

# Town of Haverhill Sludge Spreading Ordinance

## ARTICLE I: PREAMBLE AND TITLE

Pursuant to the authority conferred by the New Hampshire Revised Statute Annotated [RSA], Chapters 672-677, and for the purpose of promoting the health, safety and general welfare of the Town of Haverhill, New Hampshire, the following Land Use Ordinance is hereby enacted by the voters of the Town of Haverhill, New Hampshire. This Ordinance shall be known and cited as the Town of Haverhill Sludge Spreading Ordinance hereafter referred to as this "Ordinance."

## ARTICLE II: PURPOSE AND OBJECTIVES

The purpose of this Ordinance is to protect, preserve and maintain existing and potential groundwater sources of drinking water and groundwater recharge areas, and to protect, preserve and maintain surface water quality, soil quality and the general health and safety of the public from the potential adverse impacts associated with the stockpiling and land spreading of sewage sludge. Objectives of this Ordinance are to:

- (A) Protect natural areas;
- (B) Maintain ecological balance;
- (C) Protect potential and existing water supplies;
- (D) Prevent soil contamination;
- (E) Protect property values;
- (F) Prevent unnecessary or excessive expenditure of municipal, other public funds, and/or private funds which may arise from the unregulated stockpiling and land spreading of sewage sludge;
- (G) Allow the landspreading of Class B sludge under certain conditions as specified in this Ordinance; and
- (H) This Ordinance shall not be construed to restrict spreading of Class A sludge in compliance with all applicable federal and state laws.

## ARTICLE III: AREA DEFINED

All land within the political boundaries of the Town of Haverhill shall be subject to the provisions of this Ordinance.

## ARTICLE IV: DEFINITIONS

4.0 Abutter: Any person whose property adjoins, or is directly across, a street or stream from the land under consideration for the stockpiling or land spreading of sludge. A property owner cannot be his/her own abutter for the purpose of notification. For the purpose of receipt of notification of a hearing, in the case of an abutting property being under a condominium or other collective form of ownership, the term abutter means the officers of the collective or association. The names of all abutters, for the purposes of notification, shall be obtained from the Town Tax List as it exists in the Town offices.

- 4.1 Aquifer: A geological formation, group of formations, or part of a formation, that is capable of yielding usable quantities of groundwater, as referred to in Env-Ws 102.12, and as shown in the light blue color on the Town of Haverhill Water Resource Map assembled by the UNH Cooperative Extension Services, January 2000 with data from NH GRANIT dated February 1999. A copy of the map is on file at the Haverhill Selectmen's Office.
- 4.2 Base flood: The flood having a one-percent possibility of being equaled or exceeded in any given year.
- 4.3 Building: Any structure for the shelter, support or enclosure of persons, animals, or property having a roof and being permanently located on the land. For the purposes of this definition, "roof" shall include an awning or any similar covering, whether or not permanent in nature.
- 4.4 Class "A" sludge: Class "A" sludge means sludge that meets or exceeds the requirements of 40 C.F.R. section 503.32(a)(2), and the requirements of one of the following: 40 C.F.R. section 503(a)(3), 40 C.F.R. section 503(a)(4), 40 C.F.R. section 503(a)(5), 40 C.F.R. section 503(a)(6), 40 C.F.R. section 503(a)(7), or 40 C.F.R. section 503(a)(8).
- 4.5 Class "B" sludge: Class B sludge means sludge which is class B with respect to pathogens under 40 CFR part 503.32(b) and which meets one of the vector attraction reduction requirements of 40 CFR 503.33(b)(1) through (b)(11). (see definition of "Sludge").
- 4.6 Flood/flooding: A general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of inland or tidal waters (2) the unusual and rapid accumulation or runoff of surface waters from any source.
- 4.7 Hazardous waste: A solid, semi-solid, liquid or contained gaseous waste, or any combinations of these wastes:
- (A) which because of either quantity, concentrations or physical, chemical, or infectious characteristics may:
    - (1) cause or contribute to an increase in mortality or an increase in irreversible or incapacitating reversible illness; or
    - (2) pose a present or potential threat to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged.
  - (B) or which has been identified as a hazardous waste by the Department of Environmental Services using the criteria established under RSA 147-A:3, I or as listed under RSA 147-A:3, II. Such wastes include, but are not

limited to, those which are reactive, toxic, corrosive, ignitable, irritants, strong sensitizers, or which generate pressure through decomposition, heat or other means. Such wastes do not include radioactive substances that are regulated by the Atomic Energy Act of 1954, as amended. See NH RSA 147-A:2, (VII).

- 4.8 Land application: the placement of sewage sludge on the ground surface, whether or not the material is incorporated or injected into the soil.
- 4.9 100 year flood: A one hundred year flood as defined and delineated by the Flood Insurance Rate Maps ("FIRM") published by the United States Department of Housing and Urban Development. See base flood.
- 4.10 Priority Pollutant Scan: An analysis performed in accordance with tests method 8240 of "Test Methods for Evaluating Solid Waste", Volume IB, Laboratory Manual, Physical/Chemical Method, Identified as EPA SW846, dated November 1986.
- 4.11 Sewage Sludge or Sludge: "sludge" as defined by RSA 485-A:2,XI-a (1999), "the solid or semi-solid material produced by water and wastewater treatment processing; provided, however, sludge which is disposed of at solid waste facilities permitted by the department shall be considered solid waste and regulated under RSA 149-M." Sludge also includes sludge mixed with another sludge or another material.
- 4.12 Special Flood Hazard Area: An area having flood, mud slide, and/or flood related erosion hazards, and shown on a Flood Hazard Boundary Map ("FHBM") or FIRM as zone A, AO, A1-30, AE, A99, AH, VO, V1-30, VE, V, M, or E.
- 4.13 Stockpiling: the storage of sewage sludge.
- 4.14 Town: The Town of Haverhill
- 4.15 Wetland and Wetland Map: Wetlands and Wetlands Map are defined to include lakes, ponds, and streams and swamps, marshes and bogs as defined in accordance with N.H. Code of Administrative Rules of the N.H. Wetlands Board. With the exception of bogs, wetlands smaller than ten thousand (10,000) square feet are not subject to sections 5.2 and 5.3.3.7. See Soils Survey Map, Grafton County Conservation District, U.S. Department of Agriculture, dated 1999 and summarized in the Town of Haverhill Water Resources Map which shows Wetlands in the color of "red" compiled by UNH Cooperative Extension dated January 2000 using data from NH GRANIT dated February 1999. A copy of the

map is on file at the Haverhill Selectmen's Office.

## ARTICLE V: GENERAL PROVISIONS/USES

- 5.1 This section regulates the spreading of sewage sludge on lands in the Town. The special permit/ application procedure, specific performance standards and testing requirements are set forth. Under no circumstances shall grit or screenings from paper mill facilities be deemed suitable for land application.
- 5.2 The Land application of EPA class B sewage sludge is not permitted in the Wetlands, Aquifer Areas, or 100 year floodplains.
- 5.3 **Special Permit/Application Procedure:** Except as noted in 5.1 and 5.2, the stockpiling and land application of sewage sludge is permitted within the Town by a special permit issued by the Board of Selectmen. The applicant for the special permit shall submit the following as part of the application materials for the special permit at least 90 days in advance of taking receipt of the sewage sludge:
- 5.3.1 A complete copy of the permit granted by the Department of Environmental Services (DES) for sludge land application under Env-Ws 800.
- 5.3.2 A written application containing:
- 5.3.2.1 the name, address and telephone number and DES facility number of the sludge generating facility;
  - 5.3.2.2 the name, address, telephone number, and National Pollutants Discharge Elimination System Permit (NPDES) number of any and all sewage treatment facilities, if different from the generating facility;
  - 5.3.2.3 the name, address, telephone number and permit number of the sewage sludge hauler;
  - 5.3.2.4 the name, address and telephone number of the person(s) treating and or applying the sewage sludge;
  - 5.3.2.5 laboratory reports of all test results;
  - 5.3.2.6 the planned delivery date or dates;
  - 5.3.2.7 the description of any planned treatment;
  - 5.3.2.8 a narrative description of the treatment method used to meet Class B sewage sludge requirements;
  - 5.3.2.9 the total surface of the planned application(s);
  - 5.3.2.10 the total sewage sludge volume (i.e cu yards) to be applied from this application;
  - 5.3.2.11 previous land application data, including cumulative site loading of all contaminants that have been recorded under State or Federal

- Regulations to date and the site loading from the previous two (2) years;
- 5.3.2.12 the number of land applications that can be performed without exceeding the cumulative pollutant loading rate set forth in Table 2 of 40 CFR 503.13 or New Hampshire regulations, whichever is more stringent; and
- 5.3.2.13 evidence in writing that the landowner consents to the application of sewage sludge to their land.
- 5.3.3 A site map drawn at a scale appropriate to show all required information and illustrating the following with respect to any area which sewage sludge is to be applied to the land:
- 5.3.3.1 a local map showing the site in relation to abutting tax map parcels and surrounding land use within 1,000 feet of the property;
- 5.3.3.2 the entire property parcel showing all property lines as determined by certified boundary survey;
- 5.3.3.3 public roads, structures whether on or off the property, and any easements or right of way which exist on the property;
- 5.3.3.4 topography with contours not to exceed 5 foot intervals for the entire site;
- 5.3.3.5 the most current soil delineations from the Natural Resource Conservation Service;
- 5.3.3.6 all available aquifer mapping on and near the site with well yield descriptions;
- 5.3.3.7 all wetlands, streams, and surface water within 400 feet of the land application area;
- 5.3.3.8 all adjacent wells, include well locations of abutters within 600 feet of the land application area;
- 5.3.3.9 the location and limits of the land application area and any stockpile site;
- 5.3.3.10 all previous land application sites on the property
- 5.3.3.11 all points of access and on-site haul roads and
- 5.3.3.12 all buffer zones.
- 5.3.4 The results of a minimum of one comprehensive test for each soil type on the land application site. Soil testing shall determine the following parameters: pH; organic matter content of the top six (6) inches of soil; nitrogen; phosphorous, potassium, calcium, and magnesium availability; presence and amount of heavy metals including zinc, copper, nickel, cadmium, cobalt, chromium, lead, arsenic, mercury, selenium, and molybdenum; and dioxin. Additional soil tests and testing parameters may be requested by the Board of Selectmen, Planning Board and/or Zoning Board of Adjustment after review of initial test results by the Boards or its

designated agent including, but not limited to:

5.3.4.1 Polychlorinated biphenyls (PCBs)

5.3.4.2 Chlorinated pesticides: DDT, dieldrin, aldrin, endrin, chlordane, heptachlor, lindane, mirex, kepone, 245-T, 24D;

5.3.4.3 Chlorinated compounds including dioxin;

5.3.4.4 Polynuclear aromatic hydrocarbons;

5.3.4.5 Volatile organic compounds and

5.3.4.6 Asbestos.

5.4 In addition to the criteria mentioned above, a special permit to all the land application of sewage sludge shall be granted only with the following conditions, which shall be the minimum conditions applicable to such use:

5.4.1 Class B sewage sludge suitable for land application shall be limited to sewage sludge from municipal secondary or advanced wastewater facilities meeting at a minimum both Class B pathogen reduction requirements of 40 CFR part 503.32(b) and vector control requirements of 40 CFR part 530.33(a)(1) through (b) before transportation into the Town.

5.4.2 The applicant must have prior DES approval for stockpiling and/or land application of the material in the Town, following all the requirements of the Env-Ws 800 Sludge Management Rules (refer to the site or facility permit under Env-Ws 800 and attached to the application).

5.4.3 The delivery of any material to the stockpiling and land spreading site must be manifested to prove that all material delivered on site has indeed come from the indicated point of origin. Deliveries that have not come from the indicated point of origin shall be removed from the land application site within fourteen (14) calendar days of receipt of actual notice, whether oral or written.

5.4.4 Delivered materials shall be randomly tested with sufficient frequency to enable the Board of Selectmen to determine with reasonable certainty that the delivered materials are in compliance with federal regulations (EPA, 40 CFR Part 503) and New Hampshire State Department of Environmental Services regulations. All test samples shall be drawn by the applicant under the direct supervision of the Board of Selectmen or its designee.

5.4.5 Any landspreading of sewage sludge must be done in accordance with the Best Management Practices of the University of New Hampshire Cooperative Extension Services;

- 5.4.6 Sludge may be spread only within the active growing season, generally May 15<sup>th</sup> through October 1<sup>st</sup> and from only 7 am to 6 pm;
- 5.4.7 Sludge may not be spread on frozen or snow covered ground, on saturated soils or during excessively wet periods. Soils must be unsaturated to a depth of at least two feet prior to land application;
- 5.4.8 Sludge may not be spread on poorly drained or very poorly drained (hydric) soils, as defined by the wetlands map;
- 5.4.9 Sludge must meet Class A or Class B pathogen reduction requirements prior to transportation into the Town. The pH of the receiving layer of soil must be raised to 6.0 or greater by lime application prior to spreading of sludge, and increased to 6.5 in the second year after land application. Thereafter the pH of the receiving layer must be maintained at or above 6.5 for so long as reasonably necessary to protect the Town from the harmful effects of lowered pH. The Board of Selectmen shall consider any request to cease or alter soil pH adjustments on a case by case basis;
- 5.4.10 Sludge may not be stockpiled on site or anywhere in the Town for longer than twenty eight (28) days, unless the sludge is being stockpiled at the point of generation for (1) the purpose of disposal, (2) to be in compliance with Class B sludge regulations or (3) for the purpose of creation of Class A sludge, and, in any event, for only that additional period of time necessary to accomplish the purpose of the stockpiling;
- 5.4.11 Sludge must be incorporated into the soil within seventy two (72) hours of the return of the test results required by this Ordinance in paragraph 5.4.4 ;
- 5.4.12 The buffer setbacks set forth in Env-Ws 806.08(o) shall apply at all stockpiling and land application sites.
- 5.4.13 Buffer setbacks or other dimensional requirements outlined in this Ordinance shall be measured horizontally and not along the lay of the land.
- 5.4.14 A long term site monitoring and management plan shall be filed with the Board of Selectmen documenting the scope of the land application project. Soil tests at sites to be determined by the Board of Selectmen shall be filed annually with the Board of Selectmen documenting the pH, organic matter (%) and the cation exchange capacity (meq/100g) of the soils. Periodic water quality testing of on-site and adjacent surface waters may also be

required by the Board of Selectmen.

5.5 All costs associated with the application, including the costs of tests, shall be born by the applicant.

5.6 An application fee in the amount of \$250.00 shall be paid to the Town when the application is submitted.

#### ARTICLE VI: ENFORCEMENT AND ADMINISTRATION

6.1 The Board of Selectmen is hereby given the authority and power to enforce the provisions of this Ordinance, and it shall be the duty of the Board of Selectmen to enforce this Ordinance.

6.2 Any person who violates the provision of this ordinance regarding the land application of sewage sludge shall be subject to a civil fine of not more than \$250 for each day that such violation is found by a court to continue after the conviction date or the date on which the violator receives notice form the Town of said violation, whichever is earlier. In addition, the Town has the authority to seek injunctive relief, attorney fees and other remedies allowable under law.

#### ARTICLE VII: ZONING BOARD OF ADJUSTMENT

Any order, requirement, decision, or determination of the Board of Selectmen or its designee made under this Ordinance may be appealed to the Zoning Board of Adjustment as set forth in RSA 676:5.

The Board of Selectmen shall be responsible for filling vacancies and maintaining full membership on the Zoning Board of Adjustment. The Zoning Board of Adjustment shall conform in membership and term of office to the provisions of RSA 673:3 and RSA 673:5-6.

#### ARTICLE VIII: EXISTING SITES OF SLUDGE USE

This Ordinance shall not apply to those land areas over which sewage sludge has been spread prior to the effective date of this Ordinance. After this Ordinance becomes effective, land applications must be in full compliance with this Ordinance.

#### ARTICLE IX: HARDSHIP WAIVERS

9.1 Upon written application, provision of this Ordinance may be waived upon the following conditions, all of which must be met for a waiver:

9.1.1 The applicant demonstrates that the specific provision of the Ordinance cited by the applicant creates an unreasonable burden on the applicant separate from the general obligations imposed by the Ordinance; and,

9.1.2 The applicant demonstrates that literal compliance with the Ordinance would create an unreasonable financial or other hardship and that a waiver of the cited

provision would greatly reduce or eliminate that hardship; and,  
9.1.3 The waiver sought is minor in nature and is in keeping with the purpose and intent of the Ordinance and, further, is the minimum duration and extent necessary to accomplish its purpose.

#### **ARTICLE X: AMENDMENT**

This Ordinance may be amended by a majority vote of any legal Town Meeting as provided by RSA 674:16.

#### **ARTICLE XI: SEPARABILITY**

The invalidity of any provision of this Ordinance shall not affect the validity of any other provisions.

#### **ARTICLE XII: RULE OF PRECEDENCE**

Whenever any provision of this Ordinance is in conflict with any State or other local ordinance, the more restrictive provision(s) shall apply.

#### **ARTICLE XIII: EFFECTIVE DATE**

This Ordinance shall become effective immediately upon its passage.