

# Soil Disturbance Outline

- 1. Impact of Quaker Valley Farms Decision**
- 2. What is and isn't Considered Disturbance?**
- 3. What are the Limits for Activities Considered Disturbance?**





***“Quaker Valley had the right to erect hoop houses, but did not have the authority to permanently damage a wide swath of premier quality soil in doing so. Quaker Valley clearly violated the deed and the ARDA.”***

**State of New Jersey v. Quaker Valley Farms, LLC  
Argued January 2, 2018  
Decided August 14, 2018 (7-0 decision)**

***“If the SADC fails to undertake the necessary rulemaking to establish guidance on the extent of soil disturbance that is permissible on preserved farms, then it can expect administrative due process challenges to its enforcement actions.”***

**State of New Jersey v. Quaker Valley Farms, LLC  
Argued January 2, 2018  
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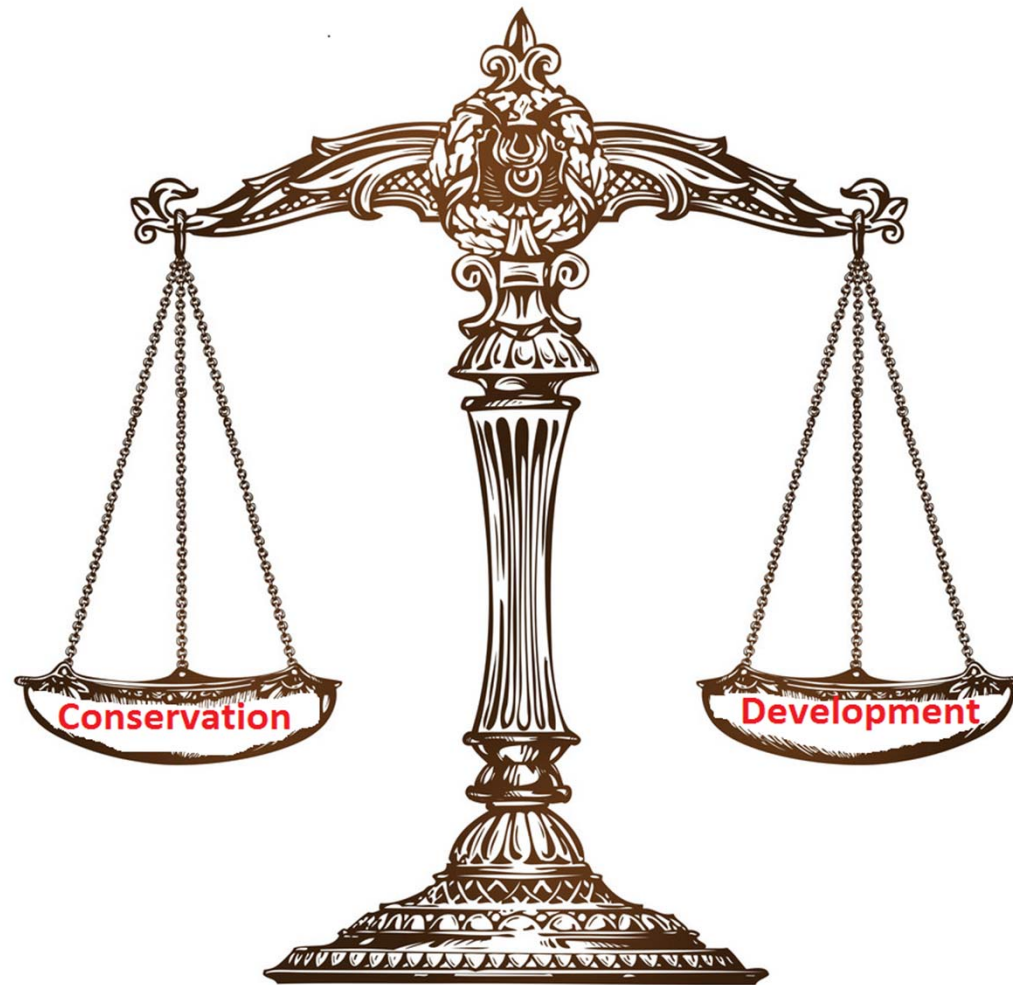
***“...the ARDA and the existing SADC regulation have a dual purpose: to strengthen the agricultural industry and to preserve farmland. Both are important goals; neither is subordinate to the other...the approach must be to balance farmland preservation and strengthen the agricultural industry.”***

**State of New Jersey v. Quaker Valley Farms, LLC**

**Argued January 2, 2018**

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# How to Balance Deed of Easement Provisions?



### Ag. Development Provisions in Deed of Easement

12. ...Grantor shall be permitted to construct, improve or reconstruct any **roadway** necessary to service crops, bogs, agricultural buildings, or reservoirs...
14. Grantor may construct any new **buildings** for agricultural purposes...

### Conservation Provisions in Deed of Easement

7. No activity shall be permitted on the Premises which would be **detrimental to drainage, flood control, water conservation, erosion control, or soil conservation...**
15. ...For purposes of this Deed of Easement, "Agriculturally viable parcel" means that each parcel is capable of **sustaining a variety of agricultural operations...**

**Start with the Premise that Many Farmers Need a Sizable Amount of Agriculture Development to be Economically Viable**





And Reinforce That Many Activities on Farms are Not  
Detrimental to Soil & Water Conservation



# Exempt Conservation Practices



## Resetting the Nomenclature

- Replace “Soil Disturbance” Terminology with “Soil Protection.”
- Replace “Regulations” Terminology with “Standards.”

“Soil Protection Standards”

*(reinforces farmers’ good stewardship of the soil).*

# Incorporate Best Management Practices (BMPs)



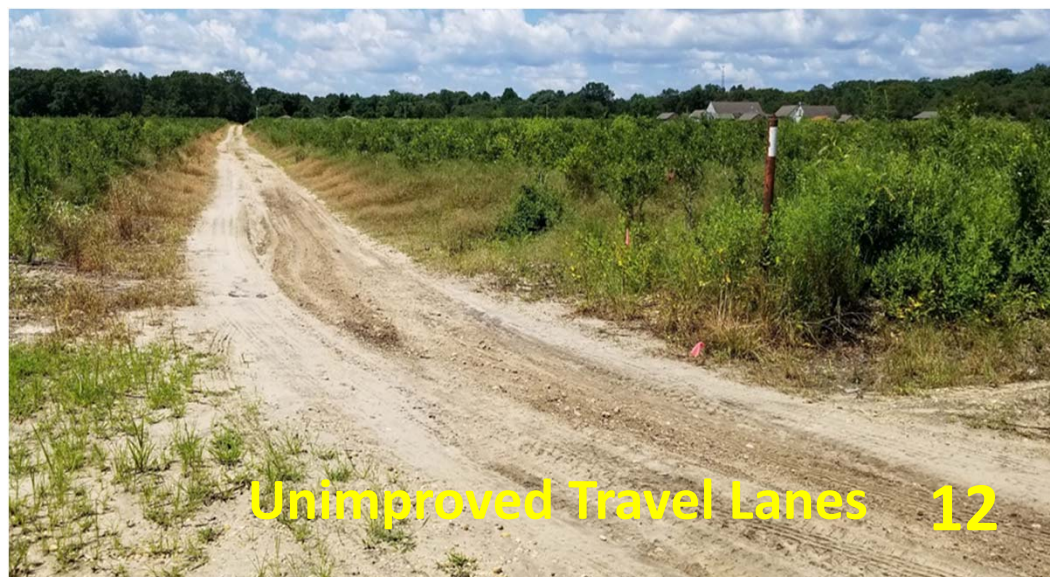
**Geotextiles**



**Hoophouses**



**Solar Panels**



**Unimproved Travel Lanes 12**

# Add Exemptions for NJ-Centric Practices



Equine Tracks



Ag. Tourism Parking



Nursery Travel Lanes

Google

**Clarify that Deep Cuts and Fills are Permitted But Only if Total Amount is Under Prescribed Limits (NJ Supreme Court Said 17% of Preserved Premises Was Too Much in Quaker Valley Farms Case)**

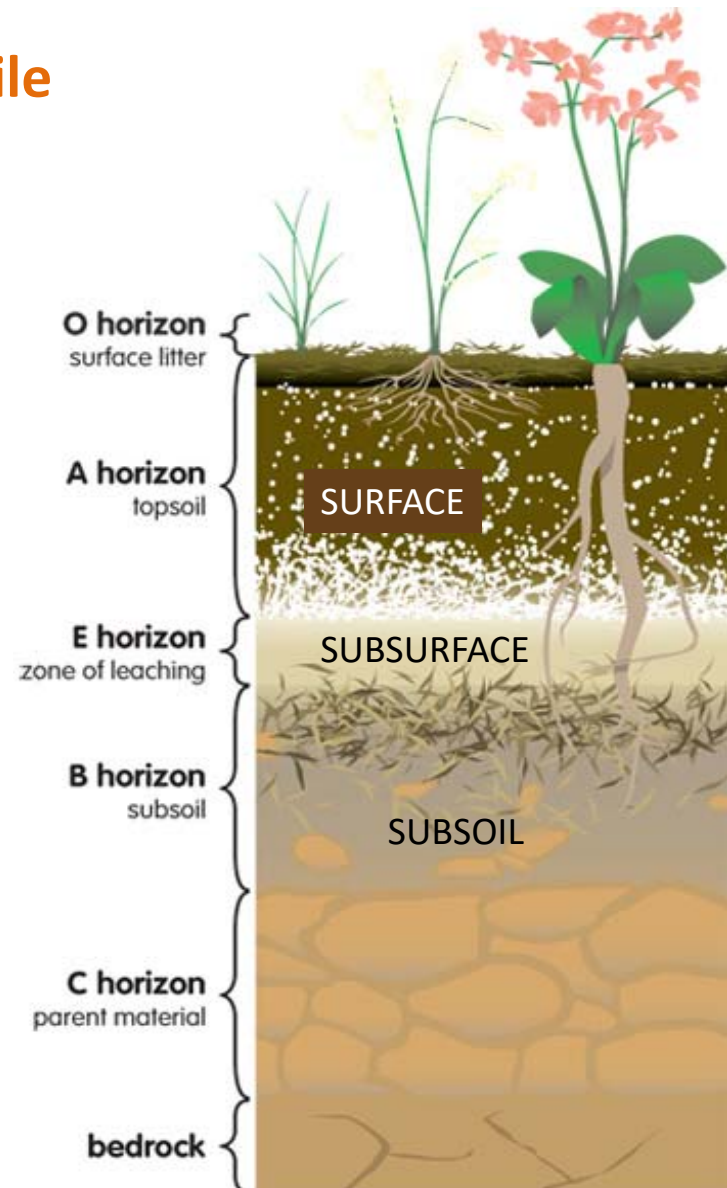


## Soil Profile

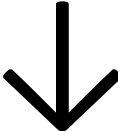
**Plow Layer** - the soil that is moved in normal tillage, also known as the surface layer (average maximum thickness in New Jersey of 12 inches).

**Common acceptance of plow layer nomenclature** - same definition in the United States, Canada, and the United Kingdom.

**Commonality of standards** - U.S. Forest Service and USDA Natural Resources Conservation Service consider activities below the plow layer to have a significant impact on soil productivity.



# Establish Clear Guidance/Boundaries on Land Uses

		Land Use	Treatment	
 <b>Degree of Reversibility</b>		Permanent buildings/structures/hardscape	<b>Always Soil Disturbance</b>	
		Permanent travel lanes		
		Permanent equine tracks and arenas		
		Permanent parking areas		
		Soil movement below plow layer depth (includes stormwater basins)		
		Improved travel lanes	<b>Soil Disturbance but Dispensation Given if Following BMPs</b>	
		Improved equine tracks and arenas		
		Improved parking areas		
		Geotextiles and geomembranes (weed fabric, plastic mulch)	<b>Soil Protection if Following BMPs</b>	
		Temporary structures (includes hoop houses)		
		Unimproved travel lanes		
		Unimproved equine tracks and arenas		
		Temporary parking areas		
		Topsoil stockpiles and compost piles		
		Agricultural water impoundment (irrigation ponds, tailwater recovery)		
		Solar panels		
		Agricultural production (pastureland, cropland)		<b>Always Soil Protection</b>
		Curtilage/lawn		
		Woodlands		
		Natural wetlands/streams		
	Approved conservation practices			





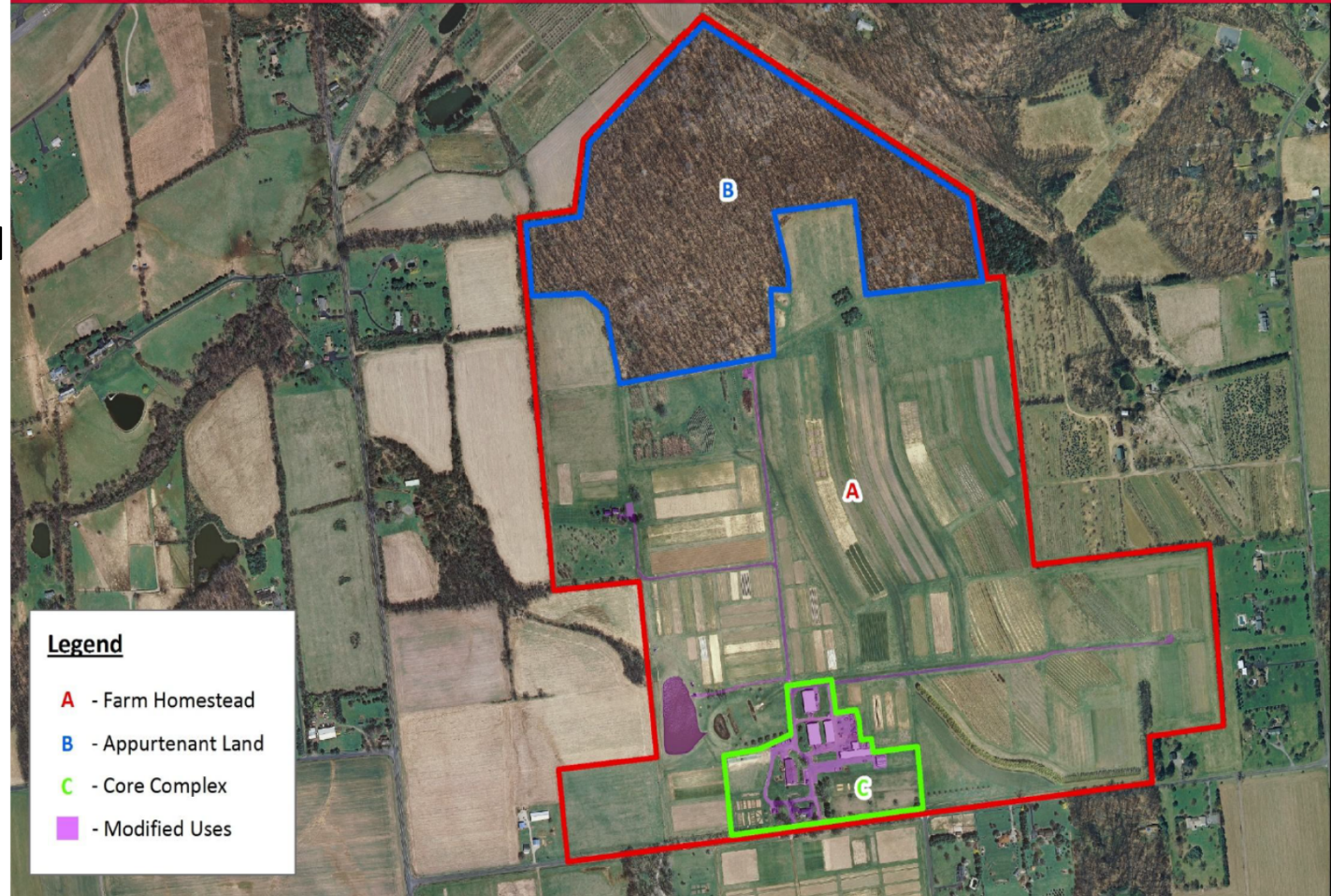
**What Should be the Prescribed Limits for Ag. Development?**

- In 2010, SADC Commissioned Rutgers to Analyze Ag. Development.

- 10 Highly Developed Farms in Central NJ Were Studied and Their Constituent Parts Were Ascribed To:

- Farm Homestead*
- Core Complex*
- Modified Uses*

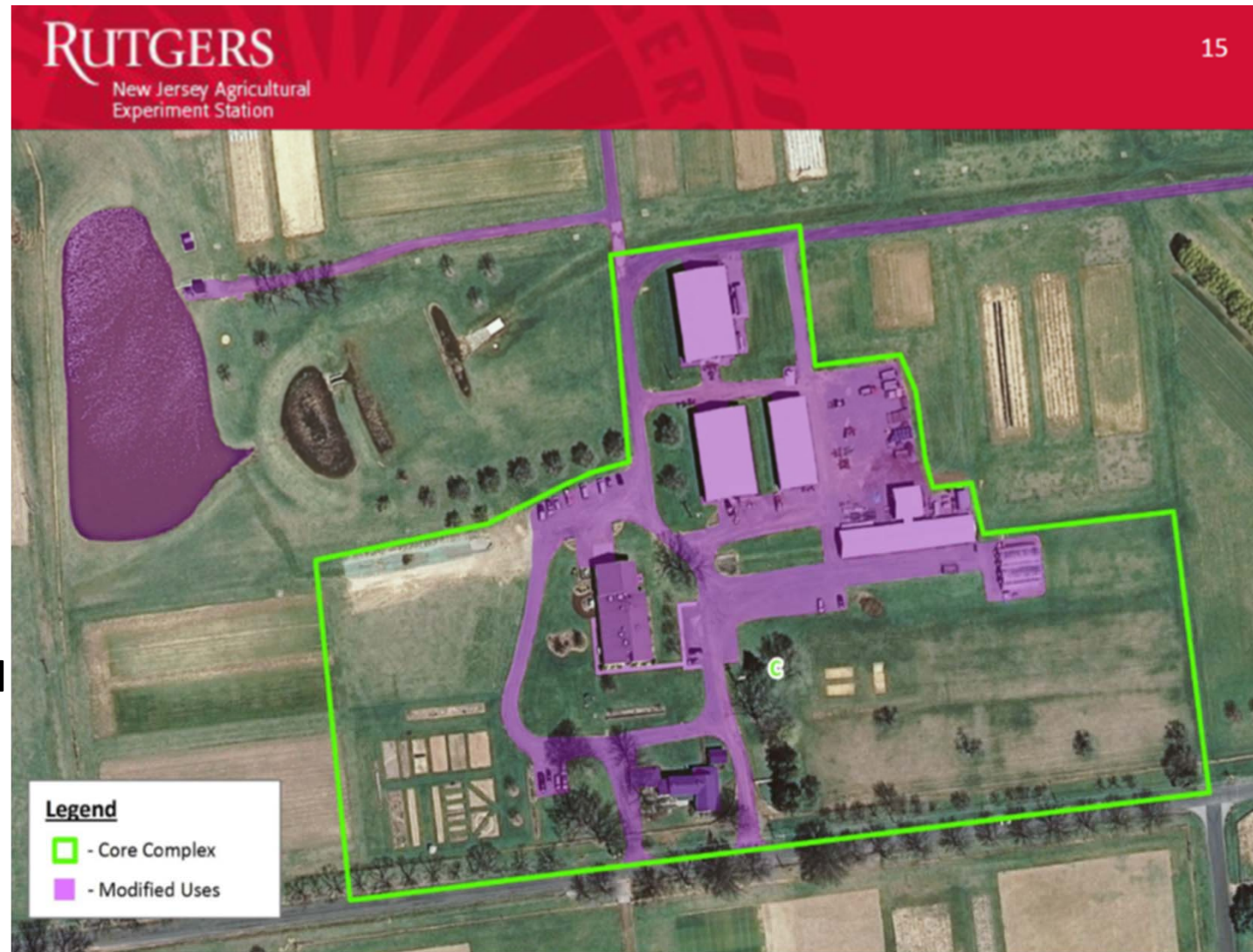
8% of the “farm homestead,” on average, is comprised of the “core complex.”



- 40% of the “core complex,” on average, is “modified uses.”

- Thus, 3% of the farm homestead, on average, consists of modified uses, i.e. current ag. development.

\*Note - modified uses is a more precise delineation of ag. development compared with core complex.

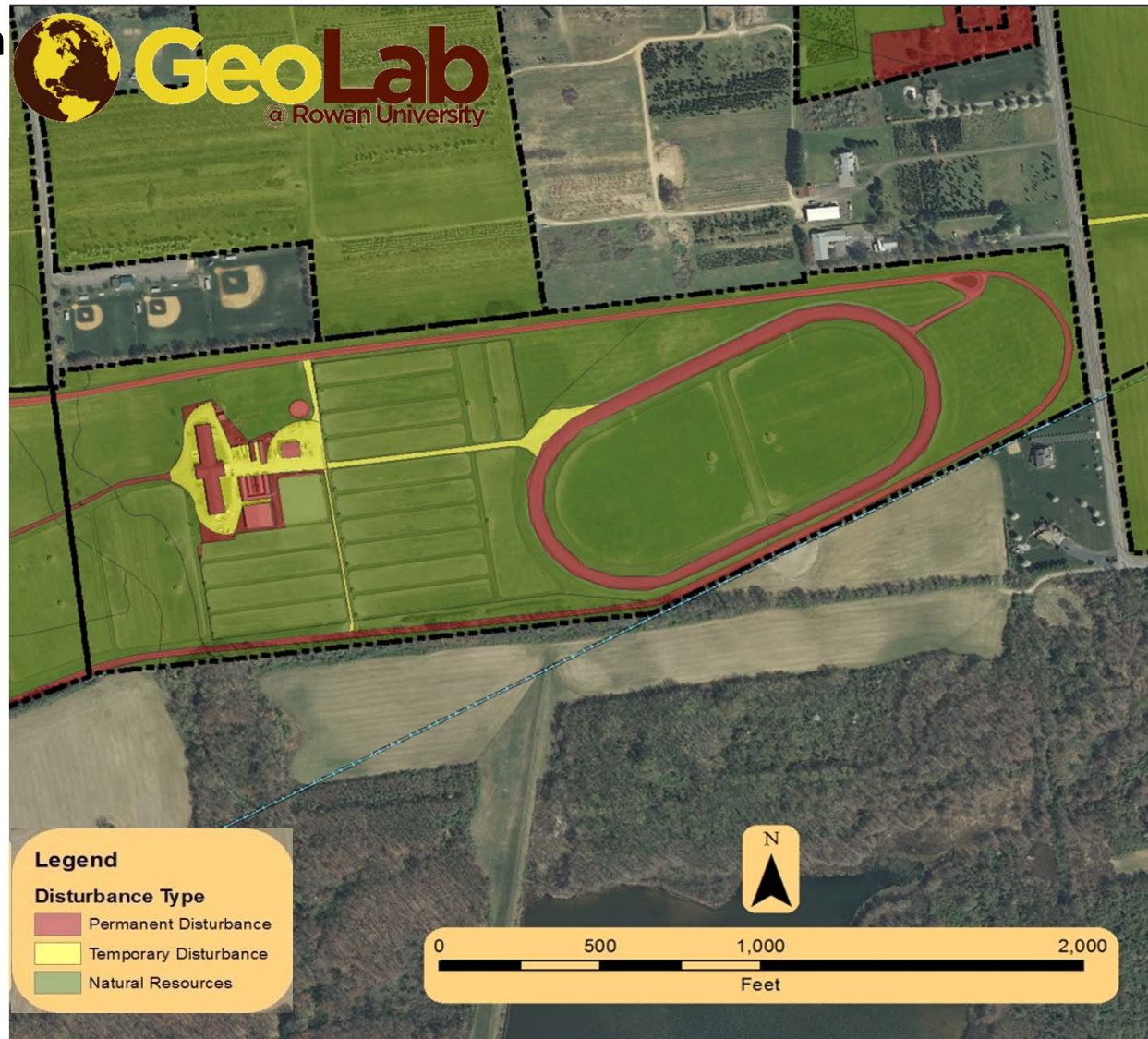


- In 2013, SADC commissioned Rowan GeoLab due to limitations in the Rutgers study:

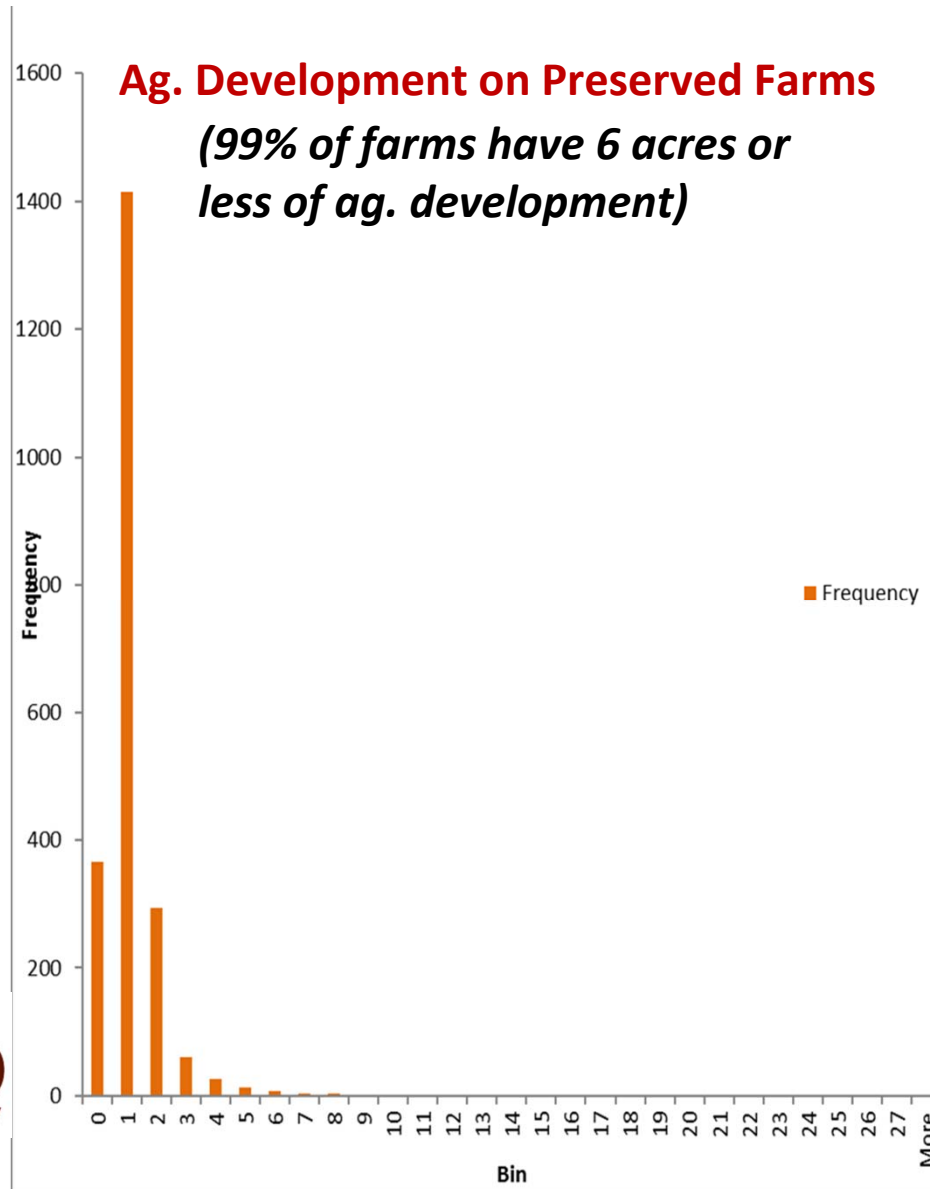
- Only 10 farms were studied
- Only Central NJ was studied
- Only highly developed farms studied

- Rowan studied 2,736 preserved and unpreserved farms using same methodology as Rutgers (farmstead, core complex, and modified uses).

Additional component - land uses were measured individually and can be coded **green/yellow/red** (**orange** coded later).

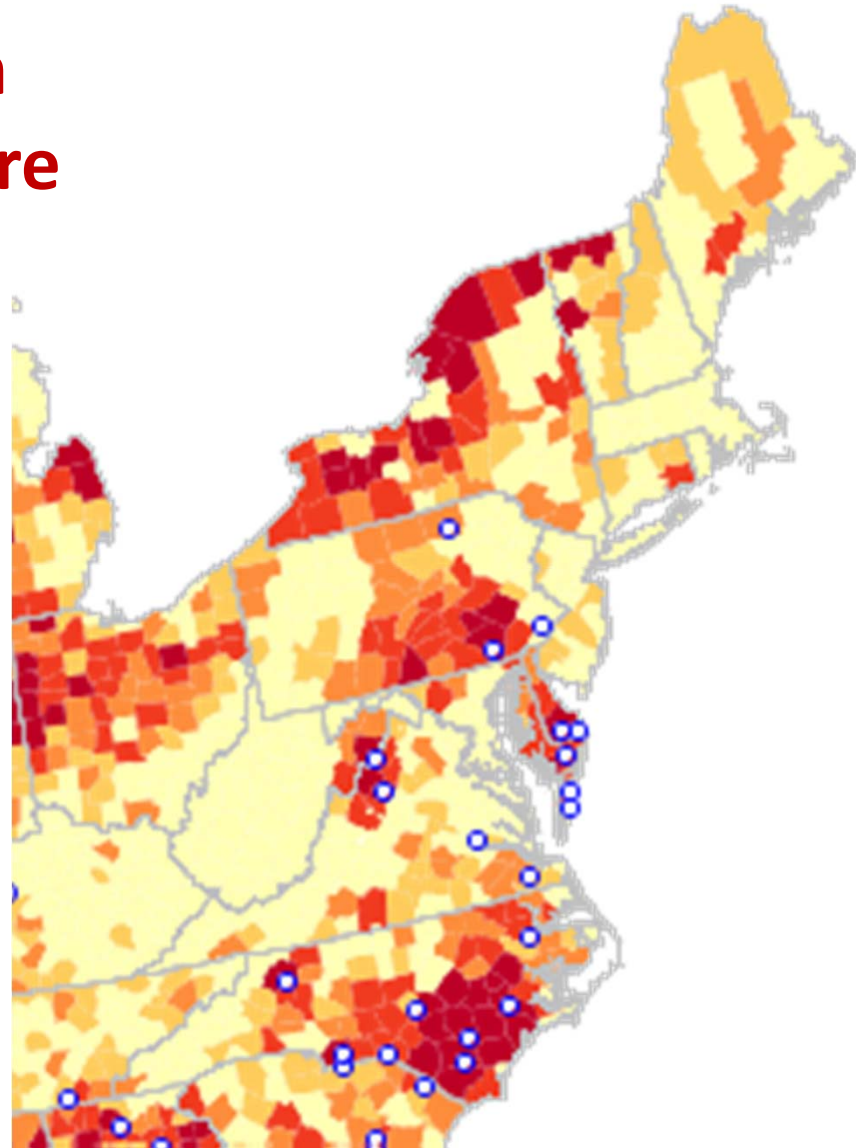


Y Axis (Frequency) =  
Number of Farms



X Axis (Bin) =  
Ag. Development Acres

## Mid-Atlantic Counties with Intensive Animal Agriculture



o Location of processing plants

## Table 8 - 2012 Census of Agriculture<sup>1</sup>

Leading County in Each Mid-Atlantic State for Market Value of Ag. Products Sold	% of Farm Acres in Farmsteads, Buildings, and Roads (Farmstead Complex)	Leading Commodities
Caroline County, Maryland	4%	Broilers, Vegetables, Grain
Cumberland County, New Jersey	8%	Nursery/Floriculture, Vegetables
Duplin County, North Carolina	7%	Broilers, Turkeys, Hogs
Hardy County, West Virginia	3%	Broilers, Layers, Turkeys
Lancaster County, Pennsylvania	6%	Dairy, Beef, Broilers, Layers, Hogs, Horses/Mules
Rockingham County, Virginia	6%	Dairy, Beef, Broilers, Turkeys, Layers
Sussex County, Delaware	4%	Broilers, Hogs, Horses/Mules
Wyoming County, New York	6%	Dairy, Beef
<b>Average Farmstead Complex % of Farm</b>	<b>6%</b>	

<sup>1</sup> Statistics derived from surveys answered by farmers.

**Delmarva Peninsula Broiler Houses (DE)**



**Shenandoah Valley Dairy Facilities (VA)**



**Piedmont Equine Infrastructure (VA)**



**Cape Fear Basin Hog Houses (NC)**





## **Summary of Existing Ag. Development Metrics**

**1% - Rowan Study Average (Includes All Farms)**

**3% - Rutgers Study Average (Includes Only Highly Developed Farms)**

**6% - USDA Census Farmstead Complex Avg. (Includes Undeveloped Land)**

## **Proposed Ag. Development Limitation**


- 8% of Premises or 6 acres, whichever is greater, for “red” land uses (or “yellow or “orange” land uses that do not follow BMPs).**
- 5% of Premises additional allowance for “orange” land uses.**
- 2% of Premises or 2 acres, whichever is greater, additional allowance (for farms at/over 8%/6 acres allowance and 5% additional allowance).**
- Topsoil must be retained on site and properly banked and seeded.**



**Degree of Reversibility**

Land Use	Limitation Class	Exemption Class
Permanent buildings/structures/hardscape	Limited to 8% of the premises or 6 acres, whichever is greater	All pre-existing and future uses subject to limitation class
Permanent travel lanes		
Permanent equine tracks and arenas		
Permanent parking areas		
Soil movement below plow layer depth (includes stormwater basins)		
Improved travel lanes	Additional allowance of 5% of the premises (beyond 8%/6 acres threshold) if following BMPs; subject to 8%/6 acres if not following BMPs	All pre-existing and future uses subject to limitation class
Improved equine tracks and arenas		
Improved parking areas		
Geotextiles and geomembranes (weed fabric, plastic mulch)	No limit on activity if following BMPs; subject to 8%/6 acres if not following BMPs	All pre-existing uses exempted from standards; all future uses subject to limitation class
Temporary structures (includes hoop houses)		
Unimproved travel lanes		
Unimproved equine tracks and arenas		
Temporary parking areas		
Topsoil stockpiles and compost piles		
Agricultural water impoundment (irrigation ponds, tailwater recovery)		
Solar panels		
Agricultural production (pastureland, cropland)		
Curtilage/lawn		
Woodlands		
Natural wetlands/streams		
Approved conservation practices		

## Additional Considerations

- Soil Protection Standards Do Not Apply to Exception Areas 
- Only 11 farms out of 2,198 farms are within 10% (0.5% of total) of the proposed standard before waivers and exemptions are applied
- Only 3 farms (0.14%) are non-compliant with proposed standards after waivers and exemptions are applied (1 of 3 is Quaker Valley)



# Next Steps

