

FILE

To: Ohio Power Siting Board

RECEIVED-DOCKETING DIV

Re: Case 13-0429-EL-BTX

2014 MAR 11 PM 3:59

PUCO

I am writing to dispute the course of AEP's transmission lines close to Unioto schools and across several family farms. There are other alternatives routes that seem to have been stone walled secondary to political power plays, most notably, the non-consideration of utilizing the Pleasant Valley Wildlife Area. I have read one such letter from the Ohio Department of Wildlife describing the detriments to this area and its' wildlife. However, I did not see compelling evidence to stop its' consideration. Conversations were quickly changed to pursuing a path that involves children at Unioto local schools and multiple farms that involve the destruction of farmland and families livelihood.

The installation of these power lines will have long standing effects to farmland, once in place. Specifically, yield losses, which are due to subsoil compaction, can be considered permanent. The effects of subsoil compaction are due to using high axle loads (10 tons and heavier) on wet soil and are observed in all types of soils (including sandy soils). The most direct effect of soil compaction is an increase in the bulk density of soil. Bulk density is the mass of oven-dry soil in a standard volume of soil, often given as grams per cubic centimeter.

Whenever the bulk density exceeds a certain level, root growth is restricted. Due to the increase in bulk density, the porosity of soil decreases. Large pores (called macro-pores), essential for water and air movement in soil, are primarily affected by soil compaction. Research has suggested that most plant roots need more than 10 percent air-filled porosity to thrive. The number of days with adequate percentage of air-filled porosity will be reduced due to compaction, negatively affecting root growth and function. Root penetration is limited as well if roots encounter much resistance. Research on completely disturbed soil packed to different densities has shown that root growth decreases linearly with penetration resistance starting at 100 psi until root growth completely stops at 300 psi.

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Technician

Date Processed

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The proposed route of the AEP's power lines will traverse the Buchanan farm that will involve Crosby silt loam, Kokomo silt loam and Miami clay loam soils. All three soil types have issues with drainage. The severe compaction caused by high axle loads during construction will create permanent drainage problems that will affect not only affect this farm, but will affect adjacent farms as well.

Thank you for your consideration of utilizing the Pleasant Valley Wildlife Area and sparing multiple family farms, as well as the health of our children at Unioto local schools.

With regards,

W. Bill Sever, Buchanan Farm

*All data and scientific facts were taken from the Ross County Soil and Water Office, Ohio State University Department of Agriculture and Penn State University Department of Agriculture.*