

# **Drinking Water Protection Ordinance**

Adopted by the Town of Canaan, NH

March 13, 2012  
(Article 13)

# **Drinking Water Protection Ordinance**

## **I. AUTHORITY**

The Town of Canaan hereby adopts this ordinance pursuant to the authority granted under RSA 674:16, in particular RSA 674:16, II relative to innovative land use controls.

## **II. PURPOSE**

The purpose of this ordinance is, in the interest of public health, safety, and general welfare, to preserve, maintain, and protect from contamination existing and potential groundwater supply areas and to protect surface waters that are fed by groundwater. Specifically this ordinance protects the drinking water in Canaan Village, Mascoma High School, Indian River School, Cardigan Mountain School, mobile home parks, major businesses, and others.

The purpose is to be accomplished by regulating commercial land uses which could contribute pollutants to designated wells and surface waters identified as being needed for present and/or future public water supply.

## **III. DEFINITIONS**

- A. Aquifer: a geologic formation composed of rock, sand, or gravel that contains significant amounts of potentially recoverable water.
- B. Petroleum bulk plant or terminal: means that portion of the property where petroleum products are received by tank vessel, pipeline, tank car, or tank vehicle and are stored or blended in bulk for the purpose of distributing such liquids by tank vessel, pipeline tank car, tank vehicle, portable tank, or container.
- C. Groundwater: subsurface water that occurs beneath the water table in soils and geologic formations.
- D. Gasoline station: means that portion of a property where petroleum products are received by tank vessel, pipeline, tank car, or tank vehicle and distributed for the purposes of retail sale of gasoline. This includes related "underground storage tank system" as defined under state regulation Env-Wm 1401, Underground Storage Facilities.
- E. Impervious: not readily permitting the infiltration of water.
- F. Impervious surface: a surface through which regulated substances cannot pass when spilled. Impervious surfaces include concrete unless unsealed cracks or holes are present. Earthen; wooden, or gravel surfaces; or other surfaces which could react with or dissolve when in contact with the substances stored on them are not considered impervious surfaces.
- G. Junkyard: an establishment or place of business which is maintained, operated, or used for storing, keeping, buying, or selling junk, or for the maintenance or operation of an automotive recycling yard. The word does not include any motor vehicle dealers registered with the director of motor vehicles under RSA 261:104 and controlled under RSA 236:126.

- H. Outdoor storage: storage of materials where they are not protected from the elements by a roof, walls, and a floor with an impervious surface.
- I. Public water system: a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- J. Regulated substance: petroleum, petroleum products, and substances listed under 40 CFR 302, 7-1-05 edition, excluding the following substances: (1) ammonia, (2) sodium hypochlorite, (3) sodium hydroxide, (4) acetic acid, (5) sulfuric acid, (6) potassium hydroxide, (7) potassium permanganate, and (8) propane and other liquefied fuels which exist as gases at normal atmospheric temperature and pressure.
- K. Sanitary protective radius: the area around a public water supply well which must be maintained in its natural state as required by Env-Dw 301 or 302 (for community water systems); Env-Dw 373.12 and Env-Dw 372.14 (for other public water systems).
- L. Seasonal high water table: the depth from the mineral soil surface to the upper most soil horizon that contains 2% or more distinct or prominent redoximorphic features that increase in percentage with increasing depth as determined by a licensed Hydrogeologist, Soils Scientist, Wetlands Scientist, Engineer or other qualified professional approved by the Planning Board.
- M. Secondary containment: a structure such as a berm or dike with an impervious surface which is adequate to hold at least 110 percent of the volume of the largest regulated-substances container that will be stored there.
- N. Snow dump: for the purposes of this ordinance, a facility that is used for the storage of snow and incidental materials collected from public or private ways and transported to the facility by means other than by a snowplow or bucket loader. Excluded from this definition is the direct discharge of snow removed from bridges, docks, wharves, parking areas or public or private roadways, or snow which is collected from one area in a specific protection area and stored in another area in the same protection area.
- O. Stratified-drift aquifer: a geologic formation of predominantly well-sorted sediment deposited by or in bodies of glacial meltwater, including gravel, sand, silt, or clay, which contains sufficient saturated permeable material to yield significant quantities of water to wells.
- P. Surface water: streams, lakes, ponds and tidal waters, including marshes, water-courses and other bodies of water, natural or artificial.
- Q. Wellhead protection area: the surface and subsurface area surrounding a water well or wellfield supplying a community public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield.
- R. Commercial: the activity embracing all forms of the purchase and sale of goods and services, including retail, wholesale, service, office, industrial, non-profit, and others. Excluded are agriculture and silviculture (i.e. the agriculture of trees).

#### IV. DRINKING WATER PROTECTION DISTRICT

The Drinking Water Protection District includes all of the NH Department of Environmental Services-approved Wellhead Protection Areas and Surface Source Water Protection Areas for community Public Water Systems. These are shown on a DES map titled “Drinking Water Resources and Potential Contamination Sources: Canaan, NH”, November 21, 2011 or most recent edition. As shown on the current DES map and in Appendix A, the district includes the following:

- Canaan Village well at filtration plant
- Mascoma High School well
- Indian River School well
- Cardigan Mountain School wells
- Country Village Mobile Home Park wells (Stevens Rd)
- Pleasant Valley Mobile Home Park well (West Canaan)
- Crescent Campsites wells
- Barker Steel well
- Competition Complex well
- Canaan Street Lake Watershed
- Enfield Water supplies in West Canaan

The Drinking Water Protection District partially overlays the Historic District.

The Planning Board, subject to a public hearing as set forth in RSA 675:6 and :7, may revise the map(s) of the Drinking Water Protection District when, in the case of Wellhead Protection Areas, the NH Department of Environmental Services updates wellhead protection areas, or, when based on the recommendation of a professional geologist. Such revisions shall be for the purpose of refining the accuracy of Canaan Street Lake Watershed and DES specified wellhead protection areas.

Where the bounds of the Drinking Water Protection District is in doubt or dispute, as delineated on the Drinking Water Protection District map, the burden of proof shall be upon the applicant in question to show where they should properly be located. At the request of that applicant, the Town may engage a professional hydro geologist to determine more accurately the bounds, and may charge the applicant for the cost of the investigation.

#### V. APPLICABILITY

This Ordinance applies to all uses in the Drinking Water Protection District, except for those uses exempt under Article XII (Exemptions) of this Ordinance.

#### VI. PERFORMANCE STANDARDS

The following Performance Standards apply to all uses in the Drinking Water Protection District unless exempt under Article XII:

- A. For any use that will render impervious more than 15 percent or more than 2,500 square feet of

any lot, whichever is greater, a stormwater management plan shall be prepared which the planning board determines is consistent with New Hampshire Stormwater Manual Volumes 1-3, December 2008 or later edition, NH Department of Environmental Services.

- B. Conditional uses, as defined under Article X shall develop stormwater management and pollution prevention plans and include information consistent with Developing Your Stormwater Pollution Prevention Plan: A Guide for Industrial Operators (US EPA, Feb 2009 or later edition). The plan shall demonstrate that the use will:
- 1) Meet minimum stormwater discharge setbacks between water supply wells and constructed stormwater practices as found within the Innovative Land Use Planning Techniques: A Handbook for Sustainable Development, Section 2.1 Permanent (Post-Construction) Stormwater Management, (DES, 2008 or later edition);
  - 2) Minimize the release of regulated substances into stormwater using pollution prevention measures;
  - 3) Stipulate that expansion or redevelopment activities shall require an amended stormwater plan and may not infiltrate stormwater through areas containing contaminated soils without completing a Phase I Assessment in conformance with ASTM E 1527-05, also referred to as All Appropriate Inquiry (AAI);
  - 4) Maintain a minimum of four feet vertical separation between the bottom of a stormwater practice that infiltrates or filters stormwater and the average seasonal high water table as determined by a licensed hydrogeologist, soil scientist, engineer or other qualified professional as determined by the Planning Board.
- C. Animal manures, fertilizers, and compost must be stored in accordance with the Manual of Best Management Practices for Agriculture in New Hampshire, NH Department of Agriculture, Markets, and Food, July 2008, and any subsequent revisions;
- D. All regulated substances stored in containers with a capacity of five gallons or more must be stored in product-tight containers on an impervious surface designed and maintained to prevent flow to exposed soils, floor drains, and outside drains;
- E. Facilities where regulated substances are stored must be secured against unauthorized entry by means of a door and/or gate that is locked when authorized personnel are not present and must be inspected weekly by the facility owner;
- F. Outdoor storage areas for regulated substances, associated material or waste must be protected from exposure to precipitation and must be located at least 50 feet from surface water or storm drains, at least 75 feet from private wells, and outside the sanitary protective radius of wells used by public water systems;
- G. Secondary containment must be provided for outdoor storage of regulated substances in regulated containers and the containment structure must include a rigid structural cover to minimize accumulation of water in the containment area and contact between precipitation and storage container(s);
- H. Containers in which regulated substances are stored must be clearly and visibly labeled and must be kept closed and sealed when material is not being transferred from one container to another;

- I. Prior to any land disturbing activities, all inactive wells on the property, not in use or properly maintained at the time the plan is submitted, shall be considered abandoned and must be sealed in accordance with We 604 of the New Hampshire Water Well Board Rules.
- J. Blasting activities shall be planned and conducted to minimize groundwater contamination. Excavation activities should be planned and conducted to minimize adverse impacts to hydrology and the dewatering of nearby drinking water supply wells. These plans shall be reviewed as part of the Planning Board's permitting process under RSA 155-E.
- K. All transfers of petroleum from delivery trucks and storage containers over five gallons in capacity shall be conducted over an impervious surface having a positive limiting barrier at its perimeter.

#### VII. Spill Prevention, Control and Countermeasure (SPCC) Plan

Conditional uses, as described under Article X, part (A), using regulated substances shall submit a spill control and countermeasure (SPCC) plan to the Fire Chief who shall determine whether the plan will prevent, contain, and minimize releases from ordinary or catastrophic events such as spills, floods or fires that may cause large releases of regulated substances. It shall include:

- 1) A description of the physical layout and a facility diagram, including all surrounding surface waters and wellhead protection areas.
- 2) Contact list and phone numbers for the facility response coordinator, cleanup contractors, and all appropriate federal, state, and local agencies who must be contacted in case of a release to the environment.
- 3) A list of all regulated substances in use and locations of use and storage;
- 4) A prediction of the direction, rate of flow, and total quantity of regulated substance that could be released where experience indicates a potential for equipment failure.
- 5) A description of containment and/or diversionary structures or equipment to prevent regulated substances from infiltrating into the ground.

#### VIII. PERMITTED USES

All uses permitted by right or allowed by special exception in the underlying district (e.g. Historic District) are permitted in the Drinking Water Protection District unless they are Prohibited Uses or Conditional Uses. All uses must comply with the Performance Standards unless specifically exempt under Article XII.

#### IX. PROHIBITED USES

The following uses are prohibited in the Drinking Water Protection District.

- A. The development or operation of a hazardous waste disposal facility as defined under RSA 147-A;

- B. The development or operation of a solid waste landfill;
- C. The outdoor storage of road salt or other deicing chemicals in bulk;
- D. The development or operation of a junkyard;
- E. The development or operation of a snow dump;
- F. The development or operation of a wastewater or septage lagoon;
- G. The development or operation of a petroleum bulk plant or terminal;
- H. The development or operation of gasoline stations.

#### X. CONDITIONAL USES

A use which is otherwise permitted by right shall, if it involves one of the following, be prohibited unless the Planning Board grants a Conditional Use Permit:

- A. Storage, handling, and use of regulated substances in quantities exceeding 100 gallons or 800 pounds dry weight at any one time, provided that an adequate spill prevention, control and countermeasure (SPCC) plan, in accordance with Article VII, is approved by the local Fire Department;
- B. Any use that will render impervious more than 15 percent or 2,500 square feet of any lot, whichever is greater.
- C. Any activities that involve blasting of bedrock.

In granting such approval the Planning Board must first determine that the proposed use is not a prohibited use (as listed in Article IX of this Ordinance) and will be in compliance with the Performance Standards in Article VI as well as all applicable local, state and federal requirements. The Planning Board may, at its discretion, require a performance guarantee or bond, in an amount and with surety conditions satisfactory to the Board, to be posted to ensure completion of construction of any facilities required for compliance with the Performance Standards.

The Planning Board, at its discretion, may waive any requirements for a Conditional Use Permit upon demonstration, through alternative means, that the intent of the requirements and purpose of this ordinance will still be achieved. The alternative means shall be compliant with all other local, state, and federal requirements, or waivers shall have been obtained. The decision to waive any requirement for a Conditional Use Permit, along with the basis for such waiver and means of compliance with the purpose of this ordinance, shall be issued in writing.

#### XI. EXISTING NONCONFORMING USES

Existing nonconforming uses may continue without expanding or changing to another nonconforming use, but must be in compliance with all applicable state and federal requirements, including Env-Wq 401, Best Management Practices Rules.

## XII. EXEMPTIONS

The following uses are exempt from the specified provisions of this ordinance as long as they are in compliance with all applicable local, state, and federal requirements:

- A) Any private residence not containing a home occupation is exempt from all Performance Standards;
- B) Any business or facility where regulated substances are stored in containers with a capacity of less than five gallons is exempt from Article VI, Performance Standards, sections E through H;
- C) Storage of heating fuels for on-site use or fuels for emergency electric generation, provided that storage tanks are indoors on a concrete floor or have corrosion control, leak detection, and secondary containment in place, is exempt from Performance Standard E;
- D) Storage of motor fuel in tanks attached to vehicles and fitted with permanent fuel lines to enable the fuel to be used by that vehicle is exempt from Performance Standards E through H;
- E) Storage and use of office supplies is exempt from Performance Standards E through H;
- F) Temporary storage of construction materials on a site where they are to be used is exempt from Performance Standards E through H if incorporated within the site development project within six months of their deposit on the site;
- G) The sale, transportation, and use of pesticides as defined in RSA 430:29 XXVI are exempt from all provisions of this ordinance;
- H) Household hazardous waste collection projects regulated under NH Code of Administrative Rules Env-Wm 401.03(b)(1) and 501.01(b) are exempt from Performance Standards E through H;
- I) Underground storage tank systems and aboveground storage tank systems that are in compliance with applicable state rules are exempt from inspections under Article XIV of this ordinance.

## XIII. RELATIONSHIP BETWEEN STATE AND LOCAL REQUIREMENTS

Where both the State and the municipality have existing requirements the more stringent shall govern. Nothing in this ordinance shall be construed as excusing any person from compliance with requirements contained in other local, state or federal laws or regulations.

## XIV. MAINTENANCE AND INSPECTION

- A. A description shall be recorded in the Grafton County Registry of Deeds under the following conditions:

- 1. Planning Board approval of use is required; and,
- 2. A structure is required to comply with Performance Standards.

The description shall be a narrative which contains structure maintenance requirements. The description shall be recorded so as to run with the land on which such structures are located.

The description so prepared shall comply with the requirements of RSA 478:4-a.

- B. Inspections may be required to verify compliance with Performance Standards. Such inspections shall be performed by the Fire Chief at reasonable times with prior notice to the landowner.
- C. All properties in the Drinking Water Protection District known to the Fire Chief as using or storing regulated substances in containers with a capacity of five gallons or more, except for facilities where all regulated substances storage is exempt from this Ordinance under Article XII, shall be subject to inspections under this Article.
- D. The Selectmen may require a fee for compliance inspections. The fee shall be paid by the property owner. A fee schedule shall be established by the Selectmen as provided for in RSA 41-9:a.

#### XV. APPEALS

The Board of Adjustment has authority specified in RSA 674, which includes hearing appeals and authorizing variances. The Planning Board shall appoint a Board of Adjustment consisting of 5 members and no more than 5 alternate members in accordance with RSA 673. Such appointments shall be subject to the approval of the Board of Selectmen. The appointed Board may be an existing Commission, Board, or body willing to serve dual roles, providing that it complies with RSA 673.

#### XVI. ENFORCEMENT PROCEDURES AND PENALTIES

Any violation of the requirements of this ordinance shall be subject to the enforcement procedures and penalties detailed in RSA 676 or RSA 485-C.

#### XVII. SAVING CLAUSE

If any provision of this ordinance is found to be unenforceable, such provision shall be considered separable and shall not be construed to invalidate the remainder of the ordinance.

#### XVIII. EFFECTIVE DATE

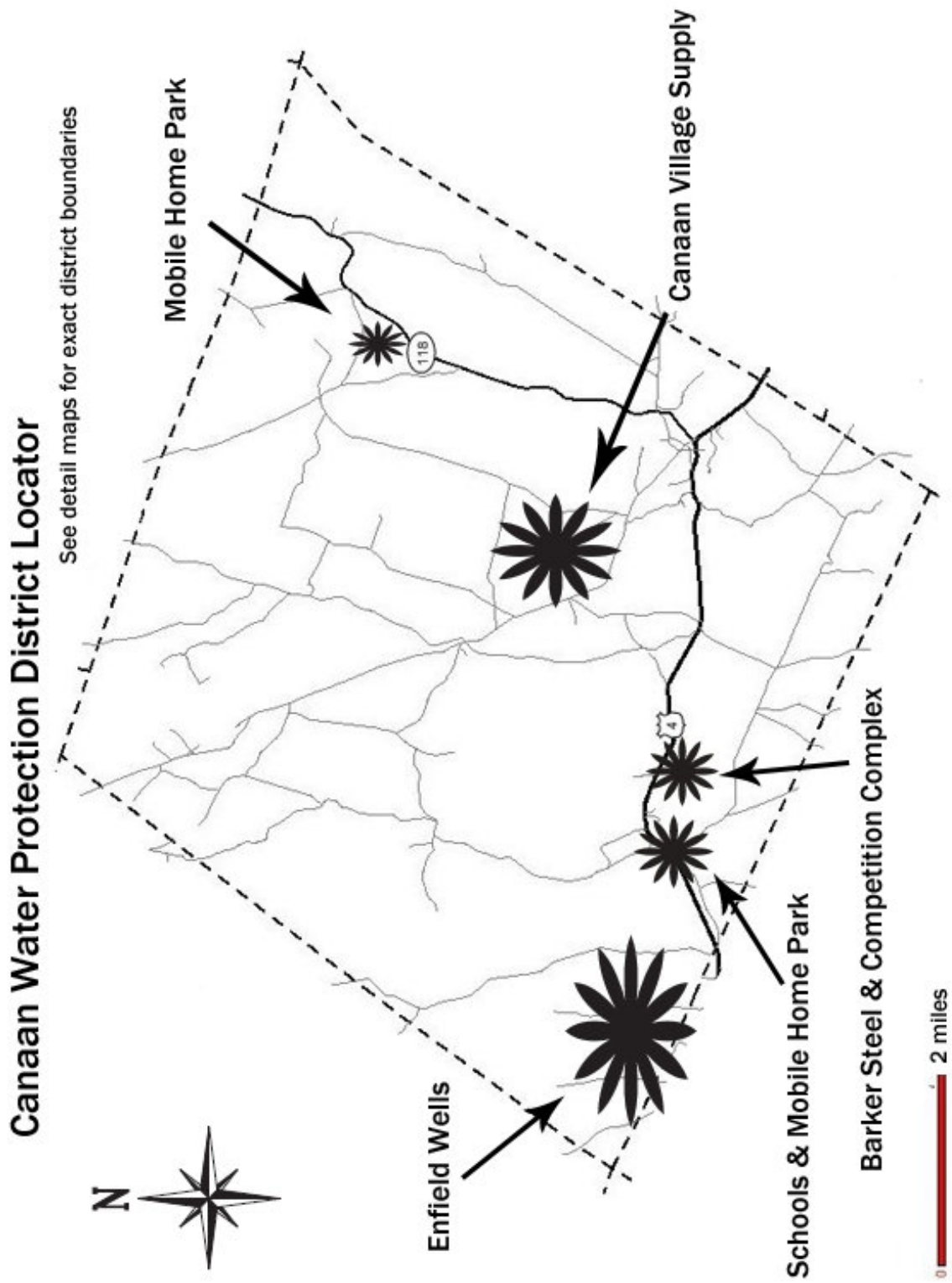
This ordinance shall be effective upon adoption by the legislative body.

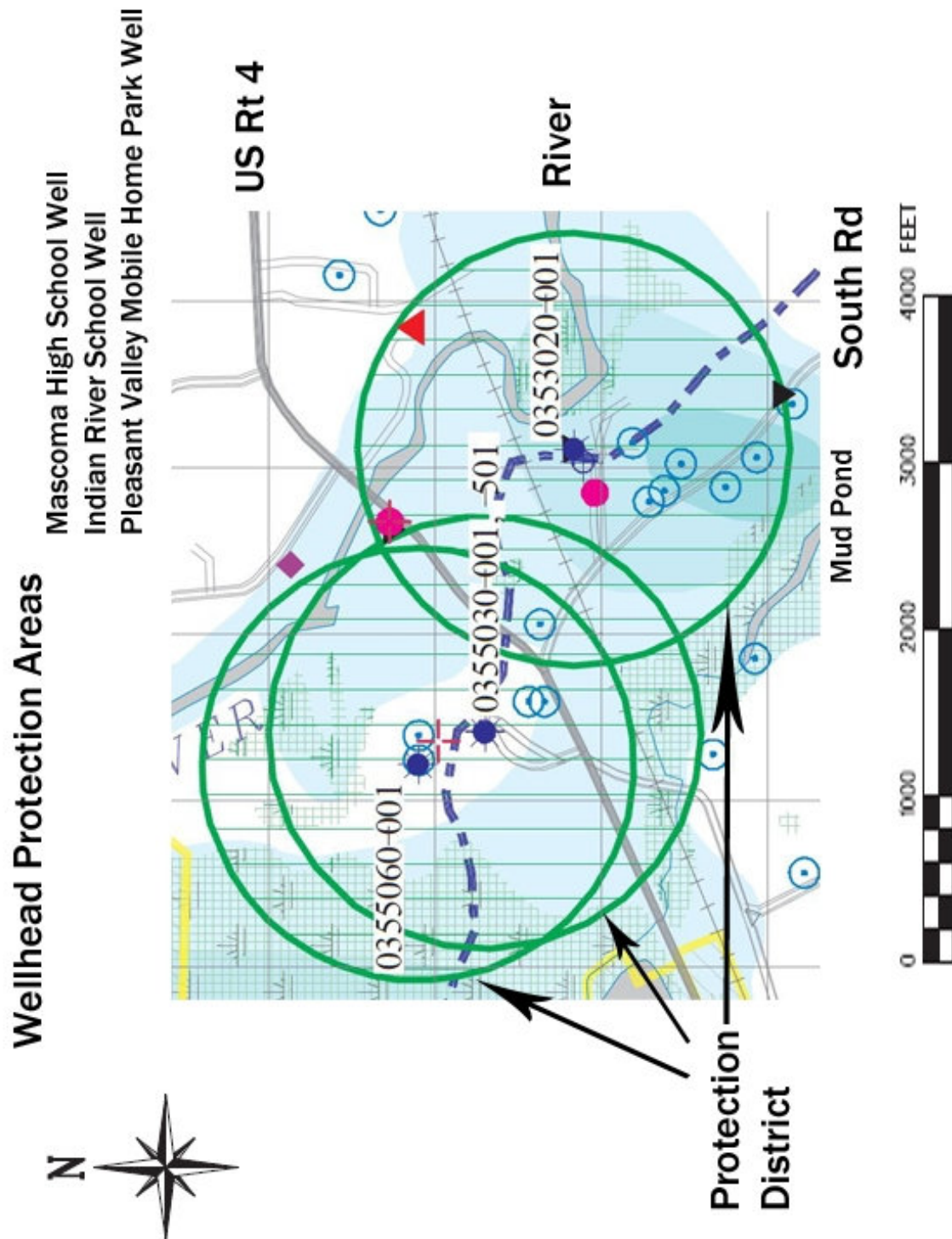
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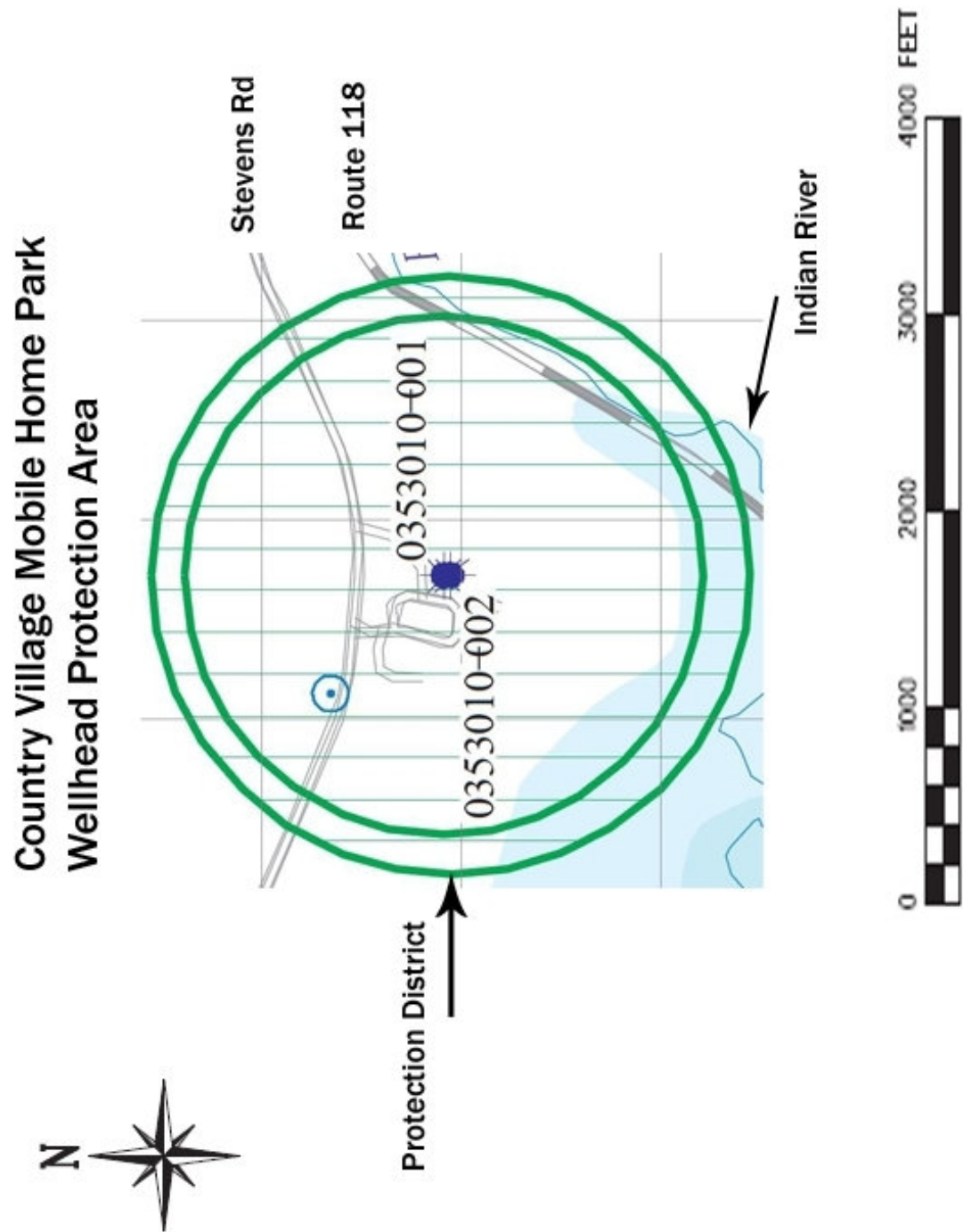
## Appendix A

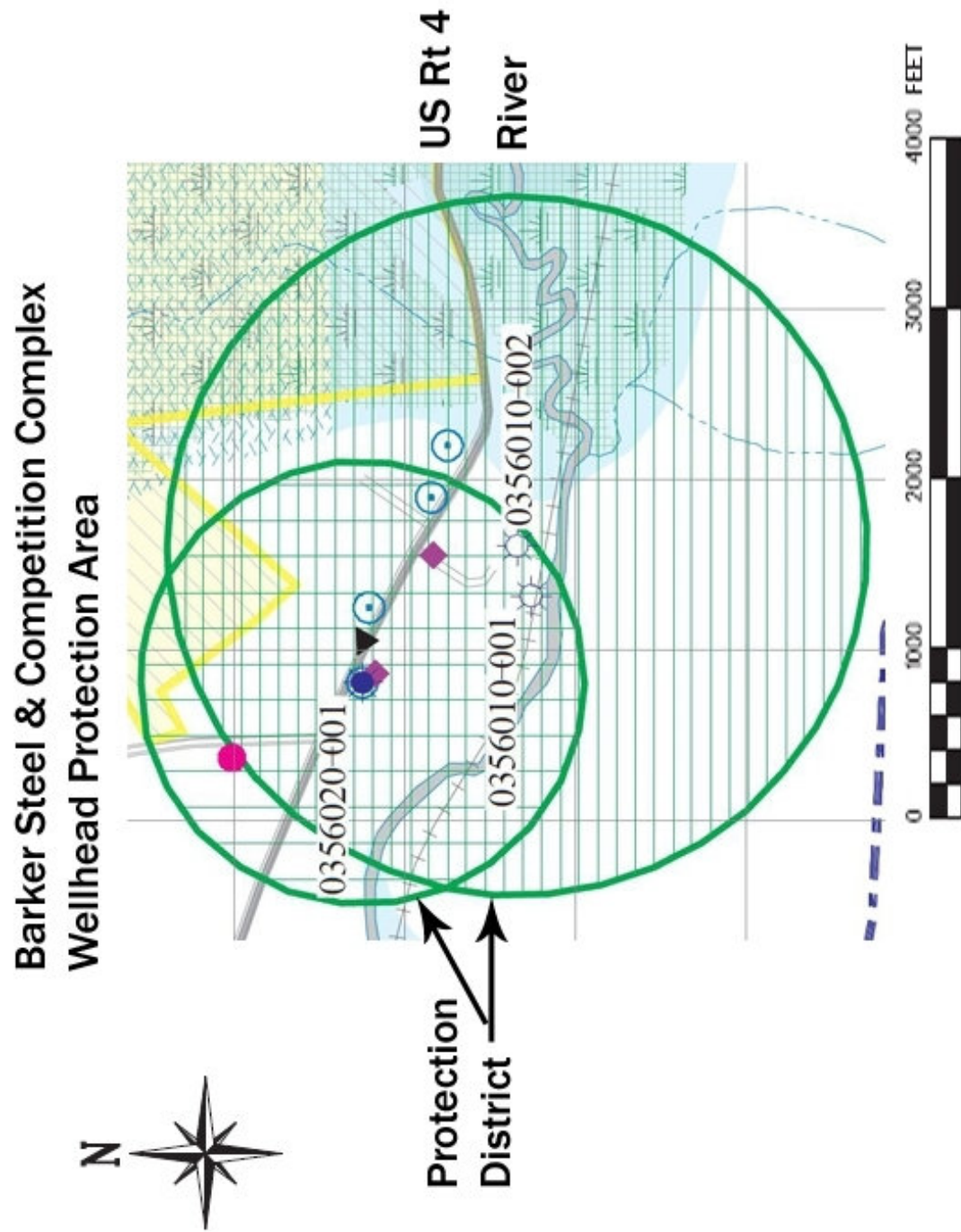
### Maps of Groundwater Protection District

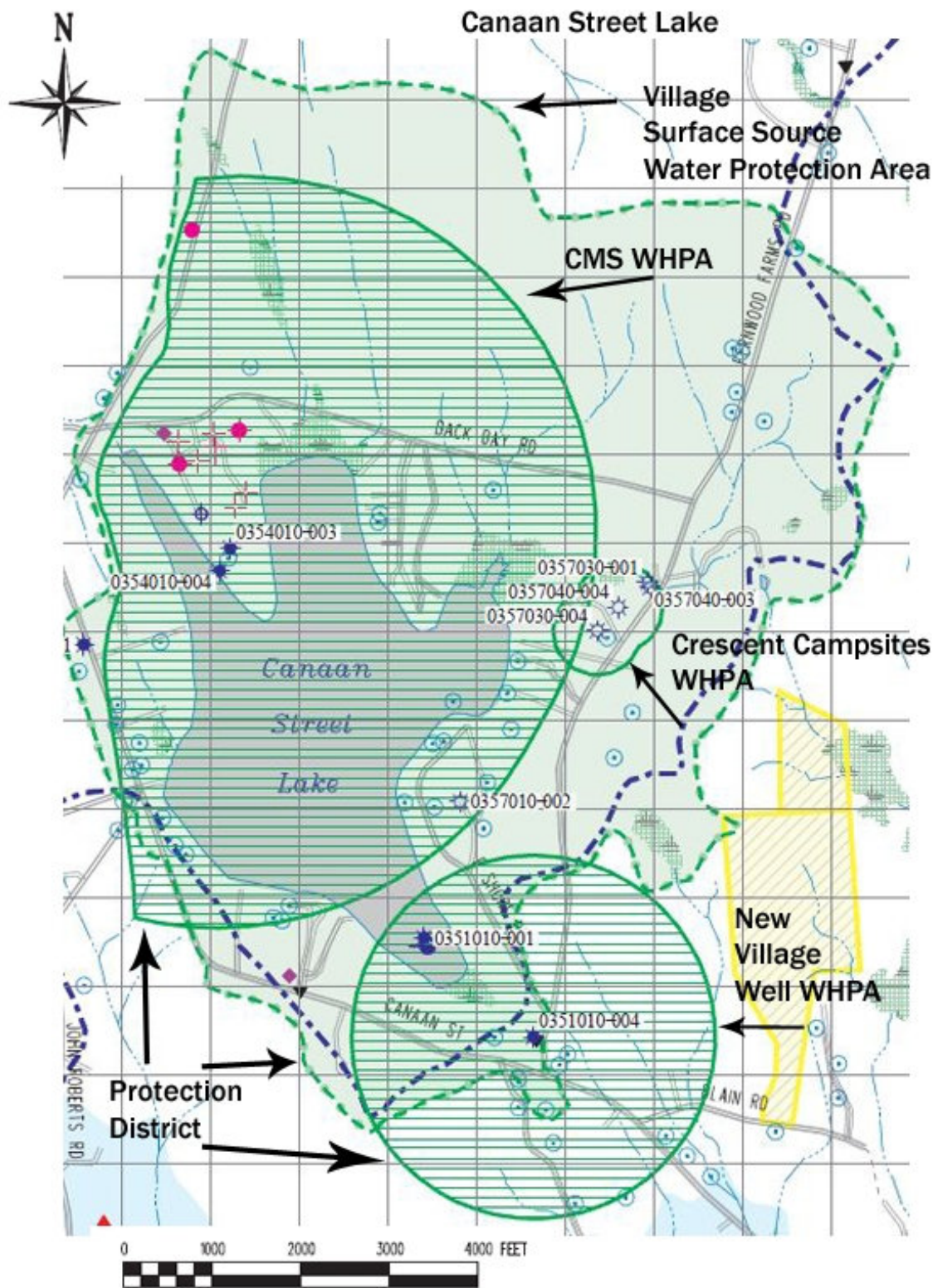
1. Canaan Water Protection District locator
2. Mascoma High School, Indian River School, and Pleasant Valley Mobile Home Park
3. Country Village Mobile Home Park
4. Barker Steel, Competition Complex
5. Cardigan Mountain School, Crescent Campsites, Canaan Village, and Canaan Street Lake
6. Enfield Water Supplies in West Canaan
7. Legend

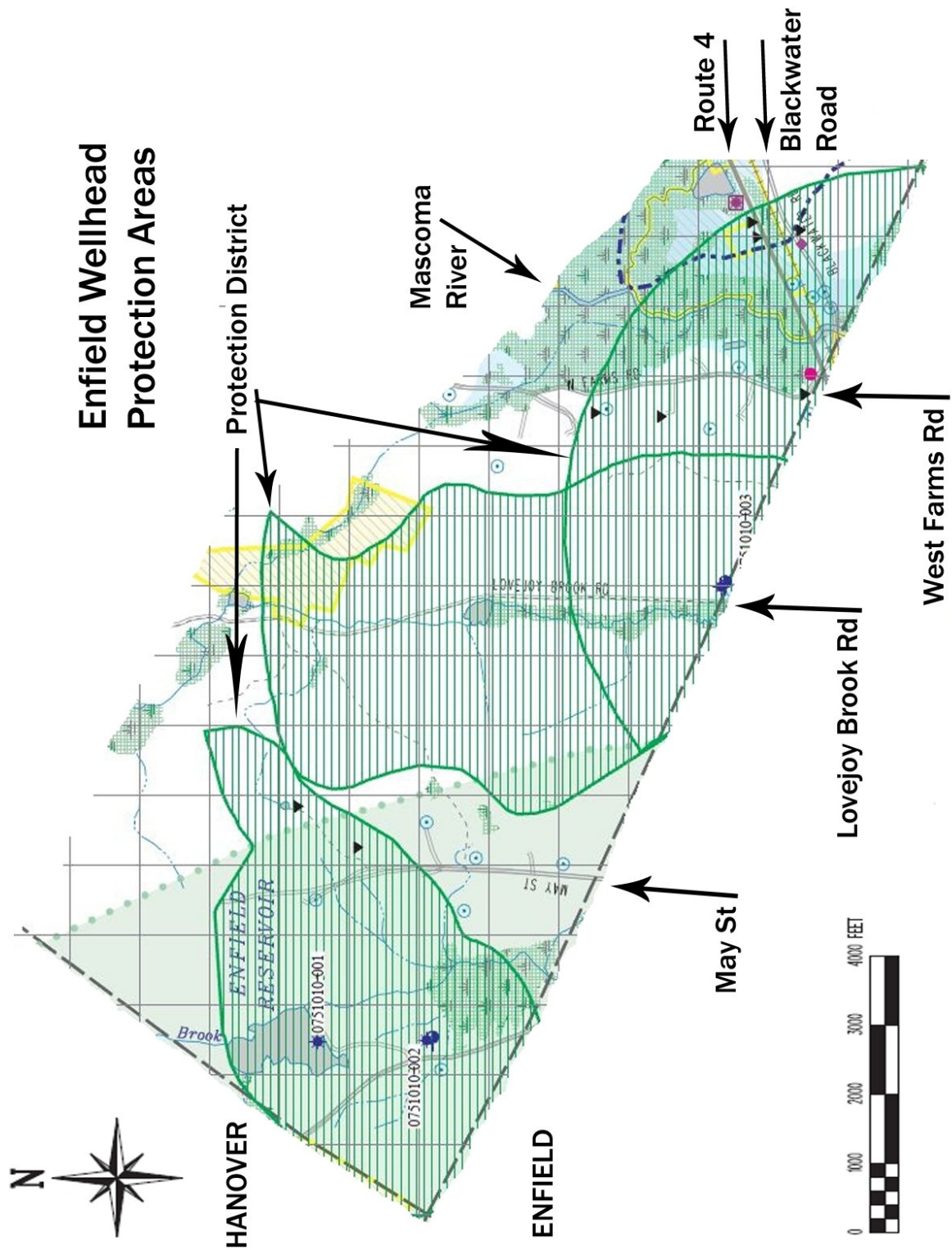


























## Legend

- Source Water Hazard Inventory Site
- ✚ Above/or Underground Storage Tank Site
- ◆ RCRA Hazardous Waste Generator
- ⊠ Automobile Salvage Facility
- ▲ Point/Non-Point Potential Pollution
- ▼ Local PCS Inventory
- ⊙ NPDES outfall
-  Source Water Hazard Inventory Area
-  Hazardous Waste Area (RCRA)
-  Point/Non-point Potential Pollution
-  Registered Water Users (> 20,000 gal/day)
-  Public Water Supply Source
-  Transient Public Water Supply Source
-  PWS Facility/Pump house
-  USGS Water Quality Monitoring Well
-  Water Well Inventory
-  Drinking Water Protection Areas:  
Bedrock or Artesian Well
-  Drinking Water Protection Areas:  
Gravel/Stratified Drift Well
-  Grant eligible portion of SWPA  
(within 5 miles of surface intake)
-  Transient System Well
-  Surface Source Water Protection Area

