

ARTICLE 22 GROUNDWATER PROTECTION

Section 2201 Authority

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

Section 2202 Purpose

The purpose of this Article 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.

The purpose is to be accomplished by regulating land uses that may contribute pollutants to designated wells and to aquifers that provide current or future water supplies for this town and surrounding municipalities which share such wells and aquifers.

Section 2203 Groundwater Protection District

The Groundwater Protection District is an overlay district superimposed over the existing underlying zoning as shown on the map entitled, Town of Effingham Groundwater Protection District, dated March 8, 2011, or the most current version, and includes within its boundaries:

1. All of the NH Department of Environmental Services approved Wellhead Protection Areas for public water supply wells, as defined under Section 2213, Definitions, 2213.14 and 2213.23 of this Article; and
2. All areas overlying the Stratified Drift Aquifers as described in *Geohydrology and Water Quality of Stratified Drift Aquifers in the Saco and Ossipee River Basins, East-Central New Hampshire*, USGS Water Resources Investigations Report 95-4182.

Section 2204 Exemptions

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

1. Any private residence, single-family, two-family, or multi-family, is exempt from all Performance Standards in Section 2210;
2. Any business or facility where regulated substances are stored in containers with a capacity of less than five gallons is exempt from Section 2210, Performance Standards, 5 through 8;
3. Existing on-premise-use facilities, as defined in Section 2213.11, are exempt from all Performance Standards in Section 2210.
4. 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 Section 2210, Performance Standards, 5 through 8;
5. Storage and use of office supplies is exempt from Section 2210, Performance Standards, 5 through 8;
6. Temporary storage of construction materials on a site where they are to be used is exempt from Section 2210, Performance Standards, 5 through 8 if incorporated within the site development project within six months of their deposit on the site;

7. The sale, transportation, and use of pesticides as defined in RSA 430:29 XXVI are exempt from all provisions of this Article;

8. 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 Section 2210, Performance Standards, 5 through 8;

9. Underground storage tank systems and aboveground storage tank systems that are in compliance with applicable state rules are exempt from inspections under Section 2212, Maintenance and Inspection, of this Article.

10. Agricultural activities as regulated by the NH Department of Agriculture, Markets, and Food are exempt from Section 2210, Performance Standards, 4 through 7, and Section 2208, Special Uses, 1, provided that such activities are conducted in accordance with:

- a. Env-Wq 401, Best Management Practices for Groundwater Protection;
- b. *Manual of Best Management Practices (BMPs) for Agriculture in New Hampshire* (NH Department of Agriculture, Markets, and Food, July 2008, or any subsequent revisions).

Section 2205 Applicability

This Article applies to all uses in the Groundwater Protection District, except for those uses exempt under Section 2204, Exemptions, of this Article.

Section 2206 Permitted Uses

All uses permitted by right or allowed by special exception in the underlying district are permitted in the Groundwater Protection District unless they are Prohibited Uses or Special Uses as enumerated in the Article. All uses must comply with the Performance Standards of this Article unless specifically exempt under Section 2204, Exemptions.

Section 2207 Prohibited Uses

The following uses are prohibited in the Groundwater Protection District.

1. The development or operation of a hazardous waste disposal facility as defined under RSA 147-A;
2. The development or operation of a solid waste landfill;
3. The outdoor storage of road salt or other deicing chemicals in bulk;
4. The development or operation of a junkyard;
5. The development or operation of a snow dump;
6. The development or operation of a wastewater or septage lagoon;
7. The development or operation of a petroleum bulk plant or terminal;
8. The development or operation of a gasoline station.

9. The development or operation of a golf course.
10. The development or operation of a dry cleaning facility.
11. The development or operation of a vehicle race track or vehicle proving grounds.
12. The development of a car/vehicle wash facility not utilizing closed system water recovery technologies

Section 2208 Uses Requiring a Special Use Permit

2208.1 The Planning Board may grant a Special Use Permit, in accordance with the provisions of this Section, for a use otherwise permitted in the underlying district, if the permitted use is involved in one or more of the following:

1. 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 Section 2111, Spill Prevention Control and Countermeasure (SPCC) Plan, is approved by the Fire Chief;
2. Any use that will render impervious more than 15 percent or more than 2,500 square feet, whichever is greater, of the groundwater protection district area of any lot that is either wholly or partially within the groundwater protection district.
3. Any activities that involve blasting of bedrock.
4. The operation of car/vehicle wash facilities utilizing closed system water recovery technology.

2208.2 In granting such Special Use Permit approval the Planning Board must first determine that the proposed use is not a Prohibited Use, as listed in Section 2207, Prohibited Uses, of this Article, and will be in compliance with the Section 2210, Performance Standards, as well as all applicable local, state and federal requirements.

2208.3 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 of Section 2210.

2208.4 Applications for Special Use Permit shall include all applicable plans required under Section 2208.1 and Section 2210, Performance Standards, and must clearly demonstrate how all Performance Standards listed in Section 2210 will be met.

2208.5 A complete application for a Special Use Permit shall be submitted to the Planning Board at a regularly scheduled meeting and accompanied by a site plan drawn to an indicated scale and showing:

- locations and dimensions of all significant structures and uses present and proposed, including wells
- total impervious area that will result from proposed development, and a calculation of the percentage and square footage of impervious area within the groundwater protection district
- all stormwater filtration and infiltration practices and associated depths to the average seasonal high water table
- all areas of cut and fill
- all areas where regulated substances will be stored or transferred

- existing and proposed site drainage

The site plan submitted for subdivision or site plan application to the Planning Board is acceptable if it meets all of the above requirements.

2208.6 The Planning Board shall hold a public hearing for a Special Use Permit application, following public notice, within 30 days of acceptance of a complete application.

2208.7 Upon acceptance of a complete Special Use Permit application, the Planning Board shall transmit one copy of any Spill Prevention, Control, and Countermeasure Plan, furnished by the applicant, to the Fire Chief, as provided in Section 2208.1 and detailed in Section 2211, for his/her written recommendations and approval. The Planning Board shall transmit one copy of the complete application, furnished by the applicant, to the Conservation Commission for its written recommendations as well. Failure of the Fire Chief or Conservation Commission to respond within 30 days shall indicate their approval.

The Planning Board shall, within 30 days of a public hearing or within 60 days of accepting a complete Special Use Permit application, or within such other time limit as may be mutually agreed to, issue an order denying or granting approval of the application. The approval or denial of an application for a Special Use Permit shall be in writing and shall state the reasons for the decision. The Planning Board may attach such conditions to its approval as are reasonable, necessary and appropriate in order to serve the purpose of this Article.

2208.8 Substantial construction must commence within one year of Planning Board approval of the Special Use Permit. If construction is not commenced within this period, the Special Use Permit may be extended for up to one year upon approval of the Planning Board. If construction is not commenced within this extended period the Special Use Permit is null and void.

2208.9 For uses requiring Planning Board approval, a narrative description of maintenance requirements for structures required to comply with Performance Standards of Section 2210, Performance Standards, shall be recorded at the Carroll County Registry of Deeds 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.

2208.10 The applicant will be required to reimburse the Town for any reasonable expenses incurred by the Planning Board, Board of Selectmen and their designated officials, to evaluate the application before the facility is constructed, including but not limited to, expenses incurred to hire qualified engineers or other experts.

2208.11 The Planning Board, at its discretion, may waive any requirements for a Special Use Permit under the following conditions:

- a. Receipt by the applicant of a waiver from a state best management practice (BMP) regulation granted by the NH Department of Environmental Services; or
- b. For requirements that are not also state and/or federal regulations, if the applicant can satisfactorily demonstrate through alternative means that the intent of the requirements and the purpose of Article 22 will still be achieved.
- c. The decision to waive any requirement for a Special Use Permit, along with the basis for such waiver and means of compliance with the purpose of Article 22, shall be issued in writing. Planning Board meeting minutes shall not constitute a written decision to waive Special Use Permit requirements.

Section 2209 Existing Nonconforming Uses

Existing nonconforming uses may continue without expanding or changing to another nonconforming use, except as permitted by ARTICLE 7 of the Effingham Zoning Ordinance, but must be in compliance with all applicable state and federal requirements, including Env-Wq 401, Best Management Practices for Groundwater Protection.

Section 2210 Performance Standards

The following Performance Standards apply to all uses in the Groundwater Protection District unless exempt under Section 2204, Exemptions:

1. For any use that will render impervious more than 15 percent or more than 2,500 square feet of the groundwater protection district area 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*, NH Department of Environmental Services December 2008 or any subsequent revisions.
2. Special uses, as defined under Section 2208, Special Uses, shall develop stormwater management and pollution prevention plans and include information consistent with *Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites*, US EPA #833R06004, May 2007 or any subsequent revisions. The plan shall demonstrate that the use will:
 - a. Meet minimum stormwater discharge setbacks between water supply wells and constructed stormwater practices as found within *Innovative Land Use Planning Techniques: A Handbook for Sustainable Development, Section 2.1 Permanent (Post-Construction) Stormwater Management*, (DES, 2008 or later edition);
 - b. Minimize, through a source control plan that identifies pollution prevention measures, the release of regulated substances into stormwater;
 - c. 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);
 - d. Maintain the following minimum vertical separation between the bottom of a stormwater practice 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: four foot vertical separation for a practice that infiltrates stormwater; one foot vertical separation for a practice that filters stormwater.
3. Animal manures, fertilizers, and compost must be stored in accordance with *Manual of Best Management Practices for Agriculture in New Hampshire*, NH Department of Agriculture, Markets, and Food, July 2008 and any subsequent revisions;
4. 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;
5. 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;

6. 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;
7. Secondary containment must be provided for outdoor storage of regulated substances in regulated containers and the containment structure must include a cover to minimize accumulation of water in the containment area and contact between precipitation and storage container(s);
8. 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;
9. 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 decommissioned in accordance with We 604, or must be properly maintained in accordance with We 603 of the New Hampshire Water Well Board Rules.
10. 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.
11. 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.¹

Section 2211 Spill Prevention, Control and Countermeasure Plan

Special Uses, as described under Section 2208, Uses Requiring a Special Use Permit, 1, 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.

¹ A positive limiting barrier (PLB) is a depression (e.g., groove) in the surface of an otherwise level impervious area designed to impede the flow and contain spilled substances within the perimeter of the impervious area. PLBs are typically constructed and maintained to contain small spills or releases (five to fifteen gallons).

Section 2212 Maintenance and Inspection

- 2212.1 For uses requiring planning board approval for any reason, a narrative description of maintenance requirements for structures required to comply with Section 2210, Performance Standards, shall be recorded so as to run with the land on which such structures are located, at the Carroll County Registry of Deeds. The description so prepared shall comply with the requirements of RSA 478:4-a.
- 2212.2 Inspections may be required to verify compliance with Performance Standards. Such inspections shall be performed by the Board of Selectmen or their designated agent at reasonable times with prior notice to the landowner.
- 2212.3 All properties in the Groundwater 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 Article under Section 2204, Exemptions, shall be subject to inspections under this Section.
- 2212.4 The Board of Selectmen may require a fee for compliance inspections. The fee shall be paid by the property owner. A fee schedule may be established by the Board of Selectmen as provided in RSA 41:9-a.

Section 2213 Definitions

- 2213.1 Aquifer: a geologic formation composed of rock, sand, or gravel that contains significant amounts of potentially recoverable water.
- 2213.2 Car/vehicle Wash Facility: A facility used to wash motor vehicles as a separate or part of a commercial entity.
- 2213.3 Dry cleaner: An operation which cleans clothing with the use of substances consistent with dry cleaning operations and not using standard detergents and water methods.
- 2213.4 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.
- 2213.5 Golf course: consisting of one or more golf links with a natural turf.
- 2213.6 Groundwater: subsurface water that occurs beneath the water table in soils and geologic formations.
- 2213.7 Impervious (*adj.*): not readily permitting the infiltration of water – including but not strictly limited to: non-porous asphalt, concrete or cement surfaces; compacted dirt/gravel roads, driveways, paths, and lots; non-permeable pavers; roof/building footprint areas (excluding sod/vegetated roofs, up to their designed retention capacity)
- 2213.8 Impervious surface (*noun phrase*): 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 for the purposes of controlling regulated substances.
- 2213.9 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.

- 2213.10 Outdoor storage: storage of materials where they are not protected from the elements by a roof, walls, and a floor with an impervious surface.
- 2213.11 On-premise-use facility means an existing system of storage tanks, pipes, pumps, and appurtenant structures, singly or in any combination, which is or has been used for the storage of fuel oil for on-premise-use.
- 2213.12 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.
- 2213.13 Primary recharge area: The area as delineated on the Town of Effingham Groundwater Protection District, dated March 8, 2011 (or the most current version), which contributes water to public drinking water wells and/or an aquifers.
- 2213.14 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.
- 2213.15 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.
- 2213.16 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).
- 2213.17 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 Hydro geologist, Soils Scientist, Wetlands Scientist, Engineer or other qualified professional approved by the Planning Board.
- 2213.18 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.
- 2213.19 Snow dump: For the purposes of this Article, a location where snow, which is cleared from roadways and/or motor vehicle parking areas, is placed for disposal.
- 2213.20 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.
- 2213.21 Surface water: streams, lakes, ponds and tidal waters, including marshes, water-courses and other bodies of water, natural or artificial.

2213.22 Vehicle race track or proving grounds: a track or course, impervious or not, used to race or test vehicle performance as a commercial business or commercial club activity.

2213.23 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.

2214. RELATIONSHIP BETWEEN STATE AND LOCAL REQUIREMENTS

Where both the State and the municipality have existing requirements the more stringent shall govern.

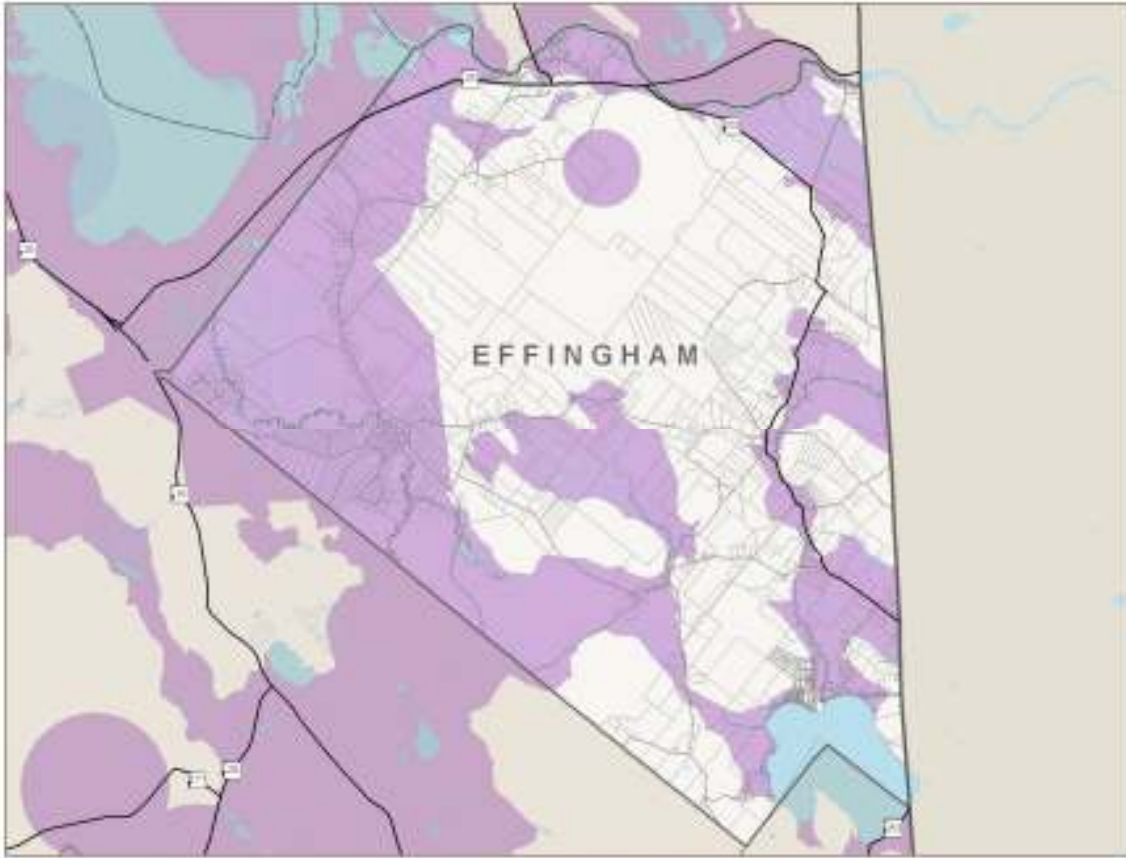
2215. SAVING CLAUSE

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

2216. EFFECTIVE DATE

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

**Town of Effingham Groundwater Protection District
March 8, 2011**



Map created by Lakes Region Planning Commission of geohydrology and water quality of stratified-drift aquifers in the Saco and Ossipee River basins, East-Central New Hampshire, USGS Water-Resources Investigations Report 94-4182.