Gary Abraham Tue, Jul 11, 11:57 AM (3 days ago)

to Mary, WasteNotWantNot

---- Forwarded Message ----From: wayne wells

To whom it may concern,

I did not have sufficient time to study the details of the entire SSWMP so will focus on the most pressing issue to my community through the decades of experience and concerns of the Cameron Committee for a Safe Environment (CCSE). The use of sewage sludge on farmland in light of the unfolding tragedy in Maine due to per - polyfluoroalkyl (PFAS) chemical contamination is the writing on the wall for NY. Toxic levels of PFAS found in farm products and human blood correlated to many disease conditions that include cancers, thyroid and fetal development. These threats are a result of sewage sludge/biosolid use on farms where product contamination and harm to human health necessitates my focus on sewage sludge disposal policy and goals in the SSWMP. In order for my comments to carry any weight regarding conclusions and recommendations, the history of the communities of Cameron, Thurston and Bath in Steuben County needs to be taken into consideration regarding the category of waste management dealing with Sewage Sludge aka Biosolids.

Leo Dickson and Sons, a family farm corporation, developed a liquid sewage sludge disposal business in the mid 1980s using their farmland and leased properties to disperse sewage sludge from multiple WWTPs which turned our communities into a living hell. An evolving legacy of contaminated water wells for properties adjacent to sludge applied fields is likely due to migrating toxins like PFAS chemicals recently detected in a number of wells through a Sierra Club sponsored water test. I cofounded the CCSE 37 years ago to address a pattern of DEC regulatory violations by the Dickson Corp. that threatened the health and quality of life for our respective communities. The violations the CCSE documented over years of Dickson Corp. permitted and un-permitted land application of sludges were of the most serious nature in regard to potential health issues, enjoyment of our own properties and sustainability of the land to grow healthy crops in the future. Any illusion as to Region 8 DEC's effectiveness in protecting our communities was exposed by a well documented multiple witness account of a series of intentional violations by the Dickson Corp. to ignore safety regulations in the handling and application of the

sludges coming from the Bath, NY WWTP. CCSE members became aware that these sludges were not being taken to the permitted lagoon in Cameron where it was to be held in a concrete container with an appropriate amount of lime and time in a heightened alkaline state before being discharged into the main lagoon; remediated for application. This processing procedure, a responsibility of the Dickson Corp., was DEC ordered in an effort to mitigate the pathogen threat heightened by three medical facilities who dumped raw untreated sewage into the Bath WWTP. Instead, upon investigation and the following of multiple sludge truck trips we discovered that the trucks were hauling directly from the Bath WWTP to an unpermitted lagoon in the town of Thurston, where due to the small lagoon size, the raw sewage being dumped would be simultaneously pumped out and land applied by the Terra-gator application machine. The CCSE in a team of vehicles tracked a truck and caught on video the illegal dumping. Ironically and unknown to us this third illegal dump of the day was observed by a now retired DEC officer Bill King who appeared at my house after we were chased by Dicksons/employees when they saw us videoing the illegal dumping. Late in the same day Mr. King came to my home in a state of bemusement informing me that he had been hiding in a tree line observing our actions. Elated at this admission I asked if he issued them a ticket after we left the scene? His reply to me was "They are kinda rough boys" but "I will issue a report". Nothing came from this and I was unable at the time to obtain any such report through FOIA. This incident prompted my testimony to a panel of DEC lawyers and officials in Albany to which they claimed knowing of multiple Dickson violations but that all were "adjudicated" This meant, in reality, the DEC had paper-washed the violations away with ineffective fines that satisfied the political & CYA need for addressing a clearly obvious and chronic ignoring of DEC regs by Dickson corp.. The DEC fines were a clear failure to stop repeating violations of multiple types. Please keep this historical accounting in mind for my summary of comments.

In spite of early warnings from the authoritative Cornell Univ. Horticulture Toxicologist, Professor Donald Lisk in 1981, concerning risks implied from his academic research on pathogens and known toxic chemicals in sewage at that time, Professor Lisk strongly warned against the use of of sewage sludge on farmland stating: "there's no such thing as clean sludge. Sludge may contain a galaxy of dangerous chemicals, Once these elements are in the soil, they do not go away - some travel up into plants while others leach down and could contaminate ground water. It's just too poisonous and unpredictable to use on land." He then urged a 2- year ban on sludge land application, begun in March '81, be made permanent. This pointed warning was to be echoed by another Cornell Plant Science Soil and Crop Professor Emeritus, Murray McBride in 2009 concluding his warning with this remark: "Farmlands must be protected as the irreplaceable resource that they are - we hold them in trust for future generations." It should be noted that PFAS "forever chemicals" were not even on the radar of researchers or policy makers at that time.

Due to years of persistent Dickson DEC regulation violations & the meticulous documentation of those violations by the CCSE coupled with legal help, the Dickson over-built 6-million gallon lagoon was ordered shut down permanently which ended

liquid land application of sewage sludge in NY. This was not before the likely migration of toxins from sludges applied to permitted fields polluted neighboring wells. Note: in one CCSE request to test a likely path of Dickson sludge contaminating the well of a Mennonite dairy farmer, DEC region 8 refused. In an earlier decade we suspected but could not prove that Dicksons had land applied sludges from an industrial metal fabricating plant (Foster Wheeler in Dansville) on a corner field above a tributary creek to the Canisteo River. DEC Region 8 refused our demands to test the soil. It was observed that Dicksons took several years of transporting soil and manure to the area where the CCSE had observed an unusually dark sludge application that matched documents describing sludges being transported by Dickson trucks contracted with Foster Wheeler. Not even sawgrass was able to grow on the fields we identified with the charcoal colored sludges for several years.

Given this snapshot of sewage sludge use in Steuben County and the years of derelict Region 8 response to the need of timely and effective actions against gross operator patterns of serious violations resulting in damaged communities, is it any wonder that the towns of Thurston, Cameron and Bath have no faith in the DEC to exert protective oversight as the much more powerful Casella Corporation is in an active phase of taking over the Dickson sludge operation??! The revelations of PFAS associated contamination of the State of Maine's farm products proves valid those warnings of Cornell Univ. preeminent Professors Lisk and McBride made decades ago. If the DEC had transparently developed a funding research program commensurate to the risks implied by our scientists the safe recycling of sewage sludge might have been achieved by now. The efforts of policy makers and the waste industries appear to have been focused more on greenwashing the terminology in words like "Organic" and "Biosolids" with the purpose to deceive the public into accepting the unwholesome farming practice of using sewage sludges.

Jumping to the present, what has changed to guide the policy for what to do with WWTP sludges? With the emergence of a health crisis correlated to food product PFAS contamination on the farms of Maine, who have had sludge applied, the prescient warnings of professors Lisk and McBride were made clear. In 2019 in the recognition of endemic PFAS health risks, linked in a major way to food grown on sludge applied land, was accompanied by renewed warnings and alarms in many places in govt. and academia. i.e. Dr. Linda Birnbaum, National Institute of Environmental Health Sciences and the National Toxicology Program, regarding PFAS, "I'm not sure I know a tissue or an organ system where effects haven't been reported," and In 2021 Prof. Patrick Breysse, Agency for Toxic Substances and Disease Registry, "It's pretty remarkable that PFAS chemicals can affect so many parts of the body in adverse ways, not many chemicals have such a breadth of effect." And "It's like a nightmare you can't wake up from, People's homes and livelihoods have been destroyed. And the scale of the tragedy keeps growing with every sample that we take" told to a 2022 legislative briefing by State of Maine's Dept. of

Environmental Protection, Commissioner Melanie Loyzim.

In the updated opinion of Professor Murray McBride's warnings regarding sludge use on farmland in 2009 he stated in an email on June 28, 2023 a current opinion on the policy of land spreading sewage sludge. "I am a soil chemist with many years of experience in conducting research on the behavior of toxic metals and other pollutants in agricultural soils. My comment here is on the advisability of the practice of sewage sludge or biosolids application on farmland. It needs to be stressed that present federal (EPA) and state regulations were put into effect in 1993, cover only 9 toxic metals and a few indicator pathogens, and are now badly out of date. These rules provide no regulations or guidelines for the large group of biologically active and potentially toxic organic chemicals (including, but by no means restricted to perfluorinated compounds (PFAS), dioxins, PAHs, pharmaceuticals, plasticizers, antimicrobial agents and brominated fire retardants). All of these chemicals, and many more, are present in sludges and biosolids generated by municipal sewage treatment plants, as demonstrated, for example, by the US EPA 2006-2007 Targeted National Sewage Sludge Survey. The problem is further complicated by the fact that the contaminants of concern in sludges are a moving target; regulations established in 1993 have not adjusted to this fact. Many of the contaminants of greatest concern today (most notably, PFAS chemicals) were not known to be present in sludges at the time the rules were developed. The fairly recent discoveries (for example in Maine and Michigan) that the PFAS "forever chemicals" are being found on farms, in well water, and in vegetable crops and dairy food products where biosolids had been applied, sometimes decades earlier, is proof that present rules for biosolids application on land do not protect farmland, farmers or the general public. Instead, farmland application provides a direct pathway for contamination of food crops, meat, and dairy products with persistent organic toxins, including hundreds of PFAS compounds. Given this serious risk to farmers' land and livelihood, and to the health of consumers, it is disturbing that little or no testing for PFAS has been conducted by NYDEC of soils, groundwater, crops, or dairy products on farms that are applying or have applied biosolids in the past.

It is claimed by proponents of biosolids as farm fertilizers that there are many decades of scientific research to support the practice of farm application of sewage sludge products as a "beneficial use" by the recycling of nutrients and organic matter. This claim may create the false impression that there is presently a good understanding of the behavior and toxicity of the many chemicals presently found in sludges. In actual fact, few of the thousands of chemical contaminants in sludges have been identified and monitored, and fewer still have been studied in detail to determine their fate in soils and their tendency to transfer into surface and drainage water, into crops, or into livestock.

To conclude, given the strong possibility for long-term contamination of soils, groundwater and the food chain with persistent and toxic synthetic chemicals, the DEC proposal to increase application of sewage sludges or biosolids to farmland is misguided. Although there appear to be at present no good options for the disposal or

re-use of this waste material, farmland application is in my view the most ill-advised and potentially dangerous option.

Respectfully,

Dr. Murray McBride,

Professor Emeritus, Cornell University

From the recently revealed toxicity of PFAS "forever chemicals" on human and animal health, the history of DEC negligence in oversight of past decades of land spread sewage sludge, the past and present opinions of experts in the fields of horticulture, toxicology, soil and plant chemistry it is abundantly clear that using sewage sludge aka biosolids is a prematurely implemented recycling plan that is endangering the health of the living and jeopardizing the future of the unborn. In short it is an insane experiment on the public to accept the demonstrated risks and economic impacts let alone the health issues for future generations. Water testing in Maine, Michigan and Steuben County wells that are neighboring sludge applied fields strongly suggests migratory PFAS and other toxin contamination. Past use of sewage put on farmland has proven the policy of recycling the beneficial nutrients found in sewage to be severely flawed. The current and proposed recycling policy of sewage sludge is driven by the wrong incentives which encourage over application, payment for tonnage disposed without a structure identifying safety of source batched sludges meeting a strict criteria of science guided testing. The SSWMP has not developed its sewage waste policy in a technologically sound manner linking the required scientific guidance, appropriate economic incentives and operational oversights that would ensure even a modicum of safety. To date the policy of sewage sludge "recycling" has been at best an expedient response to solve a political pressure issue of transferring volumes of waste from demographically and more politically influential areas to poorer more vulnerable areas of the State. Economic incentives to operators like Casella and economically stressed farmers collude to relieve the waste burden on the urban/suburban densely populated centers like Nassau County where drinking water has been found to be significantly contaminated with PFAS. This finding implies that the sewage sludges imported from Bay Park WWTP will be also contaminated with PFAS ending up in Steuben County soil and water.

While the goals expressed in the SSWMP are lofty and presumed well intentioned the recycling of Sewage Sludge must be preceded by, in the opinion of the CCSE, the following policy structure:

- 1. Public & corporate education component to assign responsibility and accountability Resources must be allocated to educate the public to the size of the problem, the proper procedures mandated to asses the toxins from any given sludge source, the responsibility of local industries in regard to the quality of their discharge of waste into a WWTP, Individual citizen & Corporation responsibility to fund the necessary testing to certify the appropriate safety levels for all categories of threats from pathogens to toxic chemicals. That assessment must be done before sludge can be certified at any WWTP for distribution to any final disposal site.
- 2. Appropriate & dedicated funding mechanism for the purpose of research to reduce and remove toxins and pathogens. Funding must be geared to expedite source batch certification of sewage sludges in deciding on any appropriate export destination from a WWTP. Approval of a sewage waste import quality must have consensus of qualified scientists and local authorities and not just DEC bureaucracy derived guidelines by State govt. policy officials.
- 3. DEC must clarify accountability criteria spelling out a gradient of potential violations by operators handling sewage sludge and quantify meaningful fines as real deterrents for ignoring rules and guidelines, not the current "cost of doing business fines" that actually encourages regulation violations. Operators must not be allowed to chronically violate safety rules without deterrents in place to stop the violations under threat of forced ceasing to do business. The condition of stopping a non compliant operator from continuing to dispose of sewage sludge necessitates alternative plans to dispose of any WWTP sludge. A financial security fund by any waste operator must be part of the agreement to prevent a bad actor operator from declaring bankruptcy and leaving behind a toxic mess for the tax payer to clean up. A shared economic burden for legitimate mistakes is understandable but it must be clear that a bad actor that breaks DEC rules and guidelines must be held financially accountable.
- 4. Projections of tax revenues needed to develop a safe way to dispose of sewage sludge and is also needed to contrast with projections of tax revenues to clean up contaminated farmland and poisoned water. A suggested study of Maine in this regard would be useful. Everyone will pay either up front to do it right or later when the mess is revealed. Health estimation costs must be part of the equation taking in all externalities for sludge use in farming on both the living and the unborn.

In conclusion;

Previous implementation of sewage sludge disposal has proven to be a poorly contrived disaster. To continue with the current policy, driven by pressure from demographically dense but relatively wealthy communities to unload dangerous waste on poor sparsely populated communities is insane as well as immoral. The negative externalities stemming from farm product contamination and ground water pollution from sewage sludge outweighs any upfront costs needed to create a best use for sewage sludge that will end up affecting all of society. In the limited time I have had to absorb the information provided by the SSWMP my assessment is that the SSWMP is long on lofty goal rhetoric and woefully inadequate in details to assure anyone that what is proposed is either good or responsible to the people of NY. Pay now or pay later - that is the choice and some are paying heavily in ill health and livelihood ruin for ill conceived sewage sludge policies of the past.

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