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)

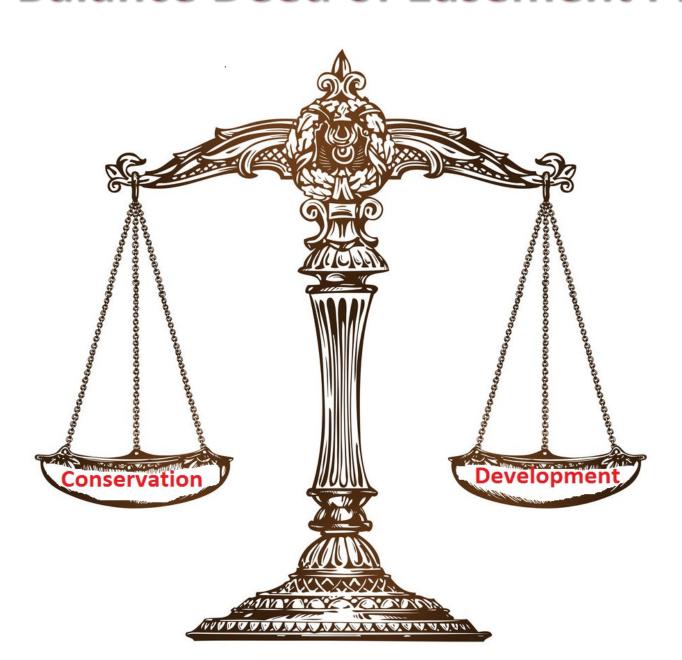
"If the SADC fails to undertake the necessary rulemaking to establish guidance on the extent of soil disturbance that is permissible on preserved farms, then it can expect administrative due process challenges to its enforcement actions."

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

"...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 Decided August 14, 2018 (7-0 decision)

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...





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 (BIMPs)















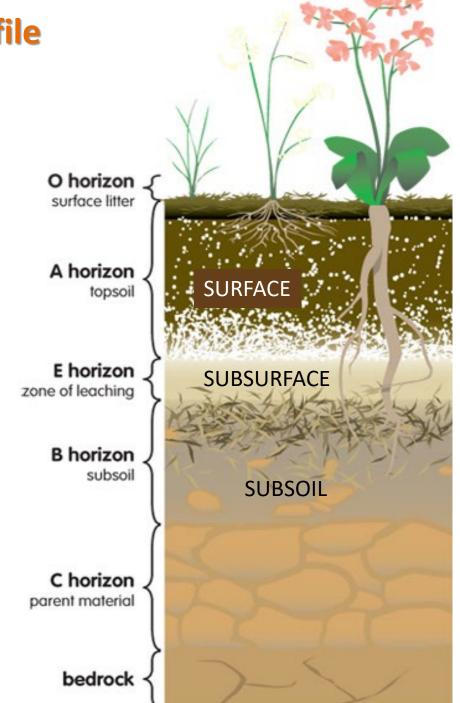


Soil Profile

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

	ility	LAND USE	SOIL PROTECTION CLASS
	Degree of Irreversil	WETLANDS WOODLAND AGRICULTURAL PRODUCTION (PASTURELAND, CROPLAND) CURTILAGE/LAWN	NON-DETRIMENTAL TO CONSERVATION (NO LIMIT ON ACTIVITY)
		WEED FABRIC HOOPHOUSES SOLAR PANELS FARMLANE (GRASS, DIRT, AND SAND) IRRIGATION PONDS	NON-DETRIMENTAL TO CONSERVATION IF FOLLOWING BMPs (POTENTIALLY NO LIMIT ON ACTIVITY)
		FARMLANE (GRAVEL) EQUINE TRACK (COMPACTED GRASS AND DIRT; SAND AND GRAVEL) PARKING (COMPACTED GRASS AND DIRT; GRAVEL)	LIMITED DETRIMENT TO CONSERVATION IF FOLLOWING BMPs (MUST ADHERE TO PRESCRIBED LIMITS)
		DRIVEWAY (ASPHALT, CONCRETE) PARKING (ASPHALT, CONCRETE) SOIL MOVEMENT BELOW PLOW LAYER (INCLUDES STORMWATER BASINS) BUILDINGS/STRUCTURES/HARDSCAPE	DETRIMENTAL TO SOIL & WATER CONSERVATION (MUST ADHERE TO PRESCRIBED LIMITS)



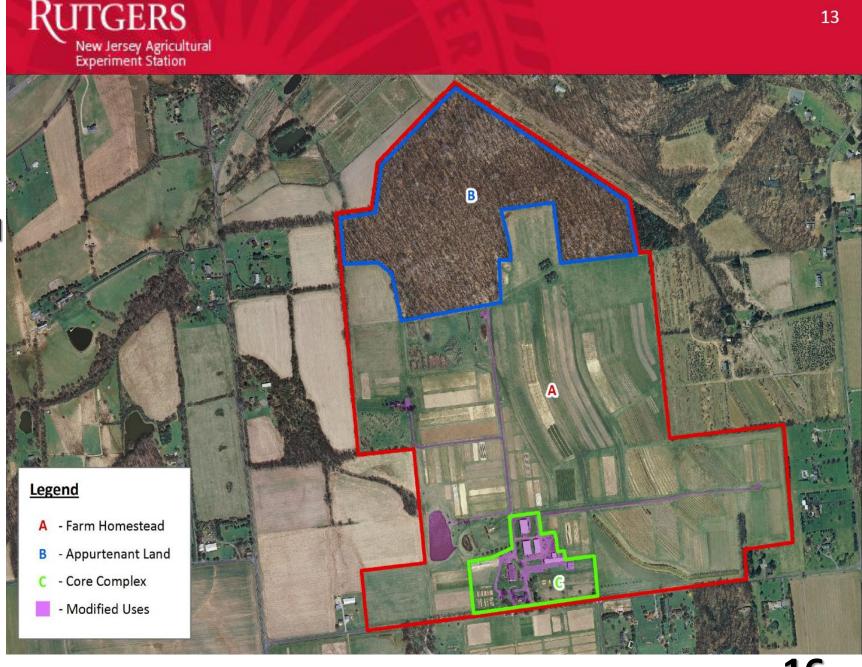
What Should be the Prescribed Limits for Ag. Development?



- 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

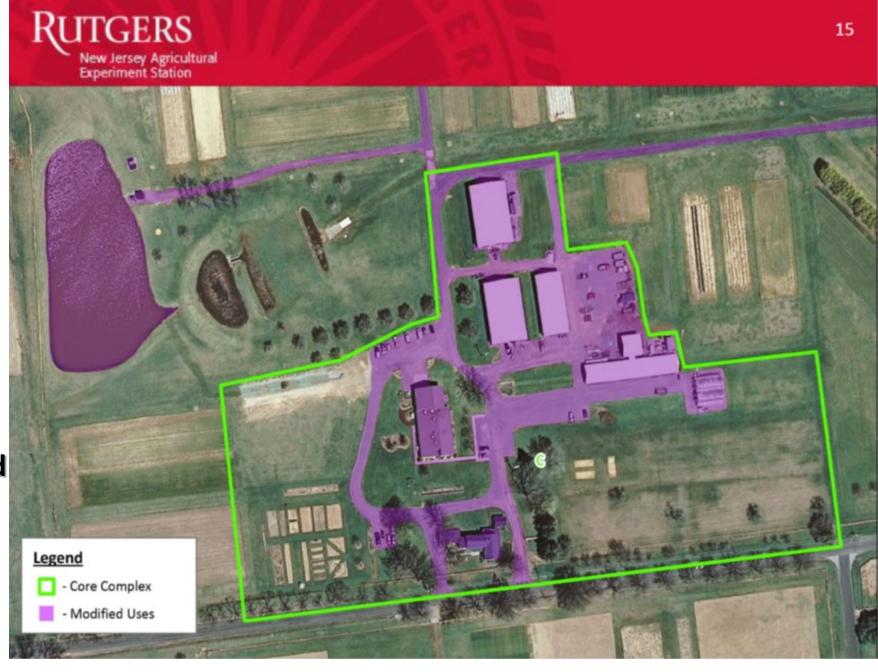
8% of the "farm homestead," on average, is comprised of the "core complex."



- 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.

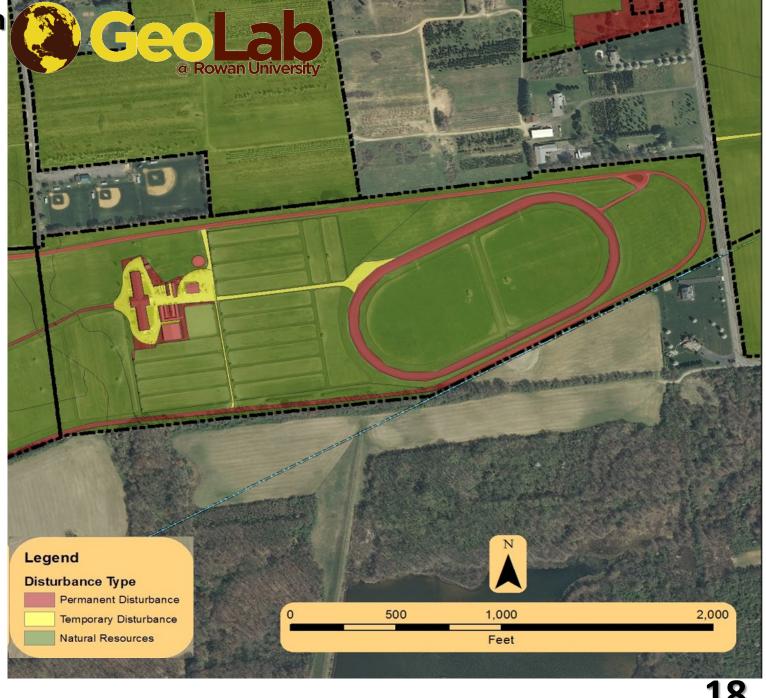


- In 2013, SADC commissioned Rowan GeoLab due to limitations in the **Rutgers study:**

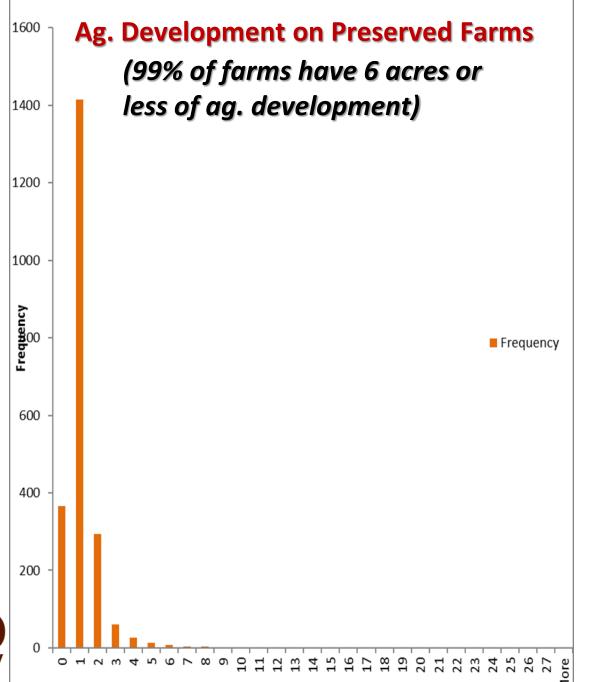
Only 10 farms were studied **Only Central NJ was studied** Only highly developed farms studied

- 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



Bin



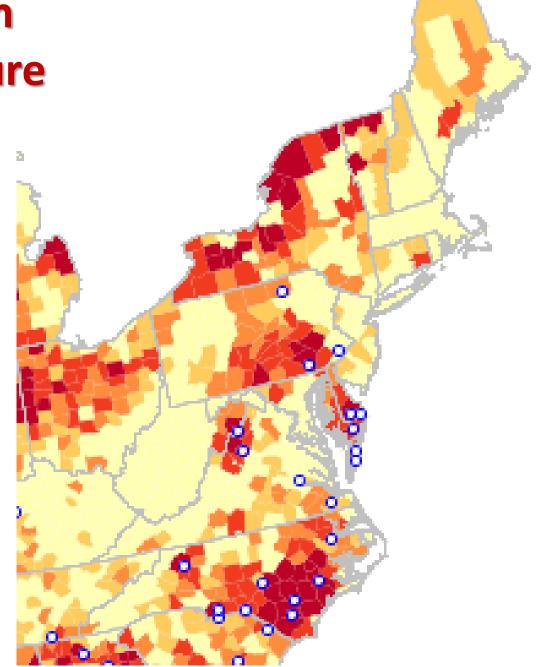
X Axis (Bin) = Ag. Development Acres

Table 8 - 2012 Census of Agriculture¹

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
Average Farmstead Complex % of Farm	6%	

¹Statistics derived from surveys answered by farmers.

Mid-Atlantic Counties with Intensive Animal Agriculture





Shenandoah Valley Dairy Facilities (VA)



Piedmont Equine Infrastructure (VA)





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.

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 8%/6-acre standard <u>before</u> waivers and exemptions are applied
- Only 3 farms (0.14%) are non-compliant with proposed standards <u>after</u> waivers and exemptions are applied (1 of 3 is Quaker Valley).

