Inc	Londonderry	Commercial
0111011	U S Postal Service	Londonderry	Federal- Non-Military
0113348	Hess 29302	Londonderry	Gas Station
0113348	Hess 29302	Londonderry	Gas Station
0113348	Hess 29302	Londonderry	Gas Station
0113348	Hess 29302	Londonderry	Gas Station
0113391	Woodmont Orchards	Londonderry	Commercial
0111429	Shell 138277	Londonderry	Gas Station
0111429	Shell 138277	Londonderry	Gas Station
0111429	Shell 138277	Londonderry	Gas Station
0111429	Shell 138277	Londonderry	Gas Station
0111429	Shell 138277	Londonderry	Gas Station
0112068	Former Mobil Station 17773	Londonderry	Gas Station
0112068	Former Mobil Station 17773	Londonderry	Gas Station
0112068	Former Mobil Station 17773	Londonderry	Gas Station
0112068	Former Mobil Station 17773	Londonderry	Gas Station
0112300	Freedom Fuel & Food Inc	Londonderry	Gas Station
0111473	31 Nashua Rd Services LLC	Londonderry	Gas Station
0111473	31 Nashua Rd Services LLC	Londonderry	Gas Station
0111473	31 Nashua Rd Services LLC	Londonderry	Gas Station
0111473	31 Nashua Rd Services LLC	Londonderry	Gas Station
0111372	7 Eleven 30292	Londonderry	Gas Station
0111372	7 Eleven 30292	Londonderry	Gas Station
0111372	7 Eleven 30292	Londonderry	Gas Station



Facility Number	Facility Name	Town	Facility Type
0112595	Stratham Tire Co.	Londonderry	Commercial
0110801	Lee Freightliner & Equipment Inc	Londonderry	Industrial
0113302	Getty Station 55275	Londonderry	Gas Station
0113302	Getty Station 55275	Londonderry	Gas Station
0113302	Getty Station 55275	Londonderry	Gas Station
0114521	Blue Seal Feeds Inc	Londonderry	Utilities
0111017	Londonderry Sunoco	Londonderry	Gas Station
0111017	Londonderry Sunoco	Londonderry	Gas Station
0111017	Londonderry Sunoco	Londonderry	Gas Station
0111017	Londonderry Sunoco	Londonderry	Gas Station
0111017	Londonderry Sunoco	Londonderry	Gas Station
0110939	Rte 102 Gas & Serve (Fmr Daher Auto Trade	Londonderry	Gas Station
0110939	Rte 102 Gas & Serve (Fmr Daher Auto Trade	Londonderry	Gas Station
0110939	Rte 102 Gas & Serve (Fmr Daher Auto Trade	Londonderry	Gas Station
0114505	Londonderry Texaco	Londonderry	Gas Station
0114505	Londonderry Texaco	Londonderry	Gas Station
0114505	Londonderry Texaco	Londonderry	Gas Station
0114505	Londonderry Texaco	Londonderry	Gas Station
0113363	Bayfield Development Co Inc	Londonderry	Commercial
0113363	Bayfield Development Co Inc	Londonderry	Commercial
0114505	Londonderry Texaco	Londonderry	Gas Station
0114505	Londonderry Texaco	Londonderry	Gas Station
<b>Beaver Brook Headwaters - South</b>			
0113855	Londonderry Town Garage	Londonderry	Local Government
0112614	St Marks Catholic Church	Londonderry	Church
0113933	Londonderry Central Fire Dept	Londonderry	Local Government
0111302	Green Valley 55238 Frm Getty	Londonderry	Gas Station
0111302	Green Valley 55238 Frm Getty	Londonderry	Gas Station
0111302	Green Valley 55238 Frm Getty	Londonderry	Gas Station
0111302	Green Valley 55238 Frm Getty	Londonderry	Gas Station
0111520	Wallboard Supply Co Inc	Londonderry	Industrial
0220202	Belanger Property	Londonderry	Commercial
0110166	Londonderry South School	Londonderry	Local Government
0110166	Londonderry South School	Londonderry	Local Government
0110165	Londonderry Middle School	Londonderry	Local Government
0110165	Londonderry Middle School	Londonderry	Local Government
0113031	Charles George Trucking Inc	Londonderry	Commercial
0113031	Charles George Trucking Inc	Londonderry	Commercial
0113031	Charles George Trucking Inc	Londonderry	Commercial
0110164	Matthew Thornton Elementary School	Londonderry	Local Government
0111520	Wallboard Supply Co Inc	Londonderry	Industrial
0111520	Wallboard Supply Co Inc	Londonderry	Industrial
0112758	Clarks Trucking Inc	Windham	Trucking / Transport
0110758	Christy's Market Inc	Windham	Gas Station
0112563	Former Waterhouse Country Store	Windham	Gas Station
0112563	Former Waterhouse Country Store	Windham	Gas Station
0112563	Former Waterhouse Country Store	Windham	Gas Station
0112563	Former Waterhouse Country Store	Windham	Gas Station
0112563	Former Waterhouse Country Store	Windham	Gas Station
<b>Chase Brook</b>			

Facility Number	Facility Name	Town	Facility Type
0111882	Hamm Septic Tank Co Inc	Londonderry	Commercial
0113886	Continental Paving Inc	Londonderry	Contractor
0113886	Continental Paving Inc	Londonderry	Contractor
0113886	Continental Paving Inc	Londonderry	Contractor
0113174	NH DOT Ps 516	Londonderry	State Government
0113174	NH DOT Ps 516	Londonderry	State Government
0113886	Continental Paving Inc	Londonderry	Contractor
0113886	Continental Paving Inc	Londonderry	Contractor
<b>Cohas Brook</b>			
0112282	Former Pine Center	Auburn	Commercial
0110323	Fleet Maintenance Co -Haron Corp	Auburn	Industrial
0111288	Fmr. Auburn Go Go	Auburn	Gas Station
0111288	Fmr. Auburn Go Go	Auburn	Gas Station
0111288	Fmr. Auburn Go Go	Auburn	Gas Station
0111288	Fmr. Auburn Go Go	Auburn	Gas Station
0111669	Manchester Airport Authority	Londonderry	Aviation
0111671	Fabricated Circuits Inc	Londonderry	Industrial
0112224	Workplace Systems Inc	Londonderry	Industrial
0118043	Ocean Industries	Londonderry	Industrial
0113108	Windham Realty LLC	Londonderry	Commercial
0113249	Thibeault Corp Of Ne	Londonderry	Contractor
0111512	George & Tinker Realty Trust	Londonderry	Commercial
0110817	Manchester Airport Auth. (Former Wmnh)	Londonderry	Aviation
0111875	Town of Londonderry (Former Lamont Labs)	Londonderry	Industrial
0110572	Remi Fortin Realty Co LLC	Londonderry	Contractor
0110572	Remi Fortin Realty Co LLC	Londonderry	Contractor
0110927	Former Gulton Industries	Londonderry	Industrial
0115426	Cytec	Londonderry	Commercial
0115426	Cytec	Londonderry	Commercial
0115426	Cytec	Londonderry	Commercial
0115803	Penske Truck Service Facility	Londonderry	Trucking / Transport
0115803	Penske Truck Service Facility	Londonderry	Trucking / Transport
0111875	Town Of Londonderry (Former Lamont Labs)	Londonderry	Industrial
0111875	Town Of Londonderry (Former Lamont Labs)	Londonderry	Industrial
0110572	Remi Fortin Construction Co Inc	Londonderry	Contractor
0110572	Remi Fortin Construction Co Inc	Londonderry	Contractor
0111806	Henley Group - Aircraft Hangar	Manchester	Commercial
0111000	Manchester Boston Regional Airport	Manchester	Aviation
0111000	Manchester Boston Regional Airport	Manchester	Aviation
0111000	Manchester Boston Regional Airport	Manchester	Aviation
0111000	Manchester Boston Regional Airport	Manchester	Aviation
0111000	Manchester Boston Regional Airport	Manchester	Aviation
<b>Little Cohas Brook</b>			
0111664	Precision Hangers (Manchester Airport)	Londonderry	Aviation
0111293	Rapid Form Co Inc	Londonderry	Commercial
0111662	Pilgrim Airlines	Londonderry	Aviation
0111666	Unicast Corp	Londonderry	Industrial
0111668	Micro Communications	Londonderry	Commercial
0118096	Bissonette Foundations	Londonderry	Commercial
0113151	Man Regional Airport / Meggitt Inc	Londonderry	Industrial

Facility Number	Facility Name	Town	Facility Type
0113298	J&L Realty Corp	Londonderry	Commercial
0112056	Mareld Co Inc	Londonderry	Commercial
0114252	Jemco Builder & Developer Inc	Londonderry	Contractor
0113371	Us Army Reserve Center	Londonderry	Federal - Military
0110159	Glenbervie Inc	Londonderry	Industrial
0110159	Glenbervie Inc	Londonderry	Industrial
0220203	Atlantic Grinding	Londonderry	Commercial
0114599	North Londonderry Sunoco	Londonderry	Gas Station
0114599	North Londonderry Sunoco	Londonderry	Gas Station
0114599	North Londonderry Sunoco	Londonderry	Gas Station
0114599	North Londonderry Sunoco	Londonderry	Gas Station
0114599	North Londonderry Sunoco	Londonderry	Gas Station
0114599	North Londonderry Sunoco	Londonderry	Gas Station
0114599	North Londonderry Sunoco	Londonderry	Gas Station
0114599	North Londonderry Sunoco	Londonderry	Gas Station
0114599	North Londonderry Sunoco	Londonderry	Gas Station
0114599	North Londonderry Sunoco	Londonderry	Gas Station
0115552	Triangle Mobil	Londonderry	Gas Station
0113123	Triangle Mobil	Londonderry	Gas Station
0113123	Triangle Mobil	Londonderry	Gas Station
0113123	Triangle Mobil	Londonderry	Gas Station
0113123	Triangle Mobil	Londonderry	Gas Station
0113123	Triangle Mobil	Londonderry	Gas Station
0113123	Triangle Mobil	Londonderry	Gas Station
0113123	Triangle Mobil	Londonderry	Gas Station
0115552	Triangle Mobil	Londonderry	Gas Station
0115552	Triangle Mobil	Londonderry	Gas Station
0115552	Triangle Mobil	Londonderry	Gas Station
0115552	Triangle Mobil	Londonderry	Gas Station
0113123	Triangle Mobil	Londonderry	Gas Station
0115552	Triangle Mobil	Londonderry	Gas Station
0115552	Triangle Mobil	Londonderry	Gas Station
0118868	NH DOT Ps 512	Londonderry	State Government
0118868	NH DOT Ps 512	Londonderry	State Government
0113572	Tedeschi Food Shops	Londonderry	Gas Station
0113572	Tedeschi Food Shops	Londonderry	Gas Station
0113572	Tedeschi Food Shops	Londonderry	Gas Station
0113572	Tedeschi Food Shops	Londonderry	Gas Station
0113572	Tedeschi Food Shops	Londonderry	Gas Station
0113572	Tedeschi Food Shops	Londonderry	Gas Station
0110807	Bsp Trans Inc	Londonderry	Trucking / Transport
0111151	N Londonderry Sewer Pump Station	Londonderry	Local Government
0112642	Communication Supplies Inc	Londonderry	Commercial
0115094	Amsco Inc	Londonderry	Trucking / Transport
0115094	Amsco Inc	Londonderry	Trucking / Transport
0115094	Amsco Inc	Londonderry	Trucking / Transport
0115094	Amsco Inc	Londonderry	Trucking / Transport
0115396	Former J&D Trucking	Londonderry	Local Government
0115936	Wiggins Airways Fuel Facility	Londonderry	Aviation
0115674	Premium Vending Inc Fmr Cagans Inc	Londonderry	Commercial
0115781	Boston Express Bus Inc	Londonderry	State Government
0115781	Boston Express Bus Inc	Londonderry	State Government
0115803	Penske Truck Service Facility	Londonderry	Trucking / Transport

Facility Number	Facility Name	Town	Facility Type
0115904	Irving	Londonderry	Gas Station
0115904	Irving	Londonderry	Gas Station
0115904	Irving	Londonderry	Gas Station
0115904	Irving	Londonderry	Gas Station
0112056	Mareld Co Inc	Londonderry	Commercial
0112056	Mareld Co Inc	Londonderry	Commercial
0110159	Glenbervie Inc	Londonderry	Industrial
0110159	Glenbervie Inc	Londonderry	Industrial
0113371	Us Army Reserve Center	Londonderry	Federal - Military
0113371	Us Army Reserve Center	Londonderry	Federal - Military
0113371	Us Army Reserve Center	Londonderry	Federal - Military
<b>Neskenkeag Brook</b>			
0110593	Elwood Orchards	Londonderry	Commercial
0111920	Orchard View Farms	Londonderry	Commercial
0110593	Elwood Orchards	Londonderry	Commercial
0110593	Elwood Orchards	Londonderry	Commercial
0110593	Elwood Orchards	Londonderry	Commercial
<b>Unnamed Tributary Draining Directly to Merrimack River</b>			
0111661	Maa Fuel Dispersal Pt #3	Londonderry	Aviation
0112205	Summit Packaging Systems	Londonderry	Commercial



## Appendix F

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### **NHDES Listed Remediation Sites in the Londonderry Watersheds**

Data Source: NHDES

**NHDES Listed Remediation Sites in the Londonderry Watersheds**

Facility Name	Town	Type
<b>Beaver Brook Headwaters - Kendall Pond</b>		
Derry WW Pump Station	Derry	Ether contamination from an unknown source
Derry WW Pump Station	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Derry WW Pump Station	Derry	Non-hazardous, non-sanitary holding tank registration
Nh Boring Inc Fmr Derry DPW	Derry	Leaking underground storage tank project
Nh Boring Inc Fmr Derry DPW	Derry	Non-hazardous, non-sanitary holding tank registration
Hadco Printed Circuit	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Hadco Printed Circuit	Derry	Non-petroleum related contamination
Hadco Printed Circuit	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Walmart	Derry	Oil spill or release
Drew Woods	Derry	Subsurface wastewater disposal tank receiving > 20,000 gallons per day
Former Dave Allen Lincoln Mercury	Derry	Leaking underground storage tank project
Former Dave Allen Lincoln Mercury	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Former Dave Allen Lincoln Mercury	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Former Dave Allen Lincoln Mercury	Derry	Non-petroleum related contamination
Calvary Bible Church	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Calvary Bible Church	Derry	Leaking residential or commercial heating oil tanks
D & J Automotive	Derry	Leaking underground storage tank project
Pinkerton Academy	Derry	Leaking underground storage tank project
Pinkerton Academy	Derry	Leaking underground storage tank project
Pinkerton Academy	Derry	Initial spill response
Steves Foreign Auto	Derry	Leaking underground storage tank project
Dynaco Company	Derry	Non-petroleum related contamination
Dynaco Company	Derry	Oil spill or release
Dynaco Company	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Gibbs Oil Co Ltd Partnership	Derry	Leaking underground storage tank project
Bliss Farm Property	Derry	Subsurface wastewater disposal tank receiving > 20,000 gallons per day
Solid Waste Transfer Station	Derry	Soild waste transfer station

Facility Name	Town	Type
Gibbs Oil Site Fmr Bp 00933	Derry	Leaking underground storage tank project
PSNH	Derry	Leaking underground storage tank project
Miller Residence	Derry	Oil spill or release
Mobil 11138	Derry	Leaking underground storage tank project
Shell Service Station 100022	Derry	Leaking underground storage tank project
Shell Service Station 100022	Derry	Leaking underground storage tank project
Betley Car Dealership	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Betley Car Dealership	Derry	Non-hazardous, non-sanitary holding tank registration
20 A Street	Derry	Non-petroleum related contamination
20 A Street	Derry	Leaking residential or commercial heating oil tanks
Former Dimarzio Service Station	Derry	Leaking underground storage tank project
Joe Eddie's Marketplace	Derry	Leaking underground storage tank project
7 Eleven 32500	Derry	Leaking underground storage tank project
Derry Hillside Plaza	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Derry Hillside Plaza	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Derry Hillside Plaza	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Buckley's Egg Express	Derry	Non-petroleum related contamination
Buckley's Egg Express	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Buckley's Egg Express	Derry	Leaking residential or commercial heating oil tanks
Sandra Colucci	Derry	Oil spill or release
Hillside Plaza	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Hillside Plaza	Derry	Ether contamination from an unknown source
Mobil 10965	Derry	Leaking underground storage tank project
Derry Paving and Construction	Derry	Leaking underground storage tank project
Derry Paving and Construction	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Derry Fire Dept	Derry	Leaking underground storage tank project
Hood Commons Shopping Center	Derry	Leaking underground storage tank project
Birchwood Nursing Home	Derry	Leaking underground storage tank project
Duston Oil Facility	Derry	Leaking above ground bulk storage facilities containing motor Leaking bulk storage facilities containing fuel oil
Duston Oil Facility	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit

Facility Name	Town	Type
Consolidated Communications Of Northern	Derry	Oil spill or release
55 North Shore Road	Derry	Non-petroleum related contamination
55 North Shore Road	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Green Valley 55211 Frm Getty	Derry	Leaking underground storage tank project
Green Valley 55211 Frm Getty	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Hatfield	Derry	Leaking residential or commercial heating oil tanks
Palmer Oil Corp	Derry	Leaking underground storage tank project
Palmer Oil Corp	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Nutfield Funeral Home	Derry	Non-hazardous, non-sanitary holding tank registration
Former Thirty Pines Texaco	Derry	Leaking underground storage tank project
Riverside Cleaners	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Elaine Desfosses	Derry	Leaking residential or commercial heating oil tanks
John Sobolewski & Son	Derry	Oil spill or release
Former Fred Fuller Oil Bulk Plant	Derry	Leaking bulk storage facilities containing fuel oil
NH DOT Ps 528	Derry	Non-hazardous, non-sanitary holding tank registration
NH DOT Ps 528	Derry	
East Derry Road Area Well Contamination	Derry	Leaking underground storage tank project
East Derry Road Area Well Contamination	Derry	Non-petroleum related contamination
Dorthy Nugent	Derry	Leaking residential or commercial heating oil tanks
Franklin Village Apartments	Derry	Leaking residential or commercial heating oil tanks
Russell Carson	Derry	Leaking residential or commercial heating oil tanks
Buber Property	Derry	Leaking residential or commercial heating oil tanks
Richard Low	Derry	Leaking residential or commercial heating oil tanks
Aladdin Village of Derry	Derry	Leaking residential or commercial heating oil tanks
Ralph Macdonald	Derry	Leaking residential or commercial heating oil tanks
Ruth Marshall	Derry	Leaking residential or commercial heating oil tanks
Circle of Friends	Derry	Ether contamination from an unknown source
Robert Smith	Derry	Leaking residential or commercial heating oil tanks
East Derry Fire Precinct	Derry	Non-hazardous, non-sanitary holding tank registration
Larry Conger	Derry	Leaking residential or commercial heating oil tanks
Gagne Residence	Derry	Leaking residential or commercial heating oil tanks



Facility Name	Town	Type
Maple Hill Acres	Derry	Isolated groundwater sample with contaminant detection. No known source.
Ames Department Store	Derry	Leaking residential or commercial heating oil tanks
Merrimack Tile Co Inc	Derry	Leaking underground storage tank project
Frost Road Area Study	Derry	Ether contamination from an unknown source
Parkland Medical Center	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Simpsons Painting	Derry	Non-petroleum related contamination
Lannan / American Excavation	Derry	Non-hazardous, non-sanitary holding tank registration
Peaceful Acres Mhpk	Derry	Ether contamination from an unknown source
Fayles Residence	Derry	Leaking residential or commercial heating oil tanks
Develis / Vehicle Referb	Derry	Non-hazardous, non-sanitary holding tank registration
Cumberland Farms 2828	Derry	Leaking underground storage tank project
Taylor Paving Corp	Derry	Oil spill or release
Robert Waites	Derry	Leaking residential or commercial heating oil tanks
Former Coastal Oil Terminal Property	Derry	Leaking above ground bulk storage facilities containing motor Leaking bulk storage facilities containing fuel oil
Mark St Germain	Derry	Leaking residential or commercial heating oil tanks
Shamrock Cleaners	Derry	Non-petroleum related contamination
Shamrock Cleaners	Derry	
Valvoline Instant Oil Change	Derry	Oil spill or release
East Derry Fire Precinct	Derry	Non-hazardous, non-sanitary holding tank registration
Derry Town Hall	Derry	Unsolicited site assessment often due to a real estate transaction of a commercial property.
Ultimate Hair Designs	Derry	Leaking residential or commercial heating oil tanks
Joseph Tropiano Property	Derry	Leaking residential or commercial heating oil tanks
Former Optima 0779 7483	Derry	Leaking underground storage tank project
Derry Public Works	Derry	Non-hazardous, non-sanitary holding tank registration
Patel Property	Derry	Leaking residential or commercial heating oil tanks
Scizzor Whiz	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Fred Oven	Derry	Leaking residential or commercial heating oil tanks
Jackie Cordeau Residence	Derry	Leaking residential or commercial heating oil tanks
Hills Residence	Derry	Leaking residential or commercial heating oil tanks
Ernest Gaines Residence	Derry	Leaking residential or commercial heating oil tanks
Adeline Realty Trust	Derry	Leaking motor oil storage tank.

Facility Name	Town	Type
Ferdinando	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Crowe Residence	Derry	Leaking residential or commercial heating oil tanks
Brown Property	Derry	Initial spill response
Farmstead Cws	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Ettore Salon	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Dollar Bills Discount	Derry	Initial spill response
Willwerth Property	Derry	Leaking residential or commercial heating oil tanks
Glasier Residence	Derry	Leaking residential or commercial heating oil tanks
Golondzowski	Derry	Leaking residential or commercial heating oil tanks
Former Aubuchon Hardware	Derry	Leaking residential or commercial heating oil tanks
Tymco	Derry	Hazmat
Psnh Powerlines	Derry	
Beaver Lake Lodge	Derry	Initial spill response
Derry Fire Department	Derry	Initial spill response
Hewes Residence	Derry	Leaking residential or commercial heating oil tanks
51 Crystal Ave. Property	Derry	Unsolicited site assessment often due to a real estate transaction of a commercial property.
Fannie Mae Property	Derry	Leaking residential or commercial heating oil tanks
Mcgregor Property	Derry	Leaking residential or commercial heating oil tanks
Hayes Property	Derry	
Greta Avenue MTBE Detection	Derry	Ether contamination from an unknown source
David Lombard Residence	Derry	Leaking residential or commercial heating oil tanks
Chism Machinery	Derry	Leaking underground storage tank project
Chism Machinery	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Derry Depot Square Building	Derry	
Pelletier Residence	Derry	Leaking residential or commercial heating oil tanks
Former Dave Allen Sales & Service	Derry	
Beaver Lake	Derry	Initial spill response
Roadside Accident	Derry	
Skid Steer Accident	Derry	Initial spill response
Transformer Release	Derry	
York Residence	Derry	Leaking residential or commercial heating oil tanks
Walgreens	Derry	
First Student Inc 20619 Spill	Derry	Initial spill response
Overlook Medical Park	Derry	Initial spill response
Therese Lumenello Residence	Derry	Leaking residential or commercial heating oil tanks
Snowmobile Fire	Derry	Initial spill response

Facility Name	Town	Type
Jackson/Raymond Property	Derry	Leaking residential or commercial heating oil tanks
Jackson/Raymond Property	Derry	
Cormier Self Storage	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Former Nh Marble & Fiberglass	Derry	
Transformer Spill	Derry	
Hydraulic Release	Derry	
24 Scobie Pond Road Property	Derry	
Derry WW Pump Station	Derry	Lined wastewater lagoon
Derry Municipal Landfill	Derry	Existing landfill or landfill closure
Steve's Foreign Auto	Derry	Leaking underground storage tank project
Drew Woods	Derry	Subsurface wastewater disposal tank receiving > 20,000 gallons per day
Bliss Farm Property	Derry	Subsurface wastewater disposal tank receiving > 20,000 gallons per day
Bliss Farm Property	Derry	Subsurface wastewater disposal tank receiving > 20,000 gallons per day
Derry Fire Dept	Derry	Leaking underground storage tank project
Hood Commons Shopping Center	Derry	Leaking underground storage tank project
Hood Commons Shopping Center	Derry	Leaking underground storage tank project
Franklin Village Apartments	Derry	Leaking residential or commercial heating oil tanks
Maple Hill Acres	Derry	H2O_Sample
Maple Hill Acres	Derry	H2O_Sample
Steve's Foreign Auto	Derry	Leaking underground storage tank project
Derry Hillside Plaza	Derry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit, Underground injection control; discharges of benign wastewaters not requiring a discharge permit, Underground injection control; discharges of benign wastewaters not requiring a discharge permit, Underground injection control; discharges of benign wastewaters not requiring a discharge permit, Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Gibbs Oil Co Ltd Partnership	Derry	Leaking underground storage tank project, Leaking underground storage tank project
Derry Fire Dept	Derry	Leaking underground storage tank project
Franklin Village Apartments	Derry	Leaking residential or commercial heating oil tanks
Londonderry Town File	Londonderry	
Impressive Impressions	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Moore's Trucking	Londonderry	Leaking underground storage tank project
PSNH Property	Londonderry	Initial spill response

Facility Name	Town	Type
Hess 29302	Londonderry	Leaking underground storage tank project
Tinkham's Garage	Londonderry	Superfund
Woodmont Orchards	Londonderry	Leaking underground storage tank project
Shell 138277	Londonderry	Leaking underground storage tank project
Shell 138277	Londonderry	Leaking underground storage tank project
Shell 138277	Londonderry	Leaking underground storage tank project
Faulkner Property Foreclosure	Londonderry	Oil spill or release
Former Mobil Station 17773	Londonderry	Leaking underground storage tank project
Former Mobil Station 17773	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Former Mobil Station 17773	Londonderry	Leaking underground storage tank project
Former Mobil Station 17773	Londonderry	Oil spill or release
31 Nashua Rd Services LLC	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
31 Nashua Rd Services LLC	Londonderry	Leaking underground storage tank project
7 Eleven 30292	Londonderry	Leaking underground storage tank project
Lee Freightliner & Equipment Inc	Londonderry	Leaking underground storage tank project
Getty Station 55275	Londonderry	Leaking underground storage tank project
Donald & Brenda Clark Residence	Londonderry	Leaking residential or commercial heating oil tanks
Green Valley 55238 Frm Getty	Londonderry	Oil spill or release
Green Valley 55238 Frm Getty	Londonderry	Leaking underground storage tank project
Jaimie Salon and Spa	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Steve's Cleaners Inc.	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Boumil Grove Condominiums	Londonderry	Ether contamination from an unknown source
Robert & Elizabeth Gilkinson	Londonderry	Leaking residential or commercial heating oil tanks
Rte 102 Gas & Serve (Fmr Daher Auto Trade	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Rte 102 Gas & Serve (Fmr Daher Auto Trade	Londonderry	Leaking underground storage tank project
Workout & Wellness Club	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Kendalwood Condominium Association	Londonderry	Isolated groundwater sample with contaminant detection. No known source.
Maurice Property	Londonderry	Leaking residential or commercial heating oil tanks
Hair Cuts Plus (Unit 30)	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
32 & 34 Trolley Car Lane	Londonderry	Isolated groundwater sample with contaminant detection. No known source.



Facility Name	Town	Type
Independent Wireless One	Londonderry	Hazmat
Buttrick Place \ Salon Bogar	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Londonderry Texaco	Londonderry	Leaking underground storage tank project
Robin's Hair Salon	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Woodhenge Circle MTBE	Londonderry	Ether contamination from an unknown source
Buttrick Rd MTBE Detection	Londonderry	Ether contamination from an unknown source
Ross Drive MTBE Detection	Londonderry	Ether contamination from an unknown source
Brewer Petroleum Rollover	Londonderry	Initial spill response
Alagna Property	Londonderry	Leaking residential or commercial heating oil tanks
Stay Property	Londonderry	Leaking residential or commercial heating oil tanks
Mr Steer	Londonderry	Non-hazardous, non-sanitary holding tank registration
Greg Crystal Residence	Londonderry	Leaking residential or commercial heating oil tanks
Cafe Teresa	Londonderry	
Faa Vor Facility	Londonderry	
Ken Goduti Property	Londonderry	Leaking residential or commercial heating oil tanks
Roadside Spill	Londonderry	Initial spill response
Motor Vehicle Accident	Londonderry	Initial spill response
Carlos & Elizabeth Demelo	Londonderry	Leaking residential or commercial heating oil tanks
Roadside Spill	Londonderry	Initial spill response
Motor Vehicle Accident	Londonderry	Oil spill or release
Hydraulic Release	Londonderry	Initial spill response
Impacted Water Supply Wells	Londonderry	
Mr Steer Plaza / Show Salons	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Ross Residence	Londonderry	Leaking residential or commercial heating oil tanks
Ross Residence	Londonderry	
28 Butrick Road Prop. LLC	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Caudia Goes (Hair We Goes)	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
United Road Trailer Spill	Londonderry	
Shell 138277	Londonderry	Leaking underground storage tank project
31 Nashua Rd Services LLC	Londonderry	Leaking underground storage tank project, Leaking underground storage tank project
31 Nashua Rd Services LLC	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Kendalwood Condominium Association	Londonderry	Isolated groundwater sample with contaminant detection. No known source.

Facility Name	Town	Type
Kendalwood Condominium Association	Londonderry	Isolated groundwater sample with contaminant detection. No known source.
Shell 138277	Londonderry	Leaking underground storage tank project
<b>Beaver Brook Headwaters - South</b>		
Clarks Trucking Inc	Windham	Leaking residential or commercial heating oil tanks
Millstone Old Mill Rd Well Contam	Windham	Isolated groundwater sample with contaminant detection. No known source.
Norman Jacob Property	Windham	Leaking residential or commercial heating oil tanks
Former Waterhouse Country Store	Windham	Leaking underground storage tank project
Former Waterhouse Country Store	Windham	Ether contamination from an unknown source
Former Waterhouse Country Store	Windham	Initial spill response
Heinzel Residence	Windham	Leaking residential or commercial heating oil tanks
Tierney Property	Windham	Leaking residential or commercial heating oil tanks
Bastian Residence	Windham	Leaking residential or commercial heating oil tanks
Oven	Windham	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Kiddie Academy	Windham	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Great Mountain View Estates	Windham	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Great Mountain View Estates	Windham	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Residential Well Sampling	Windham	
Mathis Residence	Derry	Leaking residential or commercial heating oil tanks
Swisher Const (Lot 3-155)	Londonderry	
Percvoco Residence (Lot 1/A-21)	Windham	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Holton Circle Study	Londonderry	Non-petroleum related contamination
Paul Hicks Auto Repair	Londonderry	Non-petroleum related contamination
Londonderry Central Fire Dept	Londonderry	Non-petroleum related contamination
Londonderry Central Fire Dept	Londonderry	Leaking above ground bulk storage facilities containing motor Leaking bulk storage facilities containing fuel oil
Crossroads Mall (Rte 102 @ 128)	Londonderry	Non-petroleum related contamination
Crossroads Mall (Rte 102 @ 128)	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Londonderry Police Department	Londonderry	Leaking underground storage tank project
Crossroads Cleaners	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit

Facility Name	Town	Type
Cheryl Oldfield Residence	Londonderry	Leaking residential or commercial heating oil tanks
Webber Energy	Londonderry	Oil spill or release
Susan Jacques	Londonderry	Leaking residential or commercial heating oil tanks
Belanger Property	Londonderry	Leaking underground storage tank project
Londonderry South School	Londonderry	Leaking residential or commercial heating oil tanks
Londonderry Middle School	Londonderry	Non-petroleum related contamination
Charles George Trucking Inc	Londonderry	Leaking residential or commercial heating oil tanks
Charles George Trucking Inc	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Charles George Trucking Inc	Londonderry	Non-hazardous, non-sanitary holding tank registration
Victory Christian School	Londonderry	Ether contamination from an unknown source
Ponderosa Mobile Home Park	Londonderry	Ether contamination from an unknown source
Moose Hill School (Public Kindergarten)	Londonderry	
Brian Cistulli	Londonderry	Leaking residential or commercial heating oil tanks
Walter Perry	Londonderry	Leaking residential or commercial heating oil tanks
Mammoth Road MTBE	Londonderry	Ether contamination from an unknown source
Joan Osgood	Londonderry	Leaking residential or commercial heating oil tanks
Vernet Residence	Londonderry	Leaking residential or commercial heating oil tanks
Vernet Residence	Londonderry	Ether contamination from an unknown source
Studio of Hair Art	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Campo Residence	Londonderry	Leaking residential or commercial heating oil tanks
Guaraldi Residence (Lot 9/52-6)	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
16 Old Coach Rd	Derry	
Motor Vehicle Accident	Londonderry	Oil spill or release
James Residence	Londonderry	Leaking residential or commercial heating oil tanks
Holton Circle Study	Londonderry	Non-petroleum related contamination
Holton Circle Study	Londonderry	Non-petroleum related contamination
Holton Circle Study	Londonderry	Non-petroleum related contamination
Holton Circle Study	Londonderry	Non-petroleum related contamination
Holton Circle Study	Londonderry	Non-petroleum related contamination
Holton Circle Study	Londonderry	Non-petroleum related contamination
Charles George Trucking Inc	Londonderry	Leaking residential or commercial heating oil tanks
Ponderosa Mobile Home Park	Londonderry	Ether contamination from an unknown source
Ponderosa Mobile Home Park	Londonderry	Ether contamination from an unknown source
Charles George Trucking Inc	Londonderry	Leaking residential or commercial heating oil tanks
Charles George Trucking Inc	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit

Facility Name	Town	Type
Charles George Trucking Inc	Londonderry	Non-hazardous, non-sanitary holding tank registration
<b>Chase Brook</b>		
Ducharme	Londonderry	Non-petroleum related contamination
Continental Paving Inc	Londonderry	Gwreldet
NH DOT PS 516	Londonderry	Non-hazardous, non-sanitary holding tank registration
NH DOT PS 516	Londonderry	Oil spill or release
Avery Community Water System	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Rolling Meadows Condos Iii	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Londonderry Stump Dump	Londonderry	Stump/Demo
<b>Cohas Brook</b>		
Hemlock Springs Development	Derry	Subsurface wastewater disposal tank receiving > 20,000 gallons per day
Fleet Maintenance Co -Haron Corp	Auburn	Non-petroleum related contamination
Fleet Maintenance Co -Haron Corp	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Auburn District Court	Auburn	Non-petroleum related contamination
31 Priscilla Lane Trust	Auburn	Non-petroleum related contamination
31 Priscilla Lane Trust	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
28 Commercial Court (Fmr 8 Priscilla Ln)	Auburn	Non-petroleum related contamination
NH DOT Right-Of-Way	Auburn	Oil spill or release
Maine Drilling Inc	Auburn	Non-hazardous, non-sanitary holding tank registration
Fmr. Auburn Go	Auburn	Leaking underground storage tank project
88 Priscilla Lane Property	Auburn	Non-petroleum related contamination
88 Priscilla Lane Property	Auburn	Non-hazardous, non-sanitary holding tank registration
Eastman Property	Auburn	Leaking residential or commercial heating oil tanks
Michael Dipietro	Auburn	Ether contamination from an unknown source
Wood Residence	Auburn	Leaking residential or commercial heating oil tanks
Former Stohrer Residence	Auburn	Leaking residential or commercial heating oil tanks
James Butz Property	Auburn	Leaking residential or commercial heating oil tanks
Maine Drilling Inc	Auburn	Non-hazardous, non-sanitary holding tank registration
Priscilla Lane MTBE Detection	Auburn	Ether contamination from an unknown source



Facility Name	Town	Type
Sterling Homes (Lot 05/69-17)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Chester Hill LLC (Lot 69-07)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Chester Hill LLC (Lot 69-13)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Chester Hill LLC (Lot 5-23)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Larry Bartlett Residence	Derry	Leaking residential or commercial heating oil tanks
Sterling Homes (Lot 5-24)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Muriel's Hair Stylist li	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Sterling Homes (Lot 5/69-32)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Sterling Homes (Lot 5/104-4)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Sterling Homes (Lot 5/104-11)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Sterling Homes (Lot5/69-27)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Sterling Homes (Lot 5 / 104-5)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Sterling Homes (Lot 5/ 104-19)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Centennial Estates Co-Op Inc.	Derry	Wastewater
Sterling Homes (Lot 5-13)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Sterling Homes (Lot 5/104-17)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Sterling Homes (Lot 5/104-8)	Auburn	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
NH DOT / Highway Maint - Davis Pit	Auburn	NDW
Illegal Dumping	Auburn	
Town of Londonderry (Former Lamont Labs)	Londonderry	Leaking underground storage tank project
Town of Londonderry (Former Lamont Labs)	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Town of Londonderry (Former Lamont Labs)	Londonderry	Non-petroleum related contamination

Facility Name	Town	Type
Town Of Londonderry (Former Lamont Labs)	Londonderry	Leaking residential or commercial heating oil tanks
Manchester Airport	Manchester	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Manchester Airport/Little Cohas Brook	Londonderry	Leaking underground storage tank project
Manchester Air Auth (Continental Pavg)	Londonderry	Leaking underground storage tank project
Remi Fortin Realty Co LLC	Londonderry	Leaking underground storage tank project
Manchester Boston Regional Airport	Manchester	Leaking underground storage tank project
Lyncole Xit Grounding Well	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Wiggins West (Formerly Stead)	Manchester	Oil spill or release
Signature Flight Support	Londonderry	Oil spill or release
Former Gulton Industries	Londonderry	Leaking residential or commercial heating oil tanks
John Rattigan	Derry	Leaking residential or commercial heating oil tanks
Lots 31-13	Londonderry	Non-petroleum related contamination
Lots 31-14	Londonderry	Non-petroleum related contamination
Former Theresa Ludwig	Derry	Leaking residential or commercial heating oil tanks
Boivin Residence Lot 82	Londonderry	Leaking residential or commercial heating oil tanks
Moose Hill Orchards Inc	Londonderry	Leaking above ground bulk storage facilities containing motor Leaking bulk storage facilities containing fuel oil
Bruce Dame Lot 43	Londonderry	Leaking residential or commercial heating oil tanks
Hockensmith Residence	Londonderry	Leaking residential or commercial heating oil tanks
Bradley Property	Derry	Leaking residential or commercial heating oil tanks
Manchester Airport	Manchester	Initial spill response
Diesel Release	Londonderry	Oil spill or release
Loveland Trucking Accident	Londonderry	
Auburn Road Landfill	Londonderry	Superfund
Town of Londonderry (Former Lamont Labs)	Londonderry	Leaking underground storage tank project, Non-petroleum related contamination, Leaking residential or commercial heating oil tanks
Town of Londonderry (Former Lamont Labs)	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Town of Londonderry (Former Lamont Labs)	Londonderry	Leaking underground storage tank project
<b>Little Cohas Brook</b>		
Precision Hangers (Manchester Airport)	Londonderry	Leaking residential or commercial heating oil tanks
Precision Hangers (Manchester Airport)	Londonderry	Non-petroleum related contamination

Facility Name	Town	Type
Plaza 28	Londonderry	Non-petroleum related contamination
Flight One Owners Assoc. Site	Londonderry	Non-petroleum related contamination
Spartan Consolidated	Londonderry	Oil spill or release
Design Works	Londonderry	Unsolicited site assessment often due to a real estate transaction of a commercial property.
Alcumet	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Alcumet	Londonderry	Non-hazardous, non-sanitary holding tank registration
Former Leclair Property	Londonderry	Leaking underground storage tank project
Former Leclair Property	Londonderry	Old Dump
Housing Authority Property	Londonderry	Unsolicited site assessment often due to a real estate transaction of a commercial property.
Tel Labs Property	Londonderry	Oil spill or release
Alco Equipment- Fleetpride	Londonderry	Non-hazardous, non-sanitary holding tank registration
Manchester Airport Auth. (Former Wmnh)	Londonderry	Leaking underground storage tank project
Gary's	Londonderry	Oil spill or release
Manchester Airport	Manchester	Non-hazardous, non-sanitary holding tank registration
Manchester Airport	Manchester	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Manchester Airport/Little Cohas Brook	Londonderry	Oil spill or release
Us Army Reserve Center	Londonderry	Oil spill or release
Glenbervie Inc	Londonderry	Leaking underground storage tank project
Glenbervie Inc	Londonderry	Non-petroleum related contamination
Glenbervie Inc	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Atlantic Grinding	Londonderry	Leaking underground storage tank project
Grenier Field-General	Londonderry	Leaking underground storage tank project
Former New England Pine Sales	Londonderry	Leaking above ground bulk storage facilities containing motor Leaking bulk storage facilities containing fuel oil
Londonderry North Fire Station	Londonderry	Leaking underground storage tank project
Londonderry North Fire Station	Londonderry	Isolated groundwater sample with contaminant detection. No known source.
Tony's Auto & Truck Service	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Waste Management of NH Inc	Londonderry	Non-hazardous, non-sanitary holding tank registration

Facility Name	Town	Type
Coca Cola Bottling Co Of Northern NE	Londonderry	Leaking above ground bulk storage facilities containing motor Leaking bulk storage facilities containing fuel oil
Hertz Rent A Car	Londonderry	Leaking above ground bulk storage facilities containing motor Leaking bulk storage facilities containing fuel oil
North Londonderry Sunoco	Londonderry	Initial spill response
Triangle Mobil	Londonderry	Leaking underground storage tank project
Londonderry Christian Church	Londonderry	Leaking residential or commercial heating oil tanks
Hamory Enterprises/ Anti-Freeze Tech	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
NH DOT Ps 512	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
NH DOT Ps 512	Londonderry	Non-hazardous, non-sanitary holding tank registration
Brian Donnelly Rental Property	Londonderry	Initial spill response
St Jude Parish	Londonderry	Leaking residential or commercial heating oil tanks
Tedeschi Food Shops	Londonderry	Leaking underground storage tank project
BSP Trans Inc	Londonderry	Non-petroleum related contamination
BSP Trans Inc	Londonderry	Leaking underground storage tank project
BSP Trans Inc	Londonderry	Initial spill response
Communication Supplies Inc	Londonderry	Non-petroleum related contamination
Leonard Property	Londonderry	Leaking residential or commercial heating oil tanks
Bochman Mobile Home Park	Londonderry	Isolated groundwater sample with contaminant detection. No known source.
Bochman Mobile Home Park	Londonderry	Leaking residential or commercial heating oil tanks
Ma Arff Maintenance Facility	Manchester	Non-petroleum related contamination
Proposed Airport Drive	Londonderry	Non-petroleum related contamination
52 Clark Road Site	Londonderry	Non-petroleum related contamination
Murrays Auto Recycling	Londonderry	Ether contamination from an unknown source
Murrays Auto Recycling	Londonderry	Oil spill or release
Stonehenge Trust Apts	Londonderry	Isolated groundwater sample with contaminant detection. No known source.
Stonehenge Trust Apts	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Manchester Airport South Regional	Londonderry	Non-petroleum related contamination
Former J&D Trucking	Londonderry	Leaking underground storage tank project
Harvey Road MtBE Detection	Londonderry	Ether contamination from an unknown source
Former Robert Saulnier Property	Londonderry	Leaking motor oil storage tank.
Former Robert Saulnier Property	Londonderry	Ether contamination from an unknown source
Wiggins Airways	Londonderry	Oil spill or release



Facility Name	Town	Type
426 Mammoth Road	Londonderry	Ether contamination from an unknown source
Cookson Electronics	Londonderry	Non-petroleum related contamination
Noguera Property	Londonderry	Leaking residential or commercial heating oil tanks
Susanne's Quality Hair Care	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Overnite Transportation Co	Londonderry	Hazardous Materials
Casella Truck Fire	Londonderry	Oil spill or release
Bae Systems	Manchester	Oil spill or release
Guaranty Bank Property	Londonderry	
Ministerial Heights Water System	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
99Th Regional Command Center Acoe	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Lefebvres Tire & Auto	Londonderry	
Derhak Residence	Londonderry	Leaking residential or commercial heating oil tanks
Gza Environmental	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Irving	Londonderry	
Amsa 160	Londonderry	Initial spill response
Roadside - Tote	Londonderry	Initial spill response
Eversource Transformer Spill	Londonderry	Initial spill response
6 Roundstone Drive Property	Londonderry	
P & H Transportation Tanker Spill	Londonderry	
Glenbervie Inc	Londonderry	Leaking underground storage tank project
Glenbervie Inc	Londonderry	Leaking underground storage tank project
Former New England Pine Sales	Londonderry	Leaking above ground bulk storage facilities containing motor Leaking bulk storage facilities containing fuel oil
Former New England Pine Sales	Londonderry	Leaking above ground bulk storage facilities containing motor Leaking bulk storage facilities containing fuel oil
Glenbervie Inc	Londonderry	Non-petroleum related contamination
Glenbervie Inc	Londonderry	Non-petroleum related contamination
Glenbervie Inc	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
St Judes Parish	Londonderry	Leaking residential or commercial heating oil tanks
St Judes Parish	Londonderry	Leaking residential or commercial heating oil tanks
Stonehenge Trust Apts	Londonderry	Isolated groundwater sample with contaminant detection. No known source.
Stonehenge Trust Apts	Londonderry	Isolated groundwater sample with contaminant detection. No known source.

Facility Name	Town	Type
Stonehenge Trust Apts	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Stonehenge Trust Apts	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
<b>Nesenkeag Brook</b>		
Scott Concrete	Londonderry	Unlined wastewater lagoon
Londonderry Town Garage	Londonderry	Superfund
Wiley Hill Road Gravel Pit	Londonderry	Non-petroleum related contamination
Rita & Edward Gorman	Londonderry	Leaking residential or commercial heating oil tanks
Town Sq Professional Condo Assoc	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Karl Ciewski	Londonderry	Leaking residential or commercial heating oil tanks
Wimmer Residence	Londonderry	Leaking residential or commercial heating oil tanks
Breslow Property	Londonderry	Leaking residential or commercial heating oil tanks
Quincy Road MtBE Detection	Londonderry	Ether contamination from an unknown source
Motor Vehicle Accident	Londonderry	Oil spill or release
<b>Unnamed Tributary Draining Directly to Merrimack River</b>		
Summit Packaging Systems	Londonderry	Leaking underground storage tank project
Manchester Airport Authority (S.Perim.Rd)	Londonderry	Leaking underground storage tank project
Manufacturing Facility	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
<b>Watts Brook</b>		
Castle Court Well Contam	Londonderry	Isolated groundwater sample with contaminant detection. No known source.
Mr. Sparkle	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Granite Ridge Energy	Londonderry	Non-petroleum related contamination
Hair Design by Ann	Londonderry	Underground injection control; discharges of benign wastewaters not requiring a discharge permit
Band Residence	Londonderry	Leaking residential or commercial heating oil tanks
Schilling Residence	Londonderry	Leaking residential or commercial heating oil tanks

## **Appendix G**

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### **Local Potential Contamination Source Inventory Sites for Londonderry Watersheds**

Data Source: NHDES

**Local Potential Contamination Source (PCS) Inventory Sites for Londonderry Watersheds**

Name	Municipality	Type	Comments
<b>Beaver Brook Headwaters - Kendall Pond</b>			
West Running Brook Middle School	Derry	No Type Indicated	
The Fairways	Derry	No Type Indicated	
The Ultimate Attraction	Derry	Dry cleaner, Laundromat, beauty salon or car wash	Salon
Eddies Saw Service	Derry	Furniture stripping, painting and refinishing; photographic processing; printing; appliance and small engine repair; boat repair; refrigeration, heating, ventilating and air conditioning shops; and electrical repair shops.	Small Engine Repair
Rockingham Acres Garden Center	Derry	Electronic and chemical manufacturing, processing and reclamation; paper, leather, plastic, fiberglass, rubber, silicon and glass making; pharmaceutical production; pesticide manufacturing; and chemical preservation of wood and wood products.	Pesticides/herbicides on site
Biosan Laboratories Inc	Derry	Electronic and chemical manufacturing, processing and reclamation; paper, leather, plastic, fiberglass, rubber, silicon and glass making; pharmaceutical production; pesticide manufacturing; and chemical preservation of wood and wood products.	
Lookin Good-The Cuttery Haircuts	Derry	Dry cleaner, Laundromat, beauty salon or car wash	
Derry Animal Hospital	Derry	Medical, dental, veterinary offices and pet grooming; research, development, testing and analytical labs; and funeral services.	
Small Horse Farm	Derry	Farms with 10 or more animal units outdoors or with outdoor manure storage for that number of animals.	Small horse farm/low threat
Farm	Derry	Golf courses, athletic fields, railroads, large over-head powerlines, locations requiring intense landscape management with the application of pesticides and/or chemical applications for maintenance, nurseries, sod farm and crops.	
Jean & Constance Gagnon	Derry	Golf courses, athletic fields, railroads, large over-head powerlines, locations requiring intense landscape management with the application of pesticides and/or chemical applications for maintenance, nurseries, sod farm and crops.	



Name	Municipality	Type	Comments
Philip Ferdinando	Derry	Golf courses, athletic fields, railroads, large over-head powerlines, locations requiring intense landscape management with the application of pesticides and/or chemical applications for maintenance, nurseries, sod farm and crops.	
Ferdinando Vincent L Rev Trust	Derry	Golf courses, athletic fields, railroads, large over-head powerlines, locations requiring intense landscape management with the application of pesticides and/or chemical applications for maintenance, nurseries, sod farm and crops.	
Philip Ferdinando	Derry	Farms with 10 or more animal units outdoors or with outdoor manure storage for that number of animals.	
Donald F Ball	Derry	Golf courses, athletic fields, railroads, large over-head powerlines, locations requiring intense landscape management with the application of pesticides and/or chemical applications for maintenance, nurseries, sod farm and crops.	
Douglas & Debra Newell (Owners)	Derry	Golf courses, athletic fields, railroads, large over-head powerlines, locations requiring intense landscape management with the application of pesticides and/or chemical applications for maintenance, nurseries, sod farm and crops.	
Lester & Betty Chase	Derry	Farms with 10 or more animal units outdoors or with outdoor manure storage for that number of animals.	
Pinkerton Academy	Derry	Golf courses, athletic fields, railroads, large over-head powerlines, locations requiring intense landscape management with the application of pesticides and/or chemical applications for maintenance, nurseries, sod farm and crops.	Ballfields
Broadview Farm (Town of Derry)	Derry	Golf courses, athletic fields, railroads, large over-head powerlines, locations requiring intense landscape management with the application of pesticides and/or chemical applications for maintenance, nurseries, sod farm and crops.	Pool chemicals and fertilizer
Vincent Ferdinando	Derry	Golf courses, athletic fields, railroads, large over-head powerlines, locations requiring intense landscape management with the application of pesticides and/or chemical applications for maintenance, nurseries, sod farm and crops.	

Name	Municipality	Type	Comments
Wise Gladys K/Karen F/Douglas R	Derry	Golf courses, athletic fields, railroads, large over-head powerlines, locations requiring intense landscape management with the application of pesticides and/or chemical applications for maintenance, nurseries, sod farm and crops.	
(No Name Provided)	Derry	Golf courses, athletic fields, railroads, large over-head powerlines, locations requiring intense landscape management with the application of pesticides and/or chemical applications for maintenance, nurseries, sod farm and crops.	Golf course
Timothy J/Sharon L Butterfield	Derry	Farms with 10 or more animal units outdoors or with outdoor manure storage for that number of animals.	
(No Name Provided)	Derry	Golf courses, athletic fields, railroads, large over-head powerlines, locations requiring intense landscape management with the application of pesticides and/or chemical applications for maintenance, nurseries, sod farm and crops.	Ballfields
High Gate Manor Farm	Derry	Farms with 10 or more animal units outdoors or with outdoor manure storage for that number of animals.	Farm
Maple Wood Farms	Derry	Farms with 10 or more animal units outdoors or with outdoor manure storage for that number of animals.	Farm
Iridessa Salon	Derry	Dry cleaner, Laundromat, beauty salon or car wash	
Exotic Nails	Derry	Dry cleaner, Laundromat, beauty salon or car wash	
Benson Lumber & Hardware	Londonderry	Construction sites (not including housing developments).	
Calvin Dental	Londonderry	Medical, dental, veterinary offices and pet grooming; research, development, testing and analytical labs; and funeral services.	
<b>Beaver Brook Headwaters - South</b>			
Mack's Apple	Londonderry	Spray Irrigation Projects	
<b>Chase Brook</b>			
New England Power Company	Londonderry	No Type Indicated	
<b>Little Cohas Brook</b>			
S & S Metals Recycling	Londonderry	Junkyards, scrap yards and auto salvage yards; wastewater (ww) treatment plants; dumps, landfills, transfer stations and other solid waste facilities; ww or septage lagoons.	

Name	Municipality	Type	Comments
Murray Auto Recycling	Londonderry	Junkyards, scrap yards and auto salvage yards; wastewater (ww) treatment plants; dumps, landfills, transfer stations and other solid waste facilities; ww or septage lagoons.	
Kayleen Stowell Revoc Trust (Property Owner)	Londonderry	Furniture stripping, painting and refinishing; photographic processing; printing; appliance and small engine repair; boat repair; refrigeration, heating, ventilating and air conditioning shops; and electrical repair shops.	
Meggitt Avionics Inc	Londonderry	Electronic and chemical manufacturing, processing and reclamation; paper, leather, plastic, fiberglass, rubber, silicon and glass making; pharmaceutical production; pesticide manufacturing; and chemical preservation of wood and wood products.	
<b>Nesenkeag Brook</b>			
Eversource (Psnh/Northeast Utilities)	Londonderry	No Type Indicated	
Londonderry Hair Cosmetology	Londonderry	Dry cleaner, Laundromat, beauty salon or car wash	

## **Appendix H**

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### **Hazardous Waste Sites in the Londonderry Watersheds**

Data Source: NHDES



## Hazardous Waste Sites in the Londonderry Watersheds

Site ID	Site Name	Municipality	Regulation Type	Status
<b>Beaver Brook Headwaters - Kendall Pond</b>				
NHD510105869	Wal Mart Store 1753	Derry	RCRA Regulated	Declassified
NHD064433055	Business Card Express	Derry	RCRA Regulated	Declassified
NHD088582994	Betley Chevrolet Inc	Derry	RCRA Regulated	Active
NHD046312559	Sanmina Sci Corporation	Derry	RCRA Regulated	Declassified
NHD986473007	Allen Motors Inc	Derry	RCRA Regulated	Active
NHD986484913	Eversource Energy	Derry	RCRA Regulated	Active
NHD000845792	New England Telephone Co	Derry	RCRA Regulated	Declassified
NHD982750754	Pinkerton Academy	Derry	RCRA Regulated	Active
NHD986481844	Exxon Mobil Oil Corp 11138	Derry	RCRA Regulated	Declassified
NHD982747750	New England Tanya Finishes	Derry	RCRA Regulated	Declassified
NHD981204266	Birch Street Collision Inc	Derry	RCRA Regulated	Active
NHD982749533	Autoshop Services	Derry	RCRA Regulated	Declassified
NHD986468577	N E Tanya Finishes Inc	Derry	RCRA Regulated	Declassified
NH5986485175	Walgreens 10108	Derry	RCRA Regulated	Active
NHD986469682	Angel Crafts Printing & Design LLC	Derry	RCRA Regulated	Declassified
NHD986468684	Valvoline Instant Oil Change	Derry	State Regulated	Active
NHD510089352	Shaws 3483	Derry	RCRA Regulated	Active
NHD156176273	Taylor Rental Center	Derry	RCRA Regulated	Declassified
NHD982201162	Dave Allen Sales & Service	Derry	RCRA Regulated	Active
NHD980912927	Fireye Inc	Derry	RCRA Regulated	Active
NHD986467181	Brothers Auto Body	Derry	RCRA Regulated	Declassified
NHD066762931	Spacetown Auto Body Inc	Derry	RCRA Regulated	Active
NHD108876293	Jason Canfield Auto Body	Derry	RCRA Regulated	Declassified
NHD986469724	Hawk Quality Products Inc	Derry	RCRA Regulated	Active
NHD986468551	Merrimack Valley Wood Prod Inc	Derry	RCRA Regulated	Declassified
NHD058539255	U S Can Company	Derry	RCRA Regulated	Declassified
NHD986468601	T M C Group Inc	Derry	RCRA Regulated	Declassified
NHD981066624	Jakes Auto Body	Derry	RCRA Regulated	Active
NHD510129430	J & F Farms Inc	Derry	RCRA Regulated	Active
NHD510129281	Express Auto Body & Collision	Derry	State Regulated	Declassified
NHD500021910	Ritz Camera 838	Derry	RCRA Regulated	Declassified
NHD500008370	Town of Derry WWTP	Derry	State Regulated	Declassified
NHD510011927	Parkland Pumonary & Womens Health Assoc	Derry	RCRA Regulated	Active
NHD510001092	Banister Family Dentistry	Derry	RCRA Regulated	Active
NHD510114077	Rite Aid 10264	Derry	RCRA Regulated	Active
NHD510089477	Gibbs Oil Gas Station	Derry	RCRA Regulated	Active
NHD510014020	Parkland Medical Center	Derry	RCRA Regulated	Active
NHD510004864	CVS 0593	Derry	RCRA Regulated	Declassified

Site ID	Site Name	Municipality	Regulation Type	Status
NHD510051261	Lincs Auto Body	Derry	RCRA Regulated	Active
NHD500023577	Professional Image Dry Cleaners	Derry	RCRA Regulated	Active
NHD510129356	Gschwind Karl Machine Wks Inc	Derry	State Regulated	Active
NHD500023262	Bio Concept Laboratories Inc	Derry	RCRA Regulated	Declassified
NHD510004054	Granite State Analytical	Derry	RCRA Regulated	Active
NHD500014519	Business Card Express	Derry	RCRA Regulated	Declassified
NHD510131287	Carclo Technical Plastics Plc	Derry	RCRA Regulated	Active
NHD982715971	East Derry Tire & Auto Inc	Derry	RCRA Regulated	Active
NHD510167000	Town of Derry	Derry	Out of State	Declassified
NHD510075989	Town of Derry	Derry	State Regulated	Active
NHD510166440	Huntsman International LLC	Derry	RCRA Regulated	Active
NHD510166911	CVS Pharmacy 0593	Derry	RCRA Regulated	Active
NHD500012901	Thirty Pines Prop Pennzoil Express Oil Change	Derry	RCRA Regulated	Declassified
NHD510150741	Car Lot The	Derry	State Regulated	Active
NHD510173917	Granite Industrial Gases	Derry	State Regulated	Active
NHD510172976	Meineke Car Care	Derry	State Regulated	Active
NHD510185143	Concord Orthopedics Pa	Derry	RCRA Regulated	Declassified
NHD510004757	Daher Auto Trade Inc	Derry	RCRA Regulated	Non-Notifier
NHD510151277	Sherwin Williams 5611	Derry	RCRA Regulated	Active
NHD986481877	Nashua Road Mobil	Londonderry	RCRA Regulated	Declassified
NHD054007133	Freightliner of NH Inc	Londonderry	RCRA Regulated	Active
NHD986469021	31 Nashua Road Services LLC	Londonderry	RCRA Regulated	Active
NHD986484327	Brothers Auto Body	Londonderry	RCRA Regulated	Active
NHD981897705	Nations Rent Inc	Londonderry	RCRA Regulated	Declassified
NHD088580253	R & R Automotive Machine	Londonderry	RCRA Regulated	Declassified
NHD986469179	Tims Transmission Svc	Londonderry	RCRA Regulated	Active
NHD043160605	Tisdell Transmissions Inc	Londonderry	State Regulated	Active
NHD986473460	RMG Enterprise	Londonderry	RCRA Regulated	Declassified
NHD982193062	Londonderry Car Care	Londonderry	RCRA Regulated	Active
NHD986466563	Steves Cleaners LLC	Londonderry	RCRA Regulated	Active
NHD510127707	Shaws 7484	Londonderry	RCRA Regulated	Active
NHD986485803	Sears Essentials 2553	Londonderry	RCRA Regulated	Declassified
NHD081257552	Ford of Londonderry	Londonderry	RCRA Regulated	Active
NHD500023668	D S & Service Station Inc	Londonderry	RCRA Regulated	Active
NHD500008545	Osco Drug 5460	Londonderry	RCRA Regulated	Declassified
NHD510005564	Stagnone Chiropractic Center PLLC	Londonderry	RCRA Regulated	Active
NHD510132426	North American Metals	Londonderry	RCRA Regulated	Declassified
NHD510166341	Apple Tree Family Physicians	Londonderry	RCRA Regulated	Declassified
NHD510169816	Benchmark Electronics	Londonderry	RCRA Regulated	Declassified
NHD510170897	E I S Inc	Londonderry	RCRA Regulated	Declassified
NHD510167521	Steinert Endodontic Associates	Londonderry	RCRA Regulated	Active

Site ID	Site Name	Municipality	Regulation Type	Status
NHD510180714	Home Depot USA 3401	Londonderry	RCRA Regulated	Active
NHD510188030	Express Auto Body Customs LLC	Londonderry	RCRA Regulated	Declassified
NHD510187412	N E Tanya Finishes Inc	Londonderry	RCRA Regulated	Declassified
<b>Beaver Brook Headwaters - South</b>				
NHD986474518	Wallboard Supply Co Inc	Londonderry	State Regulated	Declassified
NHD982199820	Crossroad Cleaners	Londonderry	RCRA Regulated	Active
NHD500020433	Parent Chiropractic Center	Londonderry	RCRA Regulated	Declassified
NHD510158736	CVS Pharmacy 2420	Londonderry	RCRA Regulated	Active
NHD500008289	Londonderry School District	Londonderry	RCRA Regulated	Active
NHD510163678	Rite Aid 10267	Londonderry	RCRA Regulated	Active
NHD510160278	Parent Chiropractic Center	Londonderry	RCRA Regulated	Active
NHD510160500	Graphic Output	Londonderry	RCRA Regulated	Declassified
<b>Chase Brook</b>				
NHD986472272	Continental Paving Inc	Londonderry	RCRA Regulated	Active
<b>Cohas Brook</b>				
NHD510121601	Soule Truck Service	Auburn	State Regulated	Declassified
NHD982755837	Maine Drilling & Blasting	Auburn	State Regulated	Active
NHD510007107	Nh Blacktop Sealers Inc	Auburn	RCRA Regulated	Active
NHD510167505	A A A Energy Service Co	Auburn	State Regulated	Active
NHD510150709	Babb Motors	Auburn	State Regulated	Active
NHD986484533	Rapid Finishing North	Londonderry	RCRA Regulated	Active
NHD982769192	Technical Research & Mfg Inc	Londonderry	RCRA Regulated	Declassified
NHD500011275	Hologic Inc	Londonderry	RCRA Regulated	Active
NHD500013362	Vulcan Flex Circuit Corporation	Londonderry	RCRA Regulated	Declassified
NHD510131477	H K M Transport	Londonderry	State Regulated	Declassified
NHD510171424	Loader Imports	Londonderry	State Regulated	Declassified
<b>Little Cohas Brook</b>				
NHD986466035	Alcumet Inc	Londonderry	RCRA Regulated	Active
NHD986487213	Mushield	Londonderry	Out Of State	Active
NHD986468395	Coca Cola Bottling Co Of No Ne	Londonderry	RCRA Regulated	Active
NHD981066574	Hawk Transportation	Londonderry	RCRA Regulated	Declassified
NHD980522270	Ruger Advanced Materials Group	Londonderry	RCRA Regulated	Declassified
NHD986467355	Pro Star Aviation LLC	Londonderry	RCRA Regulated	Active
NHD986472611	Manchester Ground Support Svcs	Londonderry	RCRA Regulated	Non-Notifier
NHD510123797	Summit Packaging Systems Inc	Londonderry	RCRA Regulated	Active
NHD981068596	Bedford Computer Corp	Londonderry	RCRA Regulated	Declassified
NHD081258170	Milton Cat	Londonderry	RCRA Regulated	Active
NHD982202574	MSI Electronics Inc	Londonderry	RCRA Regulated	Declassified
NHD986467124	Teledyne Electronic Technologies	Londonderry	RCRA Regulated	Declassified
NHD986471191	Diatide Research Labs	Londonderry	RCRA Regulated	Declassified
NHD095508420	Millennium Precision LLC	Londonderry	RCRA Regulated	Declassified

Site ID	Site Name	Municipality	Regulation Type	Status
NHD982750689	Linear & Metric	Londonderry	RCRA Regulated	Active
NHD986486983	Woodworks The	Londonderry	RCRA Regulated	Active
NHD153621958	Nu-Cast Inc	Londonderry	RCRA Regulated	Active
NHD986471001	Fmt Corp Inc	Londonderry	State Regulated	Declassified
NHD986471076	Waste Management of NH Inc	Londonderry	RCRA Regulated	Active
NHD510127491	Tisdell Transmission	Londonderry	State Regulated	Declassified
NHD510128465	Morins Maintenance & Machining	Londonderry	State Regulated	Declassified
NHD986472371	Dexter Corp-Electronic Matl Div	Londonderry	RCRA Regulated	Declassified
NHD510132467	Stonyfield Farm Inc	Londonderry	RCRA Regulated	Active
NHD510000599	Felton Inc	Londonderry	RCRA Regulated	Active
NHD500013289	Omni Press Inc	Londonderry	RCRA Regulated	Declassified
NHD510013014	Afrc/Amsa 160	Londonderry	RCRA Regulated	Active
NHD500019211	Woodworks The	Londonderry	RCRA Regulated	Active
NHD510130545	Aero Repair Corp	Londonderry	RCRA Regulated	Declassified
NHD500031547	Armored Motor Service	Londonderry	Out Of State	Declassified
NHD510116163	Armored Motor Service	Londonderry	State Regulated	Declassified
NHD500031588	L3 Technologies Insight	Londonderry	RCRA Regulated	Active
NHD510112816	Fed Ex	Londonderry	RCRA Regulated	Active
NHD500022496	Metal Works Inc	Londonderry	RCRA Regulated	Active
NHD500021076	Kluber Lubrication Na LP	Londonderry	RCRA Regulated	Active
NHD510102007	UPS Freight	Londonderry	RCRA Regulated	Active
NHD510099351	Land Air Express	Londonderry	RCRA Regulated	Active
NHD510006752	Lefevbvres Tire and Auto	Londonderry	State Regulated	Active
NHD500021175	Diaz Johnny Autoprizes	Londonderry	RCRA Regulated	Declassified
NHD510131154	Concrete Systems Inc	Londonderry	RCRA Regulated	Declassified
NHD510013006	Galluzzo Anthony Corp	Londonderry	RCRA Regulated	Active
NHD510089527	Rapid Form	Londonderry	RCRA Regulated	Active
NHD510156458	Nh Boring Inc	Londonderry	State Regulated	Active
NHD500002977	United Parcel Service	Londonderry	RCRA Regulated	Active
NHD510165020	Uni Cast Inc	Londonderry	RCRA Regulated	Active
NHD500015193	Semigen Inc	Londonderry	RCRA Regulated	Active
NHD510166242	Murrays Auto Recycling	Londonderry	State Regulated	Active
NHD510170855	USF Red Star	Londonderry	State Regulated	Declassified
NHD510182603	Donovan Equipment Co Inc	Londonderry	RCRA Regulated	Active
NHD510000318	Heritage Truck & Automotive Inc	Londonderry	RCRA Regulated	Active
NHD510182058	Truck Load Service Inc	Londonderry	RCRA Regulated	Declassified
NHD510181431	Transportation Security Administration	Londonderry	RCRA Regulated	Declassified
NHD510188626	L3 Technologies Insight	Londonderry	RCRA Regulated	Active
<b>Nesenkeag Brook</b>				
NHD510132269	Johnson Doug Auto Repair	Londonderry	State Regulated	Active
<b>Watts Brook</b>				

Site ID	Site Name	Municipality	Regulation Type	Status
NHD986469849	Mobility works	Londonderry	RCRA Regulated	Active
NHD986486520	Met-L-Fab Inc	Londonderry	State Regulated	Active
NHD500008305	Ride-Away Handicap Equip Corp	Londonderry	RCRA Regulated	Declassified