

PROPOSED GROUNDWATER PROTECTION ORDINANCE

A. AUTHORITY

The Town of Holderness 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.

B. 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.

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

See Article E for applicability to preexisting uses.

C. DEFINITIONS

1. Aquifer: a geologic formation composed of rock, sand, or gravel that contains significant amounts of potentially recoverable water.
2. 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.
3. Groundwater: subsurface water that occurs beneath the water table in soils and geologic formations.
4. Impervious: not readily permitting the infiltration of water.
5. Impervious surface: a surface through which regulated substances cannot pass when spilled. Impervious surfaces include concrete unless unsealed cracks or holes are present. Asphalt, 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.
6. 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, and includes garbage dumps and sanitary landfills. 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.
7. Overlay district. A district that is superimposed over one or more zoning districts or parts of districts and that imposes specified requirements that are in addition to those otherwise applicable for the underlying zone.
8. Outdoor storage: storage of materials where they are not protected

from the elements by a roof, walls, and a floor with an impervious surface.

9. 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.
10. 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.
11. Regulated substance: means any of the following, with the exclusion of ammonia, sodium hypochlorite, sodium hydroxide, acetic acid, sulfuric acid, potassium hydroxide, and potassium permanganate: (1) Oil as defined in RSA 146-A:2, III; (2) Any substance that contains a regulated contaminant for which an ambient groundwater quality standard has been established pursuant to RSA 485-C:6; and (3) Any substance listed in 40 CFR 302, 7-1-05 edition. These chemicals are either used for the treatment of drinking water and are regulated by DES rules (Env-Wq 401) or by other state departments as listed under or RSA 485:C (Groundwater Protection Act).
12. 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 Env-Dw 302 (for community water systems); Env-Dw 372.14 and Env-Dw 373.12 (design standards for small community and non-community public water systems, respectively).
13. Seasonal high water table: elevation of the highest annual average groundwater table location and soils data; boring logs may be submitted separately.
14. Secondary containment: a structure such as a berm or dike with an impervious surface which is adequate to hold at least 110% of the volume of the largest container holding regulated-substances. Secondary containment areas must be covered if regulated substances are stored outside.
15. Snow dump: For the purposes of this ordinance, a location where snow which is cleared from roadways and/or motor vehicle parking areas is placed for disposal.
16. 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.
17. Surface water: streams, lakes, ponds and tidal waters, including marshes, water-courses and other bodies of water, natural or artificial.

18. Wellhead protection area: The surface and subsurface area surrounding a water well or wellfield supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield.

D. GROUNDWATER PROTECTION DISTRICT

The Groundwater Protection District is an overlay district which is superimposed over the existing underlying zoning and includes within its boundaries the Stratified-drift Aquifers as found within the Geohydrology, Yield, and Water Quality of Stratified-Drift Aquifers in the Pemigewasset River Basin, Central New Hampshire (USGS 1996) and the most current Wellhead Protection Areas approved by NH Department of Environmental Services as shown on the map entitled "Groundwater Protection District Map of Holderness, NH, September 2009", adopted concurrent with this Ordinance.

District Boundary Disputes: If the location of the Groundwater Protection District in relation to a particular parcel is in doubt, resolution of boundary disputes shall be through application for determination to the Planning Board. The burden of proof shall be upon the owner(s) of the land to demonstrate where the boundaries of the district with respect to their individual parcel(s) of land should be located. Upon application for determination, the Planning Board may engage a professional engineer, hydrologist, geologist, or soil scientist at the expense of the owner(s) for the cost of the investigation. Based on evidence and findings, the Planning Board may adjust the boundary of the Groundwater Protection District or reduce or expand the designation area to more correctly define the location and the extent of the aquifer on a site-specific, case by case basis and shall incorporate such adjustments onto the "Groundwater Protection District Map of Holderness, NH, September 2009".

E. APPLICABILITY

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

Preexisting uses not specifically exempt shall comply with Article I, Performance Standards, 1 thru 7. In addition, preexisting Conditional Uses shall comply with Performance Standard 8.c.

F. PERMITTED USES

All uses permitted by right or allowed by special exception in the underlying district that are also located within the Groundwater Protection District remain permitted by right or still require a special exception, as applicable, unless they are Prohibited Uses under this Ordinance.

Uses identified as Conditional Uses under this Ordinance also require a Conditional Use Permit. In the instance that both a Special Exception and a Conditional Use Permit are required, the Special Exception shall be approved prior to the Conditional Use Permit.

All uses must comply with the Performance Standards unless specifically exempt under Article J.

See Article E for applicability to preexisting uses.

G. 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 gasoline stations;
9. The development or operation of sludge monofills;
10. Storage of animal manure unless covered or contained in accordance with the specifications of the Manual of Best Management Practices for Agriculture in New Hampshire, NH Department of Agriculture, Markets, and Food, July 2008, and any subsequent revisions;
11. Facilities that generate, treat, store, or dispose of hazardous waste subject to Env-Hw 500-900 except for:
 - a. household hazardous waste centers and events regulated under Env-Hw 401.03(b)(1) and Env-Hw 501.01(b); and;
 - b. water remediation treatment works approved by NH DES for the treatment of contaminated ground or surface waters;
12. Non-sanitary treatment works, impure water that does not contain sewage such as but not limited to carwash water or cooling water, which discharge to the ground and that are subject to Env-Wq 402, except the following:
 - a. the replacement or repair of an existing treatment works that will not result in a design capacity greater than the design capacity of the existing treatment works;
 - b. treatment works approved by NH DES designed for the treatment of contaminated groundwater;
13. Storage of regulated substances in greater than household quantities (> 5 gallons), unless in a free-standing container within a building or above ground with covered secondary containment

adequate to contain 110% of the largest container's total storage capacity;

14. Storage of fertilizers, unless such storage is within a structure designed to prevent the generation and escape of contaminated runoff or leachate;
15. Excavation or Mining within four feet of Seasonal High Water Table (average) as determined by a certified hydrogeologist or recent technical study. Water table depth shall include information provided from test pits that extend to either the seasonal high water table, ledge, or to a minimum of six feet below the maximum proposed excavation depth, including location and soils data.

H. CONDITIONAL USES

The Planning Board may grant a Conditional Use Permit for a use which is otherwise permitted within 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 Article I,8(c), is approved by the Holderness Code Enforcement Officer;
2. Any use that will render impervious more than 15% or 2,500 square feet of any lot, whichever is greater.
3. In granting a Conditional Use Permit:
 - a. The Planning Board must determine that the proposed use is not a prohibited use;
 - b. Conditional Uses shall also be in compliance with the Performance Standards in Article I as well as all applicable local, state and federal requirements;
 - c. The Planning Board may, at its discretion, require a performance or other surety bond, in an amount and with conditions satisfactory to the Board, to ensure completion of construction of any facilities required for compliance with the Performance Standards.
4. The Planning Board may require that the applicant provide data or reports prepared by a licensed professional geologist or certified soils scientist to assess any potential damage to the aquifer that may result from the proposed use. The Planning Board shall engage such professional assistance as it requires at the expense of the applicant to adequately evaluate such reports and to evaluate, in general, the proposed use in light of the above criteria.

I. PERFORMANCE STANDARDS

The following Performance Standards apply to all uses in the Groundwater Protection District unless exempt under Article J:

1. 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, August 2005, and any subsequent revisions;
2. All regulated substances stored in containers with a capacity of 5 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;
 3. 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.
 4. 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;
 5. Secondary containment with a cover must be provided for outdoor storage of regulated substances if an aggregate of regulated substances exceeding 5 gallons are stored outdoors on any particular property;
 6. 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;
 7. In addition Conditional Uses shall:
 - a. Develop and submit a stormwater management and pollution prevention plan and shall include information consistent with Developing Your Stormwater Pollution Prevention Plan: A Guide for Industrial Operators. (US EPA 2009) The plan shall demonstrate that the use will:
 - i. Minimize the release of regulated substances into stormwater through a source control plan that identifies pollution prevention measures;
 - ii. Demonstrate that stormwater systems are designed to treat expected contaminants sufficiently in order to ensure that groundwater quality will not be degraded and result in violation of Ambient Groundwater Quality Standards (Env-Ws 410.05) at the property boundary;
 - iii. Stipulate that expansion or redevelopment activities may, at the discretion of the Planning Board, require an amended stormwater plan;
 - iv. 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).
 - b. For any use that will render impervious more than 15% or more

than 2,500 square feet of any lot, whichever is greater, a stormwater management plan shall also be consistent with the New Hampshire Stormwater Manual Volumes 1-3, December 2008, NH Department of Environmental Sciences.

- c. For any use of regulated substances, a spill control and countermeasure (SPCC) plan shall be submitted to the Code Enforcement Officer 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. The SPCC plan shall include:
 - i. A description of the physical layout and a facility diagram, including all surrounding surface waters and wellhead protection areas;
 - ii. 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;
 - iii. A list of all regulated substances in use and locations of use and storage;
 - iv. 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;
 - v. A description of containment and/or diversionary structures or equipment to prevent regulated substances from infiltrating into the ground.

J. EXEMPTIONS

The following uses are exempt from the specified provisions of this ordinance provided they comply with all other applicable local, state, and federal requirements:

1. A mobile fuel tank specifically manufactured for the purpose of being transported from site to site for the sole purpose of fueling motor vehicles and/or equipment, provided fuel transfers are conducted over an impervious area and utilize portable spill containment equipment with trained personnel present during transfers. Said tank, transportation and fueling shall comply with all other applicable Regulations.
2. 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 3;
3. 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 3 through 6.
4. Storage and use of office supplies is exempt from Performance Standards 3 through 6;
 5. Temporary storage of construction materials on a site where they are to be used is exempt from Performance Standards 3 through 6 if incorporated within the site development project within six months of their deposit on the site;
 6. The sale, transportation, and use of pesticides as defined in RSA 430:29 XXVI are exempt from all provisions of this ordinance;
 7. Household hazardous waste collection projects regulated under NH Code of Administrative Rules Env-Hw 401.03(b)(1) and 501.01(b) are exempt from Performance Standards 3 through 6;
 8. Underground storage tank systems and aboveground storage tank systems that are in compliance with applicable state rules are exempt from inspections under Article L of this ordinance.

K. RELATIONSHIP BETWEEN STATE AND LOCAL REQUIREMENTS

Whenever a provision of this ordinance differs from the requirements imposed by the State of New Hampshire, or by some other town ordinance, the provision which imposes the greater restriction or higher standard shall govern.

L. MAINTENANCE AND INSPECTION

1. For uses requiring Planning Board approval for any reason, a narrative description of maintenance requirements for structures required to comply with Performance Standards, shall be recorded so as to run with the land on which such structures are located, at the Registry of Deeds for Grafton County. The description so prepared shall comply with the requirements of RSA 478:4-a.
2. Inspections may be required to verify compliance with Performance Standards. Such inspections shall be performed by the Holderness Code Enforcement Officer at reasonable times with prior notice to the landowner.
3. All properties within the Groundwater Protection District known to the Holderness Code Enforcement Officer as using or storing regulated substances in containers with a capacity of 5 gallons or more, except for facilities where all regulated substances storage is exempt from this Ordinance Under Article J, shall be subject to inspections under this Article.
4. The Board of 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 Board of Selectmen as provided for in RSA 41-9:a.

M. 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.

N. EFFECTIVE DATE
March 10, 2010

Holderness Outdoor Lighting Ordinance

I. Purpose

The intent of this ordinance is to help preserve the rural character of Holderness by preserving the visibility of night-time skies through minimizing the upward transmission of light. This ordinance recognizes that proper lighting is necessary for safety, but that inappropriate or outdated lighting can waste energy and create unwanted glare for neighbors, motorists, pedestrians and wildlife.

II. Definitions.

Area Lighting: A luminaire which emits 1800 lumens or more or a spotlight which emits 900 lumens or more employed to illuminate surface areas greater than 100 square feet on a routine basis for more than one hour per night.

Direct Light: Light emitted directly from the lamp, off the reflector or through the lens of a luminaire.

Fixture: The assembly that houses the lamp(s) which may include a housing, mounting bracket, pole socket, lamp holder, ballast, reflector and lens.

Floodlight or Spotlight: A fixture that incorporates a reflector or refractor to concentrate light output in a particular direction.

Full Cutoff or Fully Shielded: A light fixture in which the lamp is shielded in such a way as to direct all (100%) of its light output below a horizontal plane established at the lowest point of the lamp.

Glare: Light emitted from a luminaire with intensity sufficient to reduce the viewer's ability to see.

IESNA: Illuminating Engineering Society of North America

Lamp: The component of a Luminaire which produces light.

Light Trespass: The transmission of light beyond the boundaries of the property on which the emitting luminaire is located.

Lumen: A measurement of light output. For purposes of this ordinance, the values used shall be the initial lumen output rating of the lamp.

Luminaire: The complete lighting assembly consisting of a fixture and its lamp(s).

Luminaire Height: The vertical distance from the ground directly beneath the centerline of the luminaire to the lowest part of the lamp.

Outdoor Lighting: The illumination of an outdoor area or object by any man-made light producing device.

Part-Night Rate: A rate for unmetered lighting which considers the fact that the luminaire is turned off for a portion of the night.

Temporary Outdoor Lighting: Outdoor lighting which is used for a period of one week or less with at least 180 days passing before being used again at that specific location.

Uplighting: The practice of directing light above the horizontal plane for purposes such as (but not limited to) highlighting architectural details, illuminating signs and casting light on flags.

III. Outdoor Lighting Design

A) Any luminaire emitting more than 1800 lumens (1700 lumens = typical light output of a 100W incandescent bulb) shall be fully shielded.

B) Any luminaire rated at 1800 lumens or greater and any flood or spot light rated at 900 lumens or greater shall be mounted at a height equal to or less than $3 + (D/3)$ where D is the distance (in feet) to the nearest property boundary (D/3 means distance divided by 3). In no case shall the height of the luminaire exceed twenty feet.

C) If direct light from a luminaire can be seen from residential buildings on adjacent or nearby properties or if said luminaire(s) create glare perceptible to motorists, boaters or pedestrians on public ways, the luminaire shall be redirected or shielded to eliminate the offending light trespass.

D) Any luminaire used for illumination of public areas shall use a low or high pressure sodium or a metal halide lamp. Mercury vapor lamps shall not be used due to their energy inefficiency and environmental disposal concerns.

E) Moving, fluttering, blinking or flashing lighting shall not be permitted except as temporary seasonal holiday decorations during the period of November 15 through January 15. All such lighting shall be turned off at 11 p.m. and remain so until 7 a.m. and not be the cause of objectionable conditions to neighbors or safety concerns with passing motorists.

F) Luminaires mounted on a gas station canopy must be fully shielded and shall be recessed mounted in the ceiling only and directed at the ground beneath.

G) Uplighting is prohibited at any level of light output.

H) Lighting in public areas (including commercial installations) shall not exceed illumination recommendations as listed in the most current edition of the IESNA Lighting Handbook.

I) All area lighting shall be timed to turn off by 11 p.m. and remain so until 7 a.m. unless it can be demonstrated to the Board of Selectmen or their designated representative that doing so creates an undue risk to health, safety or security. Installation involving non-metered usage is exempted from this requirement until the Public Utility Commission implements part-night rates.

IV. Exemptions

A) The planning board, at their discretion, may waive certain lighting regulations as they pertain to sports lighting if it can be demonstrated that said lighting presents no safety or nuisance issues for operators of vehicles, neighbors and pedestrians.

- B) All hazard-warning or traffic control luminaires required by federal, state and local agencies are exempted from this ordinance.
- C) Non-conforming temporary lighting may be permitted in special circumstance by order of the Board of Selectmen or their designated representative.
- D) Pre-Existing installations lawfully in place prior to the enactment of this ordinance shall be allowed. However, any change to an existing luminaire or its position (other than replacing a lamp or defective electrical component) shall be viewed as a new installation and be subject to this ordinance.

ZONING CORRECTIONS

Italic = changes

1. Article X Administration and Enforcement B. 1. The Selectman or their agent shall issue or deny any and all *permits such as but not limited to building, structure, driveway, sign, use, demolition, excavation* permits as required. Page 43
2. *A sign: An object , device, or structure, or part thereof, situated outdoors or displayed in a window, free-standing or attached, which is used to advertise, identify, display, direct or attract attention to an object, person, institution, organization, business, product, service, event, or location by any means including words, letters, figures, design, symbols, advertising flags, colors, illuminations or projected images, which is visible from any street right of way, sidewalk, alley, park or other public property.* Insert on page 17 Article IV F.
3. Page 17 Article IV F. Signs, Exceptions:
 - A. *Flags, National, state, provincial, or religious flags, except where used in such a manner or in such quantity as to draw attention to a commercial enterprise. No unrelated message may be used on any such flag.*
 - B. *Flags with a short message i.e., Welcome, Sale, Open shall be no larger than 3' X 5'.*
4. Page 43 Article X ADMINISTRATON AND ENFORCEMNT

Site Plan Regulations:

In accordance with state law, the Town of Holderness Planning Board has adopted regulations governing the review and approval or disapproval of site plans for the development, change or expansion of use of tracts for non-residential uses or for multi-family dwelling units, which are defined as structures containing more than two (2) dwelling units, whether or not such development includes a subdivision or resubdivision of the site.

Subdivision Regulations:

In accordance with the provisions of RSA 674:36 as amended, the Town of Holderness Planning Board has adopted regulations governing the review and

approval or disapproval of plans for the subdivision of property. The purpose of such approval includes but is not limited to: the prevention of scattered and premature subdivisions; the encouragement of harmonious development; the coordination of and sizing of streets so they are adequate and safe; the provision for open spaces for parks and playgrounds; the provision for adequate building areas; the prescription of the minimum area of lots; the provision of on-site sanitary facilities; and generally to create conditions favorable to health, safety, convenience and prosperity.

6. Front, Side and Rear Yard Setback Page 20

a. There shall be a minimum distance between any building or structure and the edge of any public highway, street or roadway right-of-way of thirty-five (35) feet.

b. No building or structure, water supply (well) shall be located within thirty-five (35) feet of any lot side or back lines on which it is located *or from the reference line of a lake or pond, ordinary high water line of perennial streams, or edge of wetland. This 35-foot segment will be maintained as a native vegetative or woodland buffer. Access pathways through these areas may not exceed four (4) feet in width.* Permitted signs and fences and bridges for recreational use are exempt from these setback requirements.

c. No dwelling shall be erected within fifty (50) feet of *the reference line of a lake or pond, ordinary high water line of a perennial stream or wetland.* No structure, temporary or permanent, other than stairs to docks, shall be permitted within 35 feet of the reference line.3/02

d. No septic tank shall be constructed or placed within seventy-five (75) feet of any domestic water supply, lake or pond high water line, stream or wetland. No leach field or any other septic disposal system shall be constructed or placed within one hundred twenty-five (125) feet of any domestic water supply, lake or pond reference line or wetland. Wetlands shall mean any lands that meet the term in the delimitations section of this ordinance.

7 . Page 43 Section B Permits issued by the Selectmen for construction or demolition shall be good for a maximum of *two (2) years.* The Selectmen may issue a permit for a lesser amount of time. Permits issued for “use” or in conjunction with Special Exceptions or Variances granted by the Zoning Board of Adjustment are good until one (1) year after the “use” or activity associated with the Variance or Special Exception ceases. 3/98”

Additional Definitions:

- 1. Guest House & Bunk House are distinguished from a dwelling unit by being limited to sleeping facilities with no plumbing. These structures shall not be used to satisfy the residency requirement.*
- 2. Residential unit see Dwelling.*
- 3. Reference line: defined in RSA 483-B of the Comprehensive Shoreland Protection Act. For the Squam Channel, the section north of the bridge will be governed by the Reference Line for Squam Lake and the section south of the bridge will be governed by the reference line for Little Squam Lake.*
- 4. Ordinary High Water Line: aka reference line as defined in RSA 483-B of the Comprehensive Shoreland Protection Act.*