

Drone Pilot Project

PortMatamoras

78

Somerville

Clinton

Jervis)

6

SADC Acquisition staff typically conduct reconnaissance farm visits on Direct Easement Applications.

5 farms in North Jersey needed reconnaissance farm visits

- 3 in Vernon & 1 Wantage, Sussex County
- 1 in Mansfield, Warren County

+/- 647 acres total

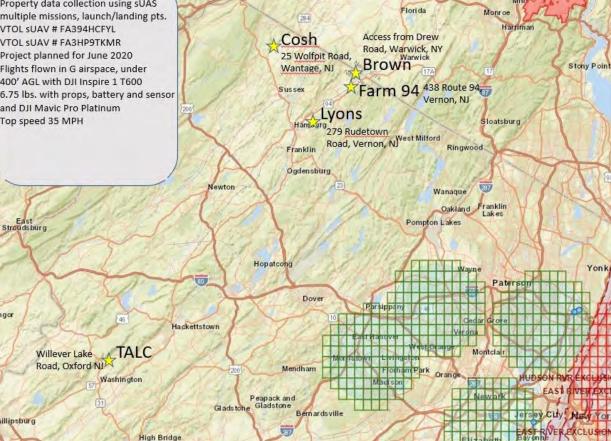
SADC approved a contract to have a private company conduct remote reconnaissance farm visits utilizing drone technology

Federal Aviation Administration

angor

hillipsburg

sUAS Flight Plan- NJ Dept of AG Property data collection using sUAS multiple missions, launch/landing pts. VTOL SUAV # FA394HCFYL VTOL sUAV # FA3HP9TKMR Project planned for June 2020 Flights flown in G airspace, under 400' AGL with DJI Inspire 1 T600 6.75 lbs. with props, battery and sensor and DJI Mavic Pro Platinum Top speed 35 MPH



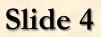
Chester

Helen Lyons, LLC

- +/- 127 acres in Vernon, Sussex County
- Agricultural production: Large plant nursery, beef cattle, fruit tree, woodland management
- Original reconnaissance farm visit conducted in fall 2019 determined that it did not meet SADC minimum eligibility criteria for tillable acreage
- "Priority" State Direct Easement farm















2015 aerial Tilled land = +/- 18.8 ac



2020 drone footage Google Earth overlay Tilled land = +/- 27 ac



Lessons Learned

Advantages	Disadvantages		
Superior vantage of farm	Fair weather is needed to ensure equipment doesn't malfunction		
Identify conservation issues	Analysis of footage afterwards can be time consuming		
High resolution visual imaging	A side-by-side video with the flight path map would be helpful		
Private company provides unbiased perspective of farm conditions	Does not replace on-the-ground pre-closing baseline farm visits		

New Jersey State Agriculture Development Committee

Soil Protection Standards Best Management Practices





Unimproved Livestock Training Facilities Best Management

Practice design standards for the use of unimproved arenas and tracks at livestock training facilities on preserved premises

 allows for current or proposed agricultural uses while minimizing the potential negative impacts on soil quality

Soil Disturbance Land Use Chart

		Land Use	Soil Disturbance Class		
		Permanent buildings/structures/hardscape			
		Permanent travel lanes			
		Permanent livestock training facilities	Permanent Soil Disturbance (Red Category)		
		Permanent parking and storage areas			
		Soil movement below plow layer depth (includes stormwater basins)			
	>	Improved travel lanes			
	=	Improved livestock training facilities	Semi-Permanent Soil Disturbance (Orange Category)		
		Semi-permanent parking and storage areas			
	ver	Soil stockpiling			
	Re	Geotextiles and geomembranes			
	of	Temporary structures			
	e	Unimproved travel lanes			
		Unimproved livestock training facilities	Temporary Soil Disturbance (Yellow Category)		
		Temporary parking and storage areas			
		Agricultural water impoundments			
		Ground-mounted solar energy facilities			
		Curtilage/lawn Woodlands	Soil Protection (Green Category)		
		Woodiands Wetlands/streams	- Son Protection (Green Category)		
		Conservation practices			
		conservation practices			

Unimproved Livestock Training Facilities

- No intentional soil compaction
- No topsoil movement
- Surface may have:
 - Grass
 - Bare soil
 - Plant-based mulch
 - Woodchips
 - Up to 2 inches of sand or fine gravel







Unimproved Livestock Training Facilities

- Infiltration rate of surface greater or equal to the underlying soil
- Maintain soil loss below Soil Loss Tolerance Rate "T"
- Use facility when soil is below field moisture capacity
- Address erosion promptly
- Avoid soil contamination



Robin Webster / Horses in Muddy Field / CC BY-SA 2.0

New Jersey State Agriculture Development Committee

Soil Protection Standards Best Management Practices





Improved Livestock Training Facilities

Best Management Practice

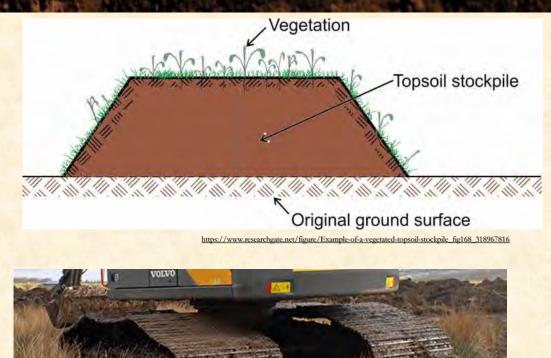
- design standards for the installation, maintenance, and restoration of improved livestock training facilities
- to support current and future proposed agricultural uses while minimizing potential negative impacts on the soil

Soil Disturbance Land Use Chart

	Land Use	Soil Disturbance Class		
	Permanent buildings/structures/hardscape			
	Permanent travel lanes			
	Permanent livestock training facilities	Permanent Soil Disturbance (Red Category)		
	Permanent parking and storage areas			
	Soil movement below plow layer depth (includes stormwater basins)			
	Improved travel lanes			
	Semi-permanent parking and storage areas Soil stockpiling Geotextiles and geomembranes	Semi-Permanent Soil Disturbance (Orange Category)		
	Semi-permanent parking and storage areas			
	Soil stockpiling			
	Geotextiles and geomembranes			
	Temporary structures			
	Unimproved travel lanes			
	Unimproved travel lanes Unimproved livestock training facilities Temporary parking and storage areas	Temporary Soil Disturbance (Yellow Category)		
	Temporary parking and storage areas			
	Agricultural water impoundments			
	Ground-mounted solar energy facilities			
	Agricultural production			
	Curtilage/lawn			
	Woodlands	Soil Protection (Green Category)		
	Wetlands/streams			
	Conservation practices			

Improved Livestock Training Facilities

- Before installation topsoil must be stockpiled
- Only low ground pressure equipment can be used
- No intentional soil compaction



http://www.drumclogplant.com/low-ground-pressure-excavators/

Improved Livestock Training Facilities

- Geotextile fabric keeps surface material from mixing with native soil
- Six inches of subbase added over fabric
- Surface dressing according to horses' needs
 - Gravel
 - Cinders
 - Sand
 - Soil
 - Synthetic blends
- Infiltration rate must be greater than that of native soil







Improved Livestock Training Facilities

- No concrete, asphalt, or millings
- Water may be used for dust control
- Never use motor oil or salt for dust control
- Always maintain separation between surface material and native soil
- Avoid soil contamination
- Address erosion promptly



New Jersey State Agriculture Development Committee

Soil Protection Standards Best Management Practices





Soil Stockpiles

Best Management Practice

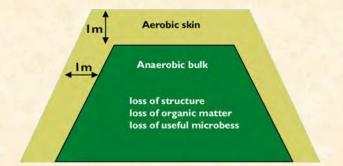
- Appropriate measures to best protect topsoil and subsoil during removal, stockpiling, and storage
- It minimizes negative impacts of removal and storage and facilitates eventual reuse of the soil for restoration and crop production

Soil Disturbance Land Use Chart

Land Use	Soil Disturbance Class		
Permanent buildings/structures/hardscape			
Permanent travel lanes			
Permanent livestock training facilities	Permanent Soil Disturbance (Red Category)		
Permanent parking and storage areas			
Soil movement below plow layer depth (includes stormwater basins)			
Improved travel lanes			
Improved livestock training facilities	Somi Dormon ant Soil Dicturbance (Orange Category)		
Semi-permanent parking and storage areas	Semi-Permanent Soil Disturbance (Orange Category)		
Improved livestock training facilities Semi-permanent parking and storage areas Soil stockpiling Geotextiles and geomembranes			
Geotextiles and geomembranes			
Temporary structures			
Unimproved travel lanes			
Unimproved travel lanes Unimproved livestock training facilities Temporary parking and storage areas	Temporary Soil Disturbance (Yellow Category)		
Temporary parking and storage areas			
Agricultural water impoundments			
Ground-mounted solar energy facilities			
Agricultural production			
Curtilage/lawn			
Woodlands	Soil Protection (Green Category)		
Wetlands/streams			
Conservation practices			

Topsoil Stockpiles Following BMP

- Avoid excessive handling
- Maximum 3-foot height and 4H:1V side slopes



Schematic representation of a poorly designed topsoil stockpile.

https://www.researchgate.net/figure/Schematic-representation-of-a-poorly-designed-topsoil-stockpileThe-profileshows-the_fig1_260696210

• Permanent, deep rooted vegetation



Topsoil Stockpiles Not Following BMP



- Too steep
- Too tall
- Non-living temporary erosion control material



- Improper construction
- Unacceptable compaction
- Soil structure loss

Subsoil Stockpiles Following BMP

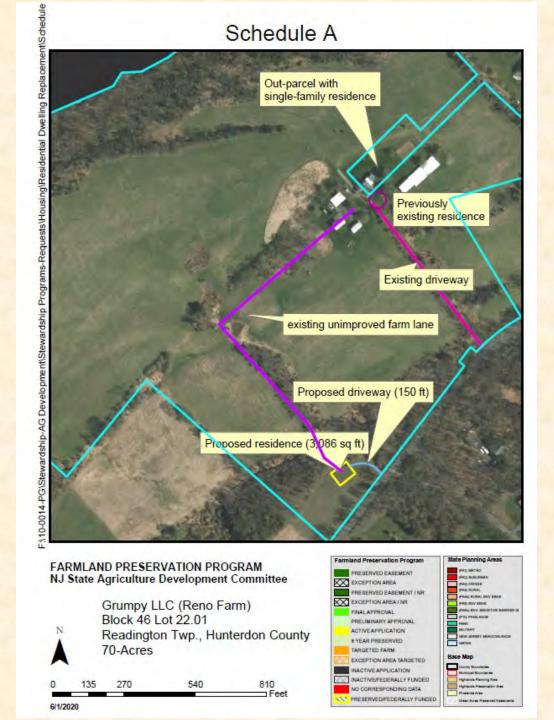
- Maximum 12-foot height and 3H:1V side slopes
- Permanent, deep rooted vegetation
- Could be used to facilitate future restoration of "red" areas



http://www.thebluebook.com/iProView/1016807/hall-farms/subcontractors/gallery/567498_straw-blankets/758793_top-soil-stockpile-using-straw-blankets.html

State Agriculture Development Committee FARMLAND PRESERVATION FY 2021 ADMINISTRATIVE BUDGET

					EV24 Budget
Purpose	FY19 Budget	FY19 Expended	FY20 Budget	FY20 Expended	FY21 Budget Projected
SALARIES FOR SADC	2,564,350	2,151,853	2,358,500	2,070,910	2,300,000
FRINGE COST FOR SADC STAFF	0	0	250,000	233,285	1,000,000
SALARY REIMBURSEMENT TO OTHER AGENCIES	170,000	151,750	170,000	139,211	170,000
OFFICE SUPPLIES, PRINTING, COPYING	49,600	56,973	84,000	62,638	119,000
TRAVEL	9,050	9,611	9,000	2,192	9,000
TELEPHONE	18,000	21,764	20,000	25,163	25,000
SOFTWARE	15,000	17,564	23,500	19,051	18,000
PROFESSIONAL SERVICES	41,000	250,419	3,000	291,450	138,000
STAFF TRAINING	16,000	5,373	5,000	934	5,000
SUBSCRIPTIONS	5,000	5,721	3,500	4,732	4,000
ADVERTISING	1,500	741	1,500	0	0
MISCELLANEOUS COSTS/SHARED COSTS	52,000	56,382	44,000	45,613	44,000
LEGAL SERVICES/DAG'S	100,000	69,663	70,000	82,555	80,000
CENTRAL MOTOR POOL/ENTERPRISE RENTAL	11,500	13,369	15,000	9,101	13,000
STEWARDSHIP MONITORING	0	11,271	40,000	26,324	40,000
COMPUTER EQUIPMENT AND OFFICE FURNITURE	26,000	49,873	3,000	19,078	20,000
TOTAL:	3,079,000	2,872,328	3,100,000	3,032,237	3,985,000





Slide 29 - location of previously existing home



Slide 30 - layout of proposed home

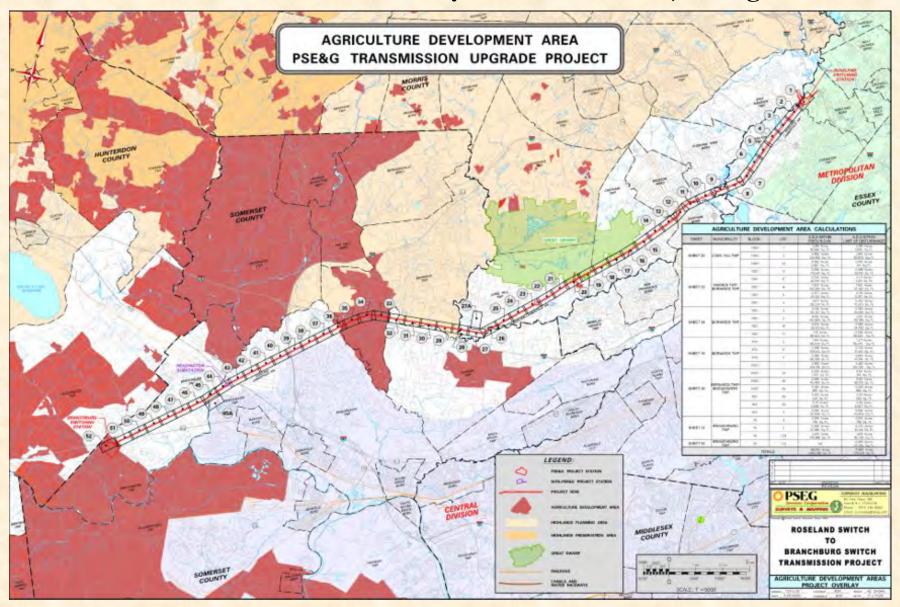


Slide 31 - proposed location of new home

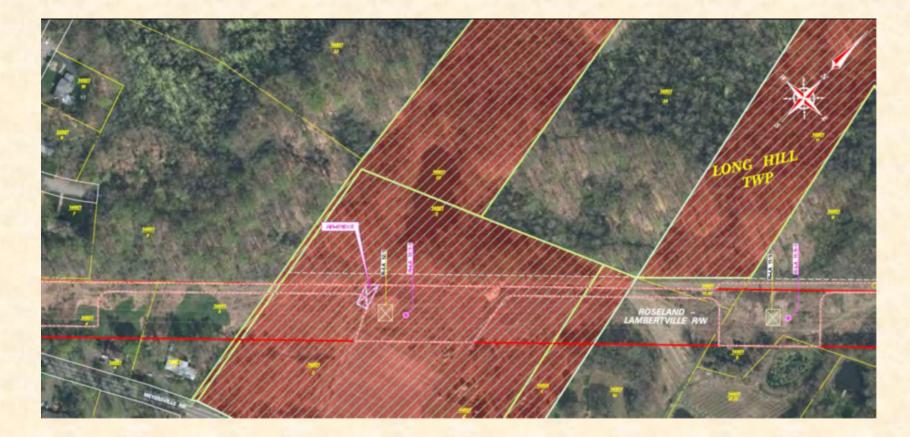


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PSE&G Roseland-Pleasant Valley Transmission Project-Segment 1



PSE&G Roseland-Pleasant Valley Transmission Project-Segment 1



Kielblock Farm (Preserved): Block 14801, Lot 2, Long Hill Township, Morris County

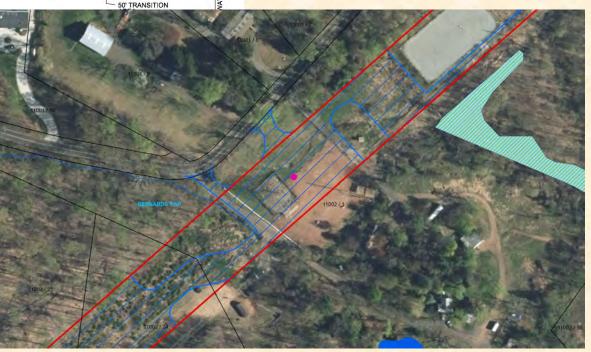
3.30 ADA Acres within ROW.1.5 Acres of Associated Disturbance

PSE&G Roseland-Pleasant Valley Transmission Project-Segment 1



Lentzsch Farm: Block 11022, Lot 1 Bernards Township, Somerset County

Only Off-ROW Access within ADA



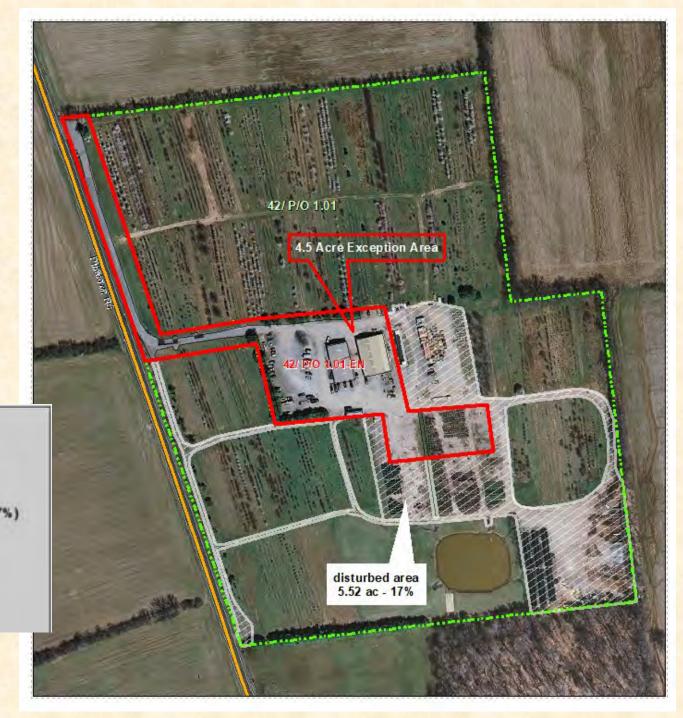
Soil Protection Standards Agreement Dubrow Farm 32 Net Acres in Franklin Twp. Hunterdon Cty 23 acres in grain crops 86% Prime 12% Statewide



42/ P/O 1.01 3

Soil Protection Standards Agreement Dubrow Farm Former nursery farm 2007 aerial







Soil Disturbance Land Use Chart

	Land Use	Soil Disturbance Class	Soil Disturbance Limitation	Exemption Class
Degree of Reversibility	Permanent buildings/structures/hardscape Permanent travel lanes Permanent livestock training facilities Permanent parking and storage areas Soil movement below plow layer depth (includes stormwater basins)	Permanent Soll Disturbance (Red Category)	Land use activities limited to 8% of the preserved premises or 6 acres, whichever is greater.	All pre-existing and future uses subject to limitation class.
	Improved travel lanes Improved livestock training facilities Semi-permanent parking and storage areas Soil stockpiling	Semi-Permanent Soil Disturbance (Orange Category)	Additional allocation of 5% of the preserved premises (in excess of the 8%/6-acre limitation) if following best management practices (BMPs). Subject to 8%/6-acre limitation if not following BMPs.	All pre-existing and future uses subject to limitation class.
	Geotextiles and geomembranes Temporary structures Unimproved travel lanes Unimproved livestock training facilities Temporary parking and storage areas Agricultural water impoundments Ground-mounted solar energy facilities	Temporary Soil Disturbance (Yellow Category)	No limit on land use activities if following BMPs. Subject to 8%/6-acre limitation if not following BMPs.	All pre-existing uses exempted from standards; all future uses subject to limitation class.
	Agricultural production Curtilage/lawn Woodlands Wetlands/streams Conservation practices	Soil Protection (Green Category)	No limit on land use activities.	Always exempt.

Update to PIG Implementation Details

STATE AGRICULTURE DEVELOPMENT COMMITTEE

Implementation Details for the SADC's New County and Municipal Planning Incentive Grant Programs Procedure #1 Adopted September 27, 2007

The purpose of this document is to set forth in detail certain procedures SADC staff will follow to implement its recently adopted Planning Incentive Grant regulations. These procedures will be available to our program partners to assure clear expectations of process and procedures.

STATE AGRICULTURE DEVELOPMENT COMMITTEE

ADOPTED January 24, 2008

Implementation Details for the SADC's New County Planning Incentive Grant Program

Procedure #2

Purpose:

To Identify the Procedures for Conducting SADC Final Review of an Application for the Sale of a Development Easement

STATE AGRICULTURE DEVELOPMENT COMMITTEE

Implementation Details for the SADC's County Planning Incentive Grant Program

Procedure #3 Updated 12.07.17

Purpose:

To identify the procedures for encumbering funds once SADC final approval has been granted.



Implementation Details for County and Municipal Planning Incentive Grant Programs

Adopted September 27, 2007 – Revised August 27, 2020

NEW JERSEY State Agriculture Development Committee

The purpose of this document is to set forth certain procedures SADC staff will follow to implement its Planning Incentive Grant (PIG) regulations as amended and effective August 3, 2020.

This Procedure updates and combines Procedures 1, 2 & 3 adopted September 27, 2007.

Part I: covers the County and Municipal partner's Farmland Preservation Plans and requirements for grant eligibility including:

- Annual plan updates by December 15 each year
- Evidence of Municipal Ag Advisory Committee meetings at least twice a year

Part II: indicates the SADC will establish a base grant allocation for eligible Counties and Municipalities based on expenditures from the past 3 years along with the maximum eligibility for the competitive grant. This changed under the recent rule amendment for County PIGs extending the expenditure to from 2 to 3 years.

Part III: covers the internal review of an individual farm application known as "Green Light Approval." SADC staff will review it to ensure the farm application meets the minimum eligibility criteria; that the property qualifies as an "eligible farm"; that RDSOs, exception areas and other details comply with SADC standards; and whatever appraisal anomalies may be present (easements, limited access, etc.) are understood fully prior to commencing appraisals.

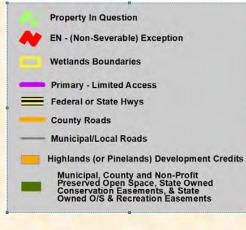
Part IV: provides details for partners on how to submit a final approval request for an application, including what details are should be included in the partner resolutions. This section also details how the SADC addresses funding from the County or Township's individual "base grant" versus the larger "competitive grant" funds, along with how competitive fund ranking works should multiple farms be vying for the last available competitive grant funds or there be insufficient funds in and grant fund for the subject application.

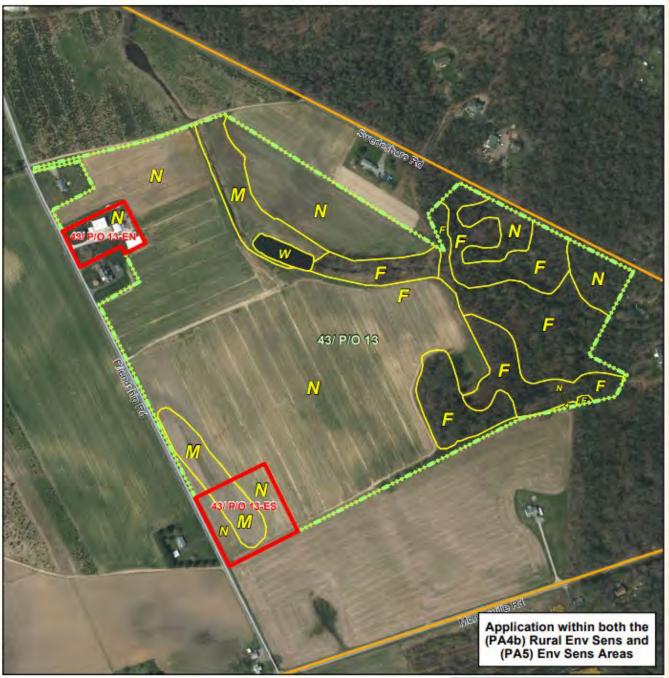
Acquisition Final Approvals



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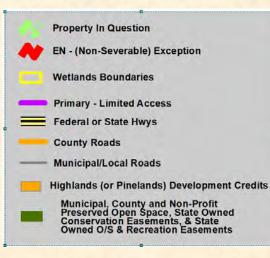
Salem County PIG Dare, Dennis & Nancy 70.9 ac in Upper Pittsgrove Twp 71% in sweet corn 1.5 ac non-severable exception 3 ac severable exception





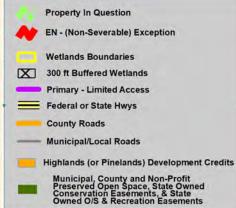
Hunterdon County PIG DeSapio, Martin & Cathleen 45.6 ac in Kingwood Twp 59% in hay 2.8 ac non-severable exception ALE Easement

- No future divisions
- 5.33% impervious cover limit



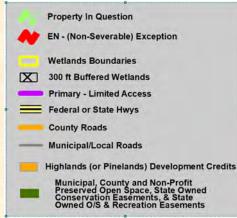


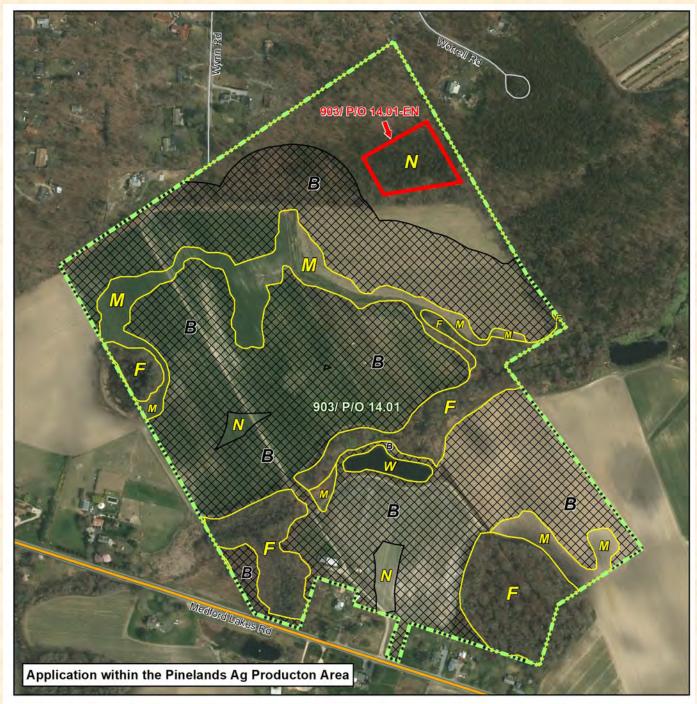
Burlington County PIG RTE III Farms LLC (Eckert East) 55.5 ac in Tabernacle Twp 74% in soybeans 1 ac non-severable exception





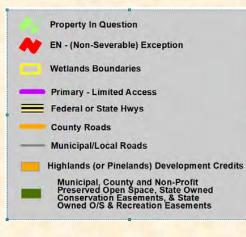
Burlington County PIG RTE III Farms LLC (Eckert West) 97 ac in Tabernacle Twp 74% in soybeans 2 ac non-severable exception





Municipal PIG Kollmer, Wesley & Melinda 24 ac in Kingwood Twp Hunterdon County 55% in hay 2 ac non-severable exception ALE Easement

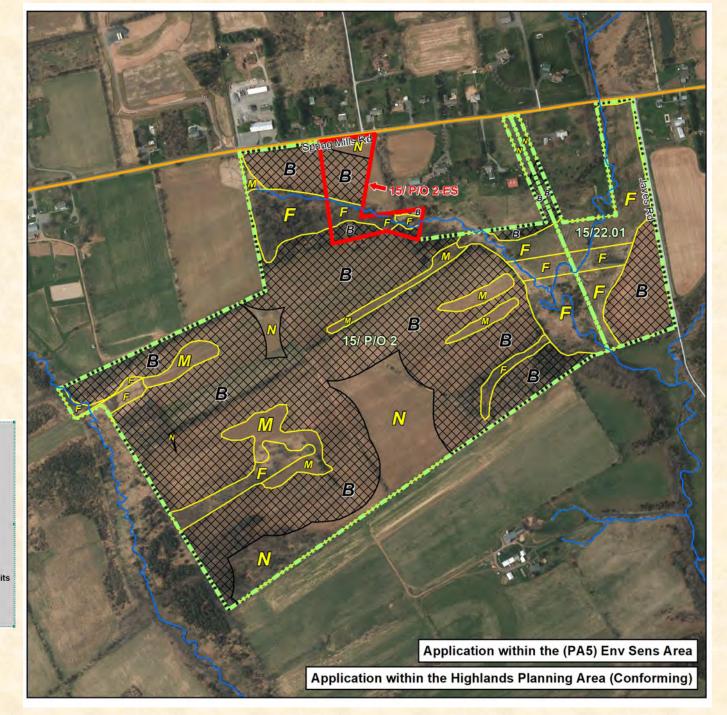
- No future divisions
- 4.67% impervious cover limit





Direct Easement Purchase Braun, Oscar, Estate of 128.2 ac in Holland Twp. Hunterdon County





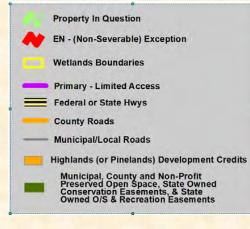
Direct Easement Purchase Pittenger, Lori & Russel 86.4 ac in Green Twp Sussex County 65% in hay, soybean & cattle 1 ac non-severable exception



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19/ P/O 13 19/ P/O 13-EN Application within the (PA4b) Rural Env Sens Area Application within the Highlands Planning Area (Non-conforming)

Direct Easement Purchase Roof, Judy 66.65 ac in Stillwater Twp Sussex County 78% in hay 3 ac non-severable exception

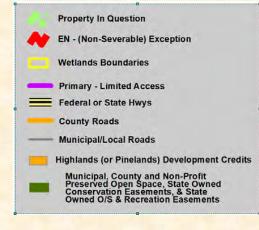


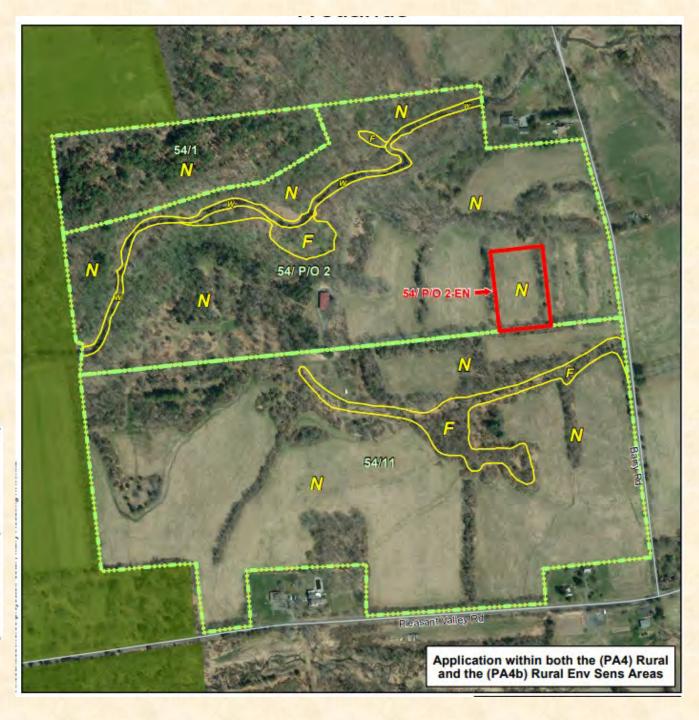
Slide 49



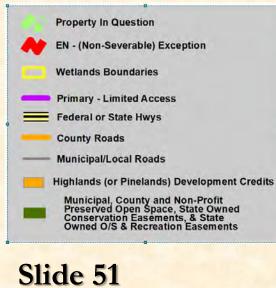
Application within the (PA4b) Rural Env Sens Area

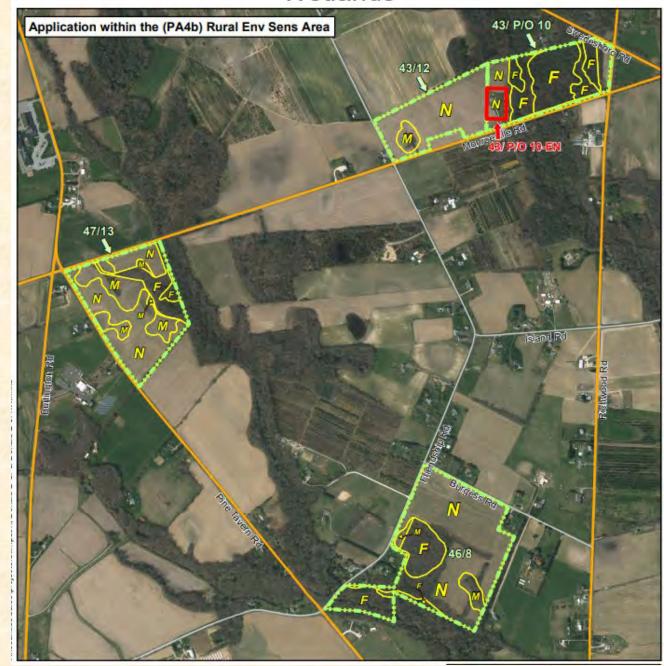
Direct Easement Purchase Foster, Mary Roebling 122 ac in Hopewell Twp Mercer County 49% in hay & cattle 2 ac non-severable exception 1 RDSO



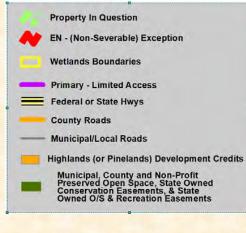


Direct Easement Purchase Stimpson, Donald Sr. & Donald Jr. 126.5 ac in Upper Pittsgrove Twp Salem County 65% in soybean & wheat 2 ac non-severable exception 1 RDSO





Direct Easement Purchase Fogg, Alice 128.7 ac in Stow Creek Twp Cumberland County 70% in corn, sugar beets and soybeans 2, 1.5 ac severable exceptions 1 RDSO



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FADMI AND DDECEDVATION DDOCDAM

Approval of Non-Profit Fee Resale Value

Land Conservancy of New Jersey - Bain Estate, 120.756 acres in Frankford Twp. Sussex Cty. FY09 Nonprofit Fee Grant

