Article 409: SEWAGE SLUDGE and RESIDENTIAL SEPTAGE APPLICATION ORDINANCE

(Amended 03/14/2023)

409.1 PURPOSE AND INTENT

The purpose of this Ordinance is to promote and insure the public health and safety of the citizens of the Town by imposing additional requirements for the land application and surface disposal of sewage sludge and residential septage as well as requirements which are more stringent than the requirements set forth in 40 CFR 503.1 et seq. See 40 CFR 503.5(b). Furthermore, it is the intent of this ordinance to promote the continued use and viability of agricultural farm land and protect aquifer areas and their recharge areas while simultaneously promoting the economic and responsible management, handling and disposal of biosolids and residential septage via land application. If at any time the Federal Government and/or the State of New Hampshire, adopts more stringent requirements than the corresponding requirements of this Ordinance, the more stringent requirements shall control.

409.2 DEFINITIONS

The words and terms of this Ordinance shall be defined as set forth in the 1994 edition of 40 CFR 503.1 et seq. The following additional terms shall be incorporated into this ordinance:

A. Abutter: means any person who owns property adjacent to, or across a road, railroad, or stream from, the property on which a septage/sludge disposal site will be permitted or a land spreading or stockpiling activity conducted.

B. Class B: refers to a specific classification and level of pathogen reduction in sewage sludge and residential septage.

C. Land Application: means the application of septage or sludge directly to the ground surface, whether or not the material is incorporated into the surface soil.

D. Owner: means the owner of land on which septage and/or sludge is placed.

E. Priority Pollutant Scan: means an analysis performed in accordance with test method 8240 of "Test Methods for Evaluating Solid Waste", Volume IB, Laboratory Manual, Physical/Chemical Methods, identified as EPA SW846, dated November 1986.

F. Stockpiling: means the placement of sludge on land for storage prior to land application.

409.3 USES

A. Prohibited

The use and disposal of sewage sludge and residential septage, including, but not limited to, the stockpiling, treatment and land application of sewage sludge, biosolids and/or septage is hereby prohibited in the Aquifer Protection District within the Town of Kingston, except as otherwise noted in this ordinance.

B. Exemptions

The following operations or activities shall be exempt from this Ordinance:

1. the hauling and/or transportation of sewage sludge and residential septage over municipal roads;
2. the operation of a waste management facility as permitted under RSA 485-A and/or RSA 149-M; and *(Note*: *This would allow operations such as Waste Management in Rochester, N. H., which is federally and state regulated, and would allow for the operation of municipal wastewater, composting and transfer facilities.)*
3. the use of composted materials for residential lawn and garden applications.

C. Allowed Uses

Within all other zoned districts except those listed in Article 409.3.A above, Class B, C.1 sewage sludge and residential septage may be stored, stockpiled, treated, applied and/or transported to a specific site. This permitted use is subject to site plan review and meeting the requirements which are set forth in this Ordinance, as well as any and all State and Federal

standards or requirements, including the applicable requirements of 40 CFR 503.1 et seq.

In order to safeguard against adverse water quality and public health effects, all sludge and residential septage transported into, stockpiled within, or land applied must meet the Class B pathogen requirements of 40 CFR 503.32(a) and the vector control requirements of 40 CFR 503.33(a)(1) before it is transported into the Town of Kingston.

D. Uses by Conditional Permit

Within permitted zoned districts Class B sewage sludge and residential septage may be stored, stockpiled, treated, applied and transported to a specific site, which was formerly used or is presently being operated for the excavation of gravel, as permitted under RSA 155:E. The application shall be completed in accordance with the Best Management Practices as written by the University of New Hampshire Cooperative Extension. Said uses shall be subject to a conditional use permit and site plan approval from the Town of Kingston Planning Board.

409.4 APPLICATION, NOTIFICATION AND REPORTING REQUIREMENTS

In addition to complying with all record keeping and reporting requirements imposed by the State and Federal Government, any person planning to transport to, stockpile on, treat, or land apply sewage sludge or residential septage shall submit all of the following information to the Planning Board for Site Plan Review.

The applicant shall receive Planning Board approval, with any conditions as the Planning Board deems necessary, and shall, at a minimum, wait until the appeal period has lapsed prior to the receipt of the sewage sludge and/or residential septage. The following information shall be supplemental information required in conjunction with the Site Plan Review requirements for Planning Board review of proposed use, transport, stockpiling and/or land application of sewage sludge and/or residential septage:

409.5 SITE PLAN REQUIREMENTS

A site plan which illustrates the following with respect to any area in which sludge/septage is to be stockpiled, treated or applied to land.

A. A plan, prepared at a scale not to exceed the scale of 1"=100', with 2' topographic contours and all relative property boundaries.

B. A plan, prepared at a scale not to exceed the scale of 1"=100', which includes Order One Soil Survey information for the land application area and for the areas within 100' of the land application area;

C. The location and size of the stockpiling area(s);

D. The location, limits, and acreage of the land application area**;**

E. The quantities of sewage sludge to be land applied and or stockpiled and a stormwater management plan for the stockpile area. Stockpiles are not to be located less than 500' from a property boundary/line.

F. All areas of hydric soils, streams and open bodies of water within 100 feet of the stockpiling, treatment and land application area(s).

G. All adjacent wells, including the wells of all abutters, within 300 feet of the stockpiling, treatment and land application area(s);

H. All roads within the Town of Kingston to be used for the transport of septage/sewage sludge, the frequency of use of these roads and the maximum quantities to be hauled on a daily/weekly/monthly basis;

I. An on-the-ground delineation of the application area.

409.6.1 WRITTEN REPORTS FOR SITE PLAN REVIEW APPLICATION

A. The name, address, telephone number, and NPDES permit number of the Sludge Generating Facility;

B. The name, address, telephone number, and NPDES permit number of any and all Sewage Sludge Treatment Facilities, if different from the Generating Facility;

C. The name, address, telephone number, date of birth and license number of the Sewage Sludge and/or Septage Hauler;

D. The name, address, date of birth and telephone number of the owner;

E. The name, address, date of birth, mailing address, business and telephone number of the person stockpiling and applying the sewage sludge and/or residential septage to the land;

F. The name, address, date of birth and telephone number of the applicant;

G. Laboratory Reports of all test results in accordance with the Best Management Practices as written by the University of New Hampshire Cooperative Extension;

H. The planned delivery date, or delivery dates;

I. The planned stockpiling time period (s), the location of said stockpiles and the management measures proposed to minimize stormwater run-off and odor;

J. A narrative description of the treatment method used to meet Class B Sewage Sludge and/or Residential Septage requirements;

K. The total surface area of the planned application;

L. The total sludge volume to be applied;

M. Previous land application data, including the cumulative site loading to date, and the site loading from the previous 2 years.

N. The number of land applications that can be performed without exceeding the cumulative pollutant loading rate set forth in Table Two (2) of 40 CFR 503.13;

O. A description of the intended capacity and life of the site and whether septage, sludge or both will be applied;

P. A certification prepared by a licensed soil scientist, that the soil limits shall not exceed standards as stated in the Best Management Practices as written by the University of New Hampshire Cooperative Extension as applicable;

Q. Written permission and/or executed contracts that any owner of land in a residentially-zoned district consents to the stockpiling and/or application of sewage sludge and/or residential septage to their land by the applicant;

R. A list of all local and state permits or approvals which are required and whether the permits/approvals have been obtained or are pending;

S. A history of the site use covering 20 years immediately prior to submission of the application;

T. Site or facility design plans and specifications in accordance with Part Env-Ws 806;

U. Operating plans in accordance with Part-Env-Ws 806;

V. Whether the applicant or any person participating in the septage/sludge generation or application process has been convicted on a criminal misdemeanor charge under any statute implemented by the State of New Hampshire Department of Environmental Services within five years prior to the date of application or on a criminal felony charge under any statute implemented by the Department of Environmental Services within ten years prior to the date of application;

W. If the above information raises questions relative to the adequacy of protection of the environment and public health or safety, such other information as the Planning Board determines necessary to assure compliance with these rules and to protect the public health and safety of the environment;

X. If the applicant is not the owner, the application shall be accompanied by a written statement signed by the owner that the owner is aware that the application is being filed and has given permission to the applicant to file the application and to enter upon the land for the purposes of site investigation and construction and operation of the septage/sludge disposal site in the event that the Town of Kingston issues the permit; and

Y. Each application shall be submitted in quadruplicate and shall be accompanied by a fee, to be determined by the Planning Board of the Town of Kingston.

409.7 SITE PLAN REVIEW APPROVAL CONDITIONS

At a minimum the following conditions shall be imposed under the Planning Board's Site Plan Review process:

A. Written Approval. No applicant shall take delivery of any sewages, sludge and/or residential septage until such time as the Planning Board, or their duly authorized representative has provided the applicant with approval in writing. Such approval shall not be automatically given by the Board, but rather shall only be given once the Board has been fully satisfied that the applicant has met and will continue to meet the reporting requirements of this section, and has demonstrated to the Board that the proposed application will not present a threat to the health or public safety risk to the applicant, the property owner, the abutters of the land receiving sewage sludge and/or residential septage and any parcels which will be subject to or adjacent to land application.

B. Stockpiling. The stockpiling of all Class B sewage sludge and/or residential septage shall be done in conformance with all State and Federal requirements, including the requirements of 40 CFR 503.1 et seq and Best Management Practices for Biosolids, except as noted below. In addition, Class B sewage sludge and/or residential septage may only be stockpiled on site if it is properly secured to limit airborne dispersal of sludge and/or residential septage from the pile, storm water transportation of the sludge and/or residential septage and infiltration of leachate from the sewage sludge and/or residential septage into the ground water. Sewage sludge and/or residential septage shall not be stockpiled for more than six (6) months from the first date of receipt. Storage of the sewage sludge and/or residential septage shall comply with the Best Management Practices. No stockpiling shall occur within 500 feet from any property line and 300 feet from on-site dwellings and private water supplies.

C. Minimum Level of Materials. Any and all sewage sludge and/or residential septage must arrive on site in a Class B condition. No treatment will be permitted on the site, except for that treatment which has been pre-approved by the Planning Board or their duly authorized representative.

D. Best Management Practices. The land application of all sewage sludge and/or residential septage shall be done in accordance with the general requirements and management practices set forth in 40 CFR 503.12 and 503.14 respectively and the Best Management Practices for Biosolids. In addition to meeting State and Federal Vector Attraction Reduction Requirements (VARRS), including those set forth in 40 CFR 503.33, (including at least one of the VARRS in Section 503.33(b)(1) through 503.33(b)(8) which must have been conducted at the generation site), all sewage sludge applied to the land must be incorporated into the soil within twenty-four hours of the application, unless a specific exemption has been granted by the Planning Board.

E. Testing. All testing shall be conducted in accordance with the Best Management Practices, State requirements 40 CFR 503.1 et seq. and local requirements (Including the total recoverable analysis of the metals listed in Table 3, Section 503.13). These test results shall be completed by a certified laboratory and submitted to the Board of Selectmen and the Planning Board with a certification from the applicant that the applications have not exceeded the above noted standards. Test results shall be submitted on a per load basis and before the applicant takes delivery of any sewage sludge in the Town of Kingston. These tests shall be conducted for each and every generation site and any and all testing costs shall be borne by the applicant.

409.8 RECORD KEEPING:

A. Every hauler permit holder shall maintain records of each load of septage hauled, including identification of the date hauled, the name and address of the client, the source of the septage hauled, and the disposal site or wastewater treatment facility at which the load was discharged.

B. Every septage/sludge disposal site permit holder shall maintain records of each load of septage or sludge received at the site, including identification of :

1. The date received;
2. The hauler delivering the load;
3. The source of the material;
4. The volume received; and

5. The town municipality(ies) from which the material originates.

C. Every person who land applies or stockpiles sludge shall maintain records of each load of sludge received at each site, including identification of:

1. The date received;
2. The hauler delivering the load;
3. The source of the material;
4. The sludge quality certification number, if applicable;
5. The volume received; and
6. The municipality (ies) from which the material originates.

D. Records shall be maintained by the permit holder or the person undertaking the activity, as applicable, and shall be provided to the local municipality for review on an on-going basis.

E. Records shall be maintained for a minimum of three years. Prior to disposing of any records, the permit holder or the person undertaking the activity, as applicable, shall submit a written request to the Board of Selectmen and the Planning Board for permission to dispose of the records. If the Boards determine that no enforcement actions are pending or contemplated for which the records are or would be necessary, the Board of Selectmen and the Planning Board shall authorize the applicant to dispose of the records.

409.9 SITE AND MANAGEMENT PLAN REQUIREMENTS

A. Each operating plan for a land application site shall include the following:

1. Normal hours of operation of the site;
2. Proposed route(s) of access to the site;
3. Method of application and incorporation;
4. Storage or stockpiling provisions;
5. Anticipated source of material and anticipated service area;
6. Quantity of material expected on a periodic basis, such as daily, weekly or monthly, and quantity of material expected over the entire life expectancy of the site, if applicable;
7. The type of treatment required by 40 CFP 503 before application;
8. Record keeping procedures;

9. Measures to be taken to control vectors;
10. A detailed odor control plan explaining the type of odors that will be generated by the activity and the procedures that will be used to address and resolve any odor complaints;
11. Procedures for monitoring soil ph by UNH Analytical Services or by a method which produces results comparable to UNH Analytical Services' results and analysis of the sludge by a laboratory certified by the New Hampshire Department of Environmental Services or other appropriate agency, to analyze wastewater for VOCs and metals;
12. If to be applied to an agricultural field, the applicant shall provide the following: a list of crops to be grown; the agronomic uptake rate calculations prepared in accordance with Best Management Practices (BMPs), the disposition of crops grown and the annual Nitrogen loading and annual and lifetime heavy metals loading calculations; and any other specific management practices designed to ensure compliance with this ordinance.

409.10 MINIMUM OPERATING STANDARDS FOR LAND APPLICATION

A. The operation of all facilities which manage septage and/or sludge through land application shall comply with federal regulations as specified in 40 CFR 503,in accordance with an operating plan per ENV-Ws 806.02 and in accordance with the requirements specified in this ordinance.

B. No spreading shall be done on frozen or snow covered ground or when the ground is wet due to precipitation or flooding.

C. No spreading shall be done on land which has a slope greater than 8 percent, that is, an 8 foot rise in 100 feet.

D. No spreading shall be done on any hydric soils as defined in Env-Ws 1014.02 or in areas exhibiting seasonal ponding.

E. Stockpiling shall not be permitted on the 100-year flood plain.

F. No person shall land apply septage or sludge in the following areas:

1. Within 500 feet of any off-site dwelling, off-site well or any surface drinking water supply;
2. Within 300 feet of any on-site dwelling or on-site well;
3. Within 100 feet of any public road, surface water or property boundary;
4. In areas where stockpiling of manure or keeping of farm animals is prohibited; or
5. No sewage sludge or residential septage shall be placed within 100 feet of streams, tributaries, ponds, lakes, seeps or wetland areas.

G. Sludge shall be incorporated into the soil within 24 hours of spreading unless it is used for top dressing.

409.11 SLUDGE MANAGEMENT REQUIREMENTS

A. Transportation

1. Any person transporting sludge shall ensure that all vehicles are covered so as to not create odors or a public health hazard.
2. Sludge being transported to a land application or stockpiling site shall meet Class B pathogen requirements prior to being transported.

B. Stockpiling

1. No person shall stockpile sludge which has not met Class B pathogen reduction requirements anywhere other than a wastewater treatment facility permitted under RSA 485-A:13 or a solid waste facility permitted under RSA 149-M.
2. No person shall stockpile sludge at a land application site for longer than six (6) months.
3. Any person stockpiling sludge for longer than 7 days shall cover the stockpile with an odor control material, such as lime, wood ash or cement kiln dust, to minimize odors.
4. Sludge shall be stockpiled as far as possible from any dwelling or well, but in no case closer than 500 feet.

C. Sludge Quality Certification

1. Prior to stockpiling or land application of any sludge, the person proposing to undertake the activity shall obtain a sludge quality certification as specified in this section.

2. To apply for a sludge quality certification, the person shall submit the following to the appropriate State or Federal Agency as applicable:

    a. Name and address of the treatment facility which has generated or will generate the sludge;
    b. Name, title, and telephone number of the person who is responsible for the operation of the treatment facility;
    c. Description of all wastewater contributors and the chemical constituents of their wastewater;
    d. The volume of sludge generated monthly by the treatment facility for the last two years;
    e. The discharge monitoring reports from the treatment facility for the last two years;
    f. A description of the process to achieve Class A and B pathogent reduction requirements;
    g. A priority pollutant scan of the sludge from the treatment facility taken within the last six months;
    h. An analysis of at least three representative samples of sludge from the treatment facility, taken at least 30 days apart within the last six months, for the following:

        1. Arsenic, measured as mg/kg;
        2. Cadmium, measured as 25mg/kg;
        3. Chromium, measured as mg/kg;
        4. Copper, measured as mg/kg;
        5. Percent dry solids;
        6. pH;
        7. Lead, measured as mg/kg;
        8. Mercury, measured as mg/kg;
        9. Molybdenum, measured as mg/kg;
        10. Nickel, measured as mg/kg;
        11. Percent ammonia nitrogen;
        12. Percent nitrate-nitrite;
        13. Percent total kjeldahl nitrogen;
        14. Percent organic nitrogen;
        15. Selenium, measured as mg/kg; and
        16. Zinc. measured as mg/kg.
        17. PCDD/PCDF (PCDD=Polychrorinated debenzo-p-dioxins; PCDD=Polychrorinated debenzofurans)

    i. Each application shall be submitted in compliance with applicable State and Federal regulations. The concentrations of PCDD and PCDF must be less than or

equal to 250 ug/kg.
(Total 2378 TCD equivalent dry wt.) (TCDD = Tetrachlorodibenzo-p-dioxin)

409.12 TESTING

The Town of Kingston reserves the right to require security in accordance with RSA 674:44 to insure the proper management and application of septage and sludge. In the event that the Planning Board and/or the Board of Selectmen question the accuracy and authenticity of the materials being stockpiled and/or applied, they shall have the authority to have an independent consultant review any or all aspects of the septage and/or sludge operation at the owner's sole expense.

409.13 ENFORCEMENT PROCEDURES

Please refer to Section A – 1000.003.002 of this ordinance. (Amended 03/14/2023)

409.14 PENALTIES AND VIOLATIONS

Please refer to Section A – 1000.002.002 of this ordinance. (Amended 03/14/2023)

409.15 SAVING CLAUSE

Please refer to Section A – 1000.004 of this ordinance. (Amended 03/14/2023)

409.16 EFFECTIVE DATE

This ordinance shall be effective upon adoption by the municipal governing body.