#### **DEFINITIONS**

## 1. <u>AQUIFER</u>

A geologic formation, group of formations, or part of a formation capable of yielding useable quantities of ground water to wells or springs. An aquifer may be deemed "significant" if it provides sufficient quantities of water to satisfy large water use demands.

## 2. <u>COMMUNITY WATER SYSTEM</u>

A public water supply system which serves at least 15 service connections used by yearround residents or regularly serves at least 25 year-round residents.

## 3. <u>COMPARABLE QUALITY</u>

The quality of the raw sources of drinking water used in the Review Area, considering, in a general way, both the types of contaminants that are present and their relative concentrations.

# 4. <u>COMPARABLE QUANTITY</u>

An alternative source capable of reliably supplying water in quantities sufficient to meet the current year-round needs of the review area that is served by ground water. In determining sufficient needs, population growth and increasing water needs over time may be considered.

# 5. <u>GROUND WATER RESERVOIRS</u>

Stratified drift deposits having a saturated thickness greater than or equal to 40 feet and a transmissivity greater than or equal to 4000 feet squared per day which have been designated to be potentially significant sources of water. Locations of significant fractured bedrock may also be considered ground water reservoirs.

# 6. <u>LAND USE ACTIVITIES</u>

Residential, municipal, commercial, industrial, agricultural and natural activities occurring on the land surface. Each New England State Wellhead Protection Program provides guidance on the types of land use activities that should be inventoried as potential sources of contamination to ground water (see Table 1).

# 7. LOCAL WELLHEAD PROTECTION PROGRAM

Program developed in accordance with approved State Wellhead Protection Program requirements which describes background information on the recharge area to a public water supply well and outlines management measures to protect such drinking water supplies. Components of a local program depend upon State requirements and may include: Wellhead Protection Area delineation, inventory of potential sources of contamination, identification of local planning team, list of management measures and

contingency planning.

#### 8. <u>PUBLIC WATER SUPPLY SYSTEM</u>

A system to supply the public with piped water for human consumption, having at least fifteen (15) service connections or regularly serving an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. A system includes all sources and facilities involved in collecting, treating, storing and distributing the water.

#### 9. <u>RECHARGE AREA</u>

The land surface area which receives precipitation recharge that will move to the well naturally or under pumping conditions.

#### 10. <u>REVIEW AREA</u>

Delineated area based initially on a two-mile radius from the boundaries of the facility or contamination area. The dimensions of the Review Area can be expanded or reduced based on hydrogeologic settings. This Review Area shall be larger than the "site" boundaries in order to depict a broader view of ground water assessment and uses. The current area of contamination is not necessarily static and may be affected by future stresses outside the contaminated area (e.g. installation of pumping wells).

#### 11. <u>SATURATED THICKNESS</u>

The thickness of an aquifer measured from the water table to an essentially impermeable boundary; such boundary is typically taken to be the top of the bedrock surface.

## 12. <u>SENSITIVE ECOLOGICAL SYSTEM</u>

An aquatic or terrestrial ecosystem located in a ground water discharge area and supporting a unique habitat (i.e. habitat for a listed or proposed endangered or threatened species, or land management areas specifically designated and managed for the purpose of ecological protection).

## 13. <u>SOLE SOURCE AQUIFER</u>

An aquifer petitioned by local communities and designated by the United States Environmental Protection Agency, which is needed to supply 50% or more of the drinking water for that area and for which there are no reasonably available alternative sources should the aquifer become polluted.

## 14. TRANSMISSIVITY

A measure of the ability of an aquifer to transmit water. It can be quantified by multiplying the hydraulic conductivity by the saturated thickness.

## 15. WELLHEAD PROTECTION AREA (WHPA)

A three dimensional land surface and subsurface zone surrounding a public water supply well or wellfield which encompasses the volume of materials through which water will move to the well(s).

#### LIST OF CATEGORIES OF POTENTIAL SOURCES OF GROUNDWATER CONTAMINATION<sup>1</sup> Higher Risk

Airports-Commercial (maintenance & repair,
fuel storage)
Automotive Repair Shops
Automotive Body Shop
Boat Builders & Refinishers
Bus & Truck Terminals
Chemical Manufacturers
Dry Cleaners
Fuel Oil Distributors
(product storage, equipment
maintenance & storage)
Furniture Strippers, Refinishers
Industrial Manufactures
Junkyards and Salvage Yards

Landfills & Dumps Machine Shops Metal & Drum Cleaning/Reconditioning Paint Shops Photographic Processors Printers and Blueprint Shops Railroad Yards Repair Shops (engines, appliances, etc.) Rust Proofers Service Stations (gas stations) Waste Storage, Treatment & Recycling (hazardous and non-hazardous)

#### **Moderate Risk**

Agriculture Related Activities (pesticide & fertilizer storage & application, machinery maitenance & fueling) Asphalt, Coal, Tar & Concrete Companies Dredge Disposal Sites Medical Facilities (hospitals, clinics laboratories) Military Facilities (past & present) Nursing Homes Pipeline (oil & sewers) Prisons Research Laboratories Road Salt Storage Schools, Colleges, Trade Centers Wastewater Treatment Plants (past or present sludge disposal) Wood Preservers

#### Lower Risk

Animal Care & Holding Areas (stables kennels, pet shops) Auto Parts Stores Beauty Salons Construction Sites Food Processors (meat packers, dairies, bakeries) Funeral Homes & Cemeteries Golf Courses Hotels & Motels Land Applciation of Sewage Sludge Laundromats

<sup>1</sup>From Wellhead Protection Inventory Guidance

Nurseries Residential Development (lawn care, spetic systems) Restaurants & Taverns Retail Shopping Centers, Malls Sand & Gravel Mining Operations Sawmills Stormwater Management Facilities (leaching systems) Transmission Line Rights of Way Transporation Corridors (road deicing, materials transport) Utility Substations/Transformers Waste Transfer Stations