

## **ARTICLE 7**

### **AQUIFER PROTECTION DISTRICT**

(Voted by the Town of Epping Special Town Meeting, November 6, 1984)

- 7.1. **AUTHORITY AND PURPOSE** - Pursuant to RSA 674:16-21, the Town of Epping adopts an Aquifer Protection District and accompanying regulations in order to protect, preserve and maintain potential groundwater supplies and related groundwater recharge areas within a known aquifer identified by the Town. The objectives of the aquifer protection district are:

- to protect the public health and general welfare of the citizens of Epping;
- to prevent development and land use practices that would contaminate or reduce the recharge of the identified aquifer;
- to promote future growth and development of the Town, in accordance with the Master Plan, by insuring the future availability of public and private water supplies;
- to encourage uses that can appropriately and safely be located in the aquifer recharge areas.

- 7.2. **DISTRICT BOUNDARIES:**

7.2.1. **Location** - The Aquifer Protection District is defined as follows: The Aquifer areas are labeled "A", "B", "C", "D", "E" and "G" and depicted as the shaded areas on the map entitled "Aquifer Protection District" which is hereby adopted as part of the official Zoning Map of the Town of Epping. The Aquifer Protection District is based on the information from the report entitled "Geohydrology and Water Quality of Stratified-Drift Aquifers in the Exeter, Lamprey, and Oyster River Basins, Southeastern New Hampshire" prepared by the United States Geological Survey. All uses within these districts shall be limited to uses permitted in the basic underlying zone. **(Amended 3/18/97).**

(1) Land affected by the Aquifer designated "D", which is hydrogeologically connected to the Lamprey River, shall only be covered by the following sections of this Article: 7.4.3, 7.4.5, 7.4.6, 7.4.7, 7.5, 7.6, 7.7, and 7.8.

7.2.2. **Appeals** - Where the bounds of the identified aquifer or recharge area as delineated, are in doubt or in dispute, any landowner aggrieved by such delineation may appeal the boundary location to the Planning Board. Upon receipt of such appeal, the Planning Board shall suspend further action on development plans related to the area under appeal and shall engage, at the landowner's expenses, a qualified hydrogeologist to prepare a report determining the proper location and extent of the aquifer and recharge area relative to the property in question. The aquifer delineation shall be modified by such determination subject to review and approval by the Planning Board.

- 7.3. **DEFINITIONS:**

7.3.1. **Animal Feedlot** - A commercial agricultural establishment consisting of confined feeding areas and related structures used for the raising of livestock. An animal feedlot shall be considered one on which more than five (5) adult animals are raised simultaneously.

7.3.2. **Aquifer** - For the purpose of this ordinance, aquifer means a geologic formation, group of formations, or part of a formation that is capable of yielding quantities of groundwater usable for municipal or private water supplies.

7.3.3. **Dwelling Unit** - A building or that portion of a building consisting of one or more rooms designed for living and sleeping purposes, including kitchen and sanitary facilities and intended for occupancy by not more than one family or household.

7.3.4. **Groundwater** - All the water below the land surface in the zone of saturation or in rock fractures capable of yielding water to a well.

7.3.5. **Groundwater Recharge** - The infiltration of precipitation through surface soil materials into groundwater. Recharge may also occur from surface waters, including lakes, streams and wetlands.

7.3.6. **Leachable Wastes** - Waste materials, including solid wastes, sludge and agricultural wastes that are capable of releasing contaminants to the surrounding environment.

7.3.7. **Mining of Land** - The removal of geologic materials such as topsoil, sand and gravel, metallic ores, or bedrock to be crushed or used as building stone.

7.3.8. **Non-Conforming Use or Structure** - A use or structure lawfully existing at the time of adoption of this ordinance or any subsequent amendment which does not conform to one or more provisions of this ordinance.

7.3.9. **Non-Municipal Well** - Any well not owned or operated by the Town of Epping or its agent.

7.3.10. **Recharge Area** - The land surface area from which groundwater recharge occurs.

7.3.11. **Sludge** - Residual materials produced by the sewer treatment process.

7.3.12. **Solid Waste** - Any discarded or abandoned material including refuse, putrescible material, septage, or sludge as defined by the New Hampshire Solid Waste Rules He-P 1901.03. Solid waste includes solid, liquid, semi-solid, or contain gaseous waste material resulting from residential, industrial, commercial, mining, and agricultural operations and from community activities.

7.3.13. **Structure** - Anything constructed or erected, except a boundary wall or fence, the use of which requires location on the ground or attachment to something on the ground. For the purpose of this ordinance, buildings are structures.

7.3.14. **Toxic or Hazardous Materials** - Any substance or mixture of such physical, chemical, or infectious characteristics as to pose a significant, actual or potential hazard to water supplies, or other hazard to human health, if such substance or mixture were discharged to land or waters of this town. Toxic or hazardous materials include without limitation, volatile organic chemicals, petroleum products, heavy metals, radioactive or infectious wastes, acids or alkalis, and include products such as pesticides, herbicides, solvents and thinners, and such other substances as defined in New Hampshire Water Supply & Pollution Control Rules He-P 1901.03(v), and in the Code of Federal Regulations 40 CFR 261. Wastes generated by; the following commercial activities are presumed to be toxic and hazardous, unless and except to the extent that anyone engaging in such an activity can demonstrate the contrary to the satisfaction of the Planning Board:

- Airplane, boat and motor vehicle service and repair;
- Chemical and bacteriological laboratory operation;
- Dry Cleaning;
- Electronic circuit manufacturing;
- Metal plating, finishing and polishing;
- Motor and machinery service and assembly;
- Painting, wood preserving and furniture stripping;
- Pesticide and herbicide application;
- Photographic processing;
- Printing.

7.4. **USE REGULATIONS:**

7.4.1. **Minimum Lot Size** - The minimum lot size within the Aquifer Protection District for each dwelling unit if a residential use, or each principal building if a non-residential use, shall be dependent on the location of the lot within the boundaries as depicted on the Aquifer Protection District map, as follows (**Amended 3/10/98**):

7.4.1.1. Lot sizes shall be determined by soil-based lot sizing as depicted in the Subdivision Regulations. The base required lot size for each soil type as found in the Subdivision Regulation soil-based lot size tables shall be multiplied by the factor as required in section 7.4.1.2.

7.4.1.2. Where any portion of any lot is located in the following zones of transmissivity the lot sizes shall be determined in accordance with 7.4.1.1 using the following factors as follows (where any area of a lot is in more than one zone of transmissivity, the larger lot size required for that area shall be required for the entire lot):

- (a) <500 ft/sq per day -- the base soil type shall be multiplied by a factor of 1.0.
- (b) 500-1000 ft/sq per day -- the base soil type shall be multiplied by a factor of 1.25.
- (c) 1000-2000 ft/sq per day -- the base soil type shall be multiplied by a factor of 1.5.
- (d) 2000-3000 ft/sq per day -- the base soil type shall be multiplied by a factor of 1.75.
- (e) over 3000 ft/sq per day -- the base soil type shall be multiplied by a factor of 2.0.

7.4.1.3. Where the Estimated Seasonal High Water Table can be established to be no less than 8 below the surface throughout the entire area of the lot, the above factors shall be reduced by 0.5. In no event shall a lot be less in area than the underlying lot size of the zone.

7.4.1.4. Where a lot and the use established upon the lot is served by municipal sewer, the above factors shall be reduced by 0.5.

7.4.1.5. Sections 7.4.1.3 and 7.4.1.4 cannot be used together. The overall reduction in lot sizing factor cannot be greater than 0.5.

7.4.2. **Maximum Lot Coverage** - The Aquifer Protection District, no more than ten (10%) percent of a single lot, including the portion of any new street abutting the lot, may be rendered impervious to groundwater infiltration.

7.4.3. **Prohibited Uses** - The following uses are prohibited in the Aquifer Protection District except where permitted to continue as a non-conforming use:

1. Disposal of solid waste including brush or stumps.
2. Storage and disposal of hazardous waste.
3. Disposal of liquid or leachable wastes except that from one (1) or two (2) family residential subsurface disposal systems, or as otherwise permitted as a conditional use.
4. Subsurface storage of petroleum and other refined petroleum products.
5. Industrial uses which discharge process waters on site.
6. Use or storage of road salt or other deicing chemicals.
7. Dumping of snow containing deicing chemicals brought from outside the district.
8. Animal feedlots.
9. Automotive service and repair shops, junk and salvage yards.
10. Waste injection wells.

7.4.4. **Permitted Uses** - The following activities may be permitted provided they are conducted in accordance with the purpose and intent of this ordinance:

1. Single and two-family residential development.
2. Activities designed for conservation of soil, water, plants and wildlife.
3. Outdoor recreation, nature study, boating, fishing, and hunting where legally permitted.
4. Normal operation and maintenance of existing water bodies and dams, splash boards and other water control, supply and conservation devices.
5. Foot, bicycle, and/or horse paths and bridges.
6. Maintenance, repair of any existing structure, provided there is no increase in impermeable surface above the limit established in Section 7.4.2. of this article.
7. Farming, gardening, nursery, forestry, harvesting and grazing, providing that fertilizers, herbicides, pesticides, manure and other leachables are used appropriately at levels that will not cause groundwater contamination and are stored under shelter.

7.4.5. **Special Exceptions** - The Zoning Board of Adjustment may grant a special exception for those uses listed below only after written findings of fact are made that all of the following are true:

- (1) the proposed use will not detrimentally affect the quality of the groundwater contained in the aquifer by directly contributing to pollution or by increasing the long term susceptibility of the aquifer to potential pollutants;
- (2) the proposed use will not cause a significant reduction in the long term volume of water contained in the aquifer or in the storage capacity of the aquifer;
- (3) the proposed use will discharge no waste water on site other than that typically discharged by domestic waste water disposal systems and will not involve on-site storage or disposal of toxic or hazardous wastes as herein defined;
- (4) the proposed use complies with all other applicable sections of this article.

7.4.6. The Zoning Board of Adjustment may require that the applicant provide data or reports prepared by a professional engineer or qualified groundwater consultant to assess any potential damage to the aquifer that may result from the proposed use. The ZBA shall engage such professional assistance as it requires to adequately evaluate such reports and to evaluate, in general, the proposed use in light of the above criteria. The following uses are permitted by Special Exception:

1. Industrial and Commercial Uses not otherwise prohibited in Section 7.4.3 of this article.
2. Multi-Family development.
3. Sand and gravel excavation and other mining provided that such excavation or mining is not carried out within eight (8) vertical feet of the seasonal high water table and that periodic inspections are made by the Planning Board or its agent to determine compliance.

**7.4.7. Septic System Design and Installation:**

7.4.7.1. In addition to meeting all local and state septic system siting requirements, all new on-lot waste water disposal systems installed in the district shall be designed by a sanitary engineer licensed in New Hampshire. These systems shall be installed under the supervision of said engineer.

7.4.7.2. The Planning Board or its agent shall inspect the installation of each new system prior to covering, and shall certify that the system has been installed as designed.

**7.5. DESIGN AND OPERATION GUIDELINES:** Except for single and two (2) family dwellings, the following design and operation guidelines shall be observed within the Aquifer Protection District:

7.5.1. **Safeguards** - Provision shall be made to protect against toxic or hazardous materials discharge or loss resulting from corrosion, accidental damage, spillage, or vandalism through measures such as: spill control provisions in the vicinity of chemical or fuel delivery points; secured storage areas for toxic or hazardous materials; and indoor storage provisions for corrodable or dissolvable materials. For operations which allow the evaporation of toxic or hazardous materials into the interiors of any structures, a closed vapor recovery system shall be provided for each structure to prevent discharge of contaminated condensate into the groundwater.

7.5.2. **Location** - Where the premises are partially outside of the Aquifer Protection Overlay Zone, potential pollution sources such as on-site waste disposal systems shall be located outside the zone to the extent feasible.

7.5.3. **Drainage** - All runoff from impervious surfaces shall be recharged on the site, and diverted toward areas covered with vegetation for surface infiltration to the extent possible. Dry wells shall be used only where other methods are not feasible, and shall be preceded oil, grease, and sediment traps to facilitate removal of contaminants.

7.5.4. **Inspection** - All special exceptions granted under Section 7.4.5. of this article shall be subject to twice-annual inspections by the Building Inspector or other agent designated by the Selectmen. The purpose of these inspections is to ensure continued compliance with the conditions under which approvals were granted. A fee for inspections shall be charged to the owner according to a fee schedule determined by the Selectmen.

7.6. **NON-CONFORMING USES:**

- 7.6.1. In the event of the destruction or damage by fire, storm or Act of God of any building not conforming to these ordinances, said building may be rebuilt or refurbished to its former non-conforming use, provided that such construction is started within two (2) years of the damage or destruction and is completed within two (2) years after rejuvenation is commenced. The new structure shall not be expanded beyond its former size and height prior to such event and shall conform to the Building (BOCA) Code as amended. The alteration of any building for use for a purpose or in a manner which is substantially different for the use to which it was put before alteration is prohibited.
- 7.6.2. Any non-conforming Lot of Record existing before the effective date of this article and not adjoined by other land of the same ownership may be used in accordance with Sections 7.4.2. - 7.4.7. of this article.

7.7. **ADMINISTRATION:**

- 7.7.1. **General** - The provisions of the Aquifer Protection District shall be administered by the Planning Board. All development proposals, other than single or two-family residential construction nor involving the subdivision of land, shall be subject to subdivision and/or site plan review and approval in accordance with Planning Board rules and regulations. Such review and approval shall precede the issuance of any building permit by the town.
- 7.7.2. **Enforcement** - The Board of Selectmen shall be responsible for the enforcement of the provisions and conditions of the Aquifer Protection District and shall act in accordance with Article IX of the Epping Zoning Ordinance.

7.8. **EFFECTIVE DATE:** This Article shall become effective upon the date of passage.