Spray Irrigation of Treated Wastewater is Not Toxic to the Environment



In response to inquiries from residents who have seen the various social media posts including those by "Buckingham Township Neighbors Against Sewage Treatment Irrigation" or "NASTI", please be assured that spray irrigation of treated wastewater is an environmentally sound and regulated method that preserves open space, tempers development and maintains local groundwater levels.

NASTI also falsely claims that the Township took his neighbor's business and livelihood when acquiring the property for a proposed sprayfield implying that the property owner was an active tree farmer.

What is true is that the owner had recently purchased the property and listed it for sale for \$1,275,000. The Township paid the owner \$1,420,000, the full appraised value of the property.

Buckingham Township has been using Spray Irrigation since 1988

While the social media posts imply that this "spray field" is something new and should be feared, Buckingham Township has a long history with spray irrigation, with the first spray fields beginning operation for Buckingham Village in 1988. When initially deciding on options for wastewater disposal, the Township chose spray irrigation due to its environmental benefits and its ability to preserve large amounts of open space for the community, while providing cost effective treated wastewater disposal. Today Buckingham Township disposes 90% of its wastewater via eleven spray fields in six different treatment systems for over 245 acres of actual spray field in the township. Only treated wastewater is disposed of on our sites and residents can rest assure that there is absolutely no disposal of treated sludge (biosolids) as some social media posts have suggested. With the six treatment systems using spray irrigation, the Township has had little if any problems. The fact is, most of our spray fields are surrounded by homes and some of these lots have become premium parcels since the land they sit adjacent to will never be developed.

Environmental Benefits of Spray Irrigation

Spray irrigation is one of several methods commonly used for the disposal of treated wastewater and it is capable of producing the highest quality of treated water of all land disposal methods. It is sometimes called "land treatment" or "reclamation and reuse" because it also helps to recycle water and nutrients. The Pennsylvania Department of Environmental Protection (PADEP), Delaware River Basin Commission (DRBC) and the Environmental Protection Agency (EPA) all recommend this type of disposal for wastewater, because 1) land application recycles nutrients instead of disposing of them in our water ways, 2) it recharges our ground water, and 3) conserves our freshwater resources, 4) works to prevent flooding.

Before treated wastewater is sprayed, it is biologically treated and disinfected to remove any harmful substances. What remains after treatment are valuable nutrients like nitrogen and phosphorus, which are vital for plant growth. This treated wastewater is then sprayed onto agricultural crops and forested areas. If these nutrients were to be simply discharged into our streams as part of a stream discharge treatment plant,

serious imbalances and ecological damage could result but when the treated wastewater is sprayed onto agricultural fields it becomes a beneficial fertilizer. Spray irrigation also serves as a means for recharging our groundwater aquifers as the soil acts as a natural filter to further filter the water, as it does with rainwater, before it reaches our groundwater aquifers, where it can begin the whole cycle again.

Additionally, spray fields allow for the potential enhancement of surrounding property values with the assurance that irrigated lands will never be developed. In doing so, they promote the preservation of agriculturally productive lands and open space. Including actual spray areas and surrounding buffers the Township will have over 450 acres in protected open space in our wastewater systems.

How does spray irrigation work?

The rate at which spray fields disperse water fluctuates based on the season, the soils and the weather. Irrigation occurs based on the ability of the plants to use the nutrients in the water and on the ground's ability to soak up the water. Regulating the rate of dispersal prevents any potential runoff of water to neighboring properties.

The water that is dispersed through the spray irrigation system is tested every month to ensure compliance with the standards set by the Environmental Protection Agency (EPA). Monitoring wells are placed in several locations around the spray fields and are tested each quarter to ensure that the groundwater continues to meet drinking water standards.

The Property the Township Acquired for Spray Fields was For Sale

Mr. McArdle bought the property in January 2023, not to live and run a business on it, but to flip it and sell it for more than he paid. The 45.8 acre property he bought was actively listed for sale at the time of the taking and is adjacent to the Stoneymead Wastewater Treatment Plant, an existing sprayfield that services the Stoneymead community.

Initially Mr. McArdle had proposed the Township purchase a conservation easement on the property but after agreeing to the terms, he reneged on the offer. In October 2023 the Township noted Mr. McArdle had listed the 45.8 acre property for sale for \$1,275,000.00. As the Township was actively looking for sites in the Cold Spring area for an additional spray field, the Township then offered Mr. McArdle's lawyer to purchase the property for the full asking price. Agreements were drawn but Mr. McArdle again reneged saying he now wanted: \$1,700,000.00 and the Township to buy another adjacent open space parcel he owns that is the open space for the Indian Walk Development for \$495,000.00 for a total of \$2,195,000 or in the alternative he would sell 34.8 acres for \$1,425,000.00, add the rest to the open space parcel that he would retain and the Township must allow development on the open space parcel.

At this point Buckingham had twice agreed to Mr. McArdle's terms, only to have Mr. McArdle change the terms looking for more money and development potential. A Township is not allowed to pay more for a property than its appraised value. Accordingly, Buckingham had the 45.8 acres appraised and the value was set at \$1,420,000.00. Not being able to reach an agreement with Mr. McArdle to purchase the property, that he was actively trying to sell anyway, the Township filed a notice of taking purchasing the property for the full appraised value of \$1,420,000.00, which Mr. McArdle has now been paid. And if he doesn't believe that he was paid enough, he has the right to ask the court to award him more.