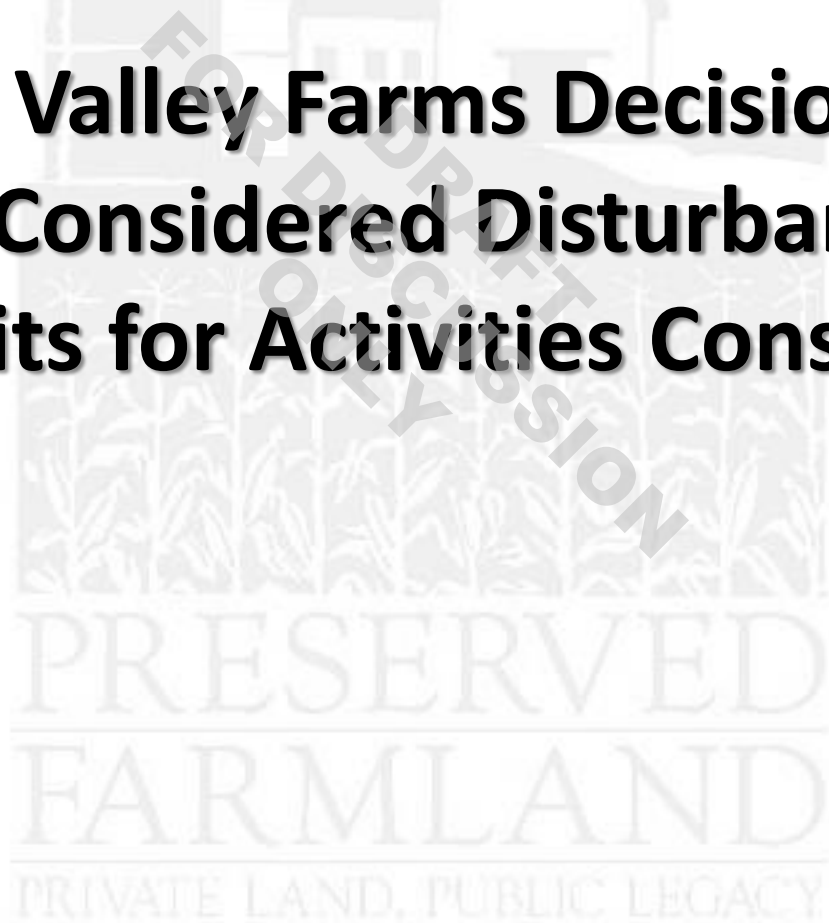


Soil Disturbance Outline

June 27 SADC Meeting

- 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.”

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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.”

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ONLY

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...**

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



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



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)

Weed Fabric



Hoophouses



Solar Panels



Unimproved Farm Lanes



Clarify Approved Soil & Water Practices are Exempt

Agrichemical Handling Facilities
Animal Waste Control Facilities
Contour Farming
Critical Areas Planting
Diversions
Drainage System - Open
Drainage System - Underground
Forest Natural Regeneration Site Preparation
Forest Tree Plantations
Forest Tree Stand Improvement
Irrigation Systems
Land Shaping or Grading
Livestock Watering Facilities
Sod Waterways
Strip Cropping Systems
Stream Protection
Terrace Systems
Water Control/Sediment Retention/Erosion Control Structures
Water Impoundment Reservoirs
Windbreak Restoration or Establishment

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

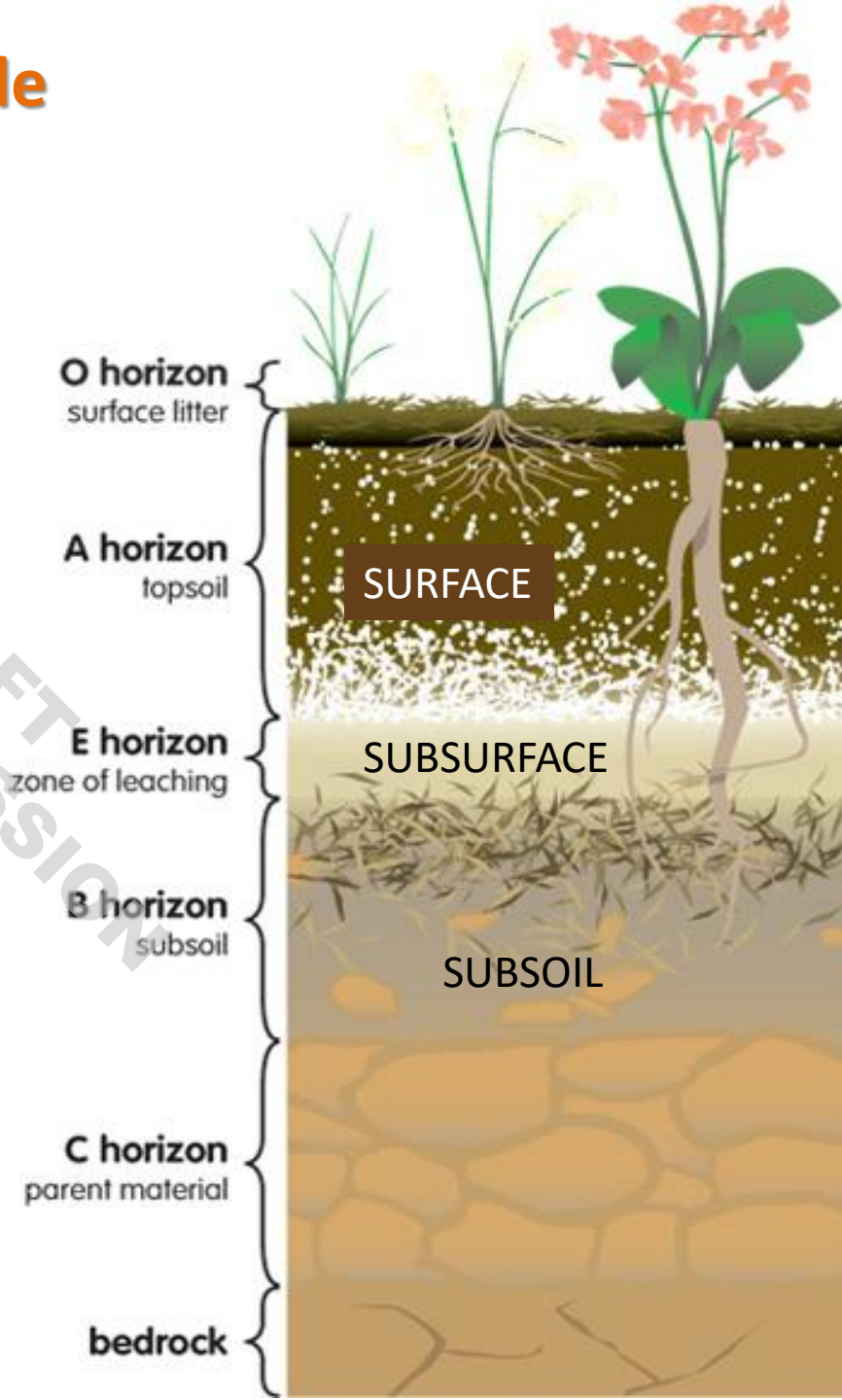


Soil Profile

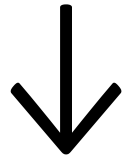
Plow Layer - the soil that is moved in normal tillage, also known as the surface layer (average maximum thickness in New Jersey of 12 inches).

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 Boundaries on Certain Land Uses



Degree of Irreversibility

LAND USE	LIMITATION CLASS	EXEMPTION CLASS
WETLANDS	NO LIMIT ON ACTIVITY	ALWAYS EXEMPT
WOODLAND		
AGRICULTURAL PRODUCTION (PASTURELAND, CROPLAND)		
CURTILAGE/LAWN		
WEED FABRIC	NO LIMIT ON ACTIVITY IF FOLLOWING BMPs; SUBJECT TO 8%/6 ACRES LIMIT IF NOT FOLLOWING BMPs	ALL PRE-EXISTING USES EXEMPTED FROM STANDARDS; ALL FUTURE USES SUBJECT TO STANDARDS
HOOPHOUSES		
SOLAR PANELS		
FARMLANE (GRASS, DIRT, AND SAND)		
IRRIGATION PONDS		
FARMLANE (GRAVEL)	ADDITIONAL ALLOWANCE OF 5% OF THE PREMISES (BEYOND 8%/6 ACRES THRESHOLD) IF FOLLOWING BMPs; SUBJECT TO 8%/6 ACRES IF NOT FOLLOWING	ALL PRE-EXISTING AND FUTURE USES SUBJECT TO STANDARDS
EQUINE TRACK (COMPACTED GRASS AND DIRT; SAND AND GRAVEL)		
PARKING (COMPACTED GRASS AND DIRT; GRAVEL)		
DRIVEWAY (ASPHALT, CONCRETE)	LIMITED TO 8% OF THE PREMISES OR 6 ACRES, WHICHEVER IS GREATER	ALL PRE-EXISTING AND FUTURE USES SUBJECT TO STANDARDS
PARKING (ASPHALT, CONCRETE)		
SOIL MOVEMENT BELOW PLOW LAYER (INCLUDES STORMWATER BASINS)		
BUILDINGS/STRUCTURES/HARDSCAPE		



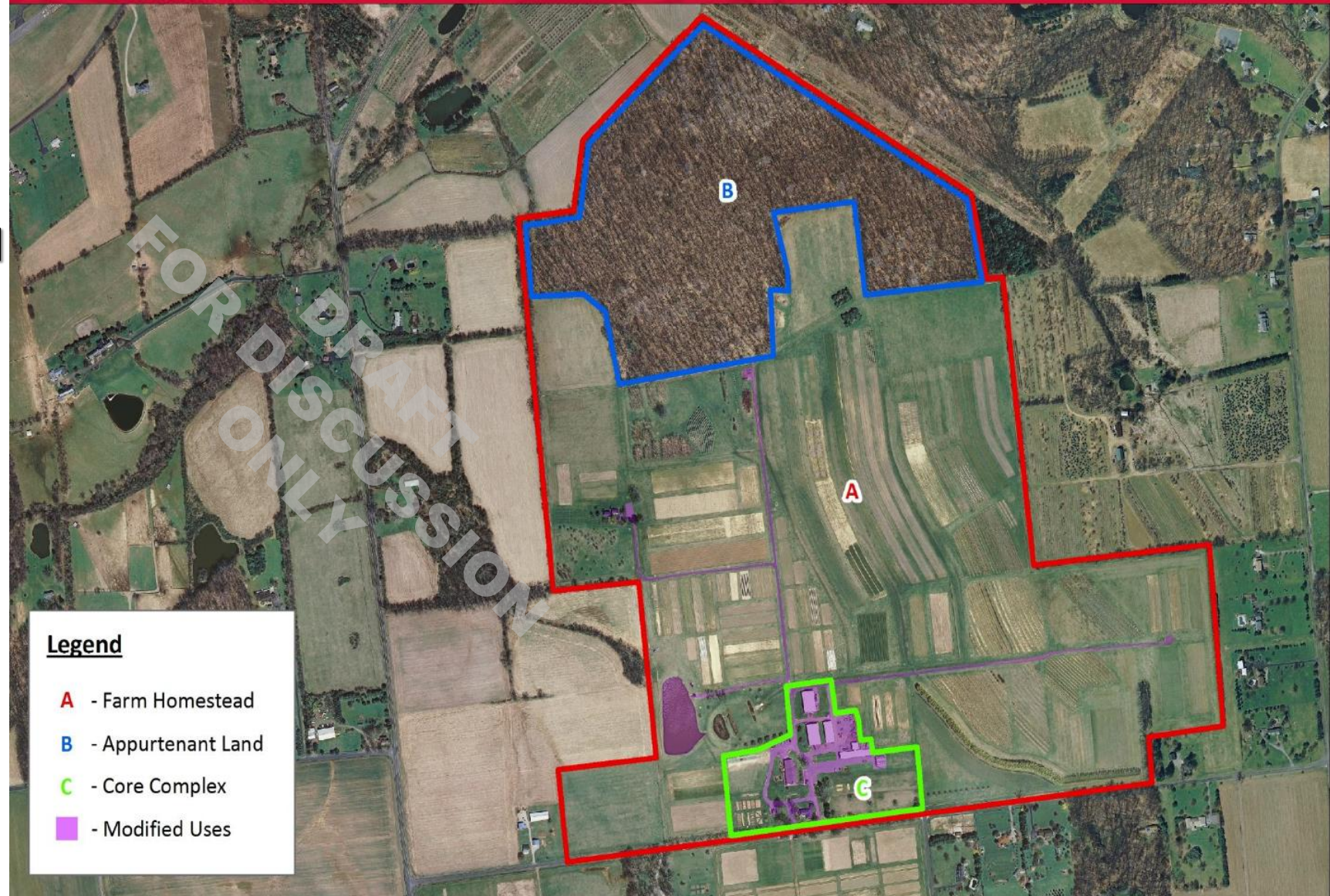
What Should be the Prescribed Limits for Ag. Development?

- 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*

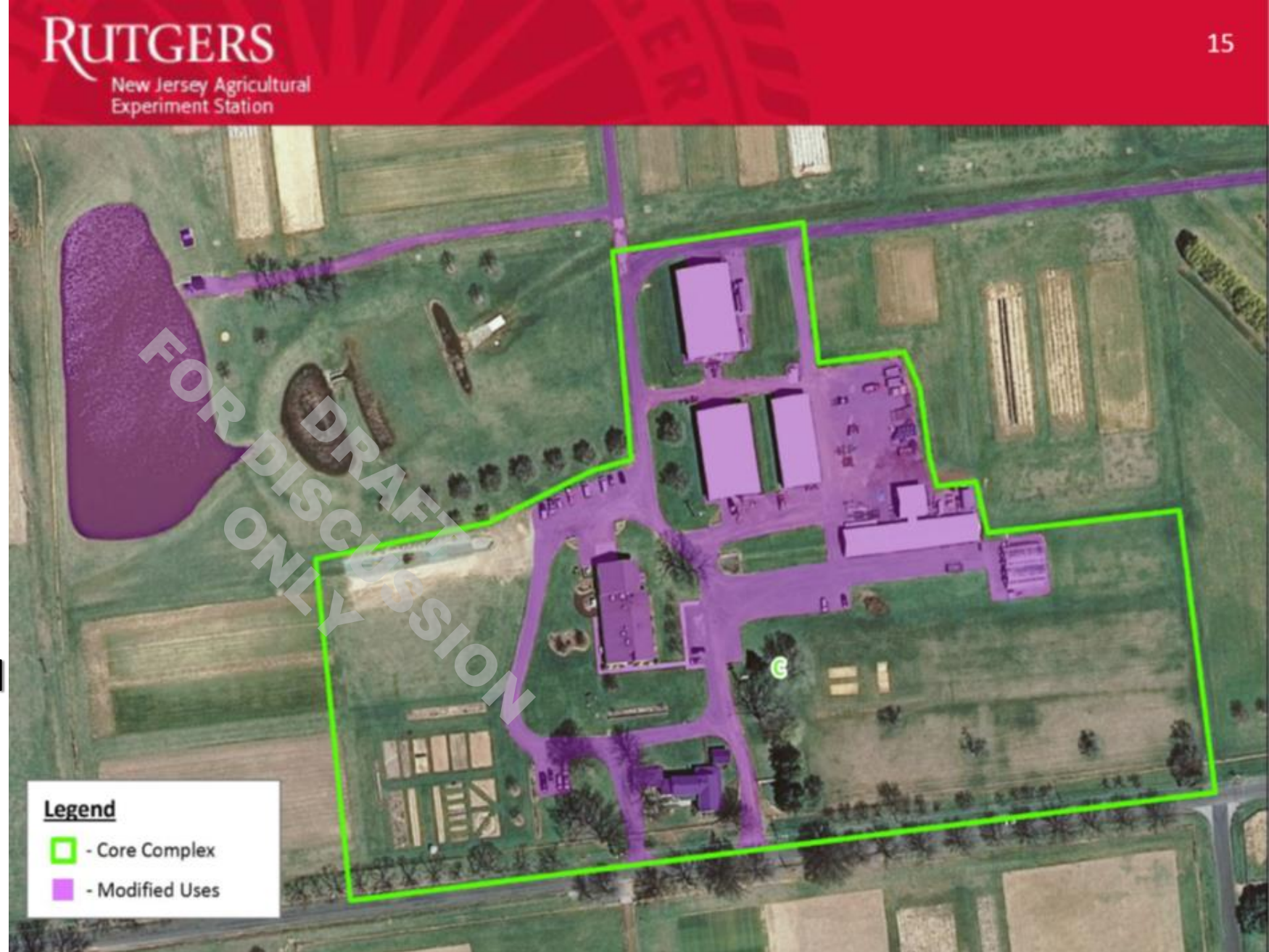
8% of the “farm homestead,”
on average, is comprised of
the “core complex.”



- 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 2014, SADC commissioned Rowan GeoLab due to limitations in the Rutgers study:

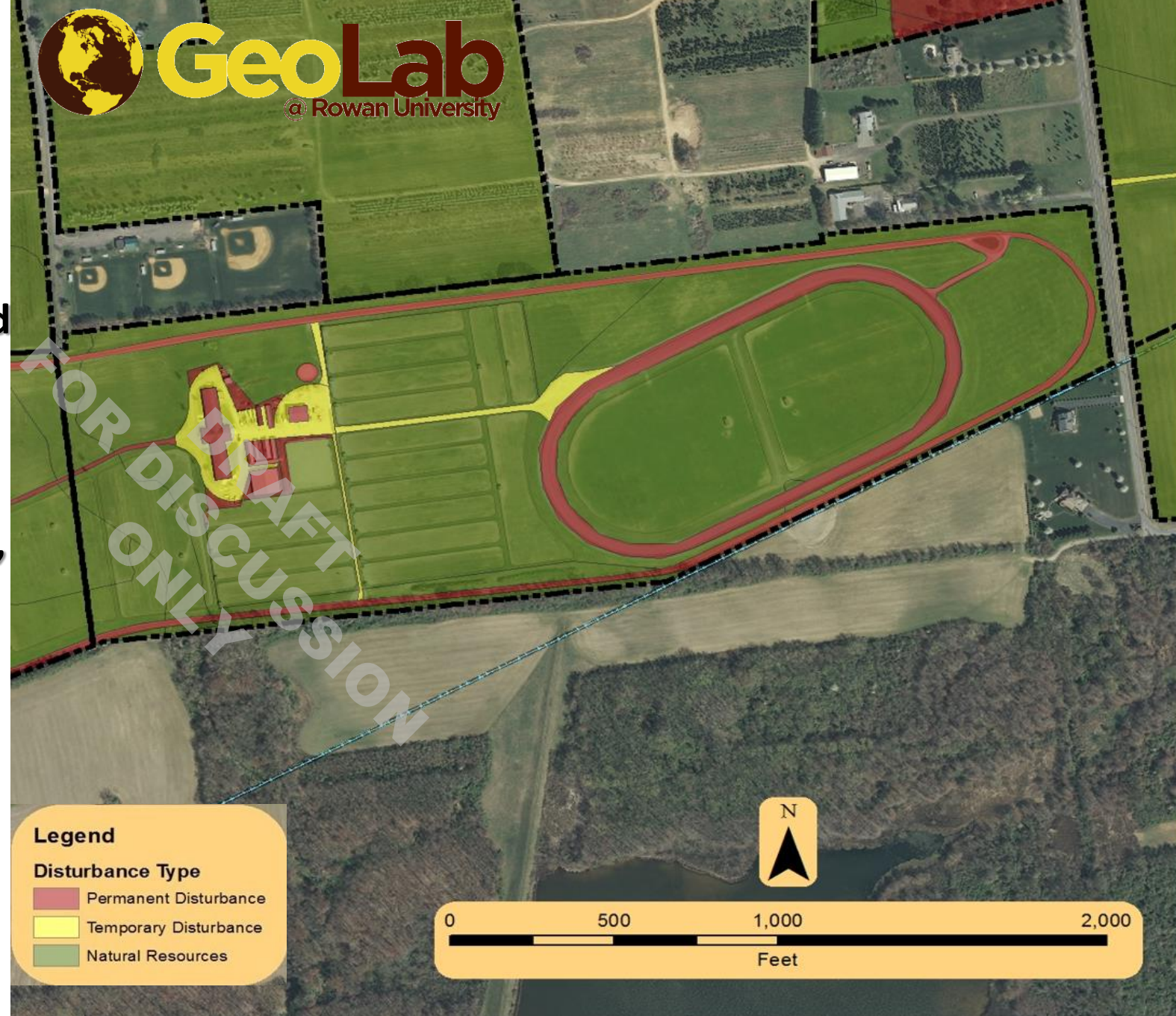
Only 10 farms were studied

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**.



Y Axis (Frequency) =
Number of Farms

Ag. Development on Preserved Farms
*(99% of farms have 6 acres or
less of ag. development)*

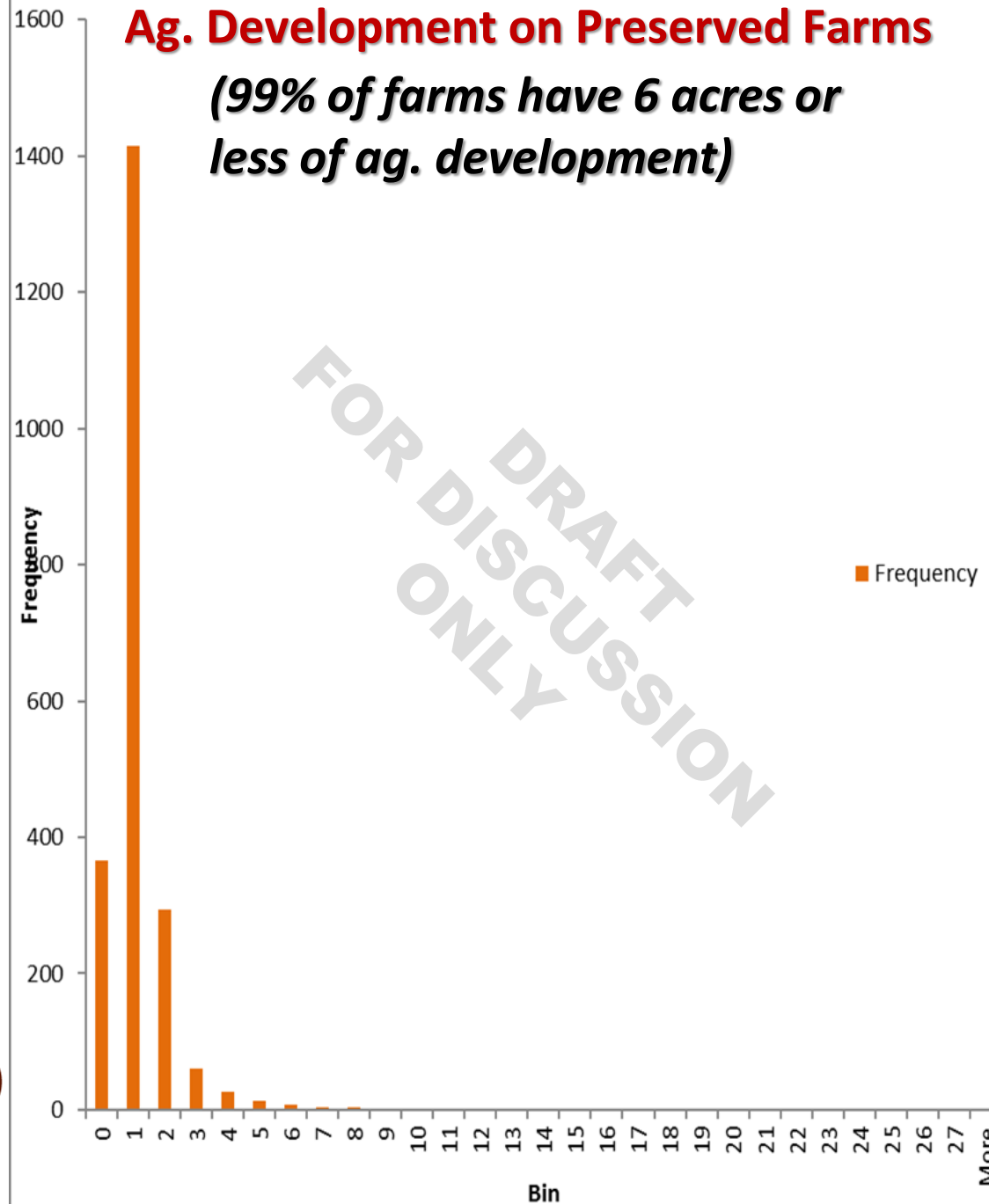
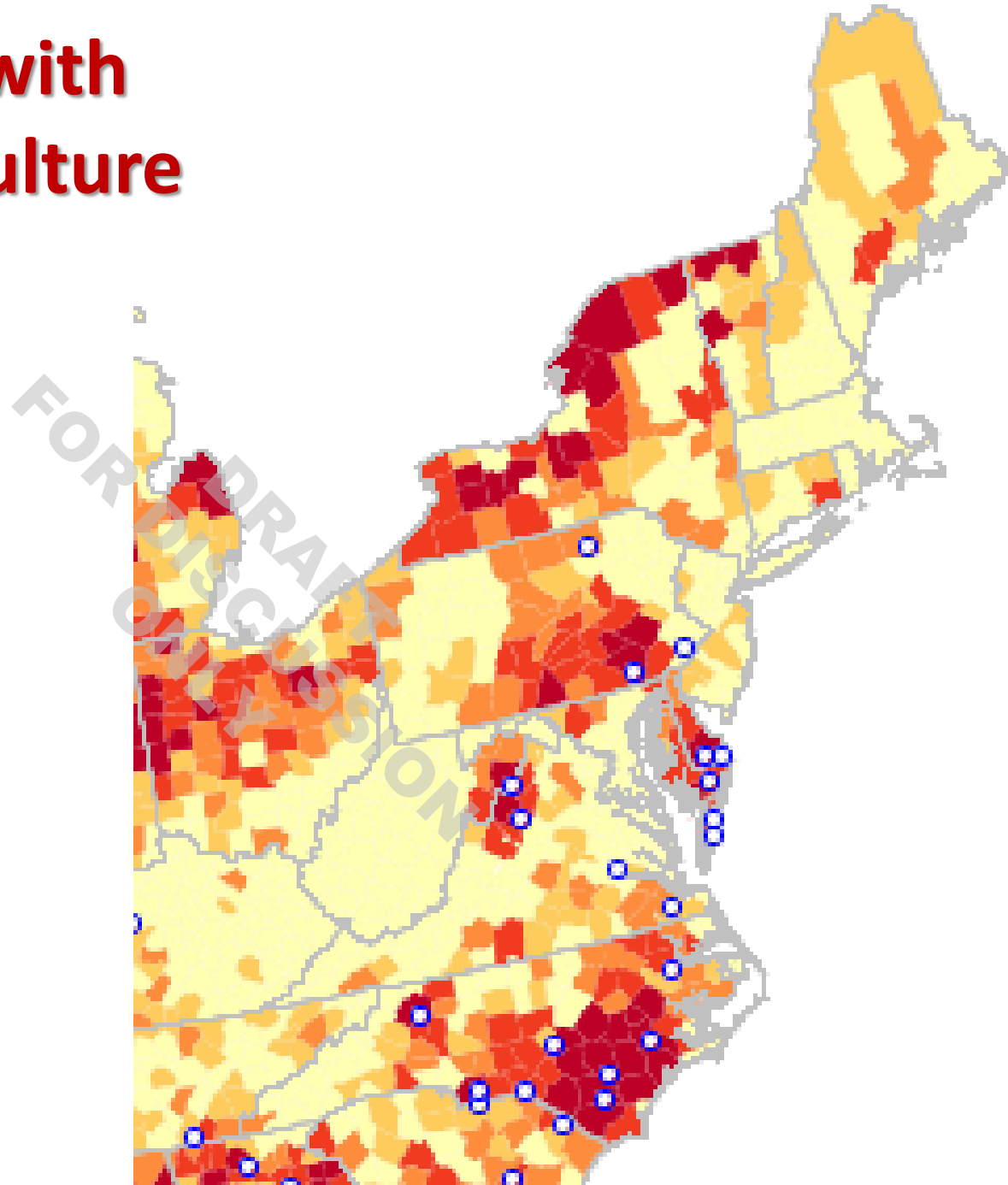


Table 8 - 2012 Census of Agriculture¹

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%	

¹ Statistics derived from surveys answered by farmers.

Mid-Atlantic Counties with Intensive Animal Agriculture

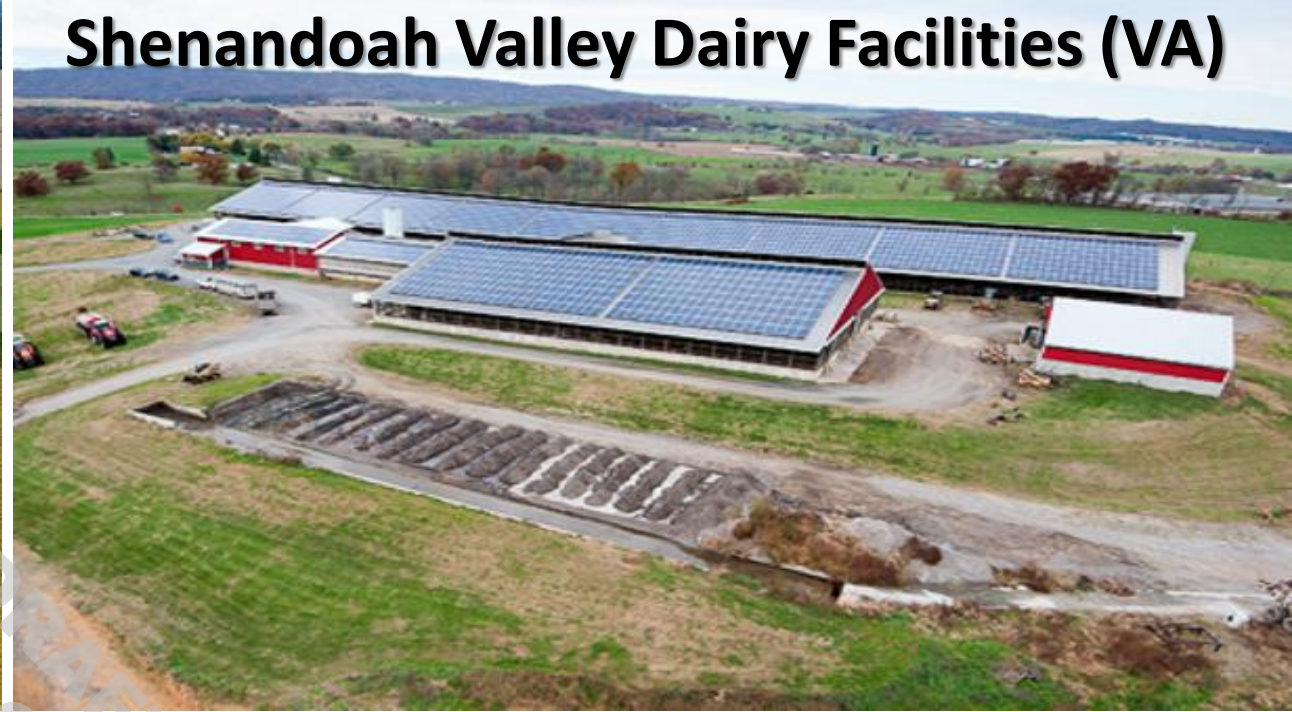


o Location of processing plants

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.**

Compliance with 8% of Premises/6 acres Limitation*

IDN #	County	Operation Type	Farm Acres (GIS)	Development Acres (GIS)	Disturbance Percentage (GIS)	Compliance with 6 acres or 8%?
4103	Cumberland	Nursery	510	77	15%	No
4053	Cumberland	Nursery	251	32	13%	No
4324	Mercer	Equine	99	11	11%	No
3683	Burlington	Equine	40	9	23%	No
8555	Monmouth	Equine	42	9	22%	No
9150	Warren	Greenhouse	77	7	9%	No

**Out of a total sample size of nearly 1/3 of the total farms in the state -- 2,736 farms -- only 6 farms would be non-compliant exclusive of Quaker Valley Farms*

What is Causing Non-Compliance?

Nursery Operations - travel lanes
Equine Operations - training tracks

Commonality - gravel



Gravel as Major Source of High Development Figures

Farm Acres (GIS)	Buildings and Hardscape Acres (GIS)	Buildings and Hardscape % (GIS)	Gravel Acres (GIS)	Gravel Percentage (GIS)	Total Development Acres (GIS)	Disturbance Percentage (GIS)
510	23	5%	54	11%	77	15%
251	9	4%	22	9%	32	13%
99	2	2%	9	9%	11	11%
40	3	9%	5	14%	9	23%
42	4	11%	4	10%	9	22%
77	5	7%	2	3%	7	9%

Ideas for Responding to Needs of These Sectors?

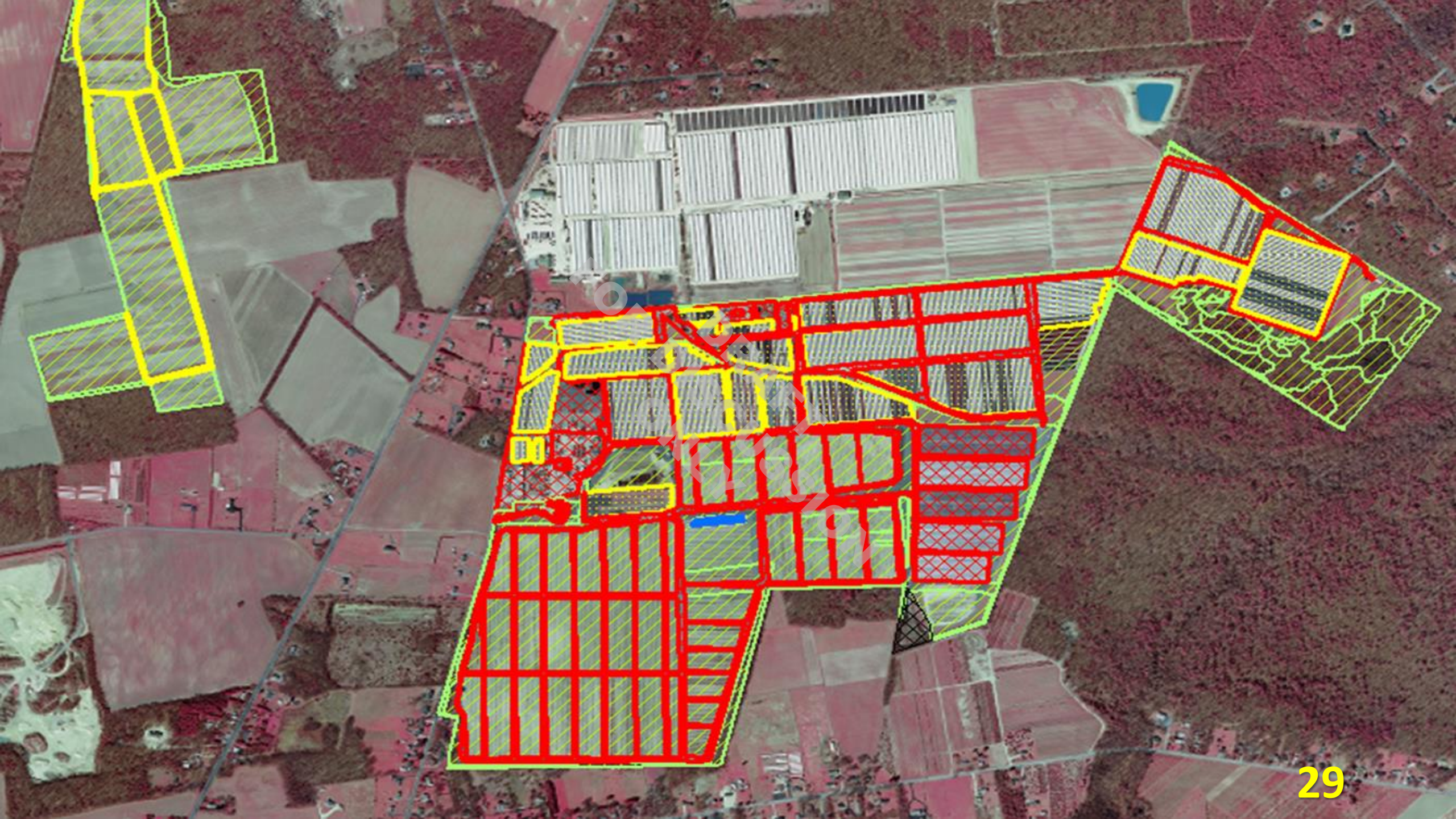
(1 out of every 3 farms in NJ is equine or nursery)

- **Create Best Management Practice for Use of Gravel**
- **Create Additional Allowance for Gravel Areas**

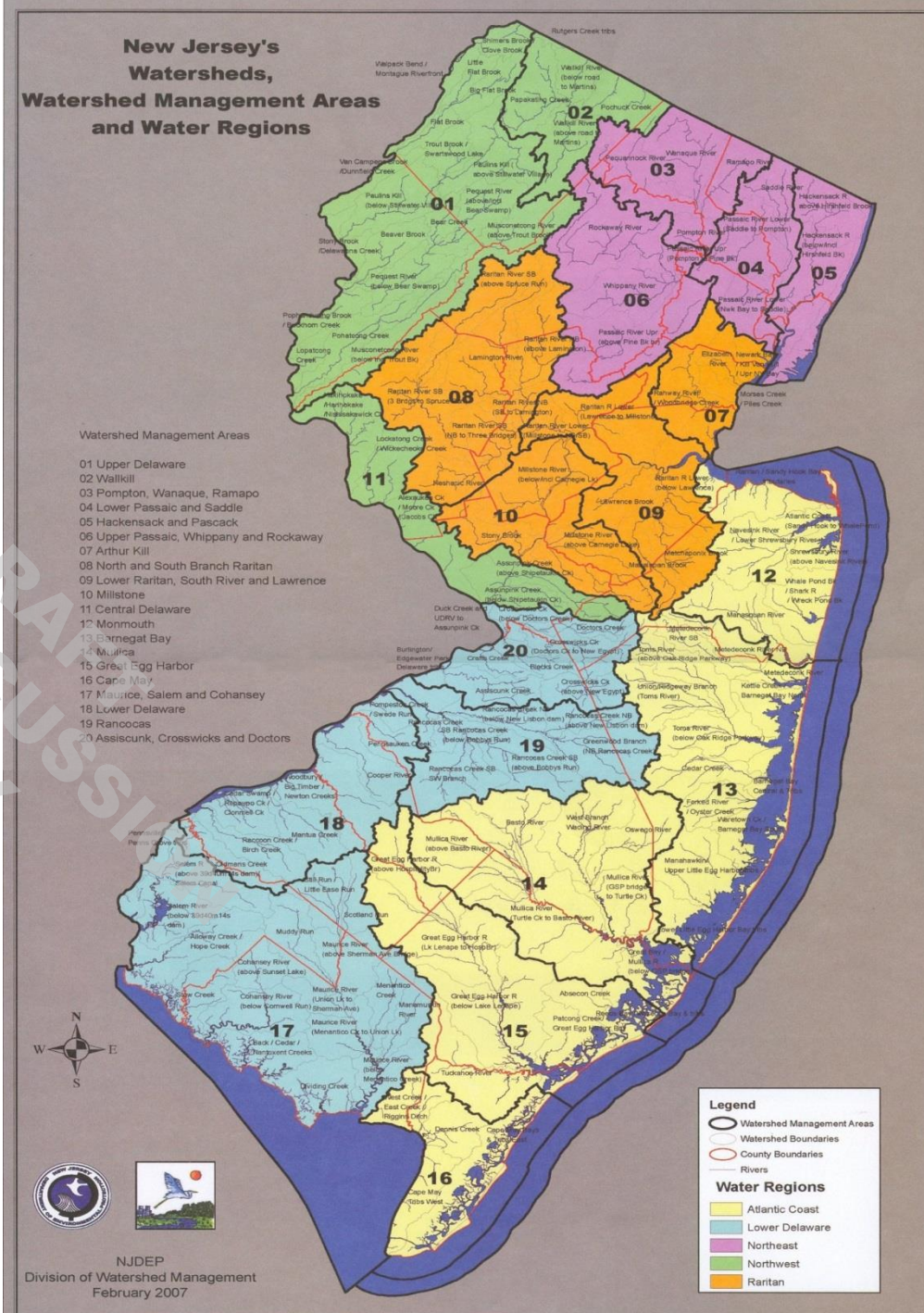
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Compliance with 6% of Premises Gravel Waiver Included

Farm Acres (GIS)	Gravel Acres with 6% Waiver	Gravel Percentage with 6% Waiver	Revised Total Development Acres with Waiver	Revised Development Percentage	Compliance with 6% Gravel Waiver Included?
510	23	5%	46	9%	No
251	7	3%	17	7%	Yes
99	3	3%	5	5%	Yes
40	3	8%	6	16%	Yes
42	2	4%	6	15%	Yes
77	0	0%	5	7%	Yes



Environmental Considerations of Proposed Methodology



Runoff Considerations



United States
Department of
Agriculture

**Natural
Resources
Conservation
Service**

**Conservation
Engineering
Division**

Technical
Release 55

June 1986

Urban Hydrology for Small Watersheds

TR-55

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NRCS TR-55 Runoff Curve Numbers

<u>Cover Type</u>	<u>Avg. Curve Number (Percent Runoff)</u>
Urban Areas (paved parking, driveways, roofs)	98
Suburban Residential Development	79
<u>Farmsteads (buildings, driveways, lanes)</u>	<u>75</u>
Farmland (row crops/small grain/pasture/fallow)	73
Open Space (parks, golf courses, cemeteries)	71

Refined Impervious Cover Analysis for the Four Central Texas Salamanders
U.S. Fish & Wildlife Service, Austin Ecological Services Field Office
August 2013

Watershed Impervious Cover Impacts Conclusions:

- **None: 0 percent impervious cover in the watershed**
- **Low: >0 to 10 percent impervious cover in the watershed**
- **Medium: >10 to 20 percent impervious cover in the watershed**
- **High: Greater than 20 percent impervious cover in the watershed**

Next Steps

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July 25 SADC Meeting Considerations

- 1. Impact of Proposed Standards on Smaller Farms**
- 2. Allowance for Heavy Use (“Orange”) Areas**
- 3. Exempting Temporary Disturbances (“Yellow”)**



Divide Between More and Less Intensive Operations

NAICS Code	Number of Farms	Farm Acres	Average Farm Acres
Sheep and goat farming (1124)	753	14,067	18.68
Other animal - apiculture, equine, rabbit (1129)	1,943	50,028	25.75
Poultry and egg production (1123)	286	10,213	35.71
Hog and pig farming (1122)	58	2,462	42.45
Greenhouse/nursery/floriculture (1114)	1,540	83,254	54.06
Aquaculture (1125)	77	5,269	68.43
Cattle ranching and farming (1121)	792	55,631	70.24
Other crop farming - hay (1119)	2,143	160,715	75.00
Vegetable and melon farming (1112)	895	88,106	98.44
Fruit and tree nut farming (1113)	586	66,500	113.48
Oilseed and grain farming (1111)	810	197,839	244.25
Totals/Average	9,883	734,084	74.28

Acreage Range	Statistical Measure	Farm Acres	Total Permanent and Temporary Disturbance Acres	Total Permanent and Temporary Disturbance % of Farm Acres
Up to 24.99 ac. (260 farms; 11.8% of total)	Totals	4,282.64	169.61	
	Avg.	16.47	0.65	3.96%
	Med.	17.35	0.52	3.14%
	St. Dev.	5.04	0.62	5.04%
25 - 49.99 ac. (487 farms; 22.2% of total)	Totals	17,963.59	585.23	
	Avg.	36.89	1.20	3.26%
	Med.	36.53	0.77	2.08%
	St. Dev.	7.37	1.40	3.85%
50 - 74.99 ac. (400 farms; 18.2 % of total)	Totals	24,687.99	673.99	
	Avg.	61.72	1.68	2.73%
	Med.	61.60	1.07	1.77%
	St. Dev.	7.37	2.48	4.16%
75 - 149.99 ac. (723 farms; 32.9% of total)	Totals	76,867.78	1,836.34	
	Avg.	106.32	2.54	2.39%
	Med.	104.29	1.75	1.61%
	St. Dev.	20.89	3.45	3.22%
150 + acres (328 farms; 14.9% of total)	Totals	81,997.69	2,266.85	
	Avg.	249.99	6.91	2.76%
	Med.	204.82	3.51	1.62%
	St. Dev.	139.17	14.97	4.15%
All acreage (2,198 farms; 100% of total)	Grand Totals	205,799.70	5,532.02	
	Avg.	93.63	2.52	2.69%
	Med.	71.42	1.28	1.84%
	St. Dev.	91.42	6.53	3.98%

			Red+Orange+Yellow Columns		Red + Orange Columns		Yellow Columns	
Acreage Range	Statistical Measure	Farm Acres	Total Permanent and Temporary Disturbance Acres	Total Permanent and Temporary Disturbance % of Farm Acres	Total Permanent Disturbance Acres	Total Permanent Disturbance % of Farm Acres	Total Temporary Disturbance Acres	Total Temporary Disturbance % of Farm Acres
Up to 24.99 ac. (260 farms; 11.8% of total)	Totals	4,282.64	169.61		85.57		84.03	
	Avg.	16.47	0.65	3.96%	0.33	2.00%	0.32	1.96%
	Med.	17.35	0.52	3.14%	0.22	1.74%	0.21	0.95%
	St. Dev.	5.04	0.62	5.04%	0.43	3.90%	0.40	2.31%
25 - 49.99 ac. (487 farms; 22.2% of total)	Totals	17,963.59	585.23		241.58		343.65	
	Avg.	36.89	1.20	3.26%	0.50	1.34%	0.71	1.91%
	Med.	36.53	0.77	2.08%	0.25	0.94%	0.39	0.81%
	St. Dev.	7.37	1.40	3.85%	0.78	2.79%	1.03	2.07%
50 - 74.99 ac. (400 farms; 18.2 % of total)	Totals	24,687.99	673.99		205.42		468.57	
	Avg.	61.72	1.68	2.73%	0.51	0.83%	1.17	1.90%
	Med.	61.60	1.07	1.77%	0.28	0.66%	0.63	0.78%
	St. Dev.	7.37	2.48	4.16%	0.80	2.92%	2.15	2.56%
75 - 149.99 ac. (723 farms; 32.9% of total)	Totals	76,867.78	1,836.34		478.51		1,357.82	
	Avg.	106.32	2.54	2.39%	0.66	0.62%	1.88	1.77%
	Med.	104.29	1.75	1.61%	0.38	0.66%	1.18	0.73%
	St. Dev.	20.89	3.45	3.22%	0.97	1.74%	3.15	2.52%
150 + acres (328 farms; 14.9% of total)	Totals	81,997.69	2,266.85		447.38		1,819.47	
	Avg.	249.99	6.91	2.76%	1.36	0.55%	5.55	2.22%
	Med.	204.82	3.51	1.62%	0.66	0.63%	2.48	0.75%
	St. Dev.	139.17	14.97	4.15%	2.75	1.64%	13.97	3.38%
All acreage (2,198 farms; 100% of total)	Grand Totals	205,799.70	5,532.02		1,458.47		4,073.55	
	Avg.	93.63	2.52	2.69%	0.66	0.71%	1.85	1.98%
	Med.	71.42	1.28	1.84%	0.33	0.78%	0.73	0.77%
	St. Dev.	91.42	6.53	3.98%	1.34	2.60%	6.01	2.57%

Additional Allowance for Heavy Use Areas

Nursery Operations - travel lanes

Equine Operations - training tracks

Commonality - gravel



1 out of every 3 farms in NJ is equine or nursery



Gravel as Practice to Reduce Erosion

Ag. Tourism Operations - Unimproved Parking



1 out of every 5 farms in NJ conduct ag. tourism



Exempting Temporary Disturbances (in compliance with BMPs)

Best Management Practices (BMPs)

Weed Fabric



Hoophouses



Solar Panels



Unimproved Farm Lanes



Acreage Range	Statistical Measure	Buildings and Structures Acres	Parking Improved Acres	Parking Unimproved Acres	Farmlane Improved Acres	Equine Track Improved and Unimproved Acres	Man-Made Pond Acres	Farmlane Unimproved Acres	Hoophouse Acres	Weed Fabric Acres	Solar Panels Acres
Up to 24.99 ac. (260 farms; 11.8% of total)	Totals	41.47	3.98	24.78	9.95	5.39	16.91	62.81	4.23	0.00	0.08
	Avg.	0.16	0.02	0.10	0.04	0.02	0.07	0.24	0.02	0.00	0.00
	Med.	0.13	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00
	St. Dev.	0.15	0.05	0.23	0.11	0.13	0.22	0.29	0.10	0.00	0.00
25 - 49.99 ac. (487 farms; 22.2% of total)	Totals	111.88	16.04	58.15	22.46	33.06	97.84	224.65	12.00	8.93	0.21
	Avg.	0.23	0.03	0.12	0.05	0.07	0.20	0.46	0.02	0.02	0.00
	Med.	0.14	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00
	St. Dev.	0.31	0.12	0.33	0.19	0.34	0.65	0.63	0.23	0.20	0.01
50 - 74.99 ac. (400 farms; 18.2 % of total)	Totals	103.79	12.18	51.03	17.98	20.44	116.14	300.56	41.64	9.74	0.49
	Avg.	0.26	0.03	0.13	0.04	0.05	0.29	0.75	0.10	0.02	0.00
	Med.	0.17	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00
	St. Dev.	0.33	0.16	0.32	0.13	0.38	1.29	0.97	1.06	0.19	0.01
75 - 149.99 ac. (723 farms; 32.9% of total)	Totals	240.88	26.21	121.27	50.98	39.18	378.11	809.47	68.56	100.43	1.25
	Avg.	0.33	0.04	0.17	0.07	0.05	0.52	1.12	0.09	0.14	0.00
	Med.	0.23	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00
	St. Dev.	0.41	0.17	0.43	0.26	0.49	1.34	1.43	0.90	1.71	0.03
150 + acres (328 farms; 14.9% of total)	Totals	226.67	24.47	93.86	81.33	21.05	662.76	865.27	256.83	34.01	0.61
	Avg.	0.69	0.07	0.29	0.25	0.06	2.02	2.64	0.78	0.10	0.00
	Med.	0.41	0.00	0.05	0.00	0.00	0.34	1.62	0.00	0.00	0.00
	St. Dev.	1.35	0.35	0.73	1.10	0.52	5.89	4.00	8.56	1.29	0.02
All acreage (2,198 farms; 100% of total)	Grand Totals	724.69	82.87	349.09	182.69	119.12	1,271.76	2,262.77	383.26	153.12	2.65
	Avg.	0.33	0.04	0.16	0.08	0.05	0.58	1.03	0.17	0.07	0.00
	Med.	0.20	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00
	St. Dev.	0.63	0.19	0.44	0.47	0.42	2.56	1.97	3.38	1.11	0.02

Soil Protection Discussion Outline

September 26 SADC Meeting

Chart:


1. Review Land Use Schema.

Visuals:

1. Farms in compliance due to “yellow” best management practices (BMPs).
2. Farms in compliance due to “orange” BMPs.
3. Farms in compliance due to waiver for additional allowance.
4. Farms over the limit no matter exemptions or waivers afforded.

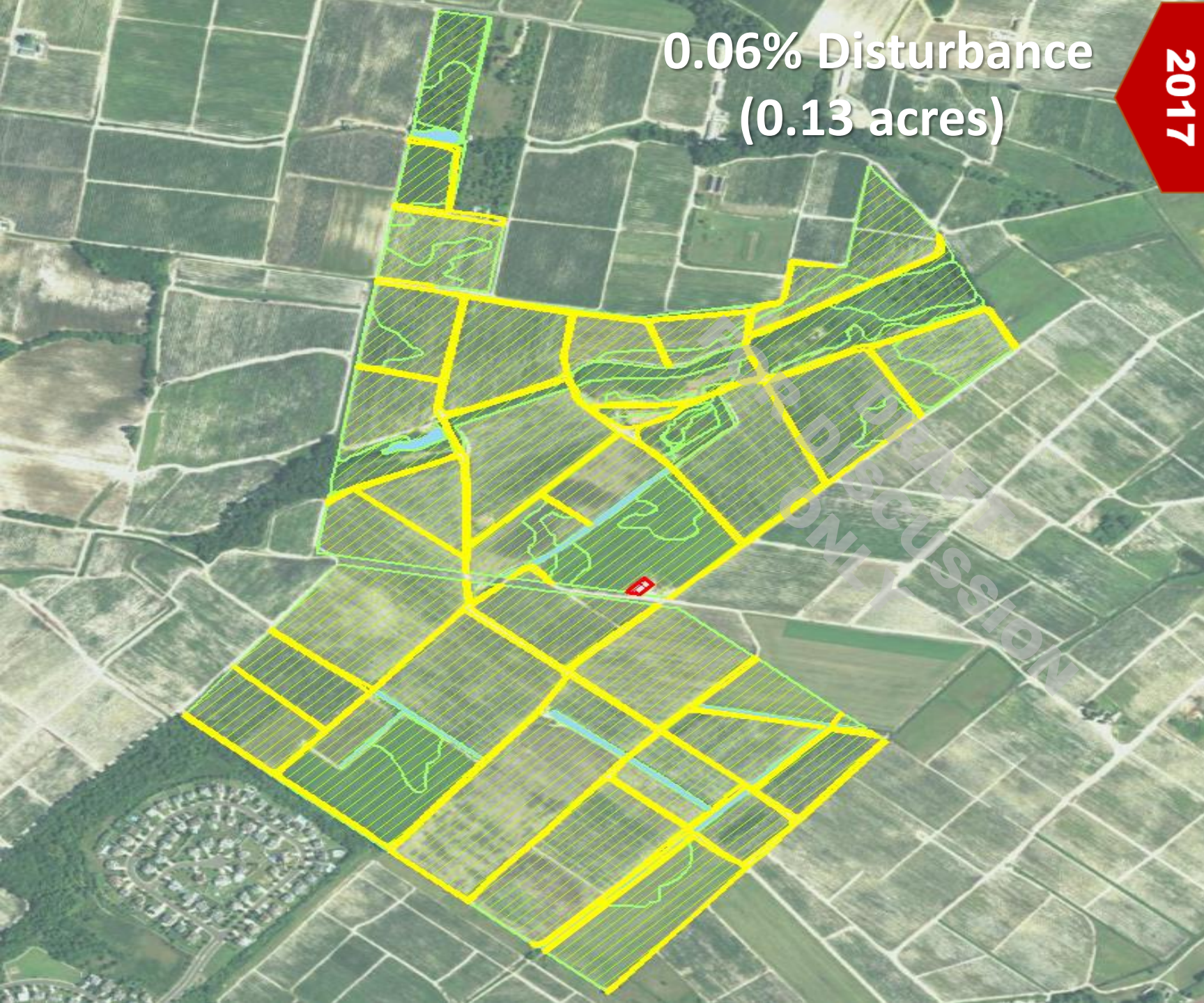


Conceptualized Soil Protection Land Use Schema

 Degree of Irreversibility	LAND USE	LIMITATION CLASS	EXEMPTION CLASS
	WETLANDS	NO LIMIT ON ACTIVITY	ALWAYS EXEMPT
	WOODLAND		
	AGRICULTURAL PRODUCTION (PASTURELAND, CROPLAND)		
	CURTILAGE/LAWN		
	WEED FABRIC	NO LIMIT ON ACTIVITY IF FOLLOWING BMPs; SUBJECT TO 8%/6 ACRES LIMIT IF NOT FOLLOWING BMPs	ALL PRE-EXISTING USES EXEMPTED FROM STANDARDS; ALL FUTURE USES SUBJECT TO STANDARDS
	HOOPHOUSES		
	SOLAR PANELS		
	FARMLANE (GRASS, DIRT, AND SAND)		
	IRRIGATION PONDS		
	FARMLANE (GRAVEL)	ADDITIONAL ALLOWANCE OF 5% OF THE PREMISES (BEYOND 8%/6 ACRES THRESHOLD) IF FOLLOWING BMPs; SUBJECT TO 8%/6 ACRES IF NOT FOLLOWING	ALL PRE-EXISTING AND FUTURE USES SUBJECT TO STANDARDS
	EQUINE TRACK (COMPACTED GRASS AND DIRT; SAND AND GRAVEL)		
	PARKING (COMPACTED GRASS AND DIRT; GRAVEL)		
	DRIVEWAY (ASPHALT, CONCRETE)	LIMITED TO 8% OF THE PREMISES OR 6 ACRES, WHICHEVER IS GREATER	ALL PRE-EXISTING AND FUTURE USES SUBJECT TO STANDARDS
	PARKING (ASPHALT, CONCRETE)		
	SOIL MOVEMENT BELOW PLOW LAYER (INCLUDES STORMWATER BASINS)		
	BUILDINGS/STRUCTURES/HARDSCAPE		

- Any land use that is considered disturbance may be potentially remediated and disturbance acreage reduced after landowner has proven remediation meets Committee-approved standards.
- Farms with disturbance currently in excess of prescribed limitation can receive an additional waiver up to 2% or 2 acres, whichever is greater.





0.06% Disturbance
(0.13 acres)

2017

Category Name	Acres
Unknown	0
	0
Curtilage/Lawn	0
Natural Water	0
Ag Production (Pastureland/Cropland)	182.8523
Woodland	3.610778
Wetlands	9.857992
Barren	4.353504
	0
Farmlane (Grass/Dirt/Sand)	13.29639
Hoophouses	0
Weed Fabric	0
Solar Panels	0
	0
Building	0.125773
Structure (Silo)	0
Structure (Tower)	0
Soil Movement (Pit)	0
Parking (Asphalt/Concrete)	0
Parking (Compacted/Gravel)	0
Driveway (Asphalt/Gravel)	0
Hardscape (General)	0
Equine Track	0
Hardscape (Pool)	0
Irrigation Pond	3.36173
Soil Movement (Stormwater Basin)	0
Farmlane (Gravel)	0
	217.4585

16% Disturbance
(5 acres)

DRAFT
FOR DISCUSSION
ONLY

2017

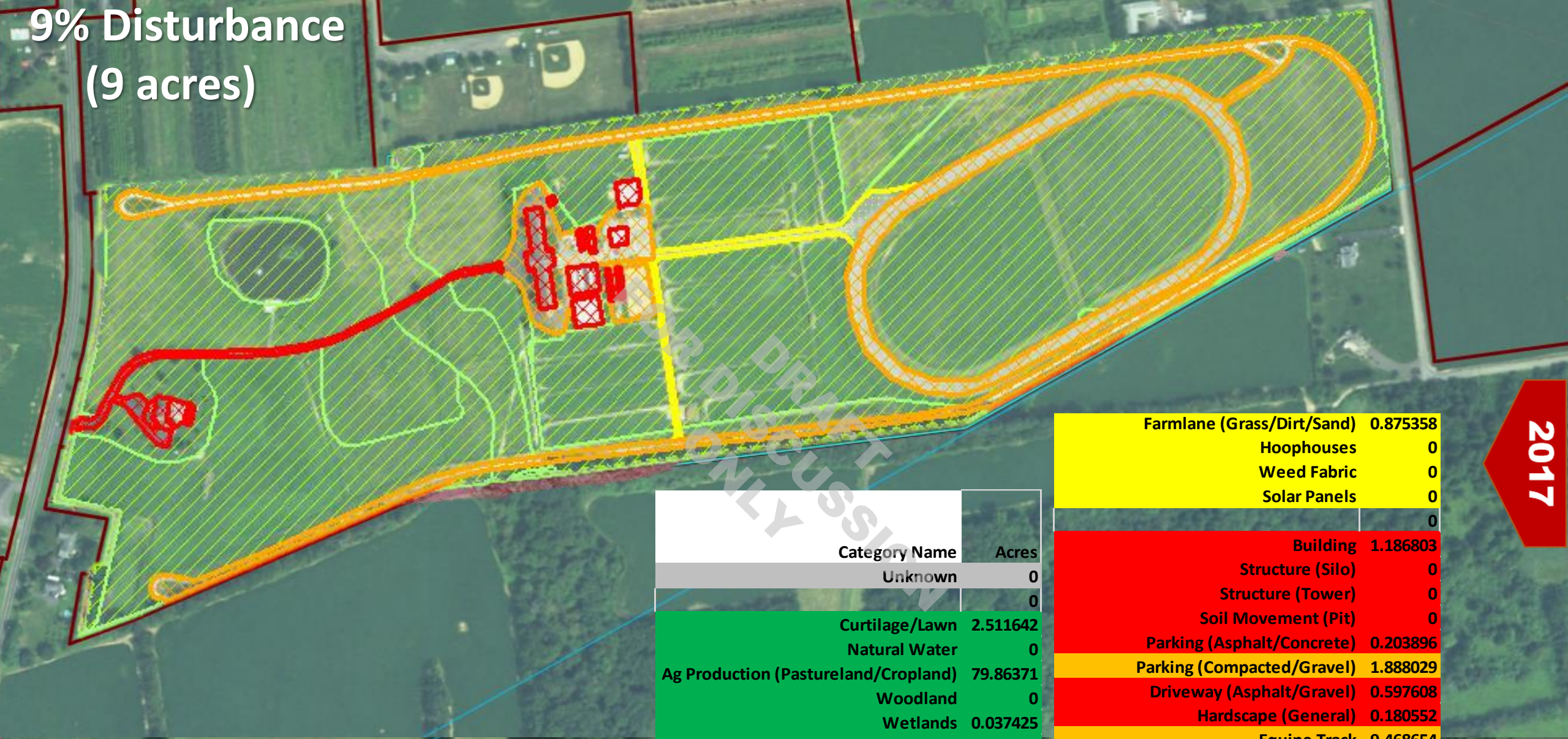
Category Name	Acres
Unknown	0
	0
Curtilage/Lawn	2.45867
Natural Water	0
Ag Production (Pastureland/Cropland)	16.3977
Woodland	3.56157
Wetlands	1.64519
Barren	0
	0
Farmlane (Grass/Dirt/Sand)	0.07151
Hoophouses	0
Weed Fabric	2.37023
Solar Panels	0
	0
Building	3.65253
Structure (Silo)	0
Structure (Tower)	0
Soil Movement (Pit)	0
Parking (Asphalt/Concrete)	0.42444
Parking (Compacted/Gravel)	0.38019
Driveway (Asphalt/Gravel)	1.27771
Hardscape (General)	0.01783
Equine Track	0
Hardscape (Pool)	0.00872
Irrigation Pond	0.01867
Soil Movement (Stormwater Basin)	0
Farmlane (Gravel)	0.03641
	32.3213

8% Disturbance
(7 acres)

2017

Category Name	Acres
Unknown	0
Curtilage/Lawn	2.530246411
Natural Water	0
Ag Production (Pastureland/Cropland)	48.71120848
Woodland	4.905541137
Wetlands	2.671195536
Barren	0
Farmlane (Grass/Dirt/Sand)	2.100092941
Hoophouses	0.743169637
Weed Fabric	5.306752328
Solar Panels	0
Building	6.522291638
Structure (Silo)	0
Structure (Tower)	0
Soil Movement (Pit)	0
Parking (Asphalt/Concrete)	0
Parking (Compacted/Gravel)	1.528895126
Driveway (Asphalt/Gravel)	0
Hardscape (General)	0
Equine Track	0
Hardscape (Pool)	0
Irrigation Pond	0
Soil Movement (Stormwater Basin)	0
Farmlane (Gravel)	2.107596155
	77.12698938

9% Disturbance
(9 acres)



Category Name	Acres
Unknown	0
	0
Curtilage/Lawn	2.511642
Natural Water	0
Ag Production (Pastureland/Cropland)	79.86371
Woodland	0
Wetlands	0.037425
Barren	0
	0

Farmlane (Grass/Dirt/Sand)	0.875358
Hoophouses	0
Weed Fabric	0
Solar Panels	0
	0
Building	1.186803
Structure (Silo)	0
Structure (Tower)	0
Soil Movement (Pit)	0
Parking (Asphalt/Concrete)	0.203896
Parking (Compacted/Gravel)	1.888029
Driveway (Asphalt/Gravel)	0.597608
Hardscape (General)	0.180552
Equine Track	9.468654
Hardscape (Pool)	0.01147
Irrigation Pond	2.001877
Soil Movement (Stormwater Basin)	0
Farmlane (Gravel)	0
	98.82702

2017

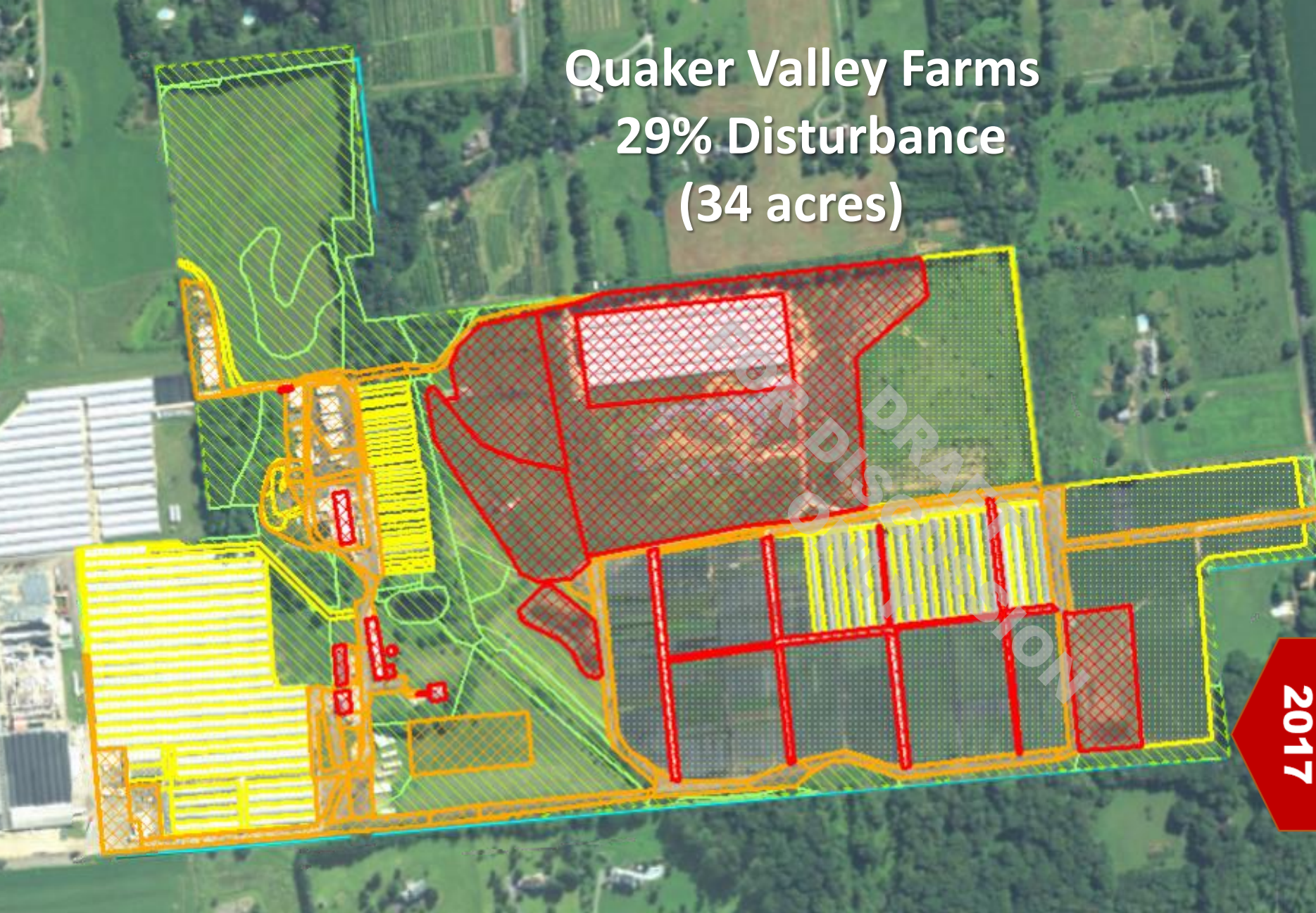
10% Disturbance
(20 acres)

2017

Category Name	Acres
Unknown	0
Curtilage/Lawn	0.451336
Natural Water	0
Ag Production (Pastureland/Cropland)	107.8957
Woodland	5.85689
Wetlands	42.40868
Barren	0
Farmlane (Grass/Dirt/Sand)	0.240297
Hoophouses	0.691481
Weed Fabric	12.18255
Solar Panels	0
Building	13.36816
Structure (Silo)	0.028344
Structure (Tower)	0
Soil Movement (Pit)	0
Parking (Asphalt/Concrete)	0.125207
Parking (Compacted/Gravel)	5.049307
Driveway (Asphalt/Gravel)	0
Hardscape (General)	2.345177
Equine Track	0
Hardscape (Pool)	0
Irrigation Pond	0.461061
Soil Movement (Stormwater Basin)	3.103831
Farmlane (Gravel)	5.820606
	200.0286

Quaker Valley Farms

29% Disturbance (34 acres)



Category Name	Acres
Unknown	0.076933
	0
Curtilage/Lawn	6.05325
Natural Water	0
Ag Production (Pastureland/Cropland)	18.42361
Woodland	3.569403
Wetlands	3.139724
Barren	0.000168
	0
Farmlane (Grass/Dirt/Sand)	1.233849
Hoophouses	17.20262
Weed Fabric	29.38736
Solar Panels	0
	0
Building	0.497511
Structure (Silo)	0.014129
Structure (Tower)	0
Soil Movement (Pit)	16.4717
Parking (Asphalt/Concrete)	0
Parking (Compacted/Gravel)	6.883273
Driveway (Asphalt/Gravel)	1.344739
Hardscape (General)	0
Equine Track	0
Hardscape (Pool)	0
Irrigation Pond	0.377586
Soil Movement (Stormwater Basin)	8.198755
Farmlane (Gravel)	6.647845
	119.5225