

LOCAL LAW #4 – Town of Thurston, County of Steuben
Filed with the State of New York this __ of ____, 2025

TOWN OF THURSTON

COUNTY OF STEUBEN

LOCAL LAW NO. 4 OF THE YEAR 2025

A local law – REGULATING THE LAND APPLICATION OF SEWAGE SLUDGE

Be it enacted by the TOWN BOARD of the TOWN OF THURSTON as follows:

Section 1: Title.

This Local Law shall be known as the “Sewage Sludge Land Application Protection Law of the Town of Thurston.”

Section 2: Authorization.

This Local Law is adopted under the authority of the New York State Constitution, Article I, Section 19 and Article IX, Section 2(c); Section 10 of the New York Municipal Home Rule Law; Section 130 of the New York Town Law; Section 10 of the New York State Statute of Local Governments; and Section 27-0711 of the New York Environmental Conservation Law, which separately and together authorize towns to advance residents’ rights to clean air, clean water, and a healthful environment; act when public health and safety are threatened; and adopt local laws to govern the handling, storage, and disposal of solid waste.

Section 3: Legislative Findings.

Environmental Rights; Public Health and Safety; the Handling, Storage, and Disposal of Solid Waste; and Conservation and Protection of Agricultural Lands.

- A. The Environmental Rights Amendment set out at Article I, Section 19 of the New York State Constitution provides that “[e]ach person shall have a right to clean air and water, and a healthful environment.”
- B. The Amendment seeks to ensure that the fundamental environmental rights of persons in New York State are realized and protected.
- C. The Amendment was adopted, in part, as a necessary response to contamination of drinking water by per- and polyfluoroalkyl substances, commonly referred to as PFAS.
- D. Pursuant to Section 10 of the New York Municipal Home Rule Law, the Town enjoys broad police powers to advance the health and safety of its residents, and by virtue of that authority, the Town may adopt local laws governing the handling, storage, and disposal of solid waste that are more stringent than the solid waste regulations

promulgated by the New York State Department of Environmental Conservation (“DEC”).

- E. The Conservation Bill of Rights set out at Article XIV, Section 4 of the New York State Constitution establishes a policy “to conserve and protect natural resources and scenic beauty,” including by “encourag[ing] the development and improvement of . . . agricultural lands for the production of food and other agricultural products.”
- F. Pursuant to the Environmental Rights Amendment and the Home Rule Law, the Town has the authority and responsibility to advance its residents’ rights to clean air, clean water, and a healthful environment and to act when public health or safety is threatened. Further, the Town’s efforts to conserve and protect agricultural lands are consistent with the Conservation Bill of Rights.

PFAS and Threats to Human Health.

- G. PFAS are a large class of widely used, long lasting chemicals that can take up to thousands of years to break down in the environment.
- H. Because PFAS are long lasting and highly persistent, it is difficult and expensive to control or reverse PFAS contamination once it occurs.
- I. Many PFAS bioaccumulate, meaning that exposures can build up over time in the bodies of people and animals.
- J. Scientific studies show that exposure even to low levels of PFAS is associated with significant harmful health effects, including cancer, developmental harm, reproductive harm, immune system toxicity, liver toxicity, thyroid toxicity, kidney toxicity, infant motor impairments, and non-alcoholic fatty liver disease.
- K. People are continuously exposed to a range of different PFAS, including mixtures of PFAS, throughout their lifetimes, creating the potential for cumulative harm.

PFAS Contamination of Soil and Water Associated with Land Application of Sewage Sludge.

- L. PFAS frequently are present in municipal and industrial wastewater, and therefore, PFAS-contaminated wastewater enters wastewater treatment plants (“WWTPs”).
- M. Conventional treatment methods at WWTPs do not remove or destroy PFAS. Instead, PFAS frequently persist throughout the treatment process and ultimately remain in sewage sludge, including both Class A and Class B biosolids.
- N. Land application of sewage sludge can contaminate agricultural land with PFAS. Scientific studies have documented the presence of PFAS in soils where sewage sludge has been land applied, and these studies have found that, following biosolids application, PFAS levels in soil can be orders of magnitude higher than background levels.

- O. PFAS can leach from contaminated soil into groundwater, including groundwater used to supply drinking water.
- P. Runoff containing PFAS can reach surface waters such as rivers and streams, exposing livestock, fish, and wildlife to PFAS and further threatening drinking water.

Threats to Public Health and Safety, Environmental Rights, and Protection of Agricultural Lands Associated with Land Application of Sewage Sludge.

- Q. Crops can take up PFAS from contaminated soil, and PFAS have been detected in crops intended for human and animal consumption.
- R. Scientific evidence demonstrates that livestock, fish, and wildlife can become contaminated with PFAS through contact with PFAS-contaminated air, water, soil, and food. For example, high PFAS levels in cows' milk have been traced to the cows' consumption of feed grown on PFAS-contaminated soil.
- S. Eating PFAS-contaminated food and drinking PFAS-contaminated water are the primary sources of human exposure to PFAS.
- T. The consumption of PFAS-contaminated food poses a risk to human health, such that multiple states and other authorities have warned people to avoid or limit consumption of potentially contaminated livestock, dairy, fish, and game or ordered farms to stop selling products with elevated PFAS levels.
- U. PFAS can impact soil biology and function, harming soil-dwelling species and communities and changing rates of soil carbon and nutrient cycling, which in turn can impact crop production, threatening agriculture.
- V. Across the country, land application of sewage sludge has resulted in PFAS contamination that has rendered land unsuitable for agriculture, such that multiple states and other authorities have restricted or banned the land application of biosolids.
- W. Processes to reduce PFAS levels in soil and drinking water are difficult and expensive.

Federal Recognition that PFAS in Sewage Sludge Pose Threats to Public Health and Safety.

- X. In September 2020, the U.S. Environmental Protection Agency ("EPA") presented research demonstrating that edible portions of crops grown in soil conventionally amended with municipal sewage sludge contained measurable levels of PFAS, including perfluorooctanoic acid ("PFOA").
- Y. In November 2020, EPA held a stakeholder meeting concerning PFAS in biosolids at which the agency acknowledged that land application of sewage sludge creates multiple pathways for human exposure to PFAS, including ingestion of contaminated produce, beef, fish, milk, and drinking water.

- Z. In October 2021, EPA published a PFAS Strategic Roadmap in which it reiterated that land application of sewage sludge can lead to PFAS contamination in crops and livestock.
- AA. In December 2022, EPA recommended that WWTPs monitor influent, effluent, and biosolids for 40 different PFAS at least quarterly.
- BB. In April 2024, EPA issued a rule setting health-based maximum contaminant level goals and maximum contaminant levels for several PFAS in drinking water. This rule established “zero” as the level of PFOA and PFOS in drinking water for which there are no known or anticipated negative health effects, allowing for a margin of safety, meaning that any level above zero presents risk. The rule also established the following levels below which no health effects are expected for other PFAS: PFHxS, 10 ppt; PFNA, 10 ppt; and HFPO-DA (commonly referred to as GenX), 10 ppt. These federal regulations apply only to public drinking water systems, not private wells.
- CC. In January 2025, EPA issued a Draft Sewage Sludge Risk Assessment for PFOA and PFOS. According to the Draft Sewage Sludge Risk Assessment, land application of sewage sludge that contains 1 ppb of PFOA or PFAS can result in human health risks that exceed EPA’s acceptable thresholds for cancer and other illnesses for people living on or near land application sites or those who rely primarily on the products of land application sites, including food crops, animal products, and drinking water.
- DD. EPA has not established numeric limits, monitoring requirements, or reporting requirements for PFAS in sewage sludge.
- EE. As such, federal regulations governing land application of sewage sludge do not adequately protect public health and safety.

DEC Regulation Relating to PFAS in Sewage Sludge and Sewage Sludge Land Application.

- FF. DEC does not currently require all WWTPs in New York State to monitor influent, effluent, and biosolids at least quarterly for the 40 different PFAS identified by EPA.
- GG. Although DEC recently revised its State Pollutant Discharge Elimination System permit application for new and existing WWTPs to require monitoring data for these 40 PFAS, DEC will not require most WWTPs to complete an application for more than a decade, as a result of DEC’s Environmental Benefit Permit Strategy. Moreover, DEC’s revised application forms require only one-time monitoring, not quarterly monitoring, as EPA recommends.
- HH. The Town is unaware of any instance in which technology proven to remove PFAS from wastewater has been used at any WWTP in New York State.
- II. In 6 NYCRR Part 361-2, DEC regulations set forth requirements governing the land application of sewage sludge in New York State, including certain soil testing, monitoring, and recordkeeping requirements for permitted facilities.

- JJ. Pursuant to those regulations, DEC allows land application of sewage sludge on all active farmland in New York State, irrespective of the soil type.
- KK. DEC regulations recognize risks to crops and livestock posed by land application of sewage sludge.
- LL. In the interim period before EPA issues standards for PFAS in recycled biosolids, DEC has promulgated an interim strategy addressing PFAS in biosolids.
- MM. DEC's interim strategy requires all facilities that accept biosolids to test for 40 PFAS by March 7, 2024. However, the interim strategy prohibits land application only if the level of PFOA and/or PFOS exceed 50 ppb. If testing shows a level above 20 ppb and further testing does not reveal a reduction below that amount within one year, DEC will take steps to restrict land application.
- NN. DEC's interim strategy will remain in effect until 6 NYCRR Part 361 is revised to incorporate EPA's risk-based standards for PFAS in biosolids.

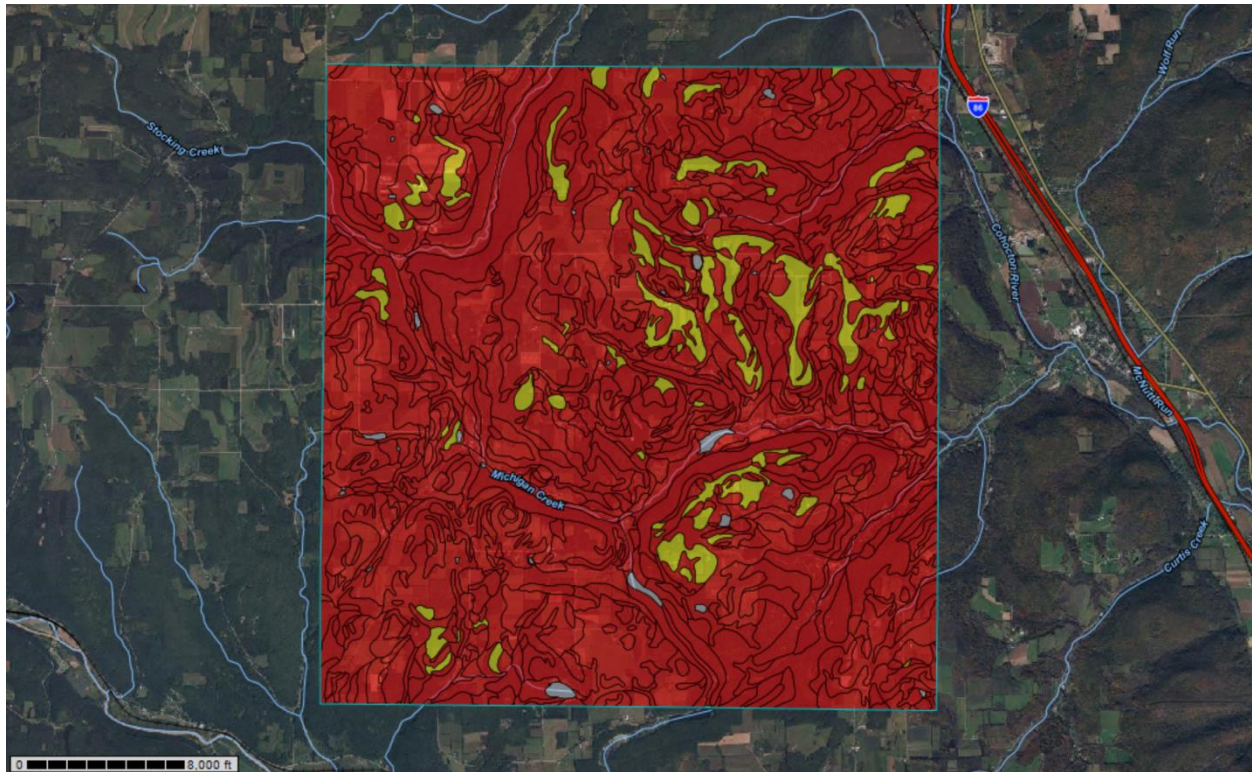
USDA Soil Ratings for Sewage Sludge Application.

- OO. The Web Soil Survey ("Survey" or "USDA Survey") published by the Natural Resource Conservation Service ("NRCS") of the United States Department of Agriculture ("USDA") provides insight into soil properties and the ways in which various soil conditions can influence the movement, retention, and potential impacts of contaminants, including PFAS. The Survey serves as a valuable tool to guide land-use and management decisions. In particular, the Survey highlights areas where certain practices, such as the land application of sewage sludge, may pose a significant threat to the environment. The USDA considers the Survey to be its "single authoritative source of soil survey information."
- PP. The Survey includes soil ratings for the Land Application of Municipal Sewage Sludge, which indicate "the extent to which the soils are limited by all of the soil features that affect agricultural waste management." These ratings are based in part on soil properties that indicate the likelihood that wind or water erosion will transport the waste material away from the application site, expanding the risk of potential contamination and threats to human health.

Thurston-Specific Factual Findings

- QQ. According to EJScreen, an environmental justice mapping and screening tool published by EPA, the collection of residential blocks ("block group") that encompasses the Town of Thurston, New York, ranks in the 62nd percentile of New York State block groups for percentage of low-income individuals.
- RR. In July 2023, the Town of Thurston applied for a Community Development Block Grant, reporting that 23.4% of its "population is reliant on State and Federal Aid."

- SS. According to the Food Access Research Atlas published by USDA's Economic Research Service, the Town of Thurston is located in a "low income and low access" census tract, defined for rural areas as a low-income census tract where a significant number or share of residents live more than 10 miles from the nearest supermarket.
- TT. The Appalachian Regional Commission classifies Steuben County as a "transitional county" because it contains two "distressed areas," defined as census tracts that have a median family income no greater than 67 percent of the U.S. average and a poverty rate 150 percent of the U.S. average or greater.
- UU. The Town of Thurston is encompassed by census tracts that are disproportionately impacted by a wide array of public health burdens, including Census Tract 36101961800, which has a higher rate of chronic obstructive pulmonary disease emergency department visits than 91% of census tracts in New York State; a higher rate of heart attack hospitalizations than 82% of census tracts in New York State; and a higher percentage of residents without health insurance than 91% of New York State.
- VV. Many Thurston residents rely on local fish and game for food.
- WW. Many Thurston residents hunt turkey, deer, and other animals whose range includes areas where sewage sludge has been land applied or where the land application of sewage sludge could be proposed in the future.
- XX. Many Thurston residents fish in rivers and streams near areas where sewage sludge has been land applied or where the land application of sewage sludge could be proposed in the future.
- YY. According to the USDA Survey's soil ratings, 93.2% of land within the Town has "very limited" suitability for land application of municipal sewage sludge and 6.3% of land within the Town has "somewhat limited" suitability for land application of municipal sewage sludge. USDA's Soil Survey Manual explains that land application of municipal sewage sludge on lands rated as "very limited" carries a "high risk" of runoff unless soils are "appreciably modified." Similarly, USDA's Soil Survey Manual explains that lands rated "somewhat limited" have "undesirable properties or features" for land application of sewage sludge and that "[m]odification of the soil itself, special design, or maintenance is required for satisfactory performance over an acceptable period of time." Land application of sewage sludge on lands rated as "very limited" or "somewhat limited" thus poses a heightened risk of contamination, including PFAS contamination, to nearby surface and groundwater, threatening public health and safety.



Source: USDA Web Soil Survey (demarcating in red land within Thurston, New York with “very limited” suitability for land application of sewage sludge and in yellow land within Thurston, New York with “somewhat limited” suitability for land application of sewage sludge) (last visited September 4, 2024).

- ZZ. According to EPA’s EnviroAtlas geospatial mapping tool, the modeled estimates for percolation, surface runoff, downward movement of nitrogen leachate, and downward movement of phosphorus dissolved in surface runoff from agricultural lands in and around Bonny Hill, Town of Thurston, New York, exceed estimates for adjacent areas and rank well above average nationwide, indicating an increased risk that pollutants and toxic substances, including PFAS, in land applied sewage sludge will travel to local streams and groundwater, change the hydrology of local watersheds, and contaminate nearby well water.
- AAA. Testing by Cyclopure, Inc. and Eurofin Labs in 2023 of water samples collected at 77 sites in the Town, as well as in the adjoining towns of Cameron and Bath, found that water adjacent to areas where sewage sludge had been land applied is, on average, nine times more contaminated with PFAS compounds than samples not adjacent to land spreading. In addition, samples from private drinking water wells located near areas where sewage sludge has been land applied were almost three times as likely to have PFAS contamination as wells not adjacent to spreading. The four samples with the highest levels of PFAS showed total PFAS levels of 82.1, 43.4, 35.9 and 29.9 ppt.
- BBB. Despite requests from the Town, DEC has not expeditiously provided bottled water to Town residents concerned about PFAS contamination in private drinking water wells,

collected and tested water samples for PFAS contamination, or taken any other action sufficient to protect the fundamental rights of these and other residents in light of unique conditions in the Town.

- CCC. Future uses of the land upon which sludge is applied in Thurston are unknown, and the full range of health effects associated with PFAS exposure in the Town might not be apparent for years to come.

Section 4: Purpose.

It is the purpose of this Local Law to enable persons in the Town to realize their fundamental rights to clean air, clean water, and a healthful environment; to preserve agricultural lands within the Town for the production of food and other agricultural products; and to ensure that the health and safety of residents of the Town of Thurston are protected. It seeks to do so by closing gaps in existing federal, state, and local laws, regulations, and ordinances governing sewage sludge disposal in the Town of Thurston, taking into account the unique features of the Town, including its topology, cumulative pollution burdens, and the vulnerabilities of persons who live, work, and recreate in the Town.

Section 5: Definitions.

Unless defined herein or the context otherwise requires, the terms and words used in this law shall have the same meaning as those defined in Article 27 of the Environmental Conservation Law and Title 6, Parts 360 to 364 and 617 of the New York Codes, Rules, and Regulations. As used in this Local Law, these terms and words shall be defined as follows:

6 NYCRR means Title 6 of the New York Codes, Rules, and Regulations. *DEC* means the New York State Department of Environmental Conservation.

Disposal means the placement, distribution, land application, or other handling of sewage sludge, digestate, or wastewater treatment sludge.

ECL means the New York State Environmental Conservation Law.

Land application means the spraying, spreading, injecting, incorporating, or otherwise applying sewage sludge onto the land surface, below the land surface, or into the soil such that the wastewater sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

Person means any individual natural person, partnership, firm, association, business, industry, enterprise, public or private corporation, political subdivision of the state, government agency, municipality, estate, trust, or any other legal entity whatsoever.

Resident means an individual natural person whose primary residence is in the Town of Thurston.

Sewage means human excrement, industrial wastewater, storm water, and other types of wastewater piped, trucked, or otherwise conveyed to a wastewater treatment plant.

Sewage Sludge means any solid, semisolid, or sludge-like material generated in a wastewater treatment plant by the treatment of sewage or industrial wastewater or otherwise derived from sewage or industrial wastewater or their byproducts. “Sewage sludge” shall be considered synonymous with “biosolids.” Sewage sludge shall include material remaining or produced as a result of the anaerobic digestion of sewage sludge, the composting of sewage sludge, or the fermentation of sewage sludge.

Town means the Town of Thurston. Whenever this law refers to any action which is to be taken or authorized by the “Town,” the provisions shall be deemed to refer to the Town Board unless otherwise specified.

Wastewater Treatment Plant means a facility that collects sewage and industrial wastewater and treats the sewage and industrial wastewater to remove certain contaminants.

Section 6: Conditions on the Land Application of Sewage Sludge Within the Town of Thurston.

- A. The land application of sewage sludge shall be prohibited:
 - 1. On any land with soils rated by USDA’s Web Soil Survey as having “very limited” suitability for land application of sewage sludge; and
 - 2. On any land with soils rated by USDA’s Web Soil Survey as having “somewhat limited” suitability for land application of sewage sludge; and
 - 3. Within 1000 feet of a potable water well.
- B. The Town shall review the conditions set out in Section 6(A) and revise them, as appropriate, after DEC finalizes regulations that incorporate EPA’s risk-based standards for PFAS in biosolids.

Section 7: Penalties for Offenses.

- A. In addition to any other remedies available under law, any person who violates any provision of this Local Law shall be liable for a fine of \$1,000 per offense.
- B. A separate offense shall arise for each day or part thereof on which a person violates any condition set forth in Section 6 of this Local Law.
- C. Funds raised through the collection of these fines shall be spent first on a filtration system for drinking water contaminated due to a person’s violation of this Local Law, and on procuring and distributing alternative sources of drinking water until said filtration system is functional, if necessary. If any funds remain, the Town of Thurston shall spend the remaining funds to advance the health, safety, and fundamental environmental rights of Town residents.

Section 8: Enforcement.

- A. Any appropriate officer is authorized to issue a cease and desist order to halt any conduct determined by the officer to be contrary to any provision of this Local Law.
- B. A cease and desist order issued pursuant to this subsection shall be in writing, be dated and signed by the officer, and state the reason or reasons for issuance of the order.
- C. The officer shall cause any cease and desist order, or a copy thereof, to be served on the owner of the affected property personally or by certified mail return receipt requested. The officer shall be permitted, but not required, to cause the cease and desist order, or a copy thereof, to be served on any other person performing, taking part in, or assisting in the conduct which is the subject of the order, personally or by certified mail return receipt requested; provided however, that failure to serve any person mentioned in this sentence shall not affect the efficacy of the cease and desist order.
- D. Upon issuance of the order, the owner of the affected property or any other person performing, taking part in, or assisting in conduct deemed violative of this Local Law shall immediately cease all conduct which is the subject of the order.
- E. The issuance of a cease and desist order shall not be the exclusive remedy available to address any conduct violative of this Local Law, and the authority to issue a cease and desist order shall be in addition to, and not in substitution for or limitation of, the right and authority to pursue any other remedy or impose any other penalty under any other provision of this Local Law, or under any other applicable local or state law. Any such other remedy or penalty may be pursued at any time, whether prior to, at the time of, or after the issuance of a cease and desist order.
- F. Penalties provided for by this Local Law, as well as an injunction and any other appropriate relief, may be recovered in an action by the Town in any court of competent jurisdiction within two years from the date on which the liability arises.
- G. Prior to a court's issuance of a final judgment against a person alleged to be in violation of this Local Law, the Town may enter into an agreement with said person to waive any fines for said violation.

Section 9: Coordination with State Law.

The provisions of this Local Law shall be interpreted as consistent with state law, including all relevant sections of Article 27 of the ECL and 6 NYCRR, Parts 360 to 364 and 617, except to the extent that this Local Law imposes more stringent requirements.

Section 10: Severability.

If any article, section, subsection, sentence, clause, phrase, term, provision, condition, covenant, or portion of this Local Law is for any reason held to be invalid or unenforceable by any court of

competent jurisdiction or superseded by state or federal legislation, rules, regulations, or decision, the remainder of this Local Law shall not be affected thereby but shall be deemed as a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions hereof, and each remaining section, subsection, sentence, clause, phrase, provision, condition, covenant, and portion of this chapter shall be valid and enforceable to the fullest extent permitted by law. In the event that federal or state laws, rules, or regulations preempt a provision or limit the enforceability of a provision of this Local Law, then the provision shall be read to be preempted only to the extent required by law. In the event such federal or state law, rule, or regulation is subsequently repealed, rescinded, amended, or otherwise changed so that the provision hereof that had been preempted is no longer preempted, such provision shall thereupon return to full force and effect, and shall thereafter be binding, without the requirement of further action on the part of the Town.

Section 11: Effective Date.

This Local Law shall take effect upon the date it is filed in the Office of the Secretary of State of the State of New York.