

To the Honorable Supervisor and members of the Town Board,

My name is Orion Russell Blake, and I am a peatland advocate and paludiculture entrepreneur in Orange County's black dirt. I raise with you the same issue I brought to the attention of the Comprehensive Plan committee in 2024. The plan as drafted does not recognize the peatlands in Chester. Black dirt is a regionalism for what is internationally known and studied as peatlands.

In chapter 1, these soils and lands are called 'huge swampy wetlands', black dirt, and muck or mucklands. In chapter 3, under Water Resources, wetlands and floodplains are mentioned, but peatlands, a rare land type that only covers 3% of the world's surface are not, though they are what comprise much of Chester's floodplains and are a specific type of wetland with unique issues.

If as is stated, the purpose of this plan is to: Preserve Black Dirt farmland areas to the greatest degree possible, awareness and planning of these unique issues is needed. In chapter 4, one of the consequences of drained agricultural peatlands is mentioned, periodic flooding, but not its cause.

Peatlands are unique among wetlands as great stocks of organic matter, making them the greatest terrestrial carbon sink, more than forests. Other wetlands are mineral soils, with a low organic percentage. Peatlands are only healthy with a water table near the soil surface. When they are drained, as they have been in Chester for agriculture, they undergo soil subsidence and degradation. This degradation, peat oxidation, is also a significant carbon source. Subsidence, or sinking, makes these farms continuously more and more prone to flooding. Eventually, the entire peat column is consumed, and there are already 'grey soils' on farms in Chester. This is a loss of fertility over time, and is not addressed by cover cropping, compost, or any regenerative practice espoused for mineral soils.

The danger in not acknowledging and incorporating peatlands into Chester's updated comprehensive plan is to exclude that there are solutions that can be adopted, just as they have been ignored before, such as in the incorporation of the Chester Agricultural Center. The black dirt region as a whole is generations behind in adapting to the challenges of agricultural land use of peatlands.

Paludiculture is the term used for the sustainable cultivation of peatlands, to regenerate instead of deplete fertility, and keep them as carbon sinks. And peatland rewetting can be done on fallow parcels, in a mosaic of land use that includes conventional farms. I continue to hope that Chester will be a leading municipality in peatland land use policy and I remain available to share resources as I was, though underutilized, with the Comprehensive Plan Committee.

Orion Russell Blake

Flooded Farm

Secretary of the US chapter of the International Peatland Society