MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land and Materials Administration • Resource Management Program
1800 Washington Boulevard • Suite 610 • Baltimore Maryland 21230-1719
410-537-3314 • 800-633-6101 x3314 • www.mde.maryland.gov

NOTICE OF INTENT

General Discharge Permit for Animal Feeding Operations (AFOs) (19AF, MDG01)
Land and Materials Administration – Resource Management Program
Issued Pursuant to Title 9, Environment Article, *Annotated Code of Maryland*, and Code of Maryland Regulations (COMAR) 26.08.04

Submission of this Notice of Intent (NOI) constitutes notice that the person identified in this form intends to operate under and comply with all terms and conditions of the State/NPDES General Discharge Permit for AFOs (AFO Permit). The discharge of animal waste, including manure, poultry litter, and process wastewater to waters of the State is prohibited unless an AFO has been registered under the AFO Permit by the Maryland Department of the Environment ("MDE"). A person shall hold a CAFO discharge permit issued by MDE before beginning construction on any part of a new CAFO.

RECEIVED
MAY 15 2025
AFO DIVISION

Please submit this completed NOI Form to the following address:

Maryland Department of the Environment
Land and Materials Administration/AFO Division
1800 Washington Boulevard, Suite 610
Baltimore, Maryland 21230-1719

General Information

AI Number: 68145

1. LEGAL Name of Applicant *(must match name on required plan)*:
Stephen Lamar Stoltzfus

2. AFO Type *(circle one)*: (CAFO) / MAFO

3. Applying for *(check one)*:
- ☐ New Coverage *see column 'A' in Question 4*
- ☑ Continuation of Coverage (renewal) *see column 'B' in Question 4*
- ☐ Modification of 19AF Coverage *see column 'C' in Question 4*

4. Reason for NOI *(please fill out corresponding column)*:

A. New Coverage	B. Continuation of Coverage (renewal)	C. Modification of 19AF Coverage
☐ New owner/operator ☐ Proposed operation *(NO construction may begin until permit coverage is obtained)* • Date of anticipated start of AFO operation: _____	☑ No changes in operation ☐ There has been a change in one or more of the following *(please indicate)*: o Size or number of houses o Animal number, resulting in change of size category o CAFO to MAFO, MAFO to CAFO o No-Land to Land, Land to No-Land o Conventional operation to Organic	☐ Expanding ☐ Change in animal number, resulting in change of size category ☐ Change from CAFO to MAFO ☐ Change from MAFO to CAFO ☐ Change from no-land to land ☐ Change from land to no-land ☐ Change from conventional to organic operation

Applicant (Owner/Operator Information)

5. **Mailing Address of Applicant:** 29231 Morgnec Rd
   City: Kennedyville **State:** MD **Zip Code:** 21645

6. **Telephone Number(s) of Applicant:** (Home) _____
   (Cell) _____

7. **Email of Applicant:** _____

Farm Information

Please attach a topographic map including the production area as well as the land application area (if applicable)

8. **Farm Name:** ☐ Same as Legal Name
   ☑ Other *(please specify)*: Iron Hill

9. **Farm Address:** 28938 River Rd.
   City: Millington **County:** Kent **Zip Code:** 21651

10. **Watershed/Hydrologic Unit Code (HUC)** (12-digit): 021305100418

11. **Latitude/Longitude of Production Area** (Deg/Min/Sec): 39 -26.0-658 / 75 -963- 068

12. **Animal Information:**

A. Animal Type(s) *(from AFO size chart)*	B. Maximum Number of Animals *at any given time* *(For poultry, please indicate bird type and number per flock)*	C. Operation Size *(consult AFO size chart)*	D. Animal Confinement Type *(e.g. house, feedlot, barn, milking parlor, pen)*
	Broilers 75000		

**For poultry only (13-16):*

13. ***Number of poultry houses:** 3

14. ***Combined square footage of *all* poultry houses:** 81,000

15. ***Date(s) poultry houses constructed:** 2005 1998

16. ***Integrator** *(check one)*:

☐ Allen-Harim	☑ Mountaire	
☐ Amick	☐ Perdue	
☐ Coleman	☐ Tyson	
☐ Other *(please specify)*: _____		

Contact Information:
Phone No.: 302-934-1100
Address: 29005 John J. Williams Hwy. Millsboro, MD 19966

Manure/Mortality Management

17. Total Manure/Litter/Wastewater generated *annually*: 500 *circle one:* (tons) / lbs / gallons)

18. Total Manure/Litter/Wastewater transported offsite *annually*: 507 *circle one:* (tons) / lbs / gallons)

19. **Total number of acres controlled by applicant available for land application of manure/litter/process wastewater: *Owned:* 800 Ac. *Leased:*

***40 CFR Parts 122.23(b)(3) and 412.2(e) define "land application area" as all land under the control of the AFO owner/operator, whether by ownership, lease, or agreement, to which manure, litter or process wastewater is or may be applied.*

20. Manure Storage *(please list individually)*:

A. Type *(e.g. shed, lagoon, pit)*	B. Capacity *(ft^3, gal)*	C. Solid/Liquid
Shed	7200 Sq. ft.	Solid

21. Mortality Management Method:

- ☑ Compost
- ☐ Freeze
- ☐ Render
- ☐ Incinerate
- ☐ Other *(please specify)*: _____

Environmental Justice (EJ) Score

The EJ Score is an overall evaluation of an area's environment and existing environmental justice indicators including pollution burden exposure, pollution burden environmental effects, sensitive populations, and socioeconomic factors. Provide the EJ Score resulting from the use of a Maryland EJ tool for the census tract where an applicant is seeking a permit. The EJ Score can be generated using MDE's EJ Screening Tool at: https://mdewin64.mde.state.md.us/EJ/.

22. EJ Score:	

CAFOs Only - Fees

Once a completed NOI is received by MDE and processed, MDE will invoice the applicant for any permit fees owed pursuant to COMAR 26.08.04.09-1.

Required Plan

CAFO permit application requirements at 40 CFR §122.21(i)(1)(x) specify that applications for coverage (including NOIs) must include nutrient management plans (NMPs) that at a minimum satisfy the requirements specified in 40 §122.42(e). Comprehensive Nutrient Management Plans (CNMPs), as defined in the General Discharge Permit for Animal Feeding Operations (AFOs) (19AF, MDG01), satisfy these requirements. An application will not be processed until a completed NOI form and a current CNMP are received. A CNMP must be developed by a certified and licensed plan writer, and in addition to the federal requirements, must satisfy the nutrient management requirements in COMAR 15.20.07 and 15.20.08.

Certification

By signing this form, I the applicant or duly authorized representative, do solemnly affirm under the penalties of perjury that the contents of this application are true to the best of my knowledge, information, and belief. I hereby authorize the representatives of MDE to have access to the AFO and associated lots/facilities (farms) for inspection and to records relating to this application at any reasonable time. I acknowledge that depending on the type of permit applied for, other permits or approvals may be required. The personal information requested on this form is intended to be used in processing your NOI. This Notice is provided pursuant to Title 4 of the General Provisions Article, Annotated Code of Maryland. Your NOI may not be processed if you fail to provide all requested information. You have the right to inspect, amend, or correct this form. MDE is a public agency and subject to the Maryland Public Information Act (Md. Code Ann., Gen. Prov. §§ 4-101, et seq.). This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not otherwise protected by federal or State law.

Stephen Lamar Stoltzfus — **Signature of Applicant / duly authorized representative**

5-15-25 — **Date**

Stephen Lamar Stoltzfus — **Printed Name of Applicant / duly authorized representative**

Owner — **Title**

AFO Size Chart

Animal Type	Circumstances under which Animal Feeding Operations Require Permit Coverage		
	CAFO or MAFO Registration Required	CAFO/MAFO Registration Required under Certain Circumstances	Registration Needed Only if Designated
	Large	Medium	Small
Cattle (includes heifers)	1000 or more animals	300—999 animals	less than 300 animals
Dairy cattle	700 or more animals	200—699 animals	less than 200 animals
Horses	500 or more animals	150—499 animals	less than 150 animals
Veal	1000 or more animals	300—999 animals	less than 300 animals
Swine ≥ 55 pounds	2500 or more animals	750—2499 animals	less than 750 animals
Swine < 55 pounds	10,000 or more animals	3,000—9,999 animals	less than 3,000 animals
Sheep and lambs	10,000 or more animals	3,000—9,999 animals	less than 3,000 animals
Ducks with liquid manure handling+	5,000 or more animals	1,500—4,999 animals	less than 1,500 animals
Chickens with liquid manure handling	30,000 or more animals	9,000—29,999 animals	less than 9,000 animals
Ducks with dry manure handling	30,000 or more animals	10,000—29,999 animals	less than 10,000 animals
Laying hens with dry manure handling	82,000 or more animals	25,000—81,999 animals	less than 25,000 animals
Chickens (other than laying hens) with dry manure handling	125,000 or more animals or greater than or equal to total house size of 100,000 ft²	37,500—124,999 animals *and* less than total house size of 100,000 ft²	less than 37,500 animals
Turkeys	55,000 or more animals	16,500—54,999 animals	less than 16,500 animals

+A separate discharge permit is required for large category duck CAFOs

AL-68145

COMPREHENSIVE NUTRIENT MANAGEMENT PLAN

Stephen Lamar Stoltzfus

28938 River Road
Millington, Maryland 21651

MAILING ADDRESS
29231 Morgnec Road
Kenneyville, Maryland 21645

PREPARED IN COOPERATION WITH THE

Maryland Department of Agriculture
Office of Resource Conservation

AND THE

Kent Soil & Water Conservation District
122 Speer Road, Suite 4
Chestertown, MD 21620

Prepared by: Jenny Lee Freebery

Plan Date: January 2025

Poultry Operation (Land Plan)

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SECTION 1: CNMP Purpose and Agreement

The Comprehensive Nutrient Management Plan (CNMP) is an important part of the conservation management system (CMS) for your Animal Feeding Operation (AFO). This CNMP documents the planning decisions and operation and maintenance for the AFO. This plan has been prepared in accordance with NRCS standards and specifications for a Comprehensive Nutrient Management Plan 102.

This CNMP is valid as long as there are no major changes to the operation. A plan revision will be needed when the numbers of animals deviates by 10% from the planned amount or when the operation changes from one type of livestock to another. Annual revisions will be necessary for the nutrient management system in order to account for crop changes and soil sample result changes.

This CNMP was developed paying special attention to the USEPA's required nine minimum practices for water quality protection. This plan when implemented by Stephen Lamar Stoltzfus will ensure clean runoff is diverted from manure storage and production areas and livestock are prevented from making direct contact with waters.

Owner/Operator

As the owner/operator of this CNMP, I, as the decision-maker, I have been involved in the planning process and agree that the items/practices listed in each element of the CNMP are needed. I understand that I am responsible for keeping all necessary records associated with the implementation of this CNMP. It is my intent to implement/accomplish this CNMP in a timely manner as described in the plan.

Stephen Lamar Stoltzfus

3-18-25
Date

Certified Comprehensive Nutrient Management Plan (CNMP) Planner

As an approved Comprehensive Nutrient Management Plan (CNMP) Planner, I certify that I have reviewed the Comprehensive Nutrient Management Plan and that the elements of the documents are technically compatible, reasonable and can be implemented.

Jenny Lee Pregbery

3/18/25
Date

Nutrient Management Certification #
4272

NRCS CNMP Planner expires 12/21/2026

Kent Soil & Water Conservation District

As the Kent Soil & Water Conservation District Manager, I certify that I have reviewed this CNMP and concur that the plan meets the Kent Soil & Water Conservation District's conservation goals.

Robert Baldwin

3/18/25
Date

Kent Soil & Water Conservation District

As the Kent Soil & Water Conservation District Conservationist, I certify that I have reviewed this CNMP and concur that the plan meets the Kent Soil & Water Conservation District's conservation goals.

Nancy Metcalf

Nancy Metcalf

3/19/25

Date

SECTION 2: Farmstead (Production Area)

This element addresses the components and activities associated with the production facility, feedlot or animal loafing facilities, manure and wastewater storage and treatment structures and areas, animal mortality facilities, feed and other raw material storage areas, and any areas used to facilitate transfer of manure and wastewater.

Farm Locations

Farm Name	Owner	Tax Account ID	Farm #	Tract #	Account ID Acres	Watershed
Stephen Lamar Stoltzfus	Stephen Lamar Stoltzfus		249	752	149.7	02-13-05-10-0418

Description of Operation / Additional Information

This farm is owned by Stephen 'Lamar' Stoltzfus . There are three broiler houses in use with Mountaire as the integrator. They use switchgrass as the bedding. All manure is land applied to farms owned or operated by the family for growing row crops.

Sensitive Environmental Information

Name of nearest regulatory waterbody	Distance to nearest regulatory waterbody (ft.)	Distance to nearest regulatory wetland (ft.)
Norris Creek Tributary to the Chester River	950 feet	550 ft

Account ID	12 Digit Watershed	Watershed Name	Tier II High Quality Waters Watershed	Impairments			
				Nitrogen	Phosphorus	Bacteria (e.coli, enterocci or fecal)	Sediment
	02-13-05-10-0418	Upper Chester River	No	Yes	Yes	Yes	No

Animal Production

Poultry

Bird Type	Average Bird Weight (lbs)	Number of Houses	Total Number of Birds (All Houses)	Number of Flocks per year
Broiler	10.5	3	75000	4.5

* See poultry litter quantity estimation sheets in the "Nutrient Management" section of this plan.

Operators must keep records of the actual:

1. Quantity estimate of litter removed from production and/or storage facility; and
2. Date of removal of litter from production and/or storage facility.

Manure Collection

Once per year the centers are cut removing 40% of the litter within each house. The houses are windrowed after every flock, and no crust or cake is removed between flocks. A complete clean out is done every few years. Most of the manure is stored in the shed, but after a full clean out sometimes manure is stockpiled in the field. Cleanout schedule is dictated by the integrator.

Manure Storage

There is a roofed waste storage structure adjacent to the poultry houses that was built in 1994 and has sufficient holding capacity for the operation under normal use. The manure is used each spring on fields the producer or his family own.

Current / Proposed Manure Storage Conditions

Animal Type	Storage Structure	Size of Storage Structure	Storage Capacity	Date Constructed
Poultry	Poultry Waste Storage Structure	40' x140'	5760	6/26/1994

IMPORTANT! Manure should not be stockpiled or staged anywhere in the production area other than permanent manure storage structure for any length of time.

Transfer Information (Farm(s) receiving exported manure)

Animal Type	Name	Address
Poultry	Home T975	29180 Morgnec Road, Kennedyville, Maryland 21645
Poultry	Johnston T610	11183 Browntown Road, Kennedyville, Maryland 21645
Poultry	Lepter T754	28862 Morgnec Road, Kennedyville, Maryland 21645
Poultry	Fox T974	28939 Morgnec Road, Kennedyville, Maryland 21645
Poultry	Iron Hill T752	28938 River Road, Millington, Maryland 21651

Animal Mortality Disposal

Animals die because of disease, injury, or other causes in any confined livestock operation. The mortality rate is generally highest for newborn animals because of their vulnerability.

Catastrophic mortality can occur if an epidemic infects and destroys a large portion of the herd or flock in a short time, or if a natural disaster, such as a flood or excessive heat strikes. There are also incidences when an entire herd or flock must be destroyed to protect human health or other farms in the area.

Methods for managing mortality include:

1. Rendering
2. Composting
3. Incineration*
4. Sanitary landfills
5. Burial**

6. Disposal pits**

* Incineration may only be used with proper equipment and permits must be obtained by the producer.
** Burial and Disposal pits should only be considered for catastrophic mortality if all other methods are not possible. Iron Hill Farms LLC will follow local and state guidance if it is determined that burial is an acceptable means of disposal.

Typical Mortality Management

Current Normal Mortality Disposal Method(s)

Animal Type	Disposal Method	Number of Bins/Capacity	Location of Disposal/Facility
Poultry	Composting - Bins/Channels	8 bins	South of the waste storage structure

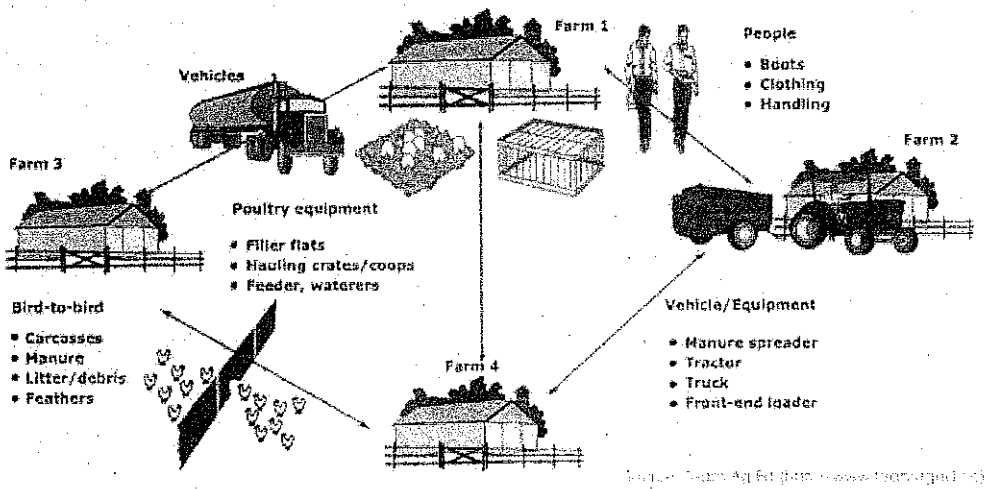
Catastrophic Mortality Management

In the event of catastrophic mortality, the operator will work with their poultry integrator to compost them in house or in the poultry waste storage structure using the windrow method outlined in UMD-Ext fact sheets #723 and #801.

Biosecurity

Biosecurity means doing everything possible to protect the health of livestock by preventing the transmission of disease. An outbreak of animal disease could not only harm your livestock, it could affect other nearby animals and quickly spread through your area. The economic consequences of a disease outbreak could be devastating. Taking common sense precautions to prevent disease from coming onto your farm is the best investment you can make.

How Diseases Spread (Example - Poultry Operation)



Steps to Take to Avoid Disease Spread

To reduce the risk of introducing disease entering into an animal feeding operation, maintain a biosecurity barrier (physical barrier, personal hygiene, and equipment sanitation) between wildlife, animals, animal containment areas, and other commercial facilities. Some examples of good biosecurity practices include:

1. Permit only essential workers and vehicles on the premises.
2. Give germs the boot
    a. Keep a pair of shoes or boots to wear only around your animals.
    b. Clean and disinfect your shoes often.
    c. Always ask visitors and employees to clean their boots and shoes.
3. Don't haul home disease
    a. Always clean and disinfect vehicles used for moving animals.
    b. Limit traffic of incoming people, products and vehicles that could bring in a disease.
    c. Clean and disinfect all equipment that comes in contact with your animals.
4. Keep your farm secure
    a. Restrict access to your property and animals.
    b. Keep doors and gates locked.
    c. Have tracking records on animals.
    d. Give germs space - Newly acquired animals should be isolated for at least two weeks to ensure you don't introduce disease to your main herd or flock. As an added protection, isolate and quarantine new animals for 30 days before putting them with your other animals. Keep show animals segregated for at least two weeks after they've been to a fair or exhibit.
5. Look for signs
    a. Unusual animal health symptoms or behavior
    b. Sudden, unexplained death loss in the herd or flock
    c. Severe illness affecting a high percentage of animals
    d. Blisters around an animal's mouth, nose, teats or hooves
    e. Staggering, falling or central nervous system disorders that prevent animals from rising or walking normally.
    f. Large number of dead insects, rodents or wildlife
6. Don't wait - call in signs of disease immediately. Do not self-diagnose. Seek veterinary services, as early detection is your best protection. If you have animals with signs of suspect disease, call your local veterinarian, UMD extension agent () or the state veterinarian. Rapid response and investigation are the only ways to control and eliminate disease and stop large numbers of casualties or damage to our economic system.

Farm Contact Information

The following tables contain important contact information specific to this CNMP for Iron Hill Farms LLC.

Emergency Contact Information

Farm Name	
Farm Address	28938 River Road, Millington, Maryland 21651
Mailing Address	29231 Morgnec Road, Kenneyville, Maryland 21645
Directions to the farm	Driving south on Route 301, turn right onto 291 (River Road) and continue for 5.5 miles and the farm will be on the right.

Farm Contacts

	Name	Farm Phone	Cell Phone
Farm Owner	Stephen Lamar Stoltzfus		
Farm Operator	Stephen Lamar Stoltzfus		
Fire or Ambulance	911		

State Agency Contacts

	Phone	Emergency
Natural Resources Conservation Service	410-757-0861	410-757-0861
MDA Nutrient Management	410-841-5959	1-800-492-5590
Maryland Department of the Environment	1-800-633-6101	1-866-633-4686
USDA Veterinary Services State Veterinarian	1-866-536-7593	301-854-5699

Kent County Agency Contacts

	Day Phone	Emergency Number
MDA Regional Nutrient Management (Region)	410-778-5150	410-778-5150
Health Department		
Sherriff's Office		
University of Maryland Extension Office (Chestertown)	410-778-5150	410-778-5150

Integrator Information

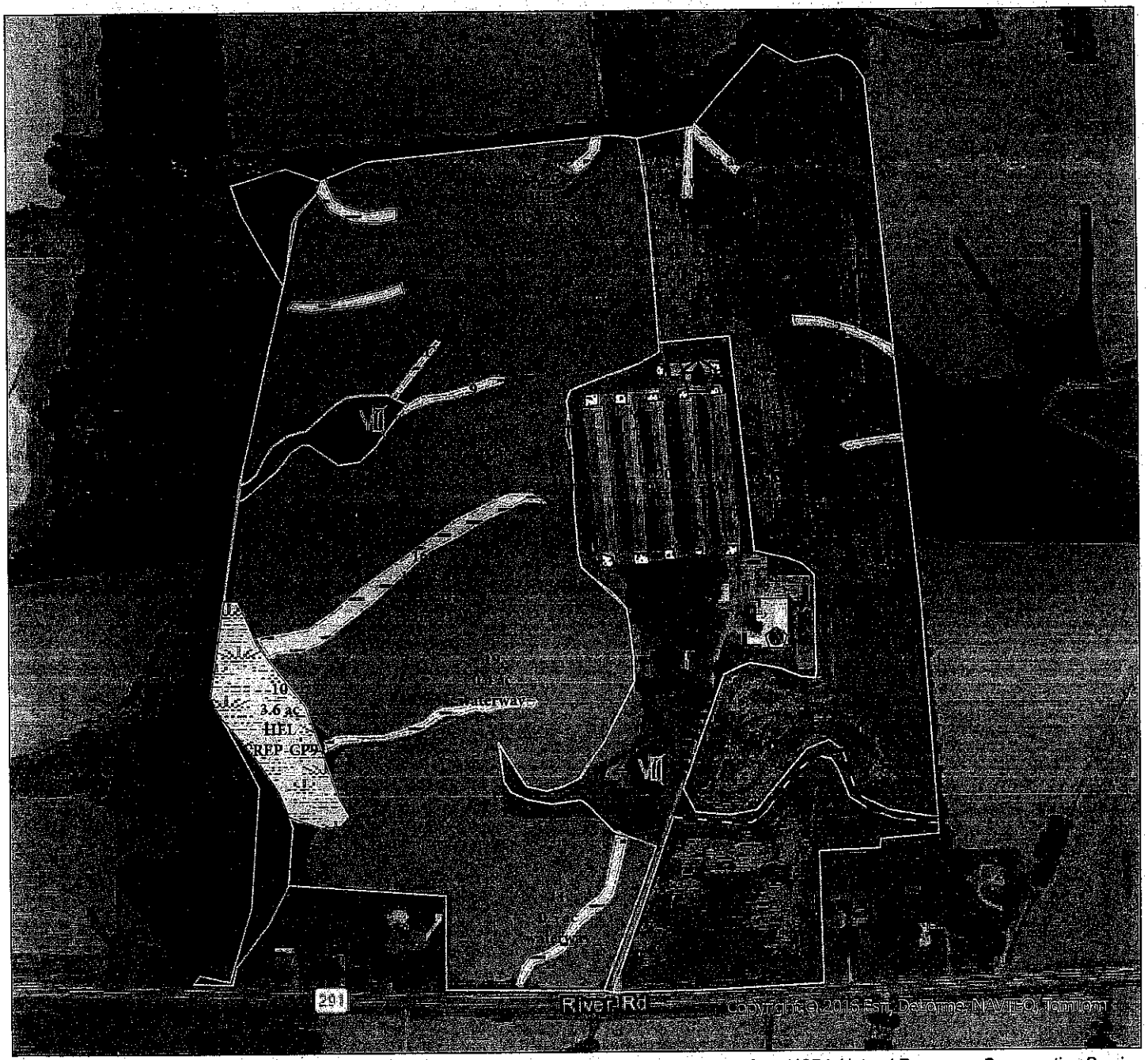
Name	Address	Phone
Mountaire Farms	P.O. Box 1320, Millsboro DE 19966	302-934-1100

Date: 3/7/2025

Conservation Plan Map

Client(s): Stephen Lamar Stoltzfus
Location: Farm: 249 Tract: 752
Kent County, Maryland
Approximate Acres: 148.90

Assisted By: Jenny Lee Freebery



Prepared with assistance from USDA-Natural Resources Conservation Service

0 500 Feet

Conservation Practice Points
- Waste Storage Facility (313)
- Composting Facility (317)
- Pond (378)
- Roof Runoff Structure (558)

Conservation Practice Lines
- Windbreak/Shelterbelt Establishment and Renovation (380)
- Terrace (600)

Conservation Practice Polygons
- Grassed Waterway (412)
- Heavy Use Area Protection (561)
- Shallow Water Development and Management (646)
- Practice Schedule PLUs

x poultry house or best management practice no longer in use

N

USDA

Farmstead

Date: 1/23/2025

Customer(s): Stephen Lamar Stoltzfus

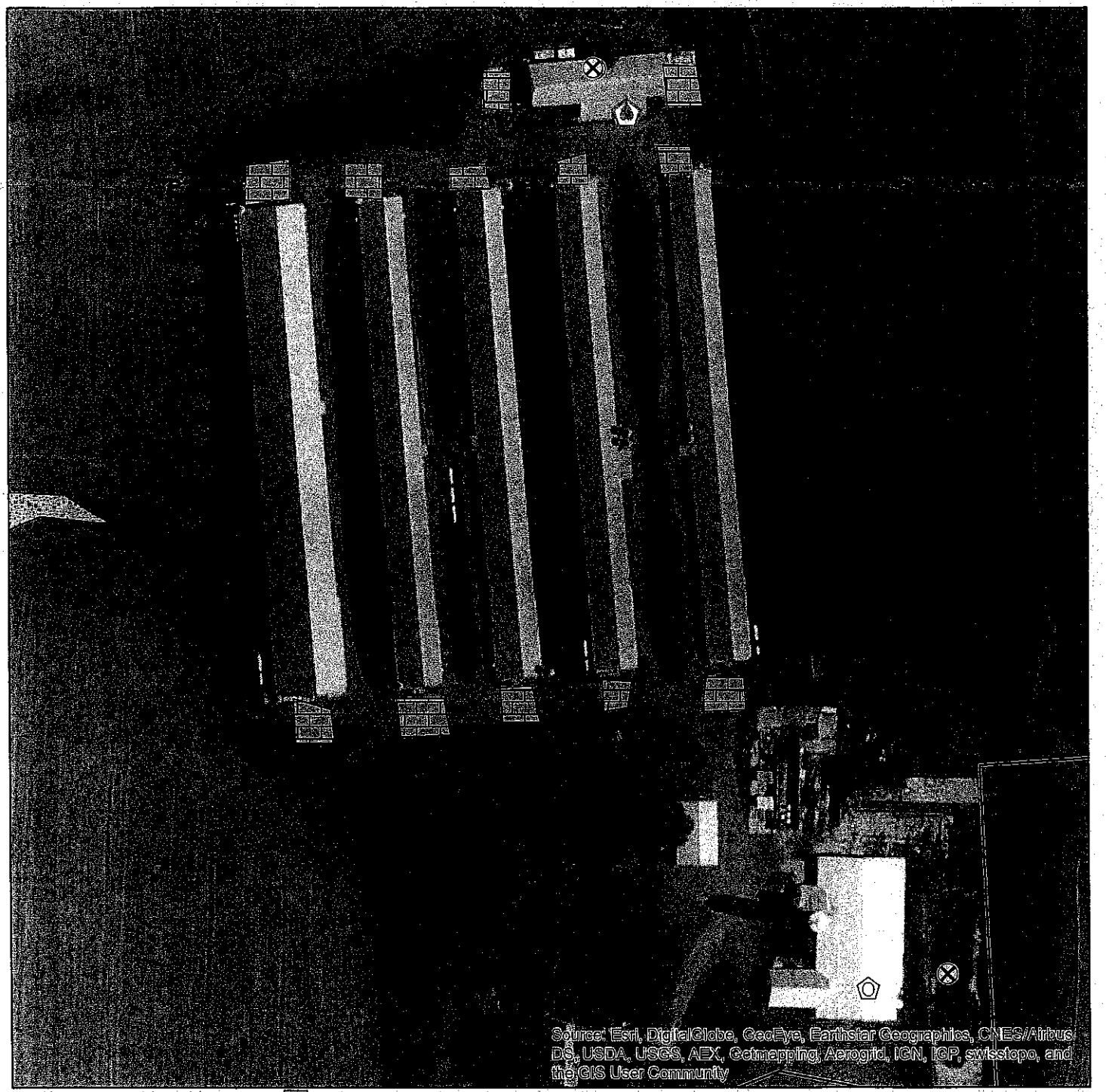
District: KENT SCD

Approximate Acres: 148.9

Legal Description: Farm 249 Tract 752

Field Office: KENT COUNTY SERVICE CENTER

Assisted By: Jenny Lee Freebery



Composting Facility

Pond

Roof Runoff Structure

Waste Storage Facility

Grassed Waterway

Heavy Use Area Protection

Shallow Water Development and Management

Practices

Fence

Terrace

Windbreak/Shelterbelt Establishment

x poultry house no longer in use

N

USDA

80 0 80 160 240 320

Feet

United States
Department of
Agriculture

Natural Resources Conservation Service

CONSERVATION PLAN

Stephen Lamar Stoltzfus

JENNY LEE FREEBERY
CHESTERTOWN, MARYLAND
(410) 778-5150x3293
jenny.lee@maryland.gov
3/6/2025

KENT COUNTY SERVICE CENTER
122 SPEER RD
CHESTERTOWN, MD 21620-1037
(410) 778-5353

Conservation Plan

STEPHEN LAMAR STOLTZFUS
28938 RIVER RD
MILLINGTON, MD 21651

OBJECTIVE(S)

This row crop farm in Millington has 3 broiler houses in use and is owned and operated by Stephen Lamar Stoltzfus. The integrator is Mountaire. The litter goes onto the cropland as well as other properties owned or operated by Iron Hill Farms. This plan is being updated as part of the change of the Comprehensive Nutrient Management Plan from no land to land.

Install the conservation practices, enhancements, and activities according to the implementation requirements, designs, construction plans, or other documents that facilitate meeting the applicable NRCS technical criteria. If you do not have such information, contact your local office before starting to install your conservation practices, enhancements, and activities.

Associated Ag Land

Tract: 752

Pond (378)

Maintain existing pond. Inspect regularly for pipe blockages, especially after heavy rains. Immediately repair any damage or eroding areas. Mow the dam and emergency spillway at least twice annually and remove any woody growth. Lime and fertilize grass areas according to soil test results. Contact NRCS (as needed) for assistance.

Field	Planned Amount	Month	Year	Applied Amount	Date
22	1.00 No	03	1981	1.00 No	03/04/1981
Total:	1.00 No	--	--	1.00 No	--

Crop

Tract: 752

Seasonal Water Management for Wildlife (646)-CREP

Provide and manage shallow water habitat for waterfowl, wading birds, and other wildlife. Once this area is established it will not be disturbed (i.e. mowing, disking, etc.) during the primary nesting season, April 15 through August 15. Annual Food Plots are not to be planted in this area. Soil surface may be infrequently manipulated (not more than once every 2 to 3 years). This disturbed area should only occur to maintain an early succession plant community. See the attached Shallow Water Area for Wildlife Job Sheet for details on the maintenance of this area. This project will be re-enrolled in CREP for 10 years. Bufer ios 2.3

Field	Planned Amount	Month	Year	Applied Amount	Date
10	3.6 Ac	08	2015	3.6 Ac	12/19/2005
Total:	3.6 Ac	--	--	3.6Ac	--

Early Successional Habitat Development-Mgt (647)-CREP

Early Successional Habitat - Manage plant succession to develop and maintain early successional habitat that benefits desired wildlife and / or natural communities.

Field	Planned Amount	Month	Year	Applied Amount	Date
10	3.6 Ac	08	2015	3.6 Ac	12/19/2005
Total:	3.6Ac	--	--	3.6Ac	--

Conservation Crop Rotation (328)

Grow crops in a planned rotation to protect the soil from erosion; help control weeds, insects, and diseases; and improve the physical condition of the soil. Noxious weeds (Johnsongrass, shattercane, Canada thistle, plumeless thistle, musk thistle, bull thistle) must be controlled as required by State Law and not allowed to go to seed. Use the following rotation on these fields: corn, barley cover crop, corn, rye cover crop

Field	Planned Amount	Month	Year	Applied Amount	Date
1	67.7 Ac	03	2025	67.7 Ac	03/03/2025
2	9.9 Ac	03	2025	9.9 Ac	03/03/2025
3	35.4 Ac	03	2025	35.4 Ac	03/03/2025
Total:	113.0 Ac	--	--	113.0 Ac	--

Cover Crop (340)

Plant a winter cover crop for nutrient management and erosion control. The growing cover crop will uptake nitrogen and reduce the leaching of nitrogen into the groundwater. Plant cover crops prior to October 15 for ground application, October 1 for aerial seeding.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	67.7 Ac	03	2025	67.7 Ac	03/03/2025
2	9.9 Ac	03	2025	9.9 Ac	03/03/2025
3	35.4 Ac	03	2025	35.4 Ac	03/03/2025
Total:	113.0 Ac	--	--	113.0 Ac	--

Nutrient Management (590)

Manage the amount, form, placement and timing of plant nutrient application to protect surface and groundwater from runoff and/or leaching of nutrients. A Nutrient Management Plan (NMP) will be developed and followed for each crop to be grown on each field. This NMP will be developed by a consultant licensed and certified by the Maryland Department of Agriculture. The Maryland Water Quality Improvement Act of 1998 requires all nutrient management plans to address both nitrogen and phosphorus as the limiting nutrients. The NMP will account for all sources and forms of plant nutrients applied for plant growth and production. The amount of all nutrients applied must be based on a current analysis of the soil's potential to produce a realistic yield. All fields will have current soil test analysis of not more than 3 years old. Plans should be implemented as written, and updated at least every 3 years or whenever there is a major change in the farming operation. Records will be kept which document, at a minimum; crops & crop acres, animal type and number, sources of nutrients applied including pounds/tons of commercial fertilizer and/or animal manure applied and how nutrients may have been incorporated. Records will note when the crops were planted, harvested, and the yields were obtained for each individual field or management unit.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	67.7 Ac	03	2025	67.7 Ac	03/03/2025
2	9.9 Ac	03	2025	9.9 Ac	03/03/2025
3	35.4 Ac	03	2025	35.4 Ac	03/03/2025
Total:	113.0 Ac	--	--	113.0 Ac	--

Residue and Tillage Management, Reduced Till (345)

Reduced tillage - Minimize soil disturbance by reducing the number and type of yearly tillage operations to manage the amount, orientation and distribution of crop and plant residues.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	67.7 Ac	03	2025	67.7 Ac	03/03/2025
2	9.9 Ac	03	2025	9.9 Ac	03/03/2025
3	35.4 Ac	03	2025	35.4 Ac	03/03/2025
Total:	113.0 Ac	--	--	113.0 Ac	--

Grassed Waterway (412)

Maintain a grassed waterway where shown on the plan map to prevent erosion caused by concentrated water flows. Construct and seed according to NRCS design. Avoid spraying herbicides and do not plow or disk through the waterway. Regularly remove debris and accumulated sediment. Mow as needed to maintain grass height at 4 to 6 inches to promote a thick sod. Inspect after each major storm and repair any damaged areas immediately. Tillage and row direction should be perpendicular to the waterway to allow runoff to drain into the waterway and prevent gullies along the edges. Provide stabilized machinery crossings, where needed, to prevent rutting of the waterway.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	0.3 Ac	03	1981	0.3 Ac	03/04/1981
1	0.3 Ac	03	1981	0.3 Ac	03/04/1981
4	0.3 Ac	01	2004	0.3 Ac	06/30/2004
5	0.2 Ac	01	2004	0.2 Ac	06/30/2004
6	0.1 Ac	01	2004	0.1 Ac	06/30/2004
11	0.5 Ac	05	2007	0.5 Ac	11/08/2006
19	0.4 Ac	05	2007	0.4 Ac	11/08/2006
Total:	2.1 Ac	--	--	2.1 Ac	--

Grassed Waterway (412)

Maintain recently repaired grassed waterway where shown on the plan map to prevent erosion caused by concentrated water flows. Construct and seed according to NRCS design. Avoid spraying herbicides and do not plow or disk through the waterway. Regularly remove debris and accumulated sediment. Mow as needed to maintain grass height at 4 to 6 inches to promote a thick sod. Inspect after each major storm and repair any damaged areas immediately. Tillage and row direction should be perpendicular to the waterway to allow runoff to drain into the waterway and prevent gullies along the edges. Provide stabilized machinery crossings, where needed, to prevent rutting of the waterway. Address flow of stormwater coming from headquarters causing erosion in grassed waterway.

Field	Planned Amount	Month	Year	Applied Amount	Date
16	0.6 Ac	09	2024	0.6 Ac	09/03/2024
Total:	0.6 Ac	--	--	0.6 Ac	--

Grassed Waterway (412)

This grassed waterway was re-enrolled in the Conservation Reserve Program (CRP) for 10 years. Maintain a grassed waterway where shown on the plan map. Avoid spraying the waterway and do not mow during the primary nesting season of April 15 through August 15. Lift equipment when crossing the waterway and avoid crossing when wet.

Field	Planned Amount	Month	Year	Applied Amount	Date
7	0.1 Ac	10	2024	0.1 Ac	06/30/2004
8	0.1 Ac	10	2024	0.1 Ac	06/30/2004
9	0.2 Ac	10	2024	0.2 Ac	06/30/2004
Total:	0.4 Ac	--	--	0.4 Ac	--

Terrace (600)

Maintain terrace at design heights, grades and intervals- keep cows fenced out of it. Prevent gully erosion.

Field	Planned Amount	Month	Year	Applied Amount	Date
3	1115.00 Ft	03	1981	1115.00 Ft	03/01/1981
Total:	1115.00 Ft	–	–	1115.00 Ft	–

Farmstead

Tract: 752

Composting Facility (317)

An existing poultry composting structure will be maintained on the farm to safely dispose of normal daily flock mortality. The structure will be built in accordance to NRCS Standards and Specifications. The structure will be operated and maintained as detailed in the operation and maintenance plan and the waste management plan.

Field	Planned Amount	Month	Year	Applied Amount	Date
45	1.00 No	01	1994	1.00 No	06/26/1994
Total:	1.00 No	–	–	1.00 No	–

Windbreak/Shelterbelt Establishment and Renovation (380)

Trees and shrubs will be planted around poultry houses to provide shelter from winter winds, reduce particulates from tunnel fans, create visual screens, and provide shade to reduce extreme summer heat. A single row of trees will planted around poultry houses on 10 foot spacing. A watering system must be established to provide water during low rainfall periods to ensure plant establishment.

Field	Planned Amount	Month	Year	Applied Amount	Date
45	1900.00 Ft	10	2006	1900.00 Ft	10/10/2006
Total:	1900.00 Ft	–	–	1900.00 Ft	–

Heavy Use Area Protection (561)

Maintain a Heavy Use Area at both ends of the poultry waste storage facility. The HUA will reduce erosion and improve water quality by proiding a stable area for handling manure during clean outs. Follow the NRCS Operation and Maintenacne plan.

Field	Planned Amount	Month	Year	Applied Amount	Date
45	1600.00 SqFt	01	2010	1600.00 SqFt	01/11/2010
45	1600.00 SqFt	10	2010	1600.00 SqFt	01/11/2010
Total:	3200.00 SqFt	–	–	3200.00 SqFt	–

Heavy Use Area Protection (561)

Construct a heavy use area (poultry pad) at the location(s) shown on the plan map where poultry manure and other waste products are handled. The poultry pad will protect the soil from erosion and reduce nutrient contamination of surface and groundwater. Pads will be designed and installed according to NRCS standards and specifications, and will be maintained according to the attached Operation and Maintenance plan.

Field	Planned Amount	Month	Year	Applied Amount	Date
45	1600.00 SqFt	12	2011	1600.00 SqFt	12/01/2011
Total:	1600.00 SqFt	–	–	1600.00 SqFt	–

Heavy Use Area Protection (561)

Maintain heavy use area (poultry pad) at the location(s) shown on the plan map where poultry manure and other waste products are handled. The poultry pad will protect the soil from erosion and reduce nutrient contamination of surface and groundwater. Pads will be designed and installed according to NRCS standards and specifications, and will be maintained according to the attached Operation and Maintenance plan.

Field	Planned Amount	Month	Year	Applied Amount	Date
45	1600.00 SqFt	12	2011	1600.00 SqFt	12/01/2011
45	1600.00 SqFt	12	2011	1600.00 SqFt	12/01/2011
45	1600.00 SqFt	12	2011	1600.00 SqFt	12/01/2011
45	1600.00 SqFt	12	2011	1600.00 SqFt	12/01/2011
45	1600.00 SqFt	12	2011	1600.00 SqFt	12/01/2011
45	1600.00 SqFt	12	2011	1600.00 SqFt	12/01/2011
45	1600.00 SqFt	12	2011	1600.00 SqFt	12/01/2011
45	1600.00 SqFt	12	2011	1600.00 SqFt	12/01/2011
45	1600.00 SqFt	12	2011	1600.00 SqFt	12/01/2011
45	1600.00 SqFt	12	2011	1600.00 SqFt	12/01/2011
Total:	16000.00 SqFt	--	--	16000.00 SqFt	--

Pond (378)

Maintain existing pond. Inspect regularly for pipe blockages, especially after heavy rains. Immediately repair any damage or eroding areas. Mow the dam and emergency spillway at least twice annually and remove any woody growth. Lime and fertilize grass areas according to soil test results. Contact NRCS (as needed) for assistance.

Field	Planned Amount	Month	Year	Applied Amount	Date
45	1.00 No	03	1981	1.00 No	03/04/1981
Total:	1.00 No	--	--	1.00 No	--

Waste Storage Facility (313)

Maintain a roofed facility to store solid poultry manure. The structure was built according to NRCS design, and operated and maintained in accordance with a Comprehensive Nutrient Management Plan or a Waste Management System plan developed for this operation. All necessary permits and notifications were obtained before construction. This stucture is used by Jonas Stolzfus for the chicken houses.

Field	Planned Amount	Month	Year	Applied Amount	Date
45	1.00 No	01	1994	1.00 No	06/26/1994
Total:	1.00 No	--	--	1.00 No	--

Waste Storage Facility (313)

Maintain a earthen impoundment used for manure storage. Monitor for leaking. Do not allow woody vegetation to get etablished on dam. This stucture is mostly used by Horizon Organic Dairy.

Field	Planned Amount	Month	Year	Applied Amount	Date
45	1.00 No	04	1981	1.00 No	04/01/1981
Total:	1.00 No	--	--	1.00 No	--

CERTIFICATION OF PARTICIPANTS

Stephen Lamar Stoltzfus — DATE 3-18-25

CERTIFICATION OF:

CERTIFIED PLANNER — DATE 3/18/25

CONSERVATION DISTRICT
KENT SCD — DATE 3/18/25

NRCS
DISTICT CONSERVATIONIST — DATE 3/19/25

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CROP MANAGEMENT SYSTEM DESCRIPTION

Cooperator Name	County	Planner	Date
Stephen Lamar Stoltzfus	Kent	Jenny Lee Freebery	3/4/25
Farm/Tract/Location			
249/752 River Road			

Follow the crop management system shown below. ☐ RUSLE2 worksheet attached

Field(s): 1,2,3	**Acres:** 113	**HEL Field#:**5,61,3

Conservation Practices

☑ Conservation Crop Rotation (328) ☑ Cover Crop (340) ☑ Nutrient Mgmt (590)
☐ Residue Mgmt, No-Till (329) ☑ Residue Mgmt, Reduced Till (345)

Description

Crop Rotation: Grow crops in a planned rotation to protect the soil from erosion; help control weeds, insects, and diseases; and improve the physical condition of the soil. Noxious weeds (Johnsongrass, shattercane, Canada thistle, plumeless thistle, musk thistle, bull thistle) must be controlled as required by State Law and not allowed to go to seed. Use the following rotation on these fields: corn, rye cover crop soybeans, barley cover crop

Cover Crop: Plant a winter cover crop for nutrient management and erosion control. The growing cover crop will uptake nitrogen and reduce the leaching of nitrogen into the groundwater. Plant early to get best establishment and kill down late to maximize benefits. Mixes can help improve soil health- small grains to build organic matter, legumes to fix nitrogen and brassicas to reduce compaction.

Reduced tillage-Implement a reduced-tillage system to maintain at least 30% surface residue after planting for all crops grown on these fields. Mulch-tillage will help to control erosion, improve water quality, and improve soil organic matter. Reducing tillage improves soil health by better supporting soil biodiversity, improving water holding capacity, and increasing organic matter.

Nutrient Management: Manage the amount, form, placement and timing of plant nutrient application to protect surface and groundwater from runoff and/or leaching of nutrients. A Nutrient Management Plan (NMP) will be developed and followed for each crop to be grown on each field. This NMP will be developed by a consultant licensed and certified by the Maryland Department of Agriculture. The Maryland Water Quality Improvement Act of 1998 requires all nutrient management plans to address both nitrogen and phosphorus as the limiting nutrients. The NMP will account for all sources and forms of plant nutrients applied for plant growth and production. The amount of all nutrients applied must be based on a current analysis of the soil's potential to produce a realistic yield. All fields will have current soil test analysis of not more than 3 years old. Plans should be implemented as written, and updated at least every 3 years or whenever there is a major change in the farming operation. Records will be kept which document, at a minimum; crops & crop acres, animal type and number, sources of nutrients applied including pounds/tons of commercial fertilizer and/or animal manure applied and how nutrients may have been incorporated. Records will note when the crops were planted, harvested, and the yields were obtained for each individual field or management unit. This farm uses poultry litter as a fertilizer.

* On HEL fields, contact the SCD prior to changing the crop sequence and/or tillage methods.

This document may be used for conservation plans to describe the crop management system. If financial assistance is provided for any of the above practices, a practice-specific implementation requirements sheet must be used.

Conservation Alternatives

Client Name: Stephen Lamar Stoltzfus	**Farm No:** 249	**Tract No:** 752
Address: River Road	**Prepared by:** Jenny Lee Freebery	**Date:** 3/5/25

The following conservation practices or systems are not components of your current conservation plan, but are recommended for future consideration.

Headquarters

- Windbreaks of either trees of grasses can help to filter air pollution near poultry fans
- Practice good biosecurity for poultry
  - Keep visitors to a minimum near livestock facilities,
  - Wash your hands before and after coming in contact with poultry
  - Change clothes/shoes before entering exiting- wear boot covers or have a disinfectant foot bath
  - Clean and disinfect tools and truck tires before going to another poultry facility
  - Report sick birds- especially those showing signs of highly pathenogenic avian influenza
    - Call Maryland Department of Agriculutre at 410-841-5810

Cropland

- Plant a cover crop mix- cover crops stabilize your soil to reduce erosion, improve organic matter, and improve soil health. Better soil health can lead to better infiltration. Planting early helps to get a better stand and more benefits.
  - A cover crop mix that includes a legume such as clover, vetch or winter pea can help fix nitrogen
  - A cover crop mix that includes a brassica such as a tillage radish can reduce compaction
  - The online Northeast Cover Crop Council Selector Tool can be useful for picking the cover crop or your neeeds
- Maximize your cover crop planting time- plant early before October 15 and/or kill down after May 1st
- Try 'Planting Green'- plant your cash crop directly into your existing cover crop to before killing it down to prevent there from being a time when soil doesn't have living roots in it.
- Reduce tillage to build organic matter and decrease disturbance to soil organisms and risk of erosion
- Use precision nutrient application to decrease overall nutrient needs while getting more nutrients to the plants that need them most
- Use integrated pest management tools to manage pests
- Programs like Cover Crop Plus can pay higher amounts for a 3 years of advanced cover crop and no-till practices
- Programs like Conservation Stewardship Program (CSP) offer many soil health, precision nutrient management, wildlife, and other options with cost share and technical assistance
- CREP is an option for steep slopes or near water or in marginal unproductive land to create opportunities for water quality, wildlife, and carbon sequestration

Other Areas or Resource Concerns

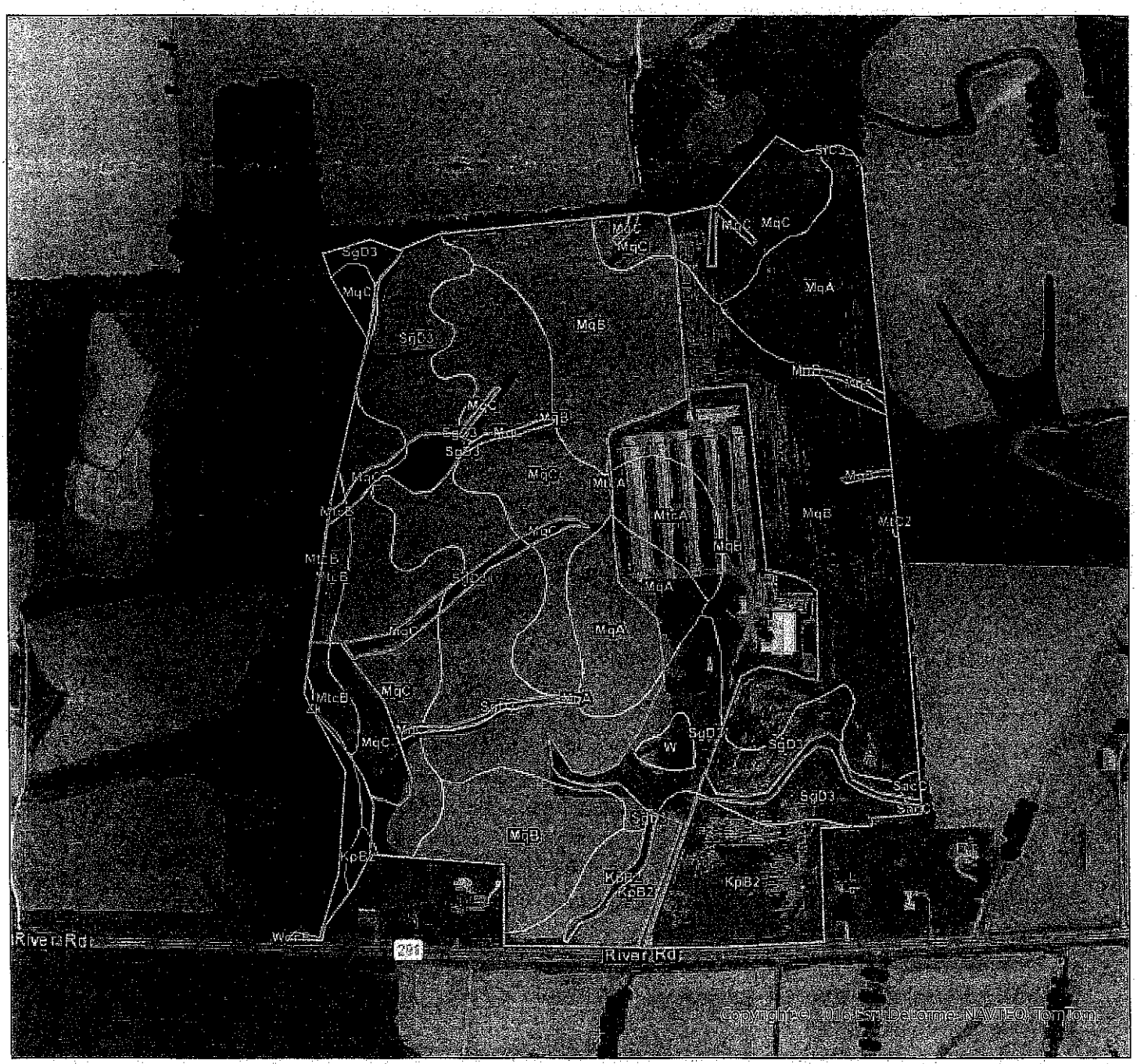
- There is cost share available for soil carbon amendments
- There is cost share available for manure transport for both poultry and other livestock manure

Date: 1/23/2025

Soils Map

Client(s): Stephen Lamar Stoltzfus
Location: Farm: 249 Tract: 752
Kent County, Maryland
Approximate Acres: 148.90

Assisted By: Jenny Lee Freebery



Prepared with assistance from USDA-Natural Resources Conservation Service

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Feet

Practice Schedule PLUs
Soils
Soil Mapunit

USDA

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Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, provide information on the composition of map units and properties of their components.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description (Brief, Generated)

Kent County, Maryland

Map Unit: KpB2--Keyport silt loam, 2 to 5 percent slopes

Component: Keyport (80%)

The Keyport component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of silty and clayey eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY120MD Moist Clayey Upland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Mattapex (10%)

Generated brief soil descriptions are created for major soil components. The Mattapex soil is a minor component.

Component: Crosiadore (5%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Component: Lenni (3%)

Generated brief soil descriptions are created for major soil components. The Lenni soil is a minor component.

Component: Elkton (2%)

Generated brief soil descriptions are created for major soil components. The Elkton soil is a minor component.

Map Unit: MqA--Mattapex-Butlertown complex, 0 to 2 percent slopes

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on coastal plains. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Butlertown (35%)

The Butlertown component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on coastal plains. The parent material consists of silty eolian deposits over sandy and loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 25 to 39 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 26 inches during February, March. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Crosiadore (10%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Component: Pineyneck (5%)

Generated brief soil descriptions are created for major soil components. The Pineyneck soil is a minor component.

Component: Nassawango (5%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Othello, drained (5%)

Generated brief soil descriptions are created for major soil components. The Othello, drained soil is a minor component.

Map Unit: MqB--Mattapex-Butlertown complex, 2 to 5 percent slopes

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Butlertown (35%)

The Butlertown component makes up 35 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats on coastal plains. The parent material consists of silty eolian deposits over sandy and loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 25 to 39 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation

is at 26 inches during February, March. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Pineyneck (10%)

Generated brief soil descriptions are created for major soil components. The Pineyneck soil is a minor component.

Component: Crosiadore (5%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Component: Nassawango (5%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton soil is a minor component.

Map Unit: MqC--Mattapex-Butlertown complex, 5 to 10 percent slopes

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 5 to 10 percent. This component is on flats, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Butlertown (35%)

The Butlertown component makes up 35 percent of the map unit. Slopes are 5 to 10 percent. This component is on flats on coastal plains. The parent material consists of silty eolian deposits over sandy and loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 25 to 39 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 26 inches during February, March. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Pineyneck (10%)

Generated brief soil descriptions are created for major soil components. The Pineyneck soil is a minor component.

Component: Crosiadore (5%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Component: Nassawango (5%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton soil is a minor component.

Map Unit: MtC2--Mattapex silt loam, 5 to 10 percent slopes, moderately eroded

Component: Mattapex (75%)

The Mattapex component makes up 75 percent of the map unit. Slopes are 5 to 10 percent. This component is on hillock low hills, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or

restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Nassawango (10%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Hambrook (10%)

Generated brief soil descriptions are created for major soil components. The Hambrook soil is a minor component.

Component: Crosiadore (3%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Component: Othello, drained (2%)

Generated brief soil descriptions are created for major soil components. The Othello, drained soil is a minor component.

Map Unit: MtcA--Mattapex silt loam, 0 to 2 percent slopes, Mid-Atlantic Coastal Plain

Component: Mattapex (80%)

The Mattapex component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, coastal plains. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Nassawango (10%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Crosiadore (5%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Component: Othello, drained (5%)

Generated brief soil descriptions are created for major soil components. The Othello, drained soil is a minor component.

Map Unit: MtcB--Mattapex silt loam, 2 to 5 percent slopes, Mid-Atlantic Coastal Plain

Component: Mattapex (80%)

The Mattapex component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Nassawango (10%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Othello, drained (5%)

Generated brief soil descriptions are created for major soil components. The Othello, drained soil is a minor component.

Component: Crosiadore (5%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Map Unit: SacC--Sassafras sandy loam, 5 to 10 percent slopes, Mid-Atlantic Coastal Plain

Component: Sassafras (80%)

The Sassafras component makes up 80 percent of the map unit. Slopes are 5 to 10 percent. This component is on flats on coastal plains. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY170MD Well Drained Fine-Loamy Upland ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Ingleside (10%)

Generated brief soil descriptions are created for major soil components. The Ingleside soil is a minor component.

Component: Downer (5%)

Generated brief soil descriptions are created for major soil components. The Downer soil is a minor component.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown soil is a minor component.

Map Unit: SfC3--Sassafras loam, 5 to 10 percent slopes, severely eroded

Component: Sassafras (100%)

The Sassafras component makes up 100 percent of the map unit. Slopes are 5 to 10 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY170MD Well Drained Fine-Loamy Upland ecological site. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Map Unit: SgD3--Sassafras gravelly loam, 10 to 15 percent slopes, severely eroded

Component: Sassafras (80%)

The Sassafras component makes up 80 percent of the map unit. Slopes are 10 to 15 percent. This component is on hillslopes, uplands. The parent material consists of loamy fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY170MD Well Drained Fine-Loamy Upland ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Hambrook (15%)

Generated brief soil descriptions are created for major soil components. The Hambrook soil is a minor component.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown soil is a minor component.

Map Unit: W--Water

Component: Water (100%)

Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.

Map Unit: WdcB--Woodstown sandy loam, 2 to 5 percent slopes, Mid-Atlantic Coastal Plain

Component: Woodstown (80%)

The Woodstown component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, coastal plains. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer is

greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY130NJ Moist Loamy Upland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Fallsington, occasionally ponded (6%)

Generated brief soil descriptions are created for major soil components. The Fallsington, occasionally ponded soil is a minor component.

Component: Hammonton (6%)

Generated brief soil descriptions are created for major soil components. The Hammonton soil is a minor component.

Component: Mattapex (4%)

Generated brief soil descriptions are created for major soil components. The Mattapex soil is a minor component.

Component: Hambrook (4%)

Generated brief soil descriptions are created for major soil components. The Hambrook soil is a minor component.

Map Unit: Zk--Zekiah silt loam, 0 to 2 percent slopes, frequently flooded

Component: Zekiah, frequently flooded (80%)

The Zekiah, frequently flooded component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on coastal plains. The parent material consists of loamy alluvium over fluvial coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 4 percent. This component is in the R149AY060DE Wet Alluvial Floodplain ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Longmarsh, frequently flooded (10%)

Generated brief soil descriptions are created for major soil components. The Longmarsh, frequently flooded soil is a minor component.

Component: Hurlock, undrained (5%)

Generated brief soil descriptions are created for major soil components. The Hurlock, undrained soil is a minor component.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton soil is a minor component.

Data Source Information

Soil Survey Area: Kent County, Maryland
Survey Area Data: Version 23, Sep 06, 2024

USDA NRCS Natural Resources Conservation Service

Rusle Program Version:
Rusle Science Version:
Data Base:

RUSLE2 Erosion Calculation Record

File: plans\Stephen Lamar Stoltzfus
Access Group: R2_NRCS_Fld_Office
Inputs:

Owner name	*Location*	*Info, U_NONE*
Stephen Lamar Stoltzfus	**USA\Maryland\Kent County**	**Farm: 249 Tract: 752**

R Factor	*Annual precip*	*10-yr 24-hr rainfall*	*In Req area?, U_NONE*
180	43	5.2	No

Field name	*Soil*	*Slope T Value*	*Slope length, U_FOOT*	*Slope steepness, U_PERCENT_SLOPE*
Field 1	soils\SSURGO\Kent County, Maryland\SgD3 Sassafras gravelly loam, 10 to 15 percent slopes, severely eroded\Sassafras Gravelly loam 80%	3.0	100	10
Field 2	soils\SSURGO\Kent County, Maryland\KpB2 Keyport silt loam, 2 to 5 percent slopes\Keyport Silt loam 80%	3.0	200	3.0
Field 3	soils\Kent, MD\BuB2 Butlertown-Mattapex silt loams, 2 to 5 percent slopes, moderately eroded\Butlertown silt loam 40%	4.0	300	3.0

Results:

Field name	*Description*	*Contouring system*	*Support practices*	*Terrace/diversion system, U_NONE*	*Cons. plan. soil loss, U_TON_P_AC_YR*	*Sed. delivery, U_TON_P_AC_YR*	*Soil conditioning index (SCI)*	*STIR value*	*Wind & irrigation-induced erosion for SCI*	*Fuel cost*
Field 1	corn, cc, sb, cc	contour-systems\d. relative row grade 3 percent of slope grade	-- none --	-- none --	2.4	2.4	0.47	15	0	0
Field 2	corn, cc, sb, cc	contour-systems\d. relative row grade 3 percent of slope grade	-- none --	-- none --	2.1	2.1	0.38	15	0	0
Field 3	corn, cc, sb, cc	contour-systems\d. relative row grade 3 percent of slope grade	-- none --	-- none --	2.1	2.1	0.38	15	0	0

The **SCI** is the **Soil Conditioning Index** rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

USDA NRCS Natural Resources Conservation Service

RUSLE2 Management Description Record

File: managements\CMZ 59\c.Other Local Mgt Records\Stephen Lamar Stoltzfus

Date	*Operation*	*Vegetation*	*Yield (harv. units)*	*Type of cover material*	*Cover matl add/remove, U_POUND_P_AC*	*Cover from addition, U_PERCENT*	*Standing res. added by op. desc., U_POUND_P_AC*
5/5/1	Manure spreader, solid and semi-solid			Manure, poultry	0	0	
5/5/1	Seedbed conditioner, coil tine har, rlng bskt						
5/10/1	Drill or airseeder, double disk, w/ fluted coulters	Corn, grain	150				
10/5/1	Harvest, killing crop 50pct standing stubble				4100	79	4100
10/12/1	Drill or air seeder single disk openers 7-10 in spac.	Barley, annual winter, cover crop, CA	3000				
5/25/2	Kill crop				2100	71	900
5/30/2	Drill or air seeder single disk openers 7-10 in spac.	Soybean, mw 7in rows	45.0				
10/20/2	Harvest, killing crop 30pct standing stubble				1100	47	470
10/25/2	Drill or air seeder single disk openers 7-10 in spac.	Rye, winter cover	6000				
5/1/3	Kill crop				1400	56	590

Long-term natural rough.: 6.0 U_MM
Normally used as a rotation?: Yes U_NONE
Duration: 2 U_YEARS

Info:

AFO RESOURCE CONCERNS EVALUATION WORKSHEET

Name:	Stephen Lamar Stoltzfus		**Agency Interest #:**	
Planner:	Jenny Lee Freebery		**Farm # / Tract #:**	249 / 752
Site Visit Date:	11/1/25		**Total Acres:**	149.7
County:	Kent		**Production Area Acres:**	19.9

	RESOURCE CONCERN	YES	NO	Assessment
a.	Biosecurity measures	☐	☒	The operator is following biosecurity measures as outlined by the integrator and MDA Animal Health.
b.	Chemical handling	☐	☒	Chemicals related to poultry production are stored in the appropriate designated storage area.
c.	Cultural resources	☐	☒	The production area is established and there are no proposed ground disturbance activities scheduled for the area.
d.	Feedlot area	☐	☒	Not Applicable - no feedlot area.
e.	Floodplains	☐	☒	This is an existing operation and the production area is not located in the FEMA-100 Year Floodplain as per the on-line resources available.
f.	Gully erosion	☐	☒	No gully erosion was identified in the production area or associated water conveyances.
g.	Livestock travel lanes	☐	☒	Not Applicable.
h.	Nutrient discharge	☐	☒	There are no observable nutrient discharges occurring from the production area.
i.	Objectionable odors	☐	☒	Normal poultry or livestock odors associated with this the type of operation or facility were noted.
j.	Particulate matter emissions	☐	☒	Normal particulate emissions associated with a facility of this size.
k.	Ponding, flooding, seasonal high water table	☐	☒	No abnormal ponding, flooding or high water table issues were identified.
l.	Sediment	☐	☒	No obvious and observable sediment discharges are occurring from the production area.
m.	Streambank/shoreline erosion	☐	☒	No streambank or shoreline areas are present in the production area.
n.	Threatened/endangered species	☐	☒	No geospatial indicators have been identified on the production area.
o.	Waste storage	☐	☒	There are no resource concerns identified for waste storage. Existing waste storage facilities are adequately sized for the operation and are consistent with the waste management system plan.
p.	Waterways	☐	☒	Maryland regulated waterways have been identified on the property and are greater than 100 feet from the production facilities. This is an existing facility with all required BMPs. No further action is required.
q.	Wetlands	☐	☒	Maryland regulated wetlands have been identified on the property greater than 100 feet from the production facilities. This is an existing facility with all required BMPs. No further action is required.)

Implementation Schedule for Land Treatment Area

This element addresses the need for and implementation of appropriate conservation practices to meet the quality criteria for soil erosion, air and water quality.

Note: The table below is your Conservation Practice and Facility Implementation Schedule. The practices listed in this schedule **must** be implemented according to the dates indicated. If these practices are not implemented according to schedule, please contact Jenny Lee Freebery.

Practice and Facility Implementation Schedule

Identify Resource Concern	Practice Name (NRCS Code)	Description of Practice	Date to be Implemented

The schedule of conservation practices presented here has been reviewed by Iron Hill Farms LLC, who is responsible for compliance with the requirements of the agricultural farm operation.

I, Iron Hill Farms LLC, certify that as the decision-maker, I have been involved in the planning process and agree that the items/practices listed in the table above are needed on my farm operation. I understand that I am responsible for implementing these practices according to the scheduled above. Should I not be able to implement any of the above items according to the schedule, I will contact the Kent Soil & Water Conservation District and have this schedule revised.

Stephen Lamar Stoltzfus

3-18-25

Date

Operation and Maintenance for BMP's in Farmstead

This section addresses the operation and maintenance for the structural, non-structural, and land treatment measures for your farm. These documented measures require effort and expenditures throughout the life of the practice to maintain safe conditions and assure proper functioning. Operation includes the administration, management, and performance of non-maintenance actions needed to keep a completed practice safe and functioning as planned. Maintenance includes work to prevent deterioration of practices, repairing damage, or replacement of the practice if one or more components fail.

Waste Storage Facility (313)

- Check backfill areas around the structure (concrete, steel, timber, etc.) frequently for excessive settlement. Determine if the settlement is caused by backfill consolidation, piping, or failure of the structure walls or floor. Necessary repairs must be made.
- Check walls and floors often - minimum of 2 times a year when facility is empty - for cracks and/or separations. Make needed repairs immediately.
- Outlets of foundations and sub-drains should be checked frequently and kept open. The outflow from these drains should be checked when the facility is being used to determine if there is leakage from the storage structure into these drains. Leakage may be detected by the color and smell of the out-flowing liquid, by lush dark-green growth of vegetation around the outlet, by the growth of algae in the surface ditch, or by the vegetation being killed by the out-flowing liquid. If leakage is detected, repairs should be planned and made to prevent the possible contamination of groundwater. To prevent erosion, a good vegetative cover should be established and maintained on berms and embankments. Plantings should be clipped 3 times a year to kill noxious weeds and encourage vigorous growth. If the vegetation is damaged, berms and embankments will need to be re-vegetated as soon as possible.
- Fences should be inspected and maintained in order to exclude livestock from the berms and embankments and to exclude unauthorized entry by people.
- Check the channels and berms of the clean water diversions around the barnyard, buildings and storage structure frequently. Channels must be protected from erosion and berms must be maintained at the proper height to ensure adequate capacity. These channels and berms should not be used as haul roads unless they are designed and constructed for this purpose.
- Check frequently for burrowing animals around buildings, structures, and in the berms and embankments. Remove them when they are found and repair any damage.
- Inspect haul roads and approaches to and from the storage facility frequently to determine the need for stone, gravel or other stabilizing material.
- Do not allow runoff from loading areas and from spills to flow into streams or road ditches.
- Examine and repair all warning and hazard signs as needed.
- Install and maintain a marking gauge post that clearly shows the design levels of one-half and full for manure storage pits, ponds, and lagoons.
- Clear blockages from roof gutters and outlets as needed.
- Notify the Soil Conservation District of any major problems or repairs needed.
- The roof must be maintained to operate as intended for the life of the practice (15 years). The function of the roof is critical because the manure storage facility is sized accordingly.

Heavy Use Area Protection (561)

- Inspect the Heavy Use Area at least twice a year and after severe storm events.
- Scrape the surface as needed to remove excess manure and/or sediment.
- Repair paved areas by repairing holes and replacement of paving materials.
- Replace loose surfacing material such as gravel, cinders, sawdust, tanbark, etc. as needed when removed by livestock, equipment traffic, or scraping.
- Repair any deteriorating areas.
- Maintain all vegetation that is part of the plan by fertilizing and liming according to soil test recommendations and reseeding or replanting as necessary.
- Inspect inlets and outlets of pipes and culverts and remove any obstructions present.
- Maintain flow into filter areas by removing accumulated solids, reconstructing waterbars, etc.

Composting Facility (317)

- Follow an operation and maintenance plan that includes:
- Recipe ingredients.
- Layering and mixing sequences.
- Safety requirements for operation of the composting facility.
- Manage the compost piles for temperature, odors, moisture, and oxygen, as appropriate. Make adjustments throughout the composting period to insure proper composting processes.
- Closely monitor temperatures above 165oF. Take action immediately to cool piles that have reached temperatures above 185oF.

SECTION 3: Land Treatment Area (Crop and/or Pasture)

This element addresses evaluation and implementation of appropriate conservation practices on sites proposed for land application of manure and organic by-products from an Animal Feeding Operation. On fields where manure and organic by-products are applied as beneficial nutrients, it is essential that runoff and soil erosion be minimized to allow for plant uptake of these nutrients.

The following documents are located in this section:

- Conservation Plan
- Conservation Plan Map
- Soils Map
- Soils Descriptions
- RUSLE2 Soil Loss Calculations

Implementation Schedule for Farmstead

This element addresses the need for and implementation of appropriate conservation practices to meet the quality criteria for soil erosion, air and water quality.

Practice and Facility Implementation Schedule

Description	Date
All resource concerns have been addressed and no additional best management practices are recommended or required at this time.	January 2025

The schedule of conservation practices presented here has been reviewed by Iron Hill Farms LLC, who is responsible for compliance with the requirements of the agricultural farm operation.

I, Iron Hill Farms LLC, certify that as the decision-maker, I have been involved in the planning process and agree that the items/practices listed in the table above are needed on my farm operation. I understand that I am responsible for implementing these practices according to the scheduled above. Should I not be able to implement any of the above items according to the schedule, I will contact the Kent Soil & Water Conservation District and have this schedule revised.

Stephen Lamar Stoltzfus

3.18.25

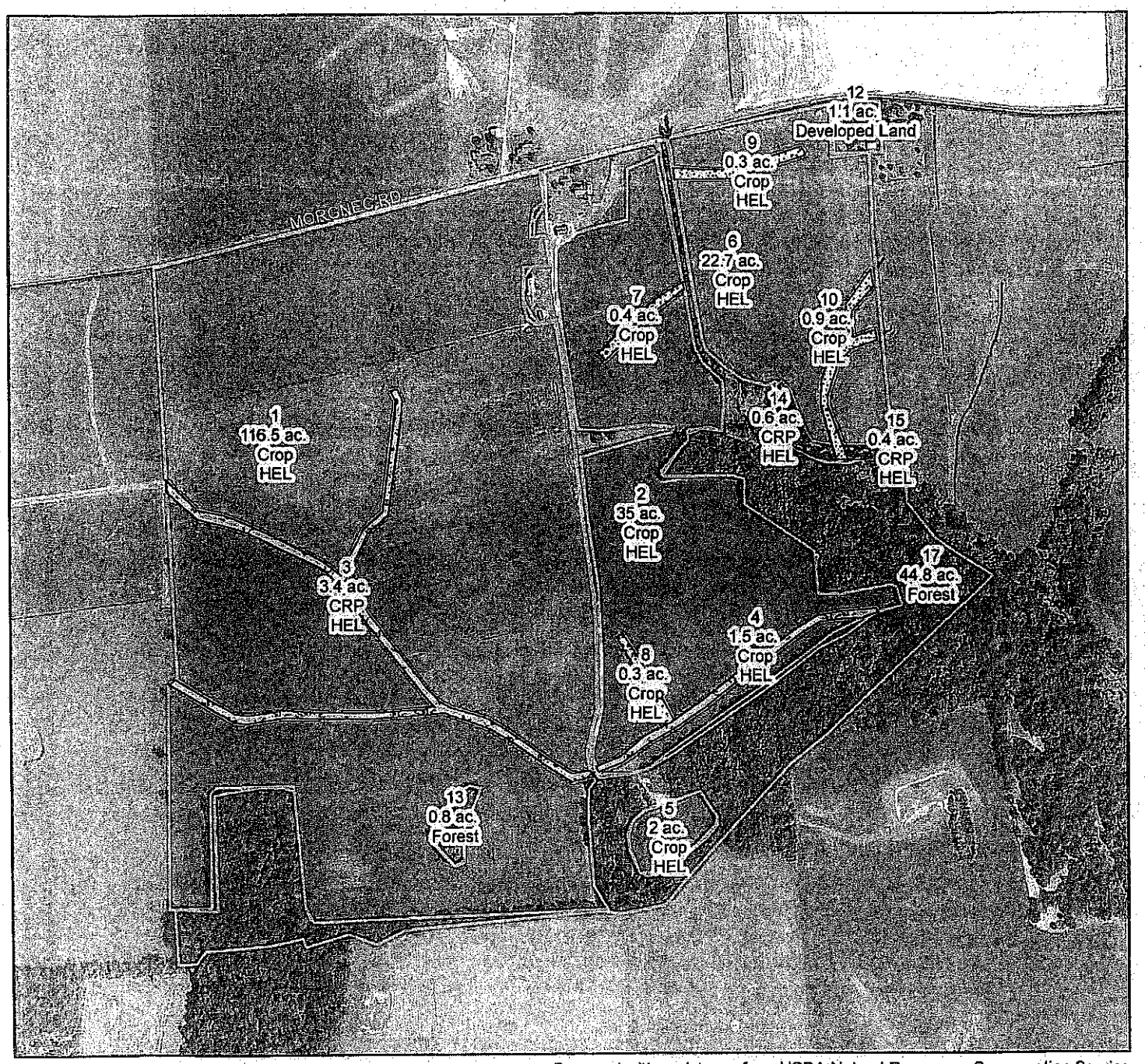
Date

Conservation Plan Map

Date: 5/19/2017

Customer(s): STEVE STOLTZFUS
District: KENT SCD
Approximate Acres: 230.7
Legal Description: Farm: 972 Tract: 974

Field Office: KENT COUNTY SERVICE CENTER
Assisted By: Jennifer Lee
State and County: MD, Kent County, Maryland



Prepared with assistance from USDA-Natural Resources Conservation Service

Legend

Practices (polygons)

- CRP Conservation Cover
- CRP Grassed Waterway
- Grassed Waterway
- Boundary

380 0 380 760 1,140 1,520 Feet

N

KENT COUNTY SERVICE CENTER
122 SPEER RD
CHESTERTOWN, MD 21620-1037
(410) 778-5353

JENNY LEE
CONSERVATION PLANNER

Conservation Plan

STEVE STOLTZFUS
29180 MORGNEC RD
KENNEDYVILLE, MD 21645

This row crop farm is located in Chestertown, and is owned and operated by Steve Stolzfus. Grassed waterways in fields 7,8,9,10 were are all expiring as CRP as of 2018. Fields 3 and 4 remain in CRP grassed waterways from sign up 48 through 2026, and fields 14 and 15 also remain in CRP CP1 cool season grass through sign up 38 through 2020.

Crop

Tract: 974

Conservation Cover(327)

This area will be enrolled in CRP/CREP. Maintain perennial vegetative cover to protect soil and water resources and enhance wildlife habitat on land removed from agricultural production. Refer to the attached job sheet for recommended seed mixes and other planting and establishment information. Once established, do not mow during the primary nesting season of April 15 to August 15. Noxious weeds must be controlled as required by State Law. If necessary, spot treatment of noxious weeds (mowing or spraying limited to the immediate area of infestation) may be authorized by the Farm Service Agency County Office. Refer to the job sheet from CRP Plan for additional information on routine maintenance and required mid-contract management practices. This CRP was signed up in 2010 through sign up 38 and will continue through 2020.

Field	Planned Amount	Month	Year	Applied Amount	Date
14	0.6 ac	9	2010	0.6 ac	10/14/2010
15	0.4 ac	9	2010	0.4 ac	10/14/2010
Total:	1. ac			1. ac	

Conservation Crop Rotation(328)

Grow crops in a planned rotation to protect the soil from erosion; help control weeds, insects, and diseases; and improve the physical condition of the soil. Noxious weeds (Johnsongrass, shattercane, Canada thistle, plumeless thistle, musk thistle, bull thistle) must be controlled as required by State Law and not allowed to go to seed. Use the following rotation on these fields: corn, cover crop, soybeans

Field	Planned Amount	Month	Year	Applied Amount	Date
1	116.5 ac	5	2017	116.5 ac	5/24/2017
2	35. ac	5	2017	35. ac	5/24/2017
5	2. ac	5	2017	2. ac	5/24/2017
6	22.7 ac	5	2017	22.7 ac	5/24/2017
Total:	176.2 ac			176.2 ac	

Cover Crop(340)

Plant a winter cover crop for nutrient management and erosion control. The growing cover crop will uptake nitrogen and reduce the leaching of nitrogen into the groundwater. Plant cover crops prior to October 15 for ground application, October 1 for aerial seeding.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	116.5 ac	9	2017		
2	35. ac	9	2017		
5	2. ac	9	2017		
6	22.7 ac	9	2017		
Total:	176.2 ac				

Early Successional Habitat Development/Management(647)

Manage early plant succession to benefit desired wildlife or natural communities. Overseed with clover as a mid-contract managment. See Implementation Requirement Sheet for more details.

Field	Planned Amount	Month	Year	Applied Amount	Date
3	3.4 ac	4	2020		
4	1.5 ac	4	2020		
3	3.4 ac	4	2023		
4	1.5 ac	4	2023		
Total:	4.9 ac				

Grade Stabilization Structure(410)

Maintain a structure to stabilize grade and control erosion in a natural or artificial channel. Check structure during normal tillage operations and after severe storms. Mowing banks should be done semiannually. Pipes should also be checked for rodents damage.

Field	Planned Amount	Month	Year	Applied Amount	Date
9	1. no	3	2007	1 no	6/5/2007
Total:	1. no			1. no	

Grassed Waterway(412)

Maintain a grassed waterway where shown on the plan map to prevent erosion caused by concentrated water flows. Construct and seed according to NRCS design. Avoid spraying herbicides and do not plow or disk through the waterway. Regularly remove debris and accumulated sediment. Mow as needed to maintain grass height at 4 to 6 inches to promote a thick sod. Inspect after each major storm and repair any damaged areas immediately. Tillage and row direction should be perpendicular to the waterway to allow runoff to drain into the waterway and prevent gullies along the edges. Provide stabilized machinery crossings, where needed, to prevent rutting of the waterway.

Field	Planned Amount	Month	Year	Applied Amount	Date
7	0.4 ac	3	2007	0.4 ac	6/5/2007
8	0.3 ac	3	2007	0.3 ac	6/5/2007
9	0.3 ac	3	2007	0.3 ac	6/5/2007
10	0.9 ac	3	2007	0.9 ac	6/5/2007
Total:	1.9 ac			1.9 ac	

Grassed Waterway(412)

This grassed waterway will be enrolled in the Conservation Reserve Program (CRP). Maintain a grassed waterway where shown on the plan map. Design assistance, planting recommendations, and construction supervision will be provided by NRCS. Avoid spraying the waterway and do not mow during the primary nesting season of April 15 through August 15. Lift equipment when crossing the waterway and avoid crossing when wet. This practice was re-enrolled in 2016 through sign-up 48 and goes until 2026.

Field	Planned Amount	Month	Year	Applied Amount	Date
3	3.4 ac	3	2006	3.4 ac	5/31/2006
4	1.5 ac	3	2006	1.5 ac	5/31/2006
Total:	4.9 ac			4.9 ac	

Nutrient Management(590)

Manage the amount, form, placement and timing of plant nutrient application to protect surface and groundwater from runoff and/or leaching of nutrients. A Nutrient Management Plan (NMP) will be developed and followed for each crop to be grown on each field. This NMP will be developed by a consultant licensed and certified by the Maryland Department of Agriculture. The Maryland Water Quality Improvement Act of 1998 requires all nutrient management plans to address both nitrogen and phosphorus as the limiting nutrients. The NMP will account for all sources and forms of plant nutrients applied for plant growth and production. The amount of all nutrients applied must be based on a current analysis of the soil's potential to produce a realistic yield. All fields will have current soil test analysis of not more than 3 years old. Plans should be implemented as written, and updated at least every 3 years or whenever there is a major change in the farming operation. Records will be kept which document, at a minimum; crops & crop acres, animal type and number, sources of nutrients applied including pounds/tons of commercial fertilizer and/or animal manure applied and how nutrients may have been incorporated. Records will note when the crops were planted, harvested, and the yields were obtained for each individual field or management unit.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	116.5 ac	5	2017	116.5 ac	5/24/2017
2	35. ac	5	2017	35 ac	5/24/2017
5	2. ac	5	2017	2 ac	5/24/2017
6	22.7 ac	5	2017	22.7 ac	5/24/2017
Total:	176.2 ac			176.2 ac	

Residue and Tillage Management, Reduced Till(345)

Implement a reduced-tillage system to maintain at least 30% surface residue after planting for all crops grown on these fields. Mulch-tillage will help to control erosion, improve water quality, and improve soil organic matter.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	116.5 ac	1	2006	116.5 ac	5/24/2017
2	35. ac	1	2006	35 ac	5/24/2017
6	22.7 ac	1	2006	22.7 ac	5/24/2017
5	2. ac	5	2017	2 ac	5/24/2017
Total:	176.2 ac			176.2 ac	

CERTIFICATION OF PARTICIPANTS

STEVE STOLTZFUS — DATE 10-30-17

CERTIFICATION OF:

DISTRICT CONSERVATIONIST

NANCY METCALF — DATE 12/19/17

DISTRICT MANAGER

KAREN L. MILLER — DATE 11/21/17

PUBLIC BURDEN STATEMENT

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collections is 0578-0013. The time required to complete this information collection is estimated to average 45/0.75 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection information.

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USDA Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW.
Washington, DC 20250-9410

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Conservation Alternatives

Client Name: Steve Stolzfus	**Farm No:** 972	**Tract No:** 974
Address:	**Prepared by:** Jenny Lee	**Date:**

The following conservation practices or systems are not components of your current conservation plan, but are recommended for future consideration.

Headquarters
Cropland Put in a wider buffer around stream in field 2 and 6 Overseed low grass area in field 7 grassed waterway with grass.
Hayland
Pasture
Forest/Woodland
Wildlife/Natural Area
Other Areas or Resource Concerns

Soils Map

Date: 4/14/2017

Customer(s): STEVE STOLTZFUS

District: KENT SCD

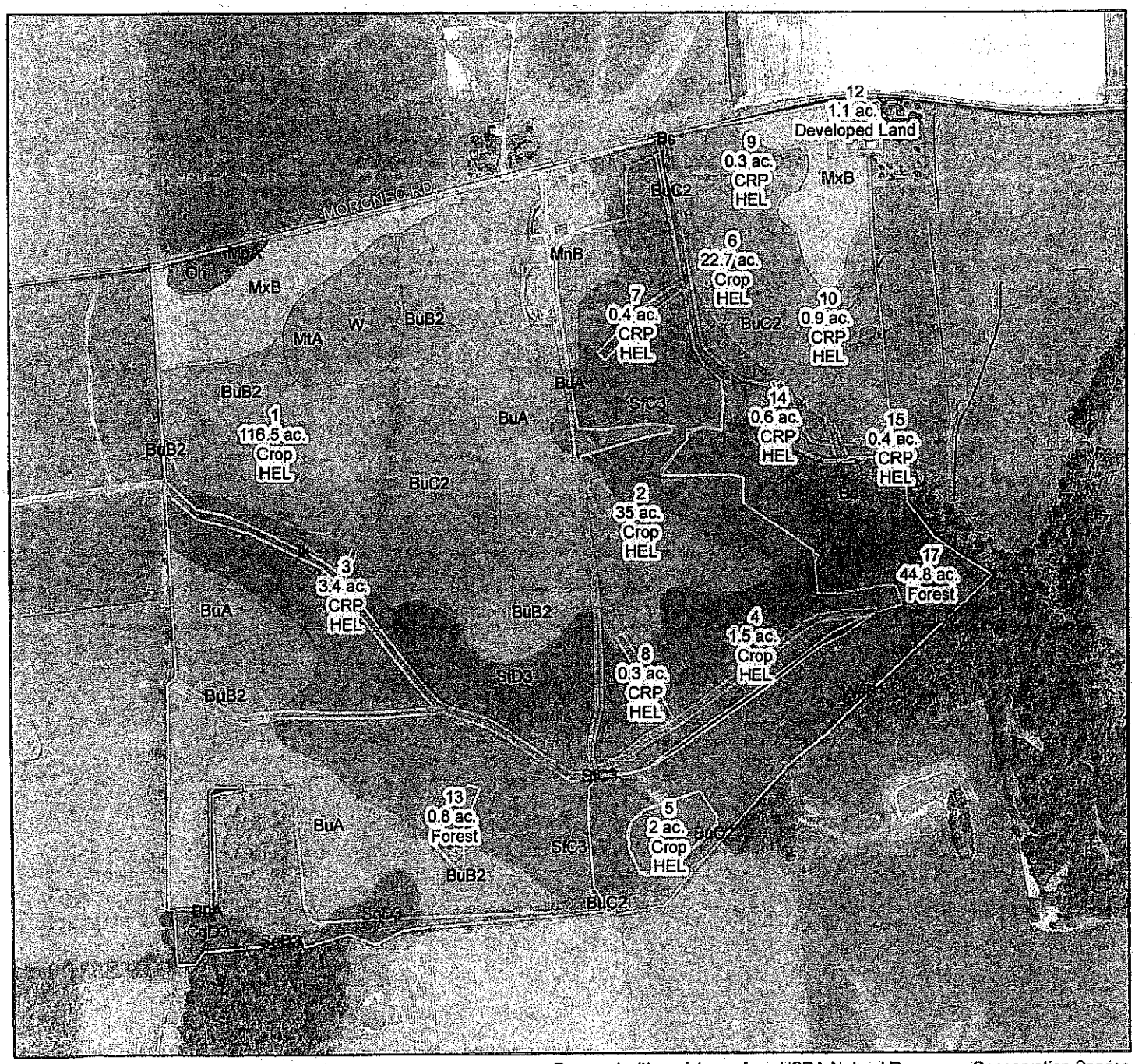
Approximate Acres: 230.7

Legal Description: Farm: 972 Tract: 974

Field Office: KENT COUNTY SERVICE CENTER

Assisted By: Jennifer Lee

State and County: MD, Kent County, Maryland



Prepared with assistance from USDA-Natural Resources Conservation Service

Legend

Boundary

roads

380 0 380 760 1,140 1,520 Feet

N

Soils Inventory Report

STEVE STOLTZFUS

Map Unit Symbol	Map Unit Name	Acres	Percent
Bs	Bibb silt loam	22.3	10%
BuA	Butlertown-Mattapex silt loams, 0 to 2 percent slopes	25.1	11%
BuB2	Butlertown-Mattapex silt loams, 2 to 5 percent slopes, moderately eroded	36.9	16%
BuC2	Butlertown-Mattapex silt loams, 5 to 10 percent slopes, moderately eroded	38	17%
CgD3	Colts Neck gravelly loam, 10 to 15 percent slopes, severely eroded	1.4	1%
Ik	Iuka silt loam, rarely flooded	5.5	2%
MnB	Matapeake silt loam, 2 to 5 percent slopes	8.2	4%
MpA	Mattapex fine sandy loam, 0 to 2 percent slopes	0.3	0%
MtA	Mattapex silt loam, 0 to 2 percent slopes	4.9	2%
MxB	Mattapex-Matapeake-Butlertown silt loams, 2 to 5 percent slopes	14.3	6%
Oh	Othello silt loam, 0 to 2 percent slopes	1	0%
SfC3	Sassafras loam, 5 to 10 percent slopes, severely eroded	48.7	21%
SfD3	Sassafras loam, 10 to 15 percent slopes, severely eroded	17.9	8%
SgD3	Sassafras gravelly loam, 10 to 15 percent slopes, severely eroded	2.5	1%
W	Water	1.2	1%
WsB	Woodstown loam, 2 to 5 percent slopes	1.7	1%
	Total:	229.9	100%

Map Unit Description

Kent County, Maryland

[Minor map unit components are excluded from this report]

Map unit: Bs - Bibb silt loam

Component: Bibb (100%)

The Bibb component makes up 100 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Map unit: BuA - Butlertown-Mattapex silt loams, 0 to 2 percent slopes

Component: Butlertown (45%)

The Butlertown component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during February, March. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. The parent material consists of silty eolian deposits and/or fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Map unit: BuB2 - Butlertown-Mattapex silt loams, 2 to 5 percent slopes, moderately eroded

Component: Butlertown (40%)

The Butlertown component makes up 40 percent of the map unit. Slopes are 2 to 5 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during February, March. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 2 to 5 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map unit: BuC2 - Butlertown-Mattapex silt loams, 5 to 10 percent slopes, moderately eroded

Component: Butlertown (40%)

The Butlertown component makes up 40 percent of the map unit. Slopes are 5 to 10 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during February, March. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Map Unit Description

Kent County, Maryland

Map unit: BuC2 - Butlertown-Mattapex silt loams, 5 to 10 percent slopes, moderately eroded

Component: Mattapex (35%)

The Mattapex component makes up 35 percent of the map unit. Slopes are 5 to 10 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Map unit: CgD3 - Colts Neck gravelly loam, 10 to 15 percent slopes, severely eroded

Component: Colts Neck (100%)

The Colts Neck component makes up 100 percent of the map unit. Slopes are 10 to 15 percent. Depth to a root restrictive layer, undefined, is 48 to 72 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria.

Map unit: Ik - Iuka silt loam, rarely flooded

Component: Iuka (100%)

The Iuka component makes up 100 percent of the map unit. Slopes are 0 to 2 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Map unit: MnB - Matapeake silt loam, 2 to 5 percent slopes

Component: Matapeake (80%)

The Matapeake component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on uplands, flats. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map unit: MpA - Mattapex fine sandy loam, 0 to 2 percent slopes

Component: Mattapex (80%)

The Mattapex component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

Map unit: MtA - Mattapex silt loam, 0 to 2 percent slopes

Component: Mattapex (80%)

The Mattapex component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on uplands, flats. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches.

Map Unit Description

Kent County, Maryland

Map unit: MtA - Mattapex silt loam, 0 to 2 percent slopes

Component: Mattapex (80%)

The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

Map unit: MxB - Mattapex-Matapeake-Butlertown silt loams, 2 to 5 percent slopes

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 2 to 5 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Matapeake (35%)

The Matapeake component makes up 35 percent of the map unit. Slopes are 2 to 5 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Butlertown (20%)

The Butlertown component makes up 20 percent of the map unit. Slopes are 2 to 5 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during February, March. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map unit: Oh - Othello silt loam, 0 to 2 percent slopes

Component: Othello, drained (48%)

The Othello, drained component makes up 48 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of silty eolian deposits over fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is rarely ponded. A seasonal zone of water saturation is at 14 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Othello, undrained (27%)

The Othello, undrained component makes up 27 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of silty eolian deposits over fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is occasionally ponded. A seasonal zone of water saturation is at 5 inches during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Map unit: SfC3 - Sassafras loam, 5 to 10 percent slopes, severely eroded

Component: Sassafras (100%)

The Sassafras component makes up 100 percent of the map unit. Slopes are 5 to 10 percent. Depth to a root restrictive layer is greater

Map Unit Description

Kent County, Maryland

Map unit: SfC3 - Sassafras loam, 5 to 10 percent slopes, severely eroded

Component: Sassafras (100%)

than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Map unit: SfD3 - Sassafras loam, 10 to 15 percent slopes, severely eroded

Component: Sassafras (100%)

The Sassafras component makes up 100 percent of the map unit. Slopes are 10 to 15 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria.

Map unit: SgD3 - Sassafras gravelly loam, 10 to 15 percent slopes, severely eroded

Component: Sassafras (80%)

The Sassafras component makes up 80 percent of the map unit. Slopes are 10 to 15 percent. This component is on hillslopes, uplands. The parent material consists of loamy fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria.

Map unit: W - Water

Component: Water (100%)

Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.

Map unit: WsB - Woodstown loam, 2 to 5 percent slopes

Component: Woodstown (80%)

The Woodstown component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on uplands, flats, coastal plains. The parent material consists of loamy fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

USDA NRCS Natural Resources Conservation Service

RUSLE2 Management Description Record

File: managements\CMZ 59\c.Other Local Mgt Records\Friendship Farm

Date	*Operation*	*Vegetation*	*Yield (harv. units)*	*Type of cover material*	*Cover matl add/remove, lb/ac*	*Cover from addition, %*	*Standing res. added by op. desc., lb/ac*
5/5/0	Drill or airseeder, double disk, w/ fluted coulters	Corn, grain	165				
10/1/0	Harvest, killing crop 50pct standing stubble				4500	82	4500
5/15/1	Drill or airseeder, double disk	Wheat, winter cover	4000				
5/15/1	Kill crop						0
5/15/1	Drill or air seeder single disk openers 7-10 in spac.	Soybean, mw 7in rows	55.0				
10/14/1	Harvest, killing crop 50pct standing stubble				930	42	930

Long-term natural rough.: 6.0 mm
Normally used as a rotation?: Yes
Duration: 2 yr

Info:

USDA NRCS Natural Resources Conservation Service

Rusle Program Version:
Rusle Science Version:
Data Base:

RUSLE2 Erosion Calculation Record

File: plans\Steve Stoltzfus T974
Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name	*Location*	*Info*
Steve Stoltzfus	**USA\Maryland\Kent County**	**Farm #972 Tract #974**

Field name	*Soil*	*Slope T Value*	*Slope length, ft*	*Slope steepness, %*
Field 1,6	soils\Kent, MD\BuC2 BUTLERTOWN-MATTAPEX SILT LOAMS, 5 TO 10 PERCENT SLOPES, MODERATELY ERODED\BUTLERTOWN silt loam 40%	4.0	100	6.0
Field 2,5	soils\Kent, MD\SfC3 SASSAFRAS LOAM, 5 TO 10 PERCENT SLOPES, SEVERELY ERODED\SASSAFRAS loam 100%	5.0	100	7.0

Results:

Field name	*Description*	*Contouring system*	*Support practices*	*Terrace/diversion system*	*Cons. plan. soil loss, t/ac/yr*	*Sed. delivery, t/ac/yr*	*Soil conditioning index (SCI)*	*STIR value*	*Wind & irrigation-induced erosion for SCI*	*Fuel cost*
Field 1,6	corn, cover crop, soybeans-no-till	contour-systems\d. relative row grade 2 percent of slope grade	-- none --	-- none --	3.5	3.5	0.30	8.1	0	0
Field 2,5	corn, cover crop, soybeans-no-till	contour-systems\d. relative row grade 2 percent of slope grade	-- none --	-- none --	3.0	3.0	0.34	8.1	0	0

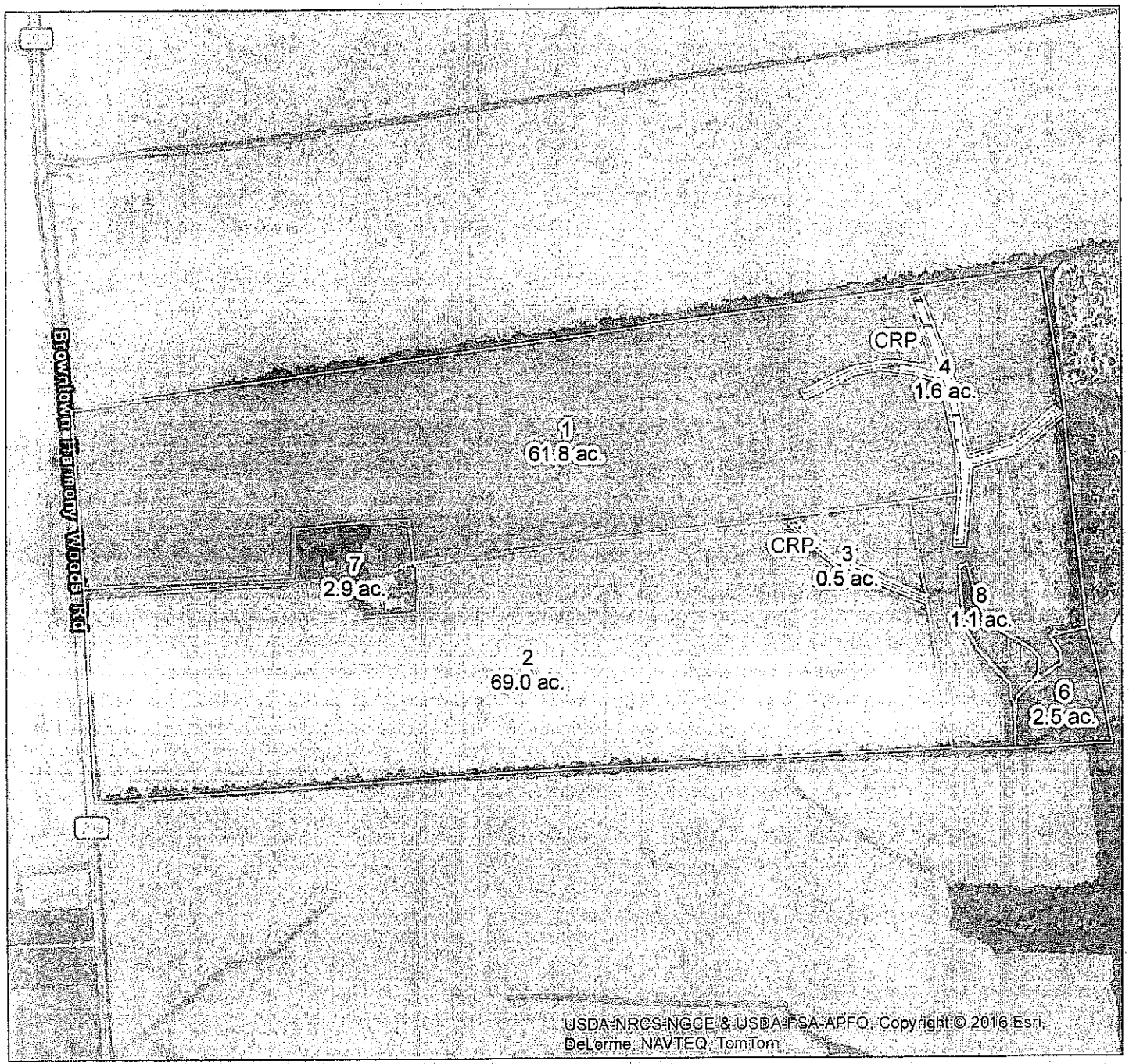
The **SCI** is the **Soil Conditioning Index** rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

Date: 6/15/2020

Conservation Plan Map

Client(s): LAMAR STOLTZFUS
Location: Farm: 81 Tract: 610
Kent County, Maryland
Approximate Acres: 139.50

Assisted By: Jenny Lee Freebery



Prepared with assistance from USDA-Natural Resources Conservation Service

0 550 Feet

Practice Schedule PLUs

Conservation Practice Points

Pond (378)

Conservation Practice Polygons

Grassed Waterway (412)

KENT COUNTY SERVICE CENTER
122 SPEER RD
CHESTERTOWN, MD 21620-1037
(410) 778-5353

Conservation Plan

LAMAR STOLTZFUS
28938 RIVER ROAD
MILLINGTON, MD 21651

This row crop farm located in Kennedyville, MD is owned and operated by Lamar Stoltzfus. There are two grassed waterways in CRP and the farm is in MALPF program.

Crop

Tract: 610

Conservation Crop Rotation (328)

Grow crops in a planned rotation to protect the soil from erosion; help control weeds, insects, and diseases; and improve the physical condition of the soil. Noxious weeds (Johnsongrass, shattercane, Canada thistle, plumeless thistle, musk thistle, bull thistle) must be controlled as required by State Law and not allowed to go to seed. Use the following rotation on these fields: corn, wheat, soybeans, cover crop

Field	Planned Amount	Month	Year	Applied Amount	Date
1	61.8 ac	06	2020	61.8 ac	6/11/2020
2	69.0 ac	06	2020	69.0 ac	6/11/2020
Total:	130.8 ac	--	--	130.8 ac	--

Cover Crop (340)

Plant a winter cover crop for nutrient management and erosion control. The growing cover crop will uptake nitrogen and reduce the leaching of nitrogen into the groundwater. Plant cover crops prior to October 15 for ground application, October 1 for aerial seeding.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	61.8 ac	09	2020	--	--
2	69.0 ac	09	2020	--	--
Total:	130.8 ac	--	--	--	--

Grassed Waterway (412)

This grassed waterway will be re-enrolled in the Conservation Reserve Program (CRP). Maintain a grassed waterway where shown on the plan map. Design assistance, planting recommendations, and construction supervision will be provided by NRCS. Avoid spraying the waterway and do not mow during the primary nesting season of April 15 through August 15. Lift equipment when crossing the waterway and avoid crossing when wet. Noxious weeds must be controlled by law- contact FSA if need to spot mow/ spray during primary nesting season. Please refer to CRP program guidance sheet for more details.

Field	Planned Amount	Month	Year	Applied Amount	Date
3	0.5 ac	05	2010	0.5 ac	7/13/2010
4	1.6 ac	05	2010	1.6 ac	7/13/2010
Total:	2.1 ac	--	--	2.1 ac	--

Nutrient Management (590)

Manage the amount, form, placement and timing of plant nutrient application to protect surface and groundwater from runoff and/or leaching of nutrients. A Nutrient Management Plan (NMP) will be developed and followed for each crop to be grown on each field. This NMP will be developed by a consultant licensed and certified by the Maryland Department of Agriculture. The Maryland Water Quality Improvement Act of 1998 requires all nutrient management plans to address both nitrogen and phosphorus as the limiting nutrients. The NMP will account for all sources and forms of plant nutrients applied for plant growth and production. The amount of all nutrients applied must be based on a current analysis of the soil's potential to produce a realistic yield. All fields will have current soil test analysis of not more than 3 years old. Plans should be implemented as written, and updated at least every 3 years or whenever there is a major change in the farming operation. Records will be kept which document, at a minimum; crops & crop acres, animal type and number, sources of nutrients applied including pounds/tons of commercial fertilizer and/or animal manure applied and how nutrients may have been incorporated. Records will note when the crops were planted, harvested, and the yields were obtained for each individual field or management unit.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	61.8 ac	06	2020	61.8 ac	6/11/2020
2	69.0 ac	06	2020	69.0 ac	6/11/2020
Total:	130.8 ac	--	--	130.8 ac	--

Residue and Tillage Management, Reduced Till (345)

Implement a reduced-tillage system to maintain at least 30% surface residue after planting for all crops grown on these fields. Mulch-tillage will help to control erosion, improve water quality, and improve soil organic matter.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	61.8 ac	06	2020	61.8 ac	6/11/2020
2	69.0 ac	06	2020	69.0 ac	6/11/2020
Total:	130.8 ac	--	--	130.8 ac	--

Water

Tract: 610

Pond (378)

Maintain existing pond. Inspect regularly for pipe blockages, especially after heavy rains. Immediately repair any damage or eroding areas. Mow the dam and emergency spillway at least twice annually and remove any woody growth. Lime and fertilize grass areas according to soil test results. Contact NRCS (as needed) for assistance.

Field	Planned Amount	Month	Year	Applied Amount	Date
8	1.00 no	01	2020	1.00 no	8/12/2010
Total:	1.00 no	--	--	1.00 no	--

CERTIFICATION OF PARTICIPANTS

LAMAR STOLTZFUS — DATE 9.7.20

CERTIFICATION OF:

DISTRICT CONSERVATIONIST

NANCY METCALF — DATE 9/16/20

DISTRICT MANAGER

KAREN L. MILLER — DATE 9/15/20

PUBLIC BURDEN STATEMENT

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USDA Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW.
Washington, DC 20250-9410

Or call toll free at (866) 632-9992 (voice) to obtain additional information, the appropriate office or to request documents. Individuals who are deaf, hard of hearing, or have speech disabilities may contact USDA through the Federal Relay service at (800) 877-8339 or (800) 845-6136 (in Spanish). USDA is an equal opportunity provider, employer, and lender. Persons with disabilities who require alternative means for communication of program information (e.g., Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

Conservation Alternatives

Client Name: Lamar Stoltzfus	**Farm No:** 81	**Tract No:** 610
Address: Browntown Road, Kennedyville	**Prepared by:** Jenny Lee Freebery	**Date:** 6/15/20

The following conservation practices or systems are not components of your current conservation plan, but are recommended for future consideration.

Headquarters

Cropland
• Plant a cover crop mix- cover crops stabilize your soil to reduce erosion, improve organic matter, and improve soil health. Better soil health can lead to better infiltration. Planting early helps to get a better stand and more benefits.
  o A cover crop mix that includes a legume such as clover or winter pea can help fix nitrogen
  o A cover crop mix that includes a brassica such as a tillage radish can reduce compaction
• Try 'Planting Green'- plant your cash crop directly into your existing cover crop to before killing it down to prevent there from being a time when soil doesn't have living roots in it. This is good for soil health
• Reduce tillage to use no-till, especially on ground with steeper slopes. This helps build organic matter and keep soil from eroding

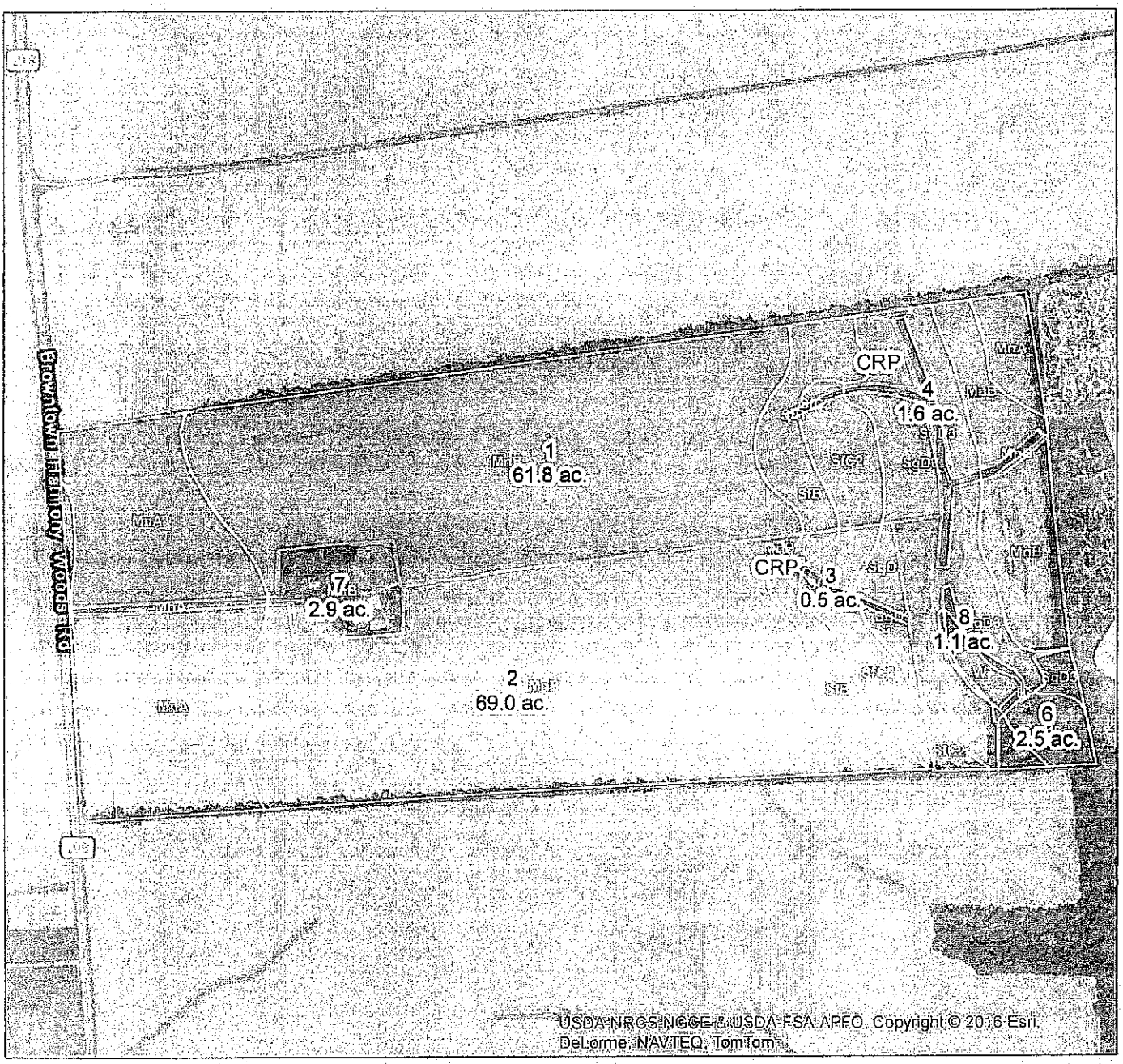
Hayland
Pasture
Forest/Woodland
Wildlife/Natural Area
Other Areas or Resource Concerns

Date: 6/15/2020

Soils Map

Client(s): LAMAR STOLTZFUS
Location: Farm: 81 Tract: 610
Kent County, Maryland
Approximate Acres: 139.50

Assisted By: Jenny Lee Freebery



Prepared with assistance from USDA-Natural Resources Conservation Service

0 550 Feet

Practice Schedule PLUs

Soils

Soil Mapunit

USDA

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Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Butlertown (5%)

Generated brief soil descriptions are created for major soil components. The Butlertown soil is a minor component.

Component: Mattapex (5%)

Generated brief soil descriptions are created for major soil components. The Mattapex soil is a minor component.

Map Unit: MnB--Matapeake silt loam, 2 to 5 percent slopes

Component: Matapeake (80%)

The Matapeake component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Nassawango (10%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Butlertown (5%)

Generated brief soil descriptions are created for major soil components. The Butlertown soil is a minor component.

Component: Mattapex (5%)

Generated brief soil descriptions are created for major soil components. The Mattapex soil is a minor component.

Map Unit: SfB--Sassafras loam, 2 to 5 percent slopes

Component: Sassafras (80%)

The Sassafras component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats on coastal plains. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Unicorn (10%)

Generated brief soil descriptions are created for major soil components. The Unicorn soil is a minor component.

Component: Woodstown (10%)

Generated brief soil descriptions are created for major soil components. The Woodstown soil is a minor component.

Map Unit: SfC2--Sassafras loam, 5 to 10 percent slopes, moderately eroded

Component: Sassafras (100%)

The Sassafras component makes up 100 percent of the map unit. Slopes are 5 to 10 percent. Depth to a root restrictive

layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Map Unit: SgD3--Sassafras gravelly loam, 10 to 15 percent slopes, severely eroded

Component: Sassafras (80%)

The Sassafras component makes up 80 percent of the map unit. Slopes are 10 to 15 percent. This component is on hillslopes, uplands. The parent material consists of loamy fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Hambrook (15%)

Generated brief soil descriptions are created for major soil components. The Hambrook soil is a minor component.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown soil is a minor component.

Map Unit: W--Water

Component: Water (100%)

Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.

Data Source Information

Soil Survey Area: Kent County, Maryland

Survey Area Data: Version 18, Sep 13, 2019

USDA NRCS

RUSLE2 Management Description Record

File: managements\CMZ 59\c.Other Local Mgt Records\Lamar Stoltzfus T610

Date	*Operation*	*Vegetation*	*Yield (harv. units)*	*Type of cover material*	*Cover matl add/remove, lb/ac*	*Cover from addition, %*	*Standing res. added by op. desc., lb/ac*
5/10/2	Disk, tandem light finishing						
5/15/2	Drill or air seeder single disk openers 7-10 in spac.	Corn, grain	160				
10/14/2	Harvest, killing crop 50pct standing stubble				4400	81	4400
10/20/2	Seedbed conditioner, coil tine har, rlng bskt						
10/22/2	Planter, double disk opnr w/fluted coulter	Wheat, spring 7in rows	30.0				
6/10/3	Harvest, killing crop 60pct standing stubble				940	43	1400
6/12/3	Disk, tandem light finishing						
6/25/3	Drill or airseeder, double disk, w/ fluted coulters	Soybean, southern 7in rows	45.0				
10/5/3	Harvest, killing crop 50pct standing stubble				2600	78	2600
10/10/3	Planting, broadcast seeder	Barley, annual winter, cover crop, CA	3000				
4/24/4	Kill crop				2100	71	900

Long-term natural rough.: 6.0 mm
Normally used as a rotation?: No
Duration: 2 yr

Info:

USDA NRCS Natural Resources Conservation Service

Rusle Program Version:
Rusle Science Version:
Data Base:

RUSLE2 Erosion Calculation Record

File: plans\Lamar Stoltzfus T610
Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name	*Location*	*Info*
Lamar Stoltzfus	**USA\Maryland\Kent County**	

Field name	*Soil*	*Slope T Value*	*Slope length, ft*	*Slope steepness, %*
1,2	soils\Kent, MD\MnB MATAPEAKE SILT LOAM, 2 TO 5 PERCENT SLOPES\MATAPEAKE silt loam 100%	5.0	200	1.0

Results:

Field name	*Description*	*Contouring system*	*Support practices*	*Terrace/diversion system*	*Cons. plan. soil loss, t/ac/yr*	*Sed. delivery, t/ac/yr*	*Soil conditioning index (SCI)*	*STIR value*	*Wind & irrigation-induced erosion for SCI*	*Fuel cost*
1,2		contour-systems\b. absolute row grade 3 percent	-- none --	-- none --	2.2	2.2	0.42	33	0	27.60

The **SCI** is the **Soil Conditioning Index** rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

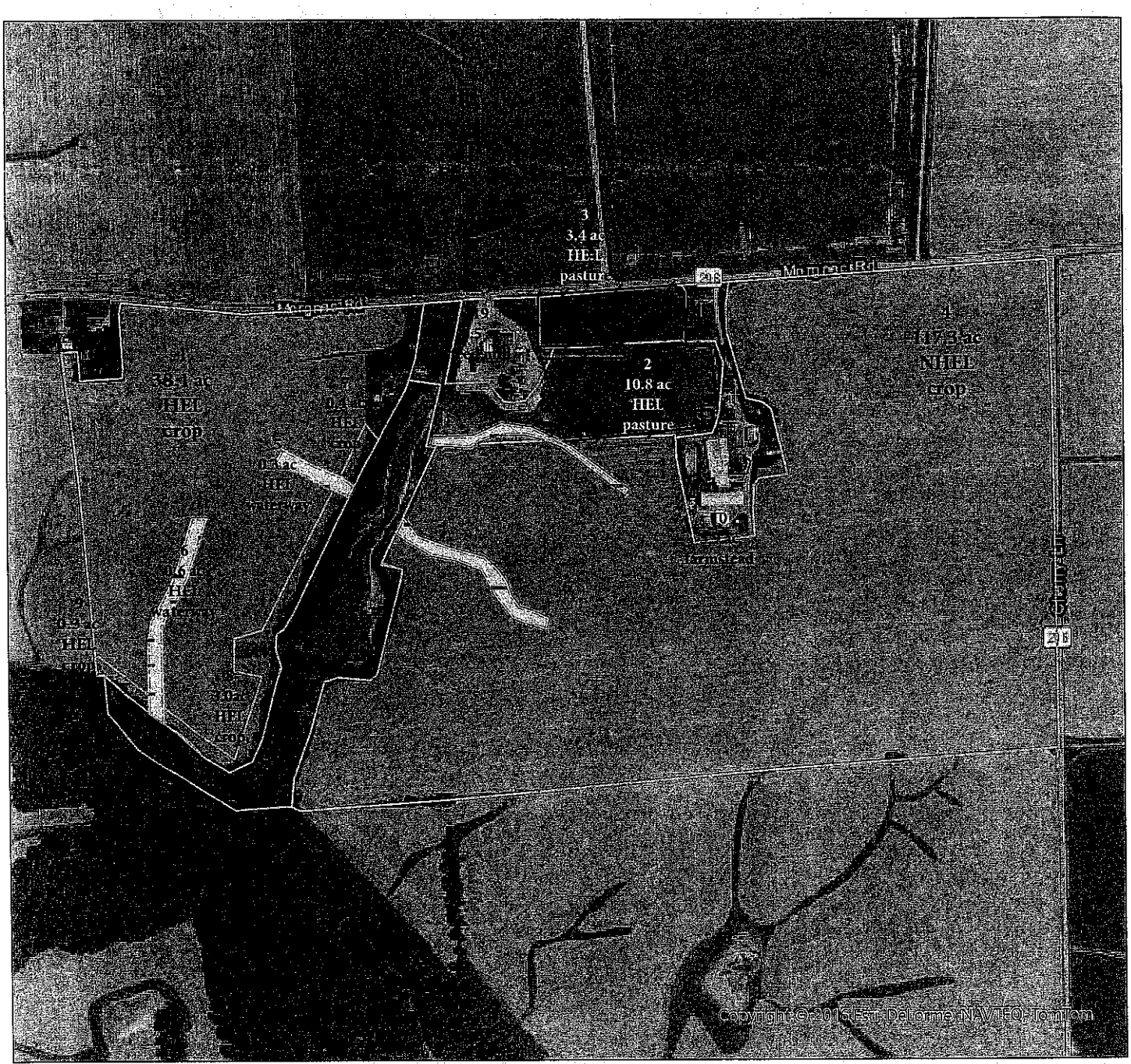
The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Date: 3/4/2025

Conservation Plan Map

Client(s): STEVE STOLTZFUS, IRON HILL FARMS LLC
Location: Farm: 973 Tract: 975
Kent County, Maryland
Approximate Acres: 198.21

Assisted By: Jenny Lee Freebery



Prepared with assistance from USDA-Natural Resources Conservation Service

0 625 Feet

Conservation Practice Points
- Roof Runoff Structure (558)
- Agrichemical Handling Facility (309)

Conservation Practice Lines
- Fence (382)

Conservation Practice Polygons
- Grassed Waterway (412)
- Practice Schedule PLUs

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Department of
Agriculture

Natural Resources Conservation Service

CONSERVATION PLAN

STEVE STOLTZFUS

JENNY LEE FREEBERY
CHESTERTOWN, MARYLAND
(410) 778-5150x3293
jenny.lee@maryland.gov
3/4/2025

KENT COUNTY SERVICE CENTER
122 SPEER RD
CHESTERTOWN, MD 21620-1037
(410) 778-5353

Conservation Plan

STEVE STOLTZFUS
29180 MORGNEC RD
KENNEDYVILLE, MD 21645

IRON HILL FARMS LLC
28938 RIVER RD
MILLINGTON, MD 21651

OBJECTIVE(S)

This row crop farm in Kennedyville is owned by Steve Stoltzfus and operated by Iron Hill Farm LLC. There are 15 beef cows who graze in fields 2 and 3. Field 3 has some solar. Delmarva Feed Mill is located in field 19. The farm uses chicken litter.

Install the conservation practices, enhancements, and activities according to the implementation requirements, designs, construction plans, or other documents that facilitate meeting the applicable NRCS technical criteria. If you do not have such information, contact your local office before starting to install your conservation practices, enhancements, and activities.

Crop

Tract: 975

Conservation Crop Rotation (328)

Conservation Cropping System - Use a cropping system in combination with needed cultural practices to protect the soil during critical erosion periods. This will improve or maintain good physical condition of the soil, help control weeds, insects and diseases. This will also help maintain or improve water quality.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	38.1 Ac	03	2025	38.1 Ac	03/03/2025
4	117.4 Ac	03	2025	117.4 Ac	03/03/2025
7	0.4 Ac	03	2025	0.4 Ac	03/03/2025
8	3.0 Ac	03	2025	3.0 Ac	03/03/2025
9	0.3 Ac	03	2025	0.3 Ac	03/03/2025
Total:	159.1Ac			159.1Ac	

Cover Crop (340)

Grasses, legumes, and forbs planted for seasonal vegetative cover.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	38.1 Ac	03	2025	38.1 Ac	03/03/2025
4	117.4 Ac	03	2025	117.4 Ac	03/03/2025
7	0.4 Ac	03	2025	0.4 Ac	03/03/2025
8	3.0 Ac	03	2025	3.0 Ac	03/03/2025
9	0.3 Ac	03	2025	0.3 Ac	03/03/2025
Total:	159.1Ac			159.1Ac	

Residue and Tillage Management, Reduced Till (345)

Reduced tillage - Minimize soil disturbance by reducing the number and type of yearly tillage operations to manage the amount, orientation and distribution of crop and plant residues.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	38.1 Ac	03	2025	38.1 Ac	03/03/2025
4	117.4 Ac	03	2025	117.4 Ac	03/03/2025
7	0.4 Ac	03	2025	0.4 Ac	03/03/2025
8	3.0 Ac	03	2025	3.0 Ac	03/03/2025
9	0.3 Ac	03	2025	0.3 Ac	03/03/2025
Total:	159.1Ac			159.1Ac	

Nutrient Management (590)

Apply nutrients in amounts to meet crop need and based on a realistic (5 year average) yield goal. Apply manure and commercial fertilizer according to a nutrient management plan. To obtain this plan contact a nutrient management consultant at the Cooperative Extension Office (410-778-1661), or contact a private certified consultant. Proper nutrient management will minimize nutrient runoff and leaching and will result in improved surface and groundwater quality.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	38.1 Ac	03	2025	38.1 Ac	03/03/2025
4	117.4 Ac	03	2025	117.4 Ac	03/03/2025
7	0.4 Ac	03	2025	0.4 Ac	03/03/2025
8	3.0 Ac	03	2025	3.0 Ac	03/03/2025
9	0.3 Ac	03	2025	0.3 Ac	03/03/2025
Total:	159.1Ac			159.1Ac	

Nutrient Management (590)

Apply nutrients based on right source, rate, time, and place (4Rs) not to exceed Land Grant University nutrient recommendations, utilizing soil testing and other nutrient monitoring to manage nutrient application in pasture.

Field	Planned Amount	Month	Year	Applied Amount	Date
2	5.6 Ac	03	2025	5.6 Ac	03/03/2025
3	3.4 Ac	03	2025	3.4 Ac	03/03/2025
Total:	9.0 Ac	--	--	9.0 Ac	--

Pasture and Hay Planting (512)

Forage Planting - Maintain adapted and/or compatible species, varieties, or cultivars of herbaceous species suitable for pasture, hay or biomass production to meet management objectives.

Field	Planned Amount	Month	Year	Applied Amount	Date
2	5.6 Ac	03	1996	5.6 Ac	03/01/1996
3	3.4 Ac	03	1996	3.4 Ac	03/01/1996
Total:	9.0 Ac	--	--	9.0 Ac	--

Fence (382)

Construct a critical confinement fence where indicated on the conservation plan map. Follow NRCS standards and specifications including specific recommendations for Fence Type, Height and Strand Spacing. Once installed, inspect annually for structural integrity. In flood prone areas, inspect after each storm event. Repair worn or damaged sections.

Field	Planned Amount	Month	Year	Applied Amount	Date
2	1449.00 Ft	04	2015	1449.00 Ft	03/01/2015
3	1927.00 Ft	04	2015	1927.00 Ft	03/01/2015
Total:	3376.00 Ft	--	--	3376.00 Ft	--

Grade Stabilization Structure (410)

EQIP CONTRACT ITEM. Maintain a structure to stabilize grade and control erosion in a natural or artificial channel. Check structure during normal tillage operations and after severe storms. A rock check structure will be installed due to underground outlets coming into watercourse. Area should be maintained in order maintain waterway below.

Field	Planned Amount	Month	Year	Applied Amount	Date
2	1.00 No	04	2013	1.00 No	03/27/2013
Total:	1.00 No	--	--	1.00 No	--

Grassed Waterway (412)

A watercourse shaped and established in vegetation to safely dispose of runoff. Lime, seed and fertilize according to standards for critical areas. Fall application is recommended at a rate of 500 lbs. 10-10-10 per acre. Mow when necessary to maintain a growth of 4 to 6 inches. Do not travel through or across grass with tillage equipment.

Field	Planned Amount	Month	Year	Applied Amount	Date
4	1.0 Ac	07	2003	0.6 Ac	09/02/2004
Total:	1.0 Ac	--	--	0.6 Ac	--

Grassed Waterway (412)

A grass waterway(s) should be installed as shown on plan map to safely handle concentrated water flow and prevent gullies. The waterway should be planted to erosion resistant grasses at the rates recommended by NRCS. Lime and fertilize according to a soil test. To maintain waterway, lime and fertilize as part of the normal field operation. Lift tillage and spray equipment when crossing waterways. Mow to maintain a uniform growth, but not shorter than 8 inches. Avoid herbicide damage.

Field	Planned Amount	Month	Year	Applied Amount	Date
5	0.3 Ac	03	2007	0.3 Ac	06/05/2007
6	0.6 Ac	03	2007	0.7 Ac	06/05/2007
2	0.4 Ac	04	2013	0.3 Ac	05/23/2013
Total:	1.3 Ac	--	--	1.3 Ac	--

Roof Runoff Structure (558)

A system of gutters and downspouts will be installed to collect and convey roof runoff water to a safe outlet. The system will prevent roof runoff water from flowing across concentrated waste areas which will reduce pollution and erosion and improve water quality.

Field	Planned Amount	Month	Year	Applied Amount	Date
5	7.00 No	07	2012	7.00 No	03/27/2013
Total:	7.00 No	--	--	7.00 No	--

Underground Outlet (620)

Install a subsurface pipe to collect and safely convey surface water to a suitable outlet.

An engineering plan will be provided detailing the installation and material specifications for the underground outlet (tile) installation.

Operation & Maintenance:

Periodically, and especially after major runoff events, inspect the inlet to ensure designed flow. Check outlets to ensure they are not plugged.

Field	Planned Amount	Month	Year	Applied Amount	Date
5	750.00 Ft	08	2012	750.00 Ft	03/27/2013
Total:	750.00 Ft	--	--	750.00 Ft	--

Farmstead

Tract: 975

Agrichemical Handling Facility (309)

Construct a agrichemical mixing facility where shown on the conservation plan map to provide an environmentally safe area for handling on farm agrichemicals. This structure must meet NRCS standards and specifications and will be installed per the engineering design provided by NRCS. All necessary permits and notifications shall be obtained prior to construction. Follow job sheets provided for operation and maintenance requirements.

Field	Planned Amount	Month	Year	Applied Amount	Date
10	1.00 No	06	2017	--	--
Total:	1.00 No	--	--	--	--

Obstruction Removal (500)

Safely remove and dispose of unwanted obstructions and other material to facilitate application of conservation practices. Remove the existing concrete pad before constructing the proposed agrichemical handling facility. Install this practice according to the engineering design, job sheet, or implementation requirement sheet provided by NRCS.

Field	Planned Amount	Month	Year	Applied Amount	Date
10	0.1 Ac	06	2017	--	--
Total:	0.1 Ac	--	--	--	--

Roof Runoff Structure (558)

Install a system of gutters and downspouts on the proposed agrichemical handling facility to collect and convey roof runoff water to a safe outlet. The system will prevent roof runoff water from flowing across concentrated waste areas and will reduce pollution and erosion and improve water quality. Follow NRCS standards and specifications for maintenance of this practice. Install this practice according to the engineering design, job sheet, or implementation requirement sheet provided by NRCS.

Field	Planned Amount	Month	Year	Applied Amount	Date
10	1.00 No	06	2017	--	--
Total:	1.00 No	--	--	--	--

CERTIFICATION OF PARTICIPANTS

Steve Stoltzfus 3-18-25
STEVE STOLTZFUS DATE

Stephen Lemm 3-18-25
IRON HILL FARMS LLC DATE

CERTIFICATION OF:

3/18/25
CERTIFIED PLANNER DATE

CONSERVATION DISTRICT
KENT SCD DATE 3/18/25

NRCS
DISTICT CONSERVATIONIST DATE 3/19/25

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CROP MANAGEMENT SYSTEM DESCRIPTION

Cooperator Name	County	Planner	Date
Stephen Lamar Stoltzfus	Kent	Jenny Lee Freebery	3/4/25

Farm/Tract/Location

249/752 River Road

Follow the crop management system shown below. ☐ RUSLE2 worksheet attached

Field(s): 1,2,3	Acres: 113	HEL Field#:5,61,3

Conservation Practices

☑ Conservation Crop Rotation (328) ☑ Cover Crop (340) ☑ Nutrient Mgmt (590)
☐ Residue Mgmt, No-Till (329) ☑ Residue Mgmt, Reduced Till (345)

Description

Crop Rotation: Grow crops in a planned rotation to protect the soil from erosion; help control weeds, insects, and diseases; and improve the physical condition of the soil. Noxious weeds (Johnsongrass, shattercane, Canada thistle, plumeless thistle, musk thistle, bull thistle) must be controlled as required by State Law and not allowed to go to seed. Use the following rotation on these fields: corn, rye cover crop soybeans, barley cover crop

Cover Crop: Plant a winter cover crop for nutrient management and erosion control. The growing cover crop will uptake nitrogen and reduce the leaching of nitrogen into the groundwater. Plant early to get best establishment and kill down late to maximize benefits. Mixes can help improve soil health- small grains to build organic matter, legumes to fix nitrogen and brassicas to reduce compaction.

Reduced tillage-Implement a reduced-tillage system to maintain at least 30% surface residue after planting for all crops grown on these fields. Mulch-tillage will help to control erosion, improve water quality, and improve soil organic matter. Reducing tillage improves soil health by better supporting soil biodiversity, improving water holding capacity, and increasing organic matter.

Nutrient Management: Manage the amount, form, placement and timing of plant nutrient application to protect surface and groundwater from runoff and/or leaching of nutrients. A Nutrient Management Plan (NMP) will be developed and followed for each crop to be grown on each field. This NMP will be developed by a consultant licensed and certified by the Maryland Department of Agriculture. The Maryland Water Quality Improvement Act of 1998 requires all nutrient management plans to address both nitrogen and phosphorus as the limiting nutrients. The NMP will account for all sources and forms of plant nutrients applied for plant growth and production. The amount of all nutrients applied must be based on a current analysis of the soil's potential to produce a realistic yield. All fields will have current soil test analysis of not more than 3 years old. Plans should be implemented as written, and updated at least every 3 years or whenever there is a major change in the farming operation. Records will be kept which document, at a minimum; crops & crop acres, animal type and number, sources of nutrients applied including pounds/tons of commercial fertilizer and/or animal manure applied and how nutrients may have been incorporated. Records will note when the crops were planted, harvested, and the yields were obtained for each individual field or management unit. This farm uses poultry litter as a fertilizer.

* On HEL fields, contact the SCD prior to changing the crop sequence and/or tillage methods.

This document may be used for conservation plans to describe the crop management system. If financial assistance is provided for any of the above practices, a practice-specific implementation requirements sheet must be used.

Conservation Alternatives

Client Name: Iron Hill Farms- Steve Stoltzfus farm	**Farm No:** 973	**Tract No:** 975
Address: Morgnec Road	**Prepared by:** Jenny Lee Freebery	**Date:** 3/5/25

The following conservation practices or systems are not components of your current conservation plan, but are recommended for future consideration.

Headquarters

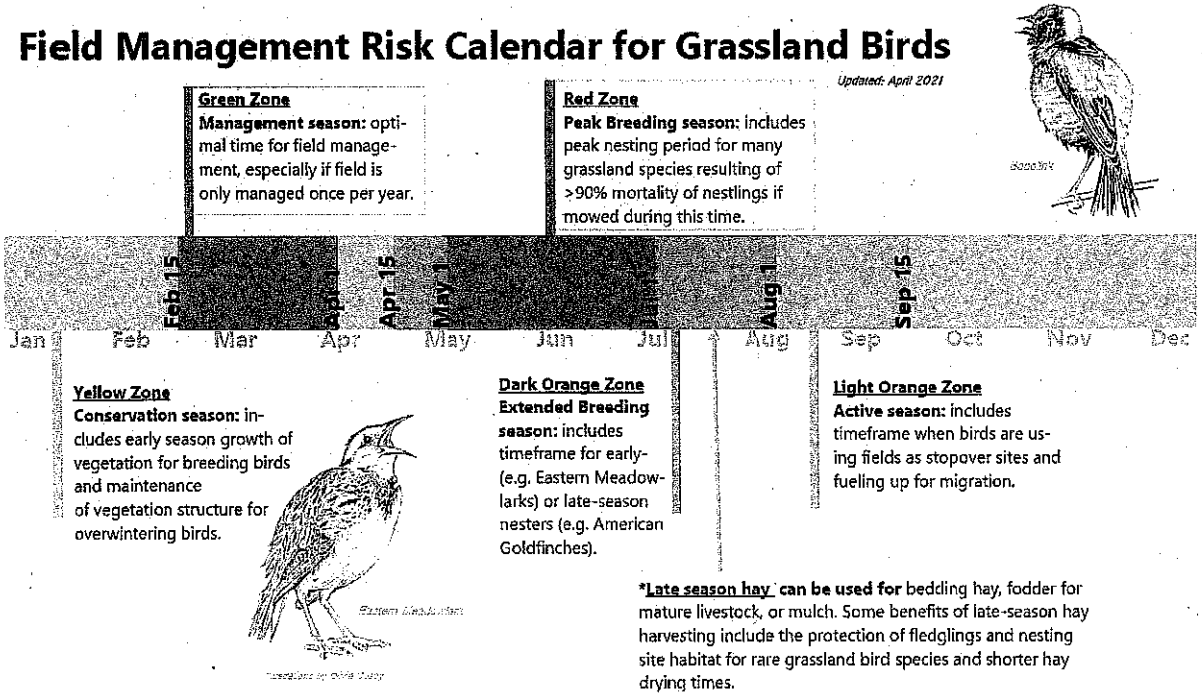
- Ensure that there are gutters on all buildings where roofs runoff near areas of manure- keep gutters clean and functional
- Practice good biosecurity for livestock
  - Practice good employee sanitation including washing hands after working with sick animals
  - Clean/sanitize equipment between animals such as nursing bottles, clippers, etc.
  - Keep visitor vehicles out of areas accessible to livestock
  - Wash/disinfect tires of vheicles that transport livestock from other farms
  - Keep an isoluation area for sick animals and handle them last
  - Store food in an areas inaccessible to wildlife- check for moldy or spoiled food
  - Remove standing water that could be breeding ground for mosquitos
  - Remove manure frequently to prevent the completion of life cycles for flies and parasites
  - Dispose of carcasses promptly

Cropland

- Plant a cover crop mix- cover crops stabilize your soil to reduce erosion, improve organic matter, and improve soil health. Better soil health can lead to better infiltration. Planting early helps to get a better stand and more benefits.
  - A cover crop mix that includes a legume such as clover, vetch or winter pea can help fix nitrogen
  - A cover crop mix that includes a brassica such as a tillage radish can reduce compaction
  - The online Northeast Cover Crop Council Selector Tool can be useful for picking the cover crop or your neeeds
- Maximize your cover crop planting time- plant early before October 15 and/or kill down after May 1st
- Try 'Planting Green'- plant your cash crop directly into your existing cover crop to before killing it down to prevent there from being a time when soil doesn't have living roots in it.
- Reduce tillage to build organic matter and decrease disturbance to soil organisms and risk of erosion
- Use precision nutrient application to decrease overall nutrient needs while getting more nutrients to the plants that need them most
- Use integrated pest management tools to manage pests
- Programs like Cover Crop Plus can pay higher amounts for a 3 years of advanced cover crop and no-till practices
- Programs like Conservation Stewardship Program (CSP) offer many soil health, precision nutrient management, wildlife, and other options with cost share and technical assistance
- CREP is an option for steep slopes or near water or in marginal unproductive land to create opportunities for water quality, wildlife, and carbon sequestration

Hayland

- Hay for wildlife- reduce grassland bird and other animals mortality by using a flushing bar, delaying haying until after July 1, letting fields rest 50-60 days between cuttings for birds to complete their nesting cycle, raising the mower height and lowring the speed, avoid nighttime mowing, and mow in a pattern that pushes animals towards cover that won't be disturbed



Virginia Working Lands- Field Management Guidelines for Grassland Birds

Pasture

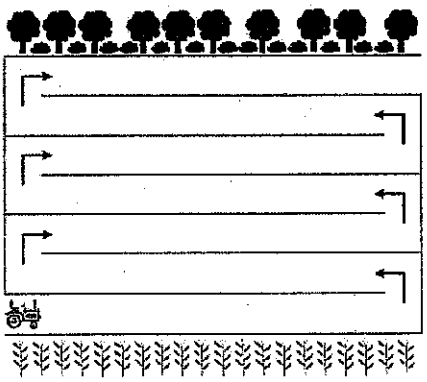
- Use rotational grazing to provide better grass management- it creates more even grazing, more time for grasses to rest, improve manure distribution, and reduces risk of parasites
  - More, smaller paddocks rotated more frequently will encourage a more even grazing of the fields
  - Take horses off of the grasses when they get below 3 inches- avoid overgrazing which can lead to a reduction in desirable forage and an increase in weeds
  - Mow areas when grazing is not feasible to keep pasture health
- Manage pasture fertility to maximize health of grasses- lime fertilize as needed- do soil tests to check for micronutrient needs
- Drag pastures to evenly distribute manure

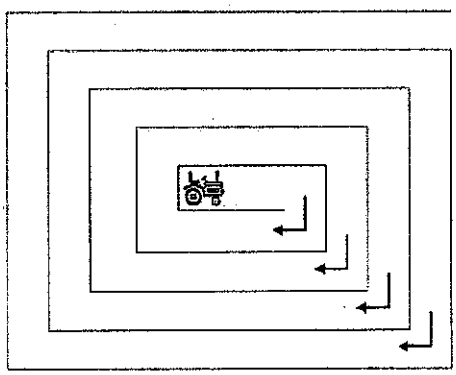
Other Areas or Resource Concerns

- There is cost share available for soil carbon amendments
- There is cost share available for manure transport for both poultry and other livestock manure
- Injection of liquid manure can reduce nutrient losses and odors
- Manage weeds- look for suggestions from University of Maryland Extension

Grasslands

- Mow for wildlife- only mow part of the field at a time so cover for habitat is always left
  - Mow between March 1st and April 1st to minimize risk to wildlife and ensure quality winter cover
  - Mow in a pattern that allows wildlife to escape
  - Use a flushing bar to give wildlife advanced notice of mowing
  - Don't mow at night when animals are less alert and able to escape



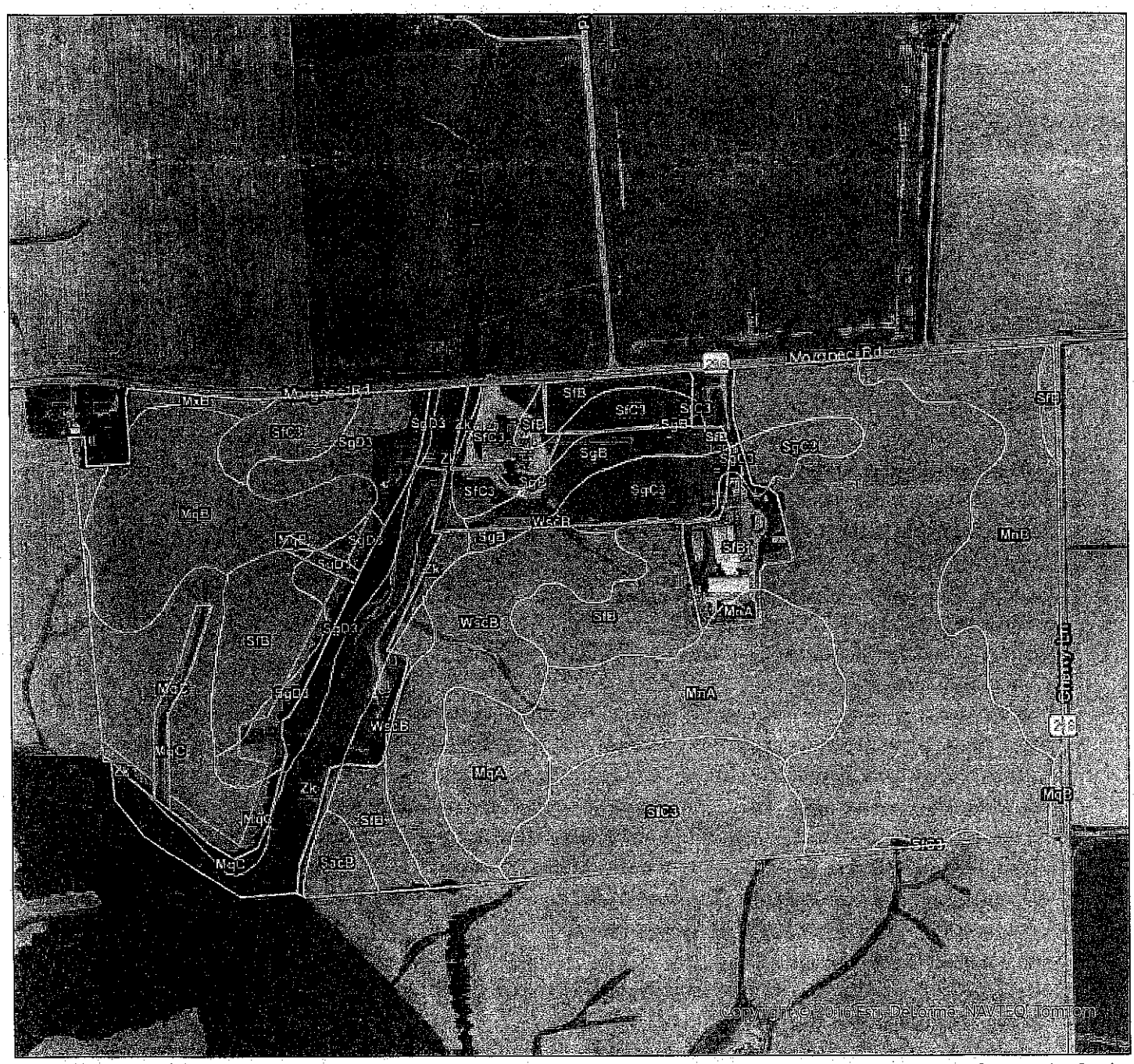


Date: 3/3/2025

Soils Map

Client(s): STEVE STOLTZFUS, IRON HILL FARMS LLC
Location: Farm: 973 Tract: 975
Kent County, Maryland
Approximate Acres: 198.21

Assisted By: Jenny Lee Freebery



Prepared with assistance from USDA-Natural Resources Conservation Service

0 625
Feet

Practice Schedule PLUs
Soils
Soil Mapunit

USDA

Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, provide information on the composition of map units and properties of their components.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description (Brief, Generated)

Kent County, Maryland

Map Unit: MnA--Matapeake silt loam, 0 to 2 percent slopes

Component: Matapeake (80%)

The Matapeake component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the F153CY030MD Well Drained Loess Upland ecological site. Nonirrigated land capability classification is 1. Irrigated land capability classification is 1. This soil does not meet hydric criteria.

Component: Nassawango (10%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Butlertown (5%)

Generated brief soil descriptions are created for major soil components. The Butlertown soil is a minor component.

Component: Mattapex (5%)

Generated brief soil descriptions are created for major soil components. The Mattapex soil is a minor component.

Map Unit: MnB--Matapeake silt loam, 2 to 5 percent slopes

Component: Matapeake (80%)

The Matapeake component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the F153CY030MD Well Drained Loess Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Nassawango (10%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Butlertown (5%)

Generated brief soil descriptions are created for major soil components. The Butlertown soil is a minor component.

Component: Mattapex (5%)

Generated brief soil descriptions are created for major soil components. The Mattapex soil is a minor component.

Map Unit: MqA--Mattapex-Butlertown complex, 0 to 2 percent slopes

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on coastal plains. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Butlertown (35%)

The Butlertown component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on coastal plains. The parent material consists of silty eolian deposits over sandy and loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 25 to 39 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 26 inches during February, March. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Crosiadore (10%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Component: Pineyneck (5%)

Generated brief soil descriptions are created for major soil components. The Pineyneck soil is a minor component.

Component: Nassawango (5%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Othello, drained (5%)

Generated brief soil descriptions are created for major soil components. The Othello, drained soil is a minor component.

Map Unit: MqB--Mattapex-Butlertown complex, 2 to 5 percent slopes

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats,

uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Butlertown (35%)

The Butlertown component makes up 35 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats on coastal plains. The parent material consists of silty eolian deposits over sandy and loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 25 to 39 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 26 inches during February, March. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Pineyneck (10%)

Generated brief soil descriptions are created for major soil components. The Pineyneck soil is a minor component.

Component: Crosiadore (5%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Component: Nassawango (5%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton soil is a minor component.

Map Unit: MqC--Mattapex-Butlertown complex, 5 to 10 percent slopes

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 5 to 10 percent. This component is on flats, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Butlertown (35%)

The Butlertown component makes up 35 percent of the map unit. Slopes are 5 to 10 percent. This component is on flats on coastal plains. The parent material consists of silty eolian deposits over sandy and loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 25 to 39 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 26 inches during February, March. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Pineyneck (10%)

Generated brief soil descriptions are created for major soil components. The Pineyneck soil is a minor component.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton soil is a minor component.

Component: Nassawango (5%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Crosiadore (5%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Map Unit: MxB--Mattapex-Matapeake-Butlertown silt loams, 2 to 5 percent slopes

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 2 to 5 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Matapeake (35%)

The Matapeake component makes up 35 percent of the map unit. Slopes are 2 to 5 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY030MD Well Drained Loess Upland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Butlertown (20%)

The Butlertown component makes up 20 percent of the map unit. Slopes are 2 to 5 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during February, March. Organic matter content in the surface horizon is about 3 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: OTHELLO (5%)

Generated brief soil descriptions are created for major soil components. The OTHELLO soil is a minor component.

Map Unit: SacB–Sassafras sandy loam, 2 to 5 percent slopes, Mid-Atlantic Coastal Plain

Component: Sassafras (80%)

The Sassafras component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats on coastal plains. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY170MD Well Drained Fine-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Ingleside (10%)

Generated brief soil descriptions are created for major soil components. The Ingleside soil is a minor component.

Component: Downer (5%)

Generated brief soil descriptions are created for major soil components. The Downer soil is a minor component.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown soil is a minor component.

Map Unit: SfB--Sassafras loam, 2 to 5 percent slopes

Component: Sassafras (80%)

The Sassafras component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats on coastal plains. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY170MD Well Drained Fine-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Unicorn (10%)

Generated brief soil descriptions are created for major soil components. The Unicorn soil is a minor component.

Component: Woodstown (10%)

Generated brief soil descriptions are created for major soil components. The Woodstown soil is a minor component.

Map Unit: SfC3--Sassafras loam, 5 to 10 percent slopes, severely eroded

Component: Sassafras (100%)

The Sassafras component makes up 100 percent of the map unit. Slopes are 5 to 10 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY170MD Well Drained Fine-Loamy Upland ecological site. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Map Unit: SgB--Sassafras gravelly loam, 0 to 5 percent slopes

Component: Sassafras (100%)

The Sassafras component makes up 100 percent of the map unit. Slopes are 0 to 5 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY170MD Well Drained Fine-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map Unit: SgC3--Sassafras gravelly loam, 5 to 10 percent slopes, severely eroded

Component: Sassafras (100%)

The Sassafras component makes up 100 percent of the map unit. Slopes are 5 to 10 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY170MD Well Drained Fine-Loamy Upland ecological site. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Map Unit: SgD3--Sassafras gravelly loam, 10 to 15 percent slopes, severely eroded

Component: Sassafras (80%)

The Sassafras component makes up 80 percent of the map unit. Slopes are 10 to 15 percent. This component is on hillslopes, uplands. The parent material consists of loamy fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic

matter content in the surface horizon is about 2 percent. This component is in the F149AY170MD Well Drained Fine-Loamy Upland ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Hambrook (15%)

Generated brief soil descriptions are created for major soil components. The Hambrook soil is a minor component.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown soil is a minor component.

Map Unit: WscB--Woodstown loam, 2 to 5 percent slopes, Mid-Atlantic Coastal Plain

Component: Woodstown (80%)

The Woodstown component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, coastal plains. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY130NJ Moist Loamy Upland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Fallsington (6%)

Generated brief soil descriptions are created for major soil components. The Fallsington soil is a minor component.

Component: Hammonton (6%)

Generated brief soil descriptions are created for major soil components. The Hammonton soil is a minor component.

Component: Hambrook (4%)

Generated brief soil descriptions are created for major soil components. The Hambrook soil is a minor component.

Component: Mattapex (4%)

Generated brief soil descriptions are created for major soil components. The Mattapex soil is a minor component.

Map Unit: Zk--Zekiah silt loam, 0 to 2 percent slopes, frequently flooded

Component: Zekiah, frequently flooded (80%)

The Zekiah, frequently flooded component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on coastal plains. The parent material consists of loamy alluvium over fluvial coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 4 percent. This component is in the R149AY060DE Wet Alluvial Floodplain ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Longmarsh, frequently flooded (10%)

Generated brief soil descriptions are created for major soil components. The Longmarsh, frequently flooded soil is a minor component.

Component: Hurlock, undrained (5%)

Generated brief soil descriptions are created for major soil components. The Hurlock, undrained soil is a minor component.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton soil is a minor component.

Data Source Information

Soil Survey Area: Kent County, Maryland
Survey Area Data: Version 23, Sep 06, 2024

USDA NRCS Natural Resources Conservation Service

Rusle Program Version:
Rusle Science Version:
Data Base:

RUSLE2 Erosion Calculation Record

File: plans\Iron Hill Farms LLC T975
Access Group: R2_NRCS_Fld_Office
Inputs:

Owner name	*Location*	*Info, U_NONE*
Iron Hill Farms LLC- Lamar Stoltzfus- Steve Stoltzfus Farm	**USA\Maryland\Kent County**	**Farm: 973 Tract: 975**

R Factor	*Annual precip*	*10-yr 24-hr rainfall*	*In Reg area?, U_NONE*
180	43	5.2	No

Field name	*Soil*	*Slope T Value*	*Slope length, U_FOOT*	*Slope steepness, U_PERCENT_SLOPE*
Fields1,9	soils\Kent, MD\BuC2 Butlertown-Mattapex silt loams, 5 to 10 percent slopes, moderately eroded\Butlertown silt loam 40%	4.0	300	7.0
Field 4	soils\Kent, MD\SfB Sassafras loam, 2 to 5 percent slopes\Sassafras loam 100%	5.0	200	3.0
Fields 7,8	soils\Kent, MD\SfD3 Sassafras loam, 10 to 15 percent slopes, severely eroded\Sassafras loam 100%	5.0	100	11

Results:

Field name	*Description*	*Contouring system*	*Support practices*	*Terrace/diversion system, U_NONE*	*Cons. plan. soil loss, U_TON_P_AC_YR*	*Sed. delivery, U_TON_P_ AC_YR*	*Soil conditioning index (SCI)*	*STIR value*	*Wind & irrigation-induced erosion for SCI*	*Fuel cost*
elds1,9	corn, cc, sb, cc	contour-systems\c. perfect contouring no row grade	-- none --	-- none --	4.3	4.3	0.21	15	0	0
ield 4	corn, cc, sb, cc	contour-systems\c. perfect contouring no row grade	-- none --	-- none --	1.2	1.2	0.45	15	0	0
ields 7,8	corn, cc, sb, cc	contour-systems\c. perfect contouring no row grade	-- none --	-- none --	3.5	3.5	0.27	15	0	0

The **SCI** is the **Soil Conditioning Index** rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

USDA NRCS Natural Resources Conservation Service

RUSLE2 Management Description Record

File: managements\CMZ 59\c.Other Local Mgt Records\Iron Hill Farms LLC

Date	*Operation*	*Vegetation*	*Yield (harv. units)*	*Type of cover material*	*Cover matl add/remove, U_POUND_P_AC*	*Cover from addition, U_PERCENT*	*Standing res. added by op. desc., U_POUND_P_AC*
5/5/1	Manure spreader, solid and semi-solid			Manure, poultry	0	0	
5/5/1	Seedbed conditioner, coil tine har, rlng bskt						
5/10/1	Drill or airseeder, double disk, w/ fluted coulters	Corn, grain	150				
10/5/1	Harvest, killing crop 50pct standing stubble				4100	79	4100
10/12/1	Drill or air seeder single disk openers 7-10 in spac.	Barley, annual winter, cover crop, CA	3000				
5/25/2	Kill crop				2100	71	900
5/30/2	Drill or air seeder single disk openers 7-10 in spac.	Soybean, mw 7in rows	45.0				
10/20/2	Harvest, killing crop 30pct standing stubble				1100	47	470
10/25/2	Drill or air seeder single disk openers 7-10 in spac.	Rye, winter cover	6000				
5/1/3	Kill crop				1400	56	590

Long-term natural rough.: 6.0 U_MM
Normally used as a rotation?: Yes U_NONE
Duration: 2 U_YEARS

Info:

Date: 3/7/2025

Conservation Plan Map

Client(s): IRON HILL FARMS LLC
Location: Farm: 181 Tract: 754
Kent County, Maryland
Approximate Acres: 373.60

Assisted By: Jenny Lee Freebery

Prepared with assistance from USDA-Natural Resources Conservation Service

0 1000 Feet

Conservation Practice Points
- Waste Storage Facility (313)
- Waste Facility Closure (360)

Conservation Practice Lines
- Lined Waterway or Outlet (468)
- Underground Outlet (620)

Conservation Practice Polygons
- Critical Area Planting (342)
- Grassed Waterway (412)
- Stormwater Runoff Control (570)
- Practice Schedule PLUs

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Agriculture

Natural Resources Conservation Service

CONSERVATION PLAN

IRON HILL FARMS LLC

KENT COUNTY SERVICE CENTER
122 SPEER RD
CHESTERTOWN, MD 21620-1037
(410) 778-5353

Conservation Plan

IRON HILL FARMS LLC
28938 RIVER RD
MILLINGTON, MD 21651

This row crop farm located in Kennedyville is owned and operated by brothers Lamar and Larion Stotlzfus of Iron Hill Farms LLC. It recieves poultry litter from Iron Hill's poultry operation. There are some beef cows on the farmstead, but their manure gets exported off the farm.

Install the conservation practices, enhancements, and activities according to the implementation requirements, designs, construction plans, or other documents that facilitate meeting the applicable NRCS technical criteria. If you do not have such information, contact your local office before starting to install your conservation practices, enhancements, and activities.

Crop

Tract: 754

Conservation Crop Rotation (328)

Grow crops in a planned rotation to protect the soil from erosion; help control weeds, insects, and diseases; and improve the physical condition of the soil. Use the following rotation on these fields: corn/corn silage, winter wheat, soybeans, hay. Currently part of field 5 is in alfalfa but will be put into a continuous no-till corn/wheat/soybean rotation, and about 4 of the steepest acres are in permenant grass hay.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	77.6 Ac	03	2025	77.6 Ac	03/03/2025
14	43.5 Ac	03	2025	43.5 Ac	03/03/2025
2	96.9 Ac	03	2025	96.9 Ac	03/03/2025
4	74.4 Ac	03	2025	74.4 Ac	03/03/2025
5	64.1 Ac	03	2025	64.1 Ac	03/03/2025
6	0.6 Ac	03	2025	0.6 Ac	03/03/2025
Total:	357.1 Ac	--	--	357.1 Ac	--

Cover Crop (340)

Basic cover crop- Planting grasses, legumes, and/or forbs for seasonal vegetative cover- post harvest of the cash crop- to address natural resource concerns. Termination of the cover crop is timed to reduce delay of planting the next cash crop.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	77.6 Ac	03	2025	77.6 Ac	03/03/2025
14	43.5 Ac	03	2025	43.5 Ac	03/03/2025
2	96.9 Ac	03	2025	96.9 Ac	03/03/2025
4	74.4 Ac	03	2025	74.4 Ac	03/03/2025
5	64.1 Ac	03	2025	64.1 Ac	03/03/2025
6	0.6 Ac	03	2025	0.6 Ac	03/03/2025
Total:	357.1 Ac	--	--	357.1 Ac	--

Nutrient Management (590)

Manage the amount, form, placement and timing of plant nutrient application to protect surface and groundwater from runoff and/or leaching of nutrients. A Nutrient Management Plan (NMP) will be developed and followed for each crop to be grown on each field. This NMP will be developed by a consultant licensed and certified by the Maryland Department of Agriculture. The Maryland Water Quality Improvement Act of 1998 requires all nutrient management plans to address both nitrogen and phosphorus as the limiting nutrients. The NMP will account for all sources and forms of plant nutrients applied for plant growth and production. The amount of all nutrients applied must be based on a current analysis of the soil's potential to produce a realistic yield. All fields will have current soil test analysis of not more than 3 years old. Plans should be implemented as written, and updated at least every 3 years or whenever there is a major change in the farming operation. Records will be kept which document, at a minimum; crops & crop acres, animal type and number, sources of nutrients applied including pounds/tons of commercial fertilizer and/or animal manure applied and how nutrients may have been incorporated. Records will note when the crops were planted, harvested, and the yields were obtained for each individual field or management unit.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	77.6 Ac	03	2025	77.6 Ac	03/03/2025
14	43.5 Ac	03	2025	43.5 Ac	03/03/2025
2	96.9 Ac	03	2025	96.9 Ac	03/03/2025
4	74.4 Ac	03	2025	74.4 Ac	03/03/2025
5	64.1 Ac	03	2025	64.1 Ac	03/03/2025
6	0.6 Ac	03	2025	0.6 Ac	03/03/2025
Total:	357.1 Ac	--	--	357.1 Ac	--

Residue and Tillage Management, Reduced Till (345)

Reduced tillage - Minimize soil disturbance by reducing the number and type of yearly tillage operations to manage the amount, orientation and distribution of crop and plant residues.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	77.6 Ac	03	2025	77.6 Ac	03/03/2025
14	43.5 Ac	03	2025	43.5 Ac	03/03/2025
2	96.9 Ac	03	2025	96.9 Ac	03/03/2025
4	74.4 Ac	03	2025	74.4 Ac	03/03/2025
5	64.1 Ac	03	2025	64.1 Ac	03/03/2025
6	0.6 Ac	03	2025	0.6 Ac	03/03/2025
Total:	357.1 Ac	--	--	357.1 Ac	--

Critical Area Planting (342)

Maintain grass where indicated on engineering plans and in accordance with the approved NRCS standards and specifications. The critical area planting will stabilize the soil, reduce damage from sediment and runoff to downstream areas.

Field	Planned Amount	Month	Year	Applied Amount	Date
6	0.1 Ac	08	2019	0.4 Ac	11/14/2019
Total:	0.1 Ac	--	--	0.4 Ac	--

Grassed Waterway (412)

Waterway - Maintain a shaped or graded channel with suitable vegetation to convey surface water at a nonerosive velocity using a broad and shallow cross section to a stable outlet.

Field	Planned Amount	Month	Year	Applied Amount	Date
5	0.4 Ac	03	1987	0.4 Ac	03/01/1987
4	2.0 Ac	03	1997	2.0 Ac	03/01/1997
5	1.5 Ac	03	1997	1.5 Ac	03/01/1997
Total:	3.9 Ac	--	--	3.9 Ac	--

Grassed Waterway (412)

A watercourse shaped and established in vegetation to safely dispose of runoff. Lime, seed and fertilize according to standards for critical areas. Fall application is recommended at a rate of 500 lbs. 10-10-10 per acre. Mow when necessary to maintain a growth of 4 to 6 inches. Do not travel through or across grass with tillage equipment.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	1.0 Ac	09	1994	1.5 Ac	10/24/1994
12	0.3 Ac	09	2003	0.3 Ac	10/02/2003
10	0.9 Ac	10	2006	1.0 Ac	11/09/2006
9	0.2 Ac	10	2006	0.2 Ac	11/09/2006
Total:	2.4 Ac	--	--	3.0 Ac	--

Grassed Waterway (412)

Maintain a grassed waterway where shown on the plan map to prevent erosion caused by concentrated water flows. Construct and seed according to NRCS design. Avoid spraying herbicides and do not plow or disk through the waterway. Regularly remove debris and accumulated sediment. Mow as needed to maintain grass height at 4 to 6 inches to promote a thick sod. Inspect after each major storm and repair any damaged areas immediately. Tillage and row direction should be perpendicular to the waterway to allow runoff to drain into the waterway and prevent gullies along the edges. Provide stabilized machinery crossings, where needed, to prevent rutting of the waterway.

Field	Planned Amount	Month	Year	Applied Amount	Date
6	0.1 Ac	08	2019	0.1 Ac	11/14/2019
5	1.0 Ac	10	2019	0.9 Ac	03/10/2020
5	1.4 Ac	10	2019	2.0 Ac	11/05/2019
Total:	2.5 Ac	--	--	3.0 Ac	--

Lined Waterway or Outlet (468)

Install a riprap lined waterway in accordance with the approved NRCS design. This will provide for the safe disposal of runoff from other erosion control practices or from natural concentration of flow.

Field	Planned Amount	Month	Year	Applied Amount	Date
14	17.00 Ft	08	2019	13.00 Ft	11/14/2019
14	12.00 Ft	08	2019	12.00 Ft	11/26/2019
Total:	29.00 Ft	--	--	25.00 Ft	--

Stormwater Runoff Control (570)

Install silt fence prior to the construction of the waste facitlity closure as specified on the approved NRCS engineering plans.

Field	Planned Amount	Month	Year	Applied Amount	Date
6	1.00 No	08	2019	1.00 No	11/14/2019
Total:	1.00 No	--	--	1.00 No	--

Waste Facility Closure (360)

Close the silage leachate impoundment that is no longer needed in accordance with an approved NRCS engineering design.

Field	Planned Amount	Month	Year	Applied Amount	Date
6	1.00 No	08	2019	1.00 No	11/14/2019
Total:	1.00 No	--	--	1.00 No	--

Farmstead

Tract: 754

Grassed Waterway (412)

A watercourse shaped and established in vegetation to safely dispose of runoff. Lime, seed and fertilize according to standards for critical areas. Fall application is recommended at a rate of 500 lbs. 10-10-10 per acre. Mow when necessary to maintain a growth of 4 to 6 inches. Do not travel through or across grass with tillage equipment.

Field	Planned Amount	Month	Year	Applied Amount	Date
11	1.0 Ac	06	2004	1.0 Ac	05/09/2005
11	0.3 Ac	05	2007	0.3 Ac	10/02/2007
Total:	1.3 Ac	--	--	1.3 Ac	--

Underground Outlet (620)

A conduit or system of conduits installed beneath the surface of the ground to convey surface water to a suitable outlet.

Field	Planned Amount	Month	Year	Applied Amount	Date
11	554.00 Ft	09	2003	554.00 Ft	03/18/2004
Total:	554.00 Ft	--	--	554.00 Ft	--

Waste Storage Facility (313)

An agricultural waste storage impoundment or containment made by constructing an embankment, excavating a pit or dugout, or by fabricating a structure.

Field	Planned Amount	Month	Year	Applied Amount	Date
11	1.00 No	07	2005	1.00 No	07/05/2006
Total:	1.00 No	--	--	1.00 No	--

Waste Storage Facility (313)

Waste Storage Structure - Construct a fabricated structure for temporary storage of animal or other agricultural wastes.

Field	Planned Amount	Month	Year	Applied Amount	Date
11	1.00 No	05	1975	1.00 No	05/01/1975
11	1.00 No	05	1994	1.00 No	10/24/1994
Total:	2.00 No	--	--	2.00 No	--

Waste Storage Facility (313)

Install a collection pit and transfer system to collect manure and barnyard runoff. Collected waste will be transferred into the waste storage facility. The structure should be built in accordance with NRCS Standards and Specifications. Refer to the Waste Management Plan for details.

Field	Planned Amount	Month	Year	Applied Amount	Date
11	1.00 No	10	2002	1.00 No	11/19/2002
Total:	1.00 No	--	--	1.00 No	--

CERTIFICATION OF PARTICIPANTS

IRON HILL FARMS LLC — DATE: 3-18-25

CERTIFICATION OF:

CERTIFIED PLANNER — DATE: 3/18/25

CONSERVATION DISTRICT
KENT SCD — DATE: 3/18/25

NRCS
DISTICT CONSERVATIONIST — DATE: 3/19/25

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CROP MANAGEMENT SYSTEM DESCRIPTION

Cooperator Name	County	Planner	Date
Stephen Lamar Stoltzfus	Kent	Jenny Lee Freebery	3/4/25

Farm/Tract/Location

249/752 River Road

Follow the crop management system shown below. ☐ RUSLE2 worksheet attached

Field(s): 1,2,3	Acres: 113	HEL Field#:5,61,3

Conservation Practices

☑ Conservation Crop Rotation (328) ☑ Cover Crop (340) ☑ Nutrient Mgmt (590)

☐ Residue Mgmt, No-Till (329) ☑ Residue Mgmt, Reduced Till (345)

Description

Crop Rotation: Grow crops in a planned rotation to protect the soil from erosion; help control weeds, insects, and diseases; and improve the physical condition of the soil. Noxious weeds (Johnsongrass, shattercane, Canada thistle, plumeless thistle, musk thistle, bull thistle) must be controlled as required by State Law and not allowed to go to seed. Use the following rotation on these fields: corn, rye cover crop soybeans, barley cover crop

Cover Crop: Plant a winter cover crop for nutrient management and erosion control. The growing cover crop will uptake nitrogen and reduce the leaching of nitrogen into the groundwater. Plant early to get best establishment and kill down late to maximize benefits. Mixes can help improve soil health- small grains to build organic matter, legumes to fix nitrogen and brassicas to reduce compaction.

Reduced tillage-Implement a reduced-tillage system to maintain at least 30% surface residue after planting for all crops grown on these fields. Mulch-tillage will help to control erosion, improve water quality, and improve soil organic matter. Reducing tillage improves soil health by better supporting soil biodiversity, improving water holding capacity, and increasing organic matter.

Nutrient Management: Manage the amount, form, placement and timing of plant nutrient application to protect surface and groundwater from runoff and/or leaching of nutrients. A Nutrient Management Plan (NMP) will be developed and followed for each crop to be grown on each field. This NMP will be developed by a consultant licensed and certified by the Maryland Department of Agriculture. The Maryland Water Quality Improvement Act of 1998 requires all nutrient management plans to address both nitrogen and phosphorus as the limiting nutrients. The NMP will account for all sources and forms of plant nutrients applied for plant growth and production. The amount of all nutrients applied must be based on a current analysis of the soil's potential to produce a realistic yield. All fields will have current soil test analysis of not more than 3 years old. Plans should be implemented as written, and updated at least every 3 years or whenever there is a major change in the farming operation. Records will be kept which document, at a minimum; crops & crop acres, animal type and number, sources of nutrients applied including pounds/tons of commercial fertilizer and/or animal manure applied and how nutrients may have been incorporated. Records will note when the crops were planted, harvested, and the yields were obtained for each individual field or management unit. This farm uses poultry litter as a fertilizer.

* On HEL fields, contact the SCD prior to changing the crop sequence and/or tillage methods.

This document may be used for conservation plans to describe the crop management system. If financial assistance is provided for any of the above practices, a practice-specific implementation requirements sheet must be used.

Conservation Alternatives

Client Name: Iron Hill Farms- Lepter Farm	**Farm No:** 181	**Tract No:** 754
Address: Morgnec Road	**Prepared by:** Jenny Lee Freebery	**Date:** 3/5/25

The following conservation practices or systems are not components of your current conservation plan, but are recommended for future consideration.

Headquarters

- Ensure that there are gutters on all buildings where roofs runoff near areas of manure- keep gutters clean and functional
- Practice good biosecurity for livestock
  - Practice good employee sanitation including washing hands after working with sick animals
  - Clean/sanitize equipment between animals such as nursing bottles, clippers, etc.
  - Keep visitor vehicles out of areas accessible to livestock
  - Wash/disinfect tires of vheicles that transport livestock from other farms
  - Keep an isoluation area for sick animals and handle them last
  - Store food in an areas inaccessible to wildlife- check for moldy or spoiled food
  - Remove standing water that could be breeding ground for mosquitos
  - Remove manure frequently to prevent the completion of life cycles for flies and parasites
  - Dispose of carcasses promptly

Cropland

- Plant a cover crop mix- cover crops stabilize your soil to reduce erosion, improve organic matter, and improve soil health. Better soil health can lead to better infiltration. Planting early helps to get a better stand and more benefits.
  - A cover crop mix that includes a legume such as clover, vetch or winter pea can help fix nitrogen
  - A cover crop mix that includes a brassica such as a tillage radish can reduce compaction
  - The online Northeast Cover Crop Council Selector Tool can be useful for picking the cover crop or your neeeds
- Maximize your cover crop planting time- plant early before October 15 and/or kill down after May 1st
- Try 'Planting Green'- plant your cash crop directly into your existing cover crop to before killing it down to prevent there from being a time when soil doesn't have living roots in it.
- Reduce tillage to build organic matter and decrease disturbance to soil organisms and risk of erosion
- Use precision nutrient application to decrease overall nutrient needs while getting more nutrients to the plants that need them most
- Use integrated pest management tools to manage pests
- Programs like Cover Crop Plus can pay higher amounts for a 3 years of advanced cover crop and no-till practices
- Programs like Conservation Stewardship Program (CSP) offer many soil health, precision nutrient management, wildlife, and other options with cost share and technical assistance
- CREP is an option for steep slopes or near water or in marginal unproductive land to create opportunities for water quality, wildlife, and carbon sequestration

Other Areas or Resource Concerns

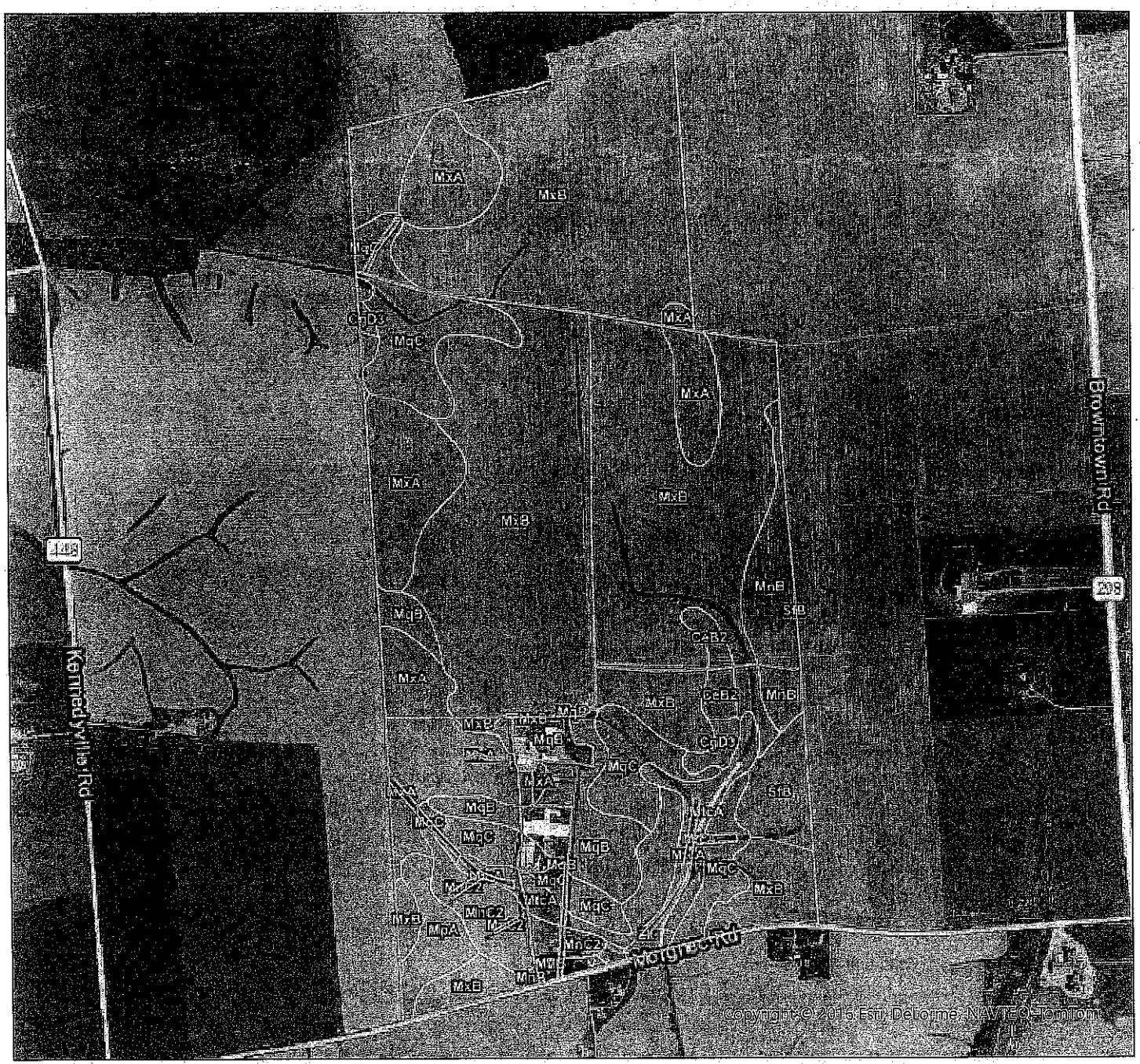
- There is cost share available for soil carbon amendments
- There is cost share available for manure transport for both poultry and other livestock manure
- Manage weeds- look for suggestions from University of Maryland Extension

Date: 2/28/2025

Soils Map

Assisted By: Jenny Lee Freebery

Client(s): Iron Hill Farms LLC
Location: Farm: 181 Tract: 754
Kent County, Maryland
Approximate Acres: 447.30



Prepared with assistance from USDA-Natural Resources Conservation Service

0 1000 Feet

Practice Schedule PLUs

Soils

Soil Mapunit

USDA

Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, provide information on the composition of map units and properties of their components.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report---Map Unit Description (Brief, Generated)

Kent County, Maryland

Map Unit: CeB2--Colts Neck loam, 0 to 5 percent slopes, moderately eroded

Component: Colts Neck (100%)

The Colts Neck component makes up 100 percent of the map unit. Slopes are 2 to 5 percent. Depth to a root restrictive layer, undefined, 48 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This component is in the F149AY140NJ Well Drained Petroferric Upland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map Unit: CgD3--Colts Neck gravelly loam, 10 to 15 percent slopes, severely eroded

Component: Colts Neck (100%)

The Colts Neck component makes up 100 percent of the map unit. Slopes are 10 to 15 percent. Depth to a root restrictive layer, undefined, is 48 to 72 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the F149AY140NJ Well Drained Petroferric Upland ecological site. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria.

Map Unit: MnB--Matapeake silt loam, 2 to 5 percent slopes

Component: Matapeake (80%)

The Matapeake component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the F153CY030MD Well Drained Loess Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Nassawango (10%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Mattapex (5%)

Generated brief soil descriptions are created for major soil components. The Mattapex soil is a minor component.

Component: Butlertown (5%)

Generated brief soil descriptions are created for major soil components. The Butlertown soil is a minor component.

Map Unit: MnC2--Matapeake silt loam, 5 to 10 percent slopes, moderately eroded

Component: Matapeake (100%)

The Matapeake component makes up 100 percent of the map unit. Slopes are 5 to 10 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY030MD Well Drained Loess Upland ecological site. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Map Unit: MpA--Mattapex fine sandy loam, 0 to 2 percent slopes

Component: Mattapex (80%)

The Mattapex component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Nassawango (10%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Crosiadore (5%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Component: Othello, drained (5%)

Generated brief soil descriptions are created for major soil components. The Othello, drained soil is a minor component.

Map Unit: MqB--Mattapex-Butlertown complex, 2 to 5 percent slopes

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most

restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Butlertown (35%)

The Butlertown component makes up 35 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats on coastal plains. The parent material consists of silty eolian deposits over sandy and loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 25 to 39 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 26 inches during February, March. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Pineyneck (10%)

Generated brief soil descriptions are created for major soil components. The Pineyneck soil is a minor component.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton soil is a minor component.

Component: Nassawango (5%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Crosiadore (5%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Map Unit: MqC--Mattapex-Butlertown complex, 5 to 10 percent slopes

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 5 to 10 percent. This component is on flats, uplands. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Butlertown (35%)

The Butlertown component makes up 35 percent of the map unit. Slopes are 5 to 10 percent. This component is on flats on coastal plains. The parent material consists of silty eolian deposits over sandy and loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 25 to 39 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 26 inches during February, March. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Pineyneck (10%)

Generated brief soil descriptions are created for major soil components. The Pineyneck soil is a minor component.

Component: Crosiadore (5%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Component: Nassawango (5%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton soil is a minor component.

Map Unit: MtcA--Mattapex silt loam, 0 to 2 percent slopes, Mid-Atlantic Coastal Plain

Component: Mattapex (80%)

The Mattapex component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, coastal plains. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during February. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Nassawango (10%)

Generated brief soil descriptions are created for major soil components. The Nassawango soil is a minor component.

Component: Othello, drained (5%)

Generated brief soil descriptions are created for major soil components. The Othello, drained soil is a minor component.

Component: Crosiadore (5%)

Generated brief soil descriptions are created for major soil components. The Crosiadore soil is a minor component.

Map Unit: MxA--Mattapex-Matapeake-Butlertown silt loams, 0 to 2 percent slopes

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Matapeake (28%)

The Matapeake component makes up 28 percent of the map unit. Slopes are 0 to 2 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY030MD Well Drained Loess Upland ecological site. Nonirrigated land capability classification is 1. This soil does not meet hydric criteria.

Component: Butlertown (27%)

The Butlertown component makes up 27 percent of the map unit. Slopes are 0 to 2 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during February, March. Organic matter content in the surface horizon is about 3 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: OTHELLO (5%)

Generated brief soil descriptions are created for major soil components. The OTHELLO soil is a minor component.

Map Unit: MxB--Mattapex-Matapeake-Butlertown silt loams, 2 to 5 percent slopes

Component: Mattapex (40%)

The Mattapex component makes up 40 percent of the map unit. Slopes are 2 to 5 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 27 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Matapeake (35%)

The Matapeake component makes up 35 percent of the map unit. Slopes are 2 to 5 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F153CY030MD Well Drained Loess Upland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Butlertown (20%)

The Butlertown component makes up 20 percent of the map unit. Slopes are 2 to 5 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during February, March. Organic matter content in the surface horizon is about 3 percent. This component is in the F153CY020MD Moist Loess Upland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: OTHELLO (5%)

Generated brief soil descriptions are created for major soil components. The OTHELLO soil is a minor component.

Map Unit: SfB--Sassafras loam, 2 to 5 percent slopes

Component: Sassafras (80%)

The Sassafras component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats on coastal plains. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY170MD Well Drained Fine-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Woodstown (10%)

Generated brief soil descriptions are created for major soil components. The Woodstown soil is a minor component.

Component: Unicorn (10%)

Generated brief soil descriptions are created for major soil components. The Unicorn soil is a minor component.

Map Unit: SfC3--Sassafras loam, 5 to 10 percent slopes, severely eroded

Component: Sassafras (100%)

The Sassafras component makes up 100 percent of the map unit. Slopes are 5 to 10 percent. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic

matter content in the surface horizon is about 2 percent. This component is in the F149AY170MD Well Drained Fine-Loamy Upland ecological site. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Map Unit: SgD3--Sassafras gravelly loam, 10 to 15 percent slopes, severely eroded

Component: Sassafras (80%)

The Sassafras component makes up 80 percent of the map unit. Slopes are 10 to 15 percent. This component is on hillslopes, uplands. The parent material consists of loamy fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the F149AY170MD Well Drained Fine-Loamy Upland ecological site. Nonirrigated land capability classification is 4e. Irrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Hambrook (15%)

Generated brief soil descriptions are created for major soil components. The Hambrook soil is a minor component.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown soil is a minor component.

Map Unit: Zk--Zekiah silt loam, 0 to 2 percent slopes, frequently flooded

Component: Zekiah, frequently flooded (80%)

The Zekiah, frequently flooded component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on coastal plains. The parent material consists of loamy alluvium over fluvial coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 4 percent. This component is in the R149AY060DE Wet Alluvial Floodplain ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Longmarsh, frequently flooded (10%)

Generated brief soil descriptions are created for major soil components. The Longmarsh, frequently flooded soil is a minor component.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton soil is a minor component.

Component: Hurlock, undrained (5%)

Generated brief soil descriptions are created for major soil components. The Hurlock, undrained soil is a minor component.

Data Source Information

Soil Survey Area: Kent County, Maryland
Survey Area Data: Version 23, Sep 06, 2024

USDA NRCS Natural Resources Conservation Service

RUSLE2 Management Description Record

File: managements\CMZ 59\c.Other Local Mgt Records\Iron Hill Farms LLC

Date	*Operation*	*Vegetation*	*Yield (harv. units)*	*Type of cover material*	*Cover matl add/remove, U_POUND_P_AC*	*Cover from addition, U_PERCENT*	*Standing res. added by op. desc., U_POUND_P_AC*
5/5/1	Manure spreader, solid and semi-solid			Manure, poultry	0	0	
5/5/1	Seedbed conditioner, coil tine har, rlng bskt						
5/10/1	Drill or airseeder, double disk, w/ fluted coulters	Corn, grain	150				
10/5/1	Harvest, killing crop 50pct standing stubble				4100	79	4100
10/12/1	Drill or air seeder single disk openers 7-10 in spac.	Barley, annual winter, cover crop, CA	3000				
5/25/2	Kill crop				2100	71	900
5/30/2	Drill or air seeder single disk openers 7-10 in spac.	Soybean, mw 7in rows	45.0				
10/20/2	Harvest, killing crop 30pct standing stubble				1100	47	470
10/25/2	Drill or air seeder single disk openers 7-10 in spac.	Rye, winter cover	6000				
5/1/3	Kill crop				1400	56	590

Long-term natural rough.: 6.0 U_MM
Normally used as a rotation?: Yes U_NONE
Duration: 2 U_YEARS

Info: jewny

USDA NRCS Natural Resources Conservation Service

Rusle Program Version:
Rusle Science Version:
Data Base:

RUSLE2 Erosion Calculation Record

File: plans\Iron Hill Farms LLC T754
Access Group: R2_NRCS_Fld_Office

Inputs:

Owner name	*Location*	*Info, U_NONE*
Iron Hill Farms LLC- Lamar Stoltzfus- Lepter Farm	**USA\Maryland\Kent County**	**Farm: 181 Tract: 754**

R Factor	*Annual precip*	*10-yr 24-hr rainfall*	*In Req area?, U_NONE*
180	43	5.2	No

Field name	*Soil*	*Slope T Value*	*Slope length, U_FOOT*	*Slope steepness, U_PERCENT_SLOPE*
Fields 1,2,4,5	soils\SSURGO\Kent County, Maryland\MxB Mattapex-Matapeake-Butlertown silt loams, 2 to 5 percent slopes\Mattapex Silt loam 40%	5.0	200	3.0
Field 14	soils\Kent, MD\MpA Mattapex fine sandy loam, 0 to 2 percent slopes\Mattapex fine sandy loam 95%	5.0	200	3.0

Results:

Field name	*Description*	*Contouring system*	*Support practices*	*Terrace/diversion system, U_NONE*	*Cons. plan. soil loss, U_TON_P_AC_YR*	*Sed. delivery, U_TON_P_AC_YR*	*Soil conditioning index (SCI)*	*STIR value*	*Wind & irrigation-induced erosion for SCI*	*Fuel cost*
Fields 1,2,4,5	corn, cc, sb, cc	contour-systems\c. perfect contouring no row grade	-- none --	-- none --	1.7	1.7	0.41	15	0	0
Field 14	corn, cc, sb, cc	contour-systems\d. relative row grade 3 percent of slope grade	-- none --	-- none --	1.5	1.5	0.43	15	0	0

The **SCI** is the **Soil Conditioning Index** rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The **STIR** value is the **Soil Tillage Intensity Rating.** It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

Operation and Maintenance for BMP's in Land Treatment Area

This section addresses the operation and maintenance for the structural, non-structural, and land treatment measures for your farm. These documented measures require effort and expenditures throughout the life of the practice to maintain safe conditions and assure proper functioning. Operation includes the administration, management, and performance of non-maintenance actions needed to keep a completed practice safe and functioning as planned. Maintenance includes work to prevent deterioration of practices, repairing damage, or replacement of the practice if one or more components fail.

Conservation Crop Rotation (328)

- Follow the specified crop rotation. Rotations shall provide for acceptable substitute crops in case of crop failure or shift in planting intentions for weather related or economic reasons. Acceptable substitutes are crops having similar properties that will accomplish the purpose of the original crop.
- Evaluate the rotation and the crop sequence to determine if the planned system is meeting the planned purpose(s).

Cover Crop (340)

- Follow management requirements as specified to manage the cover crop for the desired period of time. Management may consist of mowing, mechanical harvesting, prescribed grazing, nutrient management, pest management, or other actions, as appropriate.
- Control weeds as needed by mowing or by spraying with an appropriate herbicide. To the extent feasible, "spot" spray or mow to control weeds so that desirable cover is not destroyed unnecessarily. Noxious weeds must be controlled as required by state law. Weed control must be part of a pest management plan.
- If forage use is desired, green-chop or graze the cover crop in the late boot to early head stages when optimal nutritional content and yield is available.
- For all purposes other than supplemental forage, terminate a grass cover crop no later than the late joint to early boot stage, or no later than 2 to 4 weeks prior to planting the next crop. Termination should be early enough that the crop does reach the flowering stage. The timing of the termination date permits maximum growth of the cover and maximum uptake of residual nutrients while allowing sufficient time for the decomposition of the vegetation, release of nutrients, and recharge of soil moisture.
- Legumes killed while succulent decompose more rapidly than grasses, so killing a legume cover crop 1 to 2 weeks before planting the next crop is usually sufficient.
- When optimum wildlife habitat is desired, do not mow or mechanically harvest fields during the nesting season of the desired wildlife species. For Maryland, the primary nesting season is generally from April 15 through August 15.
- Comply with acceptable uses (e.g., grazing, haying) and time of year/frequency of use restrictions, if any.

Residue Management, Reduced-Till (345)

- Follow the specified crop rotation and implements to be used for each field. Contact NRCS before changing the cropping sequence and/or tillage methods, especially on HEL fields or when receiving financial assistance for this practice.
- Evaluate/measure crop residue cover and orientation after each crop to ensure the planned amounts and orientation are being achieved. Adjust management as needed to either plan a new residue amount and orientation or adjust the planting and/or harvesting equipment.
- A Soil Tillage Intensity Rating (STIR) value of 80 or less must be maintained in order to be considered reduced-till.
- If there are areas of heavy residue accumulation in the field because of movement of water or wind, spread the residue prior to planting so that it does not interfere with planter operation.

Nutrient Management (590)

- Review or revise plans periodically to determine if adjustments or modifications are needed. At a minimum, review and revise plans as needed with each soil test cycle, changes in manure management, volume or analysis, plants and crops, or plant and crop management.
- Monitor fields receiving animal manures and biosolids for the accumulation of heavy metals and P in accordance with University of Maryland guidance and state law.
- For animal feeding operation, significant changes in animal numbers, management, and feed management will necessitate additional manure analyses to establish a revised average nutrient content.
- Calibrate application equipment to ensure accurate distribution of material at planned rates. For products too dangerous to calibrate, follow University of Maryland or equipment manufacturer guidance on proper equipment design, plumbing, and maintenance.
- Document the nutrient application rate. When the applied rate differs from the planned rate, provide appropriate documentation to explain the difference.
- Protect workers from and avoid unnecessary contact with nutrient sources. Take extra caution when handling anhydrous

ammonia or when managing organic wastes stored in unventilated tanks, impoundments, or other enclosures.
- Use material generated from cleaning nutrient application equipment in an environmentally safe manner. Collect, store, or field apply excess material in an appropriate manner.
- Recycle or dispose of nutrient containers in compliance with State and local guidelines or regulations.
- Organic waste and commercial fertilizer application will be based on the nutrient rates shown Nutrient Management Section of this CNMP.

Grassed Waterway (412)

- Vegetation damaged by machinery, herbicides, or erosion must be repaired promptly.
- Inspect for damage at least once a year and after each major storm. Fill in and seed any bare or washed areas following original seeding specifications.
- If waterways are not fertilized at the same time that the surrounding cropland is fertilized, a maintenance application should be made. Apply one-half the amount of fertilizer used during vegetation establishment as needed to maintain a vigorous sod.
- Minimize damage to vegetation by excluding livestock or by only allowing controlled grazing.
- Remove sediment deposits to maintain capacity of grassed waterway.
- Mow or control graze vegetation periodically to encourage dense vigorous growth and to maintain capacity.
- Control noxious weeds as required by state law.
- Do not use the waterway as a field road. Avoid crossing with heavy equipment when wet.
- Avoid turn rows or plowing parallel to waterway to prevent flow from entering channel.
- Avoid spraying the waterway with herbicides during crop applications and herbicide runoff into the waterway.
- To enhance wildlife values, avoid mowing the waterway during the peak nesting season (April 15 to August 15).

Shallow Water Development and Management (646)

- Inspect the management area at least annually to determine whether the desired vegetation is present in suitable quantity, quality, and distribution to meet the objectives of the project.
- Inspect embankments and structures at least once per year and after every major storm. Promptly remove trash and obstructions, fix leaks, and make other repairs as needed.
- On embankments to be maintained in herbaceous cover, spot mow or burn infrequently (not more than once every 2 to 3 years) if needed to reduce encroachment of trees and shrubs. Flash grazing by livestock may also be used. To protect ground-nesting wildlife, do not mow or burn between April 15 and August 15.
- Control noxious weeds and other invasive plants by spot treatment, using mechanical methods, or approved herbicides. Control of noxious weeds is required by state law. Noxious weed control can be conducted during the primary nesting season (April 15 to August 15), but may require prior approval if the site is enrolled in a financial assistance program. Contact your local weed control specialist concerning recommendations for spot-treating the weed problem.
- Deter colonization of undesirable plants (e.g., cocklebur, phragmites, cattails, red maple, sweetgum) by conducting regular site inspections and spot treatment using mechanical methods or approved herbicides. If undesirable plants become established, disk 2 or 3 times by mid-summer, then immediately flood, if possible, until the following spring.
- Nuisance animals such as beavers and muskrats may be removed in accordance with state game regulations. Geese can be discouraged by minimizing areas of open water and promoting the growth of tall vegetation in the shallow water area and adjacent buffers.
- Avoid noisy activities, such as mowing or use of recreational vehicles, in or near the shallow water area when waterfowl are present. To the extent possible, do not allow livestock and other domestic animals to have uncontrolled access to the site.
- Limit use of motorized vehicles to designated trails and access roads to protect vegetation and minimize disturbance to wildlife. Avoid use of motorized vehicles on ponded or inundated areas at any time during the year to prevent damage to soil, vegetation, and aquatic wildlife (e.g. frogs, salamanders).
- Avoid the use of pesticides on the site to prevent harm to wildlife that use the shallow water area.
- Comply with acceptable uses (e.g., flash grazing, cropping, timber production, hunting, nature preserve, etc.) and time of year or frequency of use restrictions, if any. Pay particular attention to program requirements as they relate to acceptable vs. restricted uses and other management restrictions.

SECTION 4: Nutrient Management

This element addresses the Nutrient Management component of the CNMP. The nutrient management plan is developed by a Maryland Department of Agriculture certified nutrient management consultant.

Soil Sampling and Testing

Maryland Department of Agriculture regulations require up-to-date soil analyses be included in the Nutrient Management Plan. To fulfill this requirement you must follow these guidelines:

1. Soil test(s) are required to be taken every 3 years or sooner for each management unit;
2. It is recommended that soil sampling be conducted consistently at the same time of the year;
3. Soil sampling depth for P and K shall be 8 inches;
4. pH testing sampling depth for no-till is only 4 inches.

Soil testing shall include analysis for any nutrients for which specific information is needed to develop the plan. The minimum analysis for Maryland is to include: pH, organic matter, phosphorus, potassium, calcium, magnesium, and CEC.

Manure and Wastewater Testing/Analysis

Maryland Department of the Environment and the Environmental Protection Agency require an analysis of manure generated on your operation be obtained to meet conditions in a General Discharge Permit for Animal Feeding Operations under CAFO regulations. If you land-apply manure, it is a required component of your NMP according to MDA regulations. To fulfill this requirement you may do one of the following:

1. Collect a sample of manure and obtain an analysis OR
2. If exported, obtain a copy of the manure analysis from one of the farmers who will be receiving the manure from your operation

Manure should be analyzed on an annual basis from each storage structure for: % Solids or % Moisture, Total N, Organic N, NH_4 or NH_3, P_2O_5, K_2O, and pH. These analyses are part of the required Record Keeping and are stored under the Record Keeping element of this CNMP.

Description of Chemical Handling:

1. All chemicals are stored in proper containers. Expired chemicals and empty containers are properly disposed of in accordance with state and federal regulations. Pesticides and associated refuse are disposed of in accordance with the FIFRA label.
2. Chemical storage areas are self-contained with no drains or other pathways that will allow spilled chemicals to exit the storage area.
3. Chemical storage areas are covered to prevent chemical contact with rain or snow.
4. Emergency procedures and equipment are in place to contain and clean up chemical spills.

LAND NUTRIENT MANAGEMENT PLAN For General Discharge Permit Coverage

Stephen Lamar Stoltzfus

28938 River Road

Millington, Maryland 21651

PREPARED BY
KENT SOIL & WATER CONSERVATION DISTRICT
122 Speer Road, Suite 4 • Chestertown, MD 21620 • 410-778-5150
http://www.kentsoilandwaterconservationdistrict.org/

Plan Date: 2/10/2025

DESCRIPTION OF OPERATION

This farm is owned by brothers Stephen 'Lamar' Stoltzfus and Larion Stoltzfus. There are three broiler houses in use with Mountaire as the integrator. They use switchgrass as the bedding. All manure is land applied to farms owned or operated by the family for growing row crops.

This operation is seeking coverage under the General Discharge (GD) Permit for a Concentrated Animal Feeding Operation (CAFO) National Pollutant Discharge Elimination System (NPDES) No. MDG01 and State Discharge Permit No. 19AF for CAFOs or State Discharge Permit 19AF for Maryland Animal Feeding Operations (MAFOs).

The nutrient management plan developed for this AFO is one of the required plans that must be submitted to the Maryland Department of the Environment (MDE) by the permit applicant as part of MDE's application review process in accordance with Code of Maryland Regulations (COMAR) 26.08.04.09N, 40 Code of Federal Regulations (CFR) 122.42(e), and the conditions of the GD Permit.

PLAN DURATION: 2/10/2025 - 2/9/2026

If this NMP is being developed for a new farm operation, a separate copy of this NMP will need to be submitted to the Maryland Department of Agriculture (MDA) in order to comply with Maryland's Nutrient Management Regulations under COMAR 15.20.07 and 15.20.08.

It is the sole responsibility of the permittee to obtain an immediate update to this nutrient management plan if there are any changes in the number of animals on site by 10% or more, or if the manure management changes. It is the permittee's responsibility to submit a copy of this nutrient management plan to MDE whenever there is an update or change in the plan. The permittee shall also maintain a copy of this nutrient management plan in their records to be made available upon request by MDA or MDE.

MANURE SAMPLING AND TESTING

MDE requires that the permittee shall supply the recipient of the animal waste with the most recent annual nutrient analysis of the manure and litter with samples taken within 12 months of the date of the transfer. If the recipient takes samples of the manure and litter, the permittee shall obtain a copy of the laboratory manure and litter analysis and maintain it as part of the permittee's records.

A copy of the manure laboratory analysis must be submitted with each year's Annual Implementation Report (AIR) to MDE.

MANURE MANAGEMENT & STORAGE

Manure is stockpiled in the waste storage facility until it is needed for use on one of the row crop farms that Stephen Lamar Stoltzfus manages.

Poultry litter and manure which is removed from the poultry houses should be placed in the waste storage structure designed specifically for this operation. Manure and litter that is collected and removed from the poultry houses is stored in the waste storage facility until it is exported by a broker to a receiving farm. If an issue should arise with manure storage and management, the permittee should contact the Kent Soil Conservation District (SCD) or the MDE AFO program office for assistance.

Manure/litter is transferred/exported from this operation to the following:

Home T975
29180 Morgnec Road
Kennedyville, Maryland 21645

Johnston T610
11183 Browntown Road
Kennedyville, Maryland 21645

Lepter T754
28862 Morgnec Road
Kennedyville, Maryland 21645

Fox T974
28939 Morgnec Road
Kennedyville, Maryland 21645

Iron Hill T752
28938 River Road
Millington, Maryland 21651

BEST MANAGEMENT PRACTICES

If there are resource concerns present on this operation, the permittee should contact the Kent Soil Conservation District located in Chestertown Maryland for assistance. A Comprehensive Nutrient Management Plan (CNMP) may be developed or updated to include Best Management Practices (BMPs) that follow a Natural Resources Conservation Service (NRCS) Practice Standard to address concerns such as manure and mortality management, as well as drainage issues if they should arise.

RECORD KEEPING REQUIREMENTS

MDA requires that AFO producers maintain records on manure management, animal numbers, and manure quantity. The operator is required to maintain records indicating the date, quantity and destination of litter as it is removed from the poultry houses and transported to the waste storage facility or moved off the farm. The same information is required if stored manure is transported out of the waste storage facility to other locations off the farm.

MDE requires that AFO permittees must keep records and information resulting from the monitoring, recordkeeping, reporting activities, analyses performed, calibration and maintenance of instrumentation, original recordings from continuous monitoring instrumentation, and records from the development and implementation of any CNMP or NMP and be retained for a minimum of five (5) years.

Records and information kept for the generation and management of manure and litter includes the quantity removed from the poultry houses, the date and the destination, which considers its placement in the waste storage facility, or if it is stored manure and litter being removed from the farm's waste storage facility and transferred/exported to a receiving farm site or receiver. To assist in the collection of certain records and information required by the GD Permit, the following copies of MDE's record sheets have been included with the NMP:

- Waste Storage and Containment Structure Inspection Log Sheet

- Manure, Litter and Wastewater Transfer Record Keeping Form
- Manure, Litter, and Wastewater Storage Structures Documentation

The GD Permit also requires the sampling of manure, litter, and process wastewater for analysis annually, records of mortality disposal, and any additional self-inspection and recordkeeping activities as necessary.

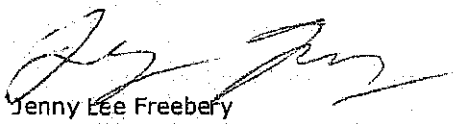
Each registered CAFO and MAFO is required to submit to MDA by March 1 annually their AIR which includes a summary of State CAFO and MAFO and federal NPDES CAFO data collected from the previous calendar year. The data used to report to MDE annually is required to be sourced from the collected records and information kept by the permittee the previous calendar year.

Farm Identification Summary

Farm Name	Tax Account ID Numbers	Watershed Location Code	Total Acres Farmed
Lamar Stoltzfus		02-13-05-10-0418	1082

Manure Summary Table

Animal Type and Number	Total Manure Generation (tons/yr.)*	Manure Available for Export (tons/yr.)*	Manure Storage Capacity
75000 Broiler/flock @ 4.5/yr. = 337500 birds/yr.	683	2025 = 431 2026 = 602 2027 = 664 2028 = 672	40' x140' Poultry Waste Storage Structure w/ 5760 cubic feet of capacity



3/18/25

Jenny Lee Freebery
Certified Nutrient Management Consultant
MDA Certification #4272

Date

Poultry Litter Quantity Estimate

Name: Lamar Stoltzfus Tract / Farm: 752 Date: 2/28/2025

Houses Included: 3

		Bird Type:	Broiler
		Average Bird Market Weight (lbs):	10.5
A.	Years between total cleanouts:	Yr. next total cleanout:	2028
		Yr. last total cleanout:	2024
		= Years in cleanout cycle:	4
B.	Total # of birds per flock (for all houses on this cleanout cycle):		75,000
C.	Flocks per year		4.5
D.	Number of flocks per cleanout cycle (A x C):		18
E.	Estimated tons of cake/crust per 1000 birds per flock: *		0.2
F.	Estimated tons of litter + cake/crust per 1000 birds per flock: *		2.02435
G.	Tons cake/crust produced per flock (B x E/1000):		15
H.	Tons cake/crust produced per cycle (G x D):		270
I.	Tons litter + cake/crust produced per cycle (B x D x F/1000):		2,733
J.	Tons of litter produced per cycle (less cakeout/crustout) (I-H):		2,463
K.	Tons of litter produced per year (less cakeout/crustout) (J/A):		616
L.	Tons of litter + cake/crust produced per year (I/A):		683

* 2007 Delmarva Poultry Litter Production Estimates, George W. Malone, University of Delaware, Georgetown Delaware.

Quantity of Poultry Litter, Cake/Crust Available per Year

	M	N	O	P	Q	R	S	T
Year	Tons of litter remaining in the house from last year (N-P) + (R-S) (previous year)	Total tons of litter present in the house this year (K) + (M, this year)	% of partial or total litter to be removed this year in excess of cakeout/crustout (enter % of N removed)	Tons of litter removed this year (N x O)/100	Flocks this year	*** Tons Cake/Crust Produced this Year0 (Q x G)	Tons Cake/Crust removed this Year	Tons litter + cake/crust removed this year (P + S)
2025	0	616	70	431	4	60	0	431
2026	245	860	70	602	5	75	0	602
2027	333	949	70	664	4	60	0	664
2028	345	960	70	672	5	75	0	672
			Total	**2369**	**18**	**270**	**0**	**2369**

*** Cake/Crust not removed due to windrowing, is added with the litter remaining in the house the following year. Windrowing may likely result in actual quantities of litter being less than the estimates shown here. The actual amount of Cake/Crust removed may also be less than the estimated amounts produced due to improved drinker systems, ventilation, etc.

SECTION 5: Additional Documentation

This section is included if there are additional documents needed for the Comprehensive Nutrient Management Plan.

The following documents are located in this section:

- Water Conveyance Map Around Production Area
- Resource Inventory Map
- Poultry Litter Estimation Worksheet
- Nutrient Land Application Form
- Manure Litter Storage Form
- Manure Application Form

Water Conveyance Map

Date: 1/23/2025

Customer(s): Stephen Lamar Stoltzfus

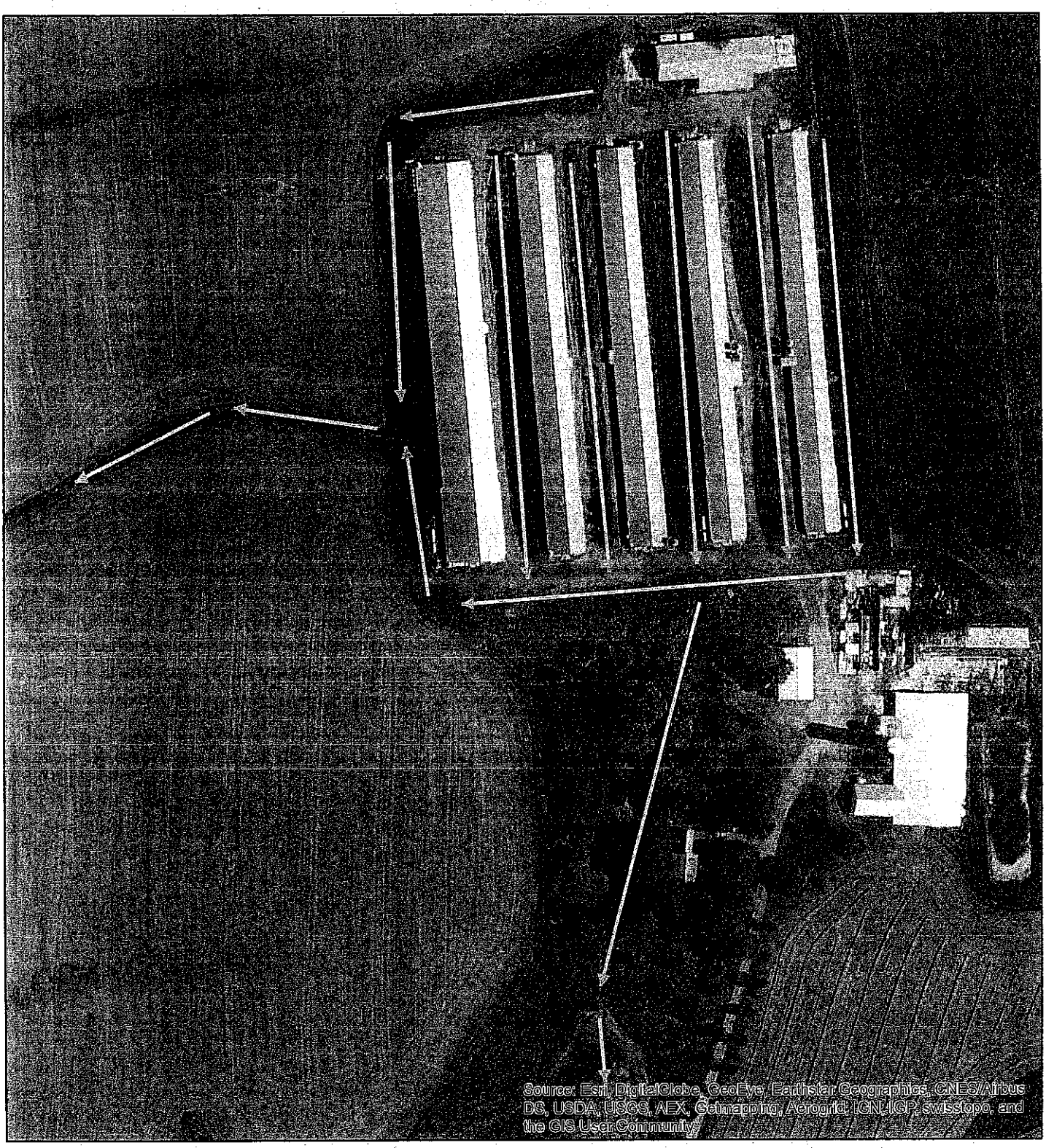
District: KENT SCD

Approximate Acres: 148.9

Legal Description: Farm 249 Tract 752

Field Office: KENT COUNTY SERVICE CENTER

Assisted By: Jenny Lee Freebery



USDA

Legend

Water Conveyance Stolzfus

100 0 100 200 300 400 Feet

N

NIVERSITY OF
ARYLAND
XTENSION

POULTRY LITTER QUANTITY ESTIMATE

Name: Stephen Lamar Stoltzfus ~~Iron Hill Farms~~ Tract / Farm: Date: **1/20/2025**

Houses included: **3** **Bird type:** **Broiler**

Average Bird Market Weight (lbs): **10.5**

A.	Years between total cleanouts: Yr. next total cleanout:	**2028**
	- Yr. last total cleanout:	**2024**
	= Years in cleanout cycle:	4
B.	Total # of birds per flock (for all houses on this cleanout cycle):	**75,000**
C.	Flocks per year	**4.5**
D.	Number of flocks per cleanout cycle (A x C):	18
E.	Estimated tons of cake/crust per 1000 birds per flock: *	**0.2**
F.	Estimated tons of litter + cake/crust per 1000 birds per flock: *	**2.02435**
G.	Tons cake/crust produced per flock (B x E/1000):	15
H.	Tons cake/crust produced per cycle (G x D)	270
I.	Tons litter + cake/crust produced per cycle (B x D x F/1000):	2,733
J.	Tons of litter produced per cycle (less cakeout/crustout) (I - H):	2,463
K.	Tons of litter produced per year (less cakeout/crustout) (J/A):	616
L	Tons of litter + cake/crust produced per year (I/A)	683

* 2007 Delmarva Poultry Litter Production Estimates, George W. Malone, University of Delaware, Georgetown Delaware.

Quantity of Poultry Litter, Cake/Crust Available per Year

Year	M Tons of litter remaining in the house from last year (N-P) + (R-S) (previous year)	N Total tons of litter present in the house this year (K) + (M, this year)	O % of partial or total litter to be removed this year in excess of cakeout/crustout (enter % of N removed)	P Tons of litter removed this year (N x O)/100	Q Flocks this Year	R *** Tons Cake/Crust Produced this Year (Q x G)	S Tons Cake/Crust removed this Year	T Tons litter + cake/crust removed this year (P + S)
2025	0	616	**70**	431	4	60		431
2026	245	860	**70**	602	5	75		602
2027	333	949	**70**	664	4	60		664
2028	345	960	**70**	672	5	75		672

				2,370	18	270	0	2,370

*** Cake/Crust not removed due to windrowing, is added with the litter remaining in the house the following year. Windrowing may likely result in actual quantities of litter being less than the estimates shown here. The actual amount of Cake/Crust removed may also be less than the estimated amounts produced due to improved drinker systems, ventilation, etc.

UNIVERSITY OF MARYLAND EXTENSION

Agricultural Nutrient Management Program
Department of Environmental Science and Technology
0116 Symons Hall
7998 Regents Dr.
College Park, MD 20742
TEL 301-405-1319| FAX 301-314-7375
www.extension.umd.edu/anmp

Updated: 8-23-18

MANURE QUANTITY ESTIMATION

(Use when both solid and liquid manure are generated by a single livestock group)

You can only edit values highlighted in blue

Farm name: ~~Iron Hill Farm~~
Stephen Lamar Stoltzfus

Manure Production period:

Starting date: 1/1/2025 Ending date: 12/31/2025

A. Total days in manure production period: 365

Livestock Information

		1	2	3
B.	Livestock group	Beef feeders		
C.	Average weight (lbs.)	850		
D.	# of animals	16		
E.	Animal units (AU) [(C x D)/1000]	13.6	0	0
F.	Full days confined during manure production period	0	0	
G.	Days partially confined during manure production period	365		0
H.	Hours per day confined	0	0	
I.	Day equivalents partially confined (G * H)/24	0	0	0
J.	Total day equivalents confined (F + I)	0	0	0
K.	Fraction of manure collected as liquid waste (expressed as a decimal)	0	0	0
L.	Total day equivalents unconfined on pasture (A - J)	365	365	365
M.	Weight of manure/AU/day (lbs.) (see **Table 1**.)	59		

Bedding Estimation

		1	2	3
N.	Bedding type (straw, sawdust, etc.)			
O.	Volume of bedding this production period (cu.ft.). (If weight of bedding is known, proceed to **P** and **Q** and enter them directly.)			
P.	Density of bedding (lbs. per cu.ft.) (see **Table 2**.)			
Q.	Weight of bedding (tons) [(O x P)/2000]			
R.	Fraction of bedding collected with liquid waste (expressed as a decimal)	0	0	0

Uncollected Manure (Deposited on Pasture)

		1	2	3
S.	Weight of manure on pasture (tons) [(E x L x M)/2000]	146	0	0

Collected Solid Waste (Manure And Bedding)

		1	2	3
T.	Weight of collected manure (tons) [E x (J - (J x K)) x M]/2000]	0	0	0
U.	Weight of collected manure & bedding (tons) [Q - (Q x R) + T]	0	0	0

Collected Liquid Manure and Bedding

		1	2	3
V.	Volume of liquid manure/AU/day (cubic feet) (See **Table 1**)			
W.	Volume of liquid manure collected (cubic feet) [E x (J x K) x V]	0	0	0
X.	Volume of collected liquid manure & bedding collected with liquid (cubic feet) (If you see **ERR**, go back to **P** and enter bedding density) [0.5 x (O x R) + W]	0	0	0
Y.	Total volume of collected liquid manure & bedding (cubic feet) [X1 +X2 + X3]*	0		

* Adding these liquid manure sources is legitimate if they all feed into the same liquid manure storage system

Z.	Volume of waste collected (gallons) (Y x 7.481)	0
AA.	Volume of washwater per day (gallons)	
BB.	Volume of washwater collected during manure production period (gallons) (AA x A)	0
CC.	Drainage area (square feet)	
DD.	Inches of rain during manure production period (see **Table 3**.)	
EE.	Inches of rain during a 25yr - 24 hr storm (see **Table 3**.)**	
FF.	Storage structure area (square feet)	
GG.	Volume of rainfall collected (gallons) [(0.6 x CC x DD) + (FF x DD) + (0.75 x CC x EE**) + (FF x EE**)] x 7.481 / 12	0
HH.	Total volume of liquid waste collected (gallons) (Z + BB + GG)	0

** Required for CAFOs/CNMPs

GROWMARK FS, Inc.

LAND APPLICATION ANALYSIS

Client
Growmark FS
1002 Hope Road
Centreville , MD 21617

Grower :
Opportunity Acres/Iron Hill

PO :
Stephen Lamar Stoltzfus

Report No. 24-047 00 0
Cust No. 25006
Date Printed 03/01/2024
Date Recd 2/15/2024
Page 1 of 1

Lab Number : 64748 Sample Id : ~~Iron Hill~~

Test	Analysis		Pounds Per Ton	
	As Received	Dry Basis	As Received	Dry Basis
Total Nitrogen (N) %	3.30	4.56	66.0	91.2
Ammonium Nitrogen (NH_4-N) %	0.926	1.28	18.5	25.6
Organic Nitrogen	2.374			
Phosphorus, P %	0.888	1.23	40.8 P_2O_5	56.4
Potassium, K %	2.27	3.14	54.5 K_2O	75.2
Sulfur, S %	0.699	0.965	14.0	19.3
Magnesium, Mg %	0.177	0.244	3.54	4.88
Calcium, Ca %	1.58	2.18	31.6	43.6
Sodium, Na ppm	5830	8050	11.7	16.1
Iron, Fe ppm	246	340	0.492	0.679
Aluminum, Al ppm	492	680	0.983	1.36
Manganese, Mn ppm	154	213	0.308	0.425
Copper, Cu ppm	462	638	0.924	1.28
Zinc, Zn ppm	317	438	0.634	0.875
Boron, B ppm	11.5	15.9	0.023	0.031

Test	Result
Moisture %	27.6
Solid %	72.4

Additional Information	Result
Type	Dry Basis

Additional Tests	Result
Digestion	Digested
Ammonia Nitrogen , %	0.926
P2O5 (as received) , %	2.04
K2O (as received) , %	2.73

Comments :

Calculation Calculation from lab derived data.

EPA 100 Standard Methods for the Analysis of Water and Wastewater 1997

NMMA Recommended Methods of Manure Analysis. Peters et a. 2003 In Press

SW USEPA SW-846, Test Methods for Evaluating Solid Wastes Physical/Chemical Methods 3rd Ed. Current Revision

Brand Watson

Report Printed on: [illegible]

Account Number: 25606

GROWMARK FS, Inc.

[illegible]

Send To: Growmark FS
1002 Hope Road
Centreville MD 21617

Grower: Steve Stoltzfus
~~Iron Hill~~
Stephen Lamar Stoltzfus

SOIL ANALYSIS REPORT

Analytical Methods: Modified - SMP Buffer pH - Ross Calculation - Water pH

Date Of Analysis: 03/[illegible]/2023 Date Of Report: 03/14/2023

Sample ID / Field ID	Lab Number	OM % Rate	WV Soil Class	ENR lbs/A	Phosphorus M3 ppm Rate	Phosphorus [illegible] ppm Rate	pH Rate	Potassium K ppm Rate	Magnesium Mg ppm Rate	Calcium Ca Rec Rat	Sodium Na ppm Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C meq/100g
1	09240	2.1 L		91	64 H MD - 72			104 M MD - 66	137 H MD - 98	732 M MD 66	14 VL	6.2		0.7	5.7
2	09241	2.5 M		110	70 H MD - 79			111 M MD 70	159 H MD - 123	749 M MD 68	16 VL	5.8	6.80	1.3	6.7
3	09242	2.1 M		103	64 H MD - 61			87 L MD - 55	156 H MD - 117	714 M MD - 63	16 VL	5.8	6.81	1.2	6.3

Sample ID / Field ID	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO_3-N ppm Rate	Sulfur S ppm Rate	Zinc Zn ppm Rate	Manganese Mn ppm Rate	Iron Fe ppm Rate	Copper Cu ppm Rate	Boron B ppm Rate	Soluble Salts SS ms/cm Rate
1	4.7	18.0	64.2	1.1	12.3		8 VL	4.9 H	62 VH	131 VH	4.5 VH	0.5 L	
2	4.2	19.8	65.9	1.0	19.4		12 L	5.9 H	48 H	176 VH	4.5 VH	0.5 L	
3	3.5	19.8	56.7	1.1	19.0		12 L	6.5 H	98 VH	154 VH	5.5 VH	0.6 M	

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High), ENR - Estimated Nitrogen Release. C.E.C - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), mS/cm (millimhos per centimeter), meq/100g (milliequivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts mS/cm x 640 = ppm

*Declared applies to samples tested. Samples are retained a maximum of [illegible] days after testing.

Analysis completed by: Maryland Analytical Laboratory, Inc.

by Brandi Watson

Brandi Watson

Report Number: 24-043-0939
Account Number: 25006

GROWMARK FS, Inc.

PHONE (302) 422-3001 • P.O. BOX 339 • 6 E FRONT ST • MILFORD, DELAWARE
PHONE (302) 875-7511 • 101 POPLAR ST • MILFORD DELAWARE

Send To: Growmark FS
1002 Hope Road
Centreville MD 21617

Grower: Opportunity Acres
Steve Stolfuz

Farm: Lepter

SOIL ANALYSIS REPORT

Analytical Method(s): Mehlich 3 SMP Buffer pH Loss On Ignition Water pH

Date Received: 02/12/2024 **Date Of Analysis:** 02/13/2024 **Date Of Report:** 02/13/2024

Sample ID Field ID	Lab Number	OM % Rate	W/V Soil Class	ENR lbs/A	Phosphorus M3 ppm Rate	Phosphorus ppm Rate	Phosphorus ppm Rate	Potassium K ppm Rate	Magnesium Mg ppm Rate	Calcium Ca ppm Rate	Sodium Na ppm Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C meq/100g
Fld 1	19008	2.9 M		101	58 H MD = 65			93 M MD = 58	116 H MD = 91	610 M MD = 50	11 VL	6.0	6.85	0.8	5.1
Fld 2	19009	2.5 L		92	58 H MD = 65			142 H MD = 90	186 VH MD = 144	674 M MD = 58	16 VL	6.6		0.3	5.7
Fld 3	19010	2.8 M		96	48 M MD = 55			70 L MD = 44	208 H MD = 161	932 M MD = 91	20 VL	6.5		0.5	7.2
Fld 4	19011	2.9 M		98	129 VH MD = 143			136 H MD = 86	220 VH MD = 170	825 M MD = 77	17 VL	6.5		0.5	6.9
Fld 5	19012	2.5 L		91	115 VH MD = 127			121 M MD = 77	197 VH MD = 152	725 M MD = 65	16 VL	6.3		0.7	6.3

Sample ID Field ID	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO_3N ppm Rate	Sulfur S ppm Rate	Zinc Zn ppm Rate	Manganese Mn ppm Rate	Iron Fe ppm Rate	Copper Cu ppm Rate	Boron B ppm Rate	Soluble Salts SS ms/cm Rate
Fld 1	4.7	19.0	59.8	0.9	15.7		9 VL	3.7 H	27 H	81 VH	2.9 H	0.3 VL	
Fld 2	6.4	27.2	59.1	1.2	5.3		11 L	5.3 H	68 VH	107 VH	3.2 VH	0.5 L	
Fld 3	2.5	24.1	64.7	1.2	6.9		9 VL	5.4 H	42 H	119 VH	3.3 VH	0.7 M	
Fld 4	5.1	26.6	59.8	1.1	7.2		12 L	9.8 VH	68 VH	155 VH	4.8 VH	0.6 M	
Fld 5	4.9	26.1	57.5	1.1	11.1		9 VL	8.3 VH	61 VH	148 VH	3.9 VH	0.5 L	

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: [signature]

Bran[illegible] [illegible]tson

Report Number: 24-043-0939
Account Number: 25006

GROWMARK FS, Inc.
PHONE: (302) 422-3031 • P.O. BOX 309 • N.E. FRONT ST. • MILFORD, DE 19963
PHONE: (302) 875-7811 • 431 [illegible]

Send To: Growmark FS
1002 Hope Road
Centreville MD 21617

Grower: Opportunity Acres
Steve Stolfuz

Farm: Lepter

SOIL ANALYSIS REPORT

Analytical Method(s): Mehlich 3 SMP Buffer pH Loss On Ignition Water pH

Date Received: 02/12/2024 **Date Of Analysis:** 02/13/2024 **Date Of Report:** 02/13/2024

Sample ID / Field ID	Lab Number	OM % Rate	W/V Soil Class	ENR lbs/A	Phosphorus M3 ppm Rate	Phosphorus ppm Rate	Phosphorus ppm Rate	Potassium K ppm Rate	Magnesium Mg ppm Rate	Calcium Ca ppm Rate	Sodium Na ppm Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C meq/100g
Fld 6	19013	2.8 M		97	107 VH MD = 119			215 VH MD = 137	178 H MD = 138	707 M MD = 62	14 VL	6.4		0.6	6.2
Fld 7	19014	2.6 M		93	112 VH MD = 124			111 M MD = 70	213 VH MD = 164	775 M MD = 71	14 VL	6.5		0.5	6.5
Fld 8	19015	2.4 L		87	121 VH MD = 134			122 M MD = 77	263 VH MD = 202	921 M MD = 89	16 VL	6.5		0.6	7.8
Fld 9	19016	2.9 M		98	119 VH MD = 132			112 M MD = 71	196 H MD = 151	963 M MD = 95	16 VL	6.5		0.5	7.3
Fld 10	19018	2.5 L		92	59 H MD = 67			119 M MD = 75	195 VH MD = 151	688 M MD = 60	16 VL	6.5		0.4	5.8

Sample ID / Field ID	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO_3 N ppm Rate	Sulfur S ppm Rate	Zinc Zn ppm Rate	Manganese Mn ppm Rate	Iron Fe ppm Rate	Copper Cu ppm Rate	Boron B ppm Rate	Soluble Salts SS ms/cm Rate
Fld 6	8.9	23.9	57.0	1.0	9.7		14 L	8.4 VH	89 VH	103 VH	4.0 VH	0.5 L	
Fld 7	4.4	27.3	59.6	0.9	7.7		9 VL	7.9 H	107 VH	144 VH	4.3 VH	0.6 M	
Fld 8	4.0	28.1	59.0	0.9	7.7		10 L	9.0 VH	89 VH	153 VH	4.8 VH	0.6 M	
Fld 9	3.9	22.4	66.0	1.0	6.6		9 VL	7.1 H	96 VH	145 VH	3.1 VH	0.7 M	
Fld 10	5.3	28.0	59.3	1.2	6.9		11 L	5.0 H	64 VH	104 VH	2.8 H	0.5 L	

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: Brandi Hilt

Brandi [illegible]son

Report Number: 23-072-0656
Account Number: 25006

GROWMARK FS, Inc.
PHONE: (302) 422-3001 • P.O. BOX 309 • N.E. FRONT ST. • MILFORD, DELAWARE
PHONE: (302) 875-7511 • 43° N. POPLAR ST. • MILFORD, DELAWARE

Send To: Growmark FS
1002 Hope Road
Centreville MD 21617

Grower: Steve Stoltfus
Home

SOIL ANALYSIS REPORT

Analytical Method(s): Mehlich 3 SMP Buffer pH Loss On Ignition Water pH

Date Received: 03/13/2023 **Date Of Analysis:** 03/14/2023 **Date Of Report:** 03/14/2023

Sample ID / Field ID	Lab Number	OM % Rate	W/V Soil Class	ENR lbs/A	Phosphorus M3 ppm Rate	Phosphorus . ppm Rate	Phosphorus ppm Rate	Potassium K ppm Rate	Magnesium Mg ppm Rate	Calcium Ca ppm Rate	Sodium Na ppm Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C meq/100g
20	09230	3.1 M		103	105 VH MD = 117			139 H MD = 88	127 H MD = 99	748 M MD = 68	15 VL	6.1	6.85	0.8	6.0
P1 & P2	09231	4.4 M		124	272 VH MD = 298			195 VH MD = 125	190 H MD = 147	1291 M MD = 136	14 VL	6.2		1.2	9.8
1	09233	2.5 L		92	89 H MD = 99			163 VH MD = 104	122 H MD = 95	679 M MD = 59	12 VL	6.0	6.84	0.9	5.8
2	09234	2.9 M		100	72 H MD = 81			201 VH MD = 128	101 H MD = 80	580 M MD = 46	12 VL	5.8	6.83	1.0	5.3
3	09235	3.1 M		103	61 H MD = 69			178 VH MD = 114	146 H MD = 114	711 M MD = 63	14 VL	6.1	6.85	0.8	6.1

Sample ID / Field ID	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO_3 N ppm Rate	Sulfur S ppm Rate	Zinc Zn ppm Rate	Manganese Mn ppm Rate	Iron Fe ppm Rate	Copper Cu ppm Rate	Boron B ppm Rate	Soluble Salts SS ms/cm Rate		
20	5.9	17.6	62.3	1.1	13.3		9 VL	7.4 H	54 VH	93 VH	4.2 VH	0.6 M			
P1 & P2	5.1	16.2	65.9	0.6	12.2		12 L	31.1 VH	23 H	187 VH	2.8 H	0.7 M			
1	7.2	17.5	58.5	0.9	15.5		8 VL	5.8 H	58 VH	106 VH	1.8 H	0.4 L			
2	9.7	15.9	54.7	1.0	18.9		9 VL	5.5 H	60 VH	119 VH	1.9 H	0.5 L			
3	7.5	19.9	58.3	1.0	13.1		11 L	5.2 H	67 VH	115 VH	2.6 H	0.6 M			

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: Brandi Watson

Brandi Watson
119

Report Number: 23-072-0656
Account Number: 25006

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SOIL ANALYSIS REPORT

Analytical Method(s): Mehlich 3 SMP Buffer pH Loss On Ignition Water pH

Date Received: 03/13/2023 Date Of Analysis: 03/14/2023 Date Of Report: 03/14/2023

Sample ID / Field ID	Lab Number	OM % Rate	W/V Soil Class	ENR lbs/A	Phosphorus M3 ppm Rate	Phosphorus ppm Rate	Phosphorus ppm Rate	Potassium K ppm Rate	Magnesium Mg ppm Rate	Calcium Ca ppm Rate	Sodium Na ppm Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C meq/100g
4	09236	3.2 M		105	38 M MD = 44			112 M MD = 71	138 H MD = 108	765 M MD = 70	16 VL	6.0	6.83	1.0	6.3

Sample ID / Field ID	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO_3 N ppm Rate	Sulfur S ppm Rate	Zinc Zn ppm Rate	Manganese Mn ppm Rate	Iron Fe ppm Rate	Copper Cu ppm Rate	Boron B ppm Rate	Soluble Salts SS ms/cm Rate		
4	4.6	18.3	60.7	1.1	15.9		12 L	5.1 H	75 VH	100 VH	2.8 H	0.7 M			

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: Brandi Watson

Brandi Watson

Report Number: 23-072-0657
Account Number: 25006

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Grower: Steve Stoltfus
Johnston

SOIL ANALYSIS REPORT

Analytical Method(s): Mehlich 3 SMP Buffer pH Loss On Ignition Water pH

Date Received: 03/13/2023 **Date Of Analysis:** 03/14/2023 **Date Of Report:** 03/14/2023

Sample ID / Field ID	Lab Number	OM % Rate	W/V Soil Class	ENR lbs/A	Phosphorus M3 ppm Rate	Phosphorus ppm Rate	Phosphorus ppm Rate	Potassium K ppm Rate	Magnesium Mg ppm Rate	Calcium Ca ppm Rate	Sodium Na ppm Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C meq/100g
1	09237	3.1 M		104	50 M MD = 57			142 H MD = 90	142 H MD = 111	713 M MD = 63	11 VL	6.5		0.4	5.6
2	09238	3.1 M		104	65 H MD = 73			168 VH MD = 107	113 H MD = 89	710 M MD = 63	12 VL	6.2		0.7	5.7

Sample ID / Field ID	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO_3 N ppm Rate	Sulfur S ppm Rate	Zinc Zn ppm Rate	Manganese Mn ppm Rate	Iron Fe ppm Rate	Copper Cu ppm Rate	Boron B ppm Rate	Soluble Salts SS ms/cm Rate		
1	6.5	21.1	63.7	0.9	7.1		10 L	5.5 H	68 VH	87 VH	3.1 VH	0.3 VL			
2	7.6	16.5	62.3	0.9	12.3		8 VL	4.9 H	70 VH	110 VH	3.2 VH	0.5 L			

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: Brandi Watson

Brandi Watson

Report Number: 23-072-0655
Account Number: 25006

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Centreville MD 21617

Grower: Steve Stoltfus
Fox Farm

SOIL ANALYSIS REPORT

Analytical Method(s): Mehlich 3 SMP Buffer pH Loss On Ignition Water pH

Date Received: 03/13/2023 **Date Of Analysis:** 03/14/2023 **Date Of Report:** 03/14/2023

Sample ID / Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C
		% Rate	Soil Class	lbs/A	M3 ppm Rate	ppm Rate	ppm Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
7	09227	3.2 M		105	31 M MD = 36			99 M MD = 62	128 H MD = 100	740 M MD = 67	16 VL	5.9	6.82	1.1	6.2
8	09228	3.4 M		111	40 M MD = 46			112 M MD = 71	84 M MD = 67	488 L MD = 35	12 VL	5.3	6.77	1.6	5.1
9	09229	2.7 M		96	45 M MD = 51			106 M MD = 67	93 M MD = 74	675 M MD = 58	13 VL	6.0	6.85	0.8	5.3

Sample ID / Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts		
	K %	Mg %	Ca %	Na %	H %	NO_3 N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate		
7	4.1	17.2	59.7	1.1	17.7		9 VL	5.1 H	33 H	122 VH	2.5 H	0.4 L			
8	5.6	13.7	47.8	1.0	31.4		10 L	3.6 H	20 M	138 VH	2.8 H	0.2 VL			
9	5.1	14.6	63.7	1.1	15.1		10 L	4.7 H	48 H	116 VH	3.5 VH	0.4 L			

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

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Analysis prepared by: Waypoint Analytical Virginia, Inc.

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SOIL ANALYSIS REPORT

Analytical Method(s): Mehlich 3 SMP Buffer pH Loss On Ignition Water pH

Date Received: 03/13/2023 **Date Of Analysis:** 03/14/2023 **Date Of Report:** 03/14/2023

Sample ID / Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C
		% Rate	Soil Class	lbs/A	M3 ppm Rate	ppm Rate	ppm Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
10	09222	3.1 M		103	64 H MD = 72			111 M MD = 70	125 H MD = 98	830 M MD = 78	14 VL	6.2		0.8	6.3
11	09223	3.2 M		106	31 M MD = 36			129 H MD = 82	110 H MD = 86	676 M MD = 59	13 VL	5.8	6.82	1.1	5.8
12	09224	3.2 M		105	55 H MD = 62			126 H MD = 80	174 H MD = 135	829 M MD = 78	12 VL	6.4		0.6	6.6
5	09225	3.1 M		104	40 M MD = 46			123 M MD = 78	120 H MD = 94	672 M MD = 58	14 VL	6.1	6.85	0.8	5.5
6	09226	3.5 M		110	42 M MD = 48			117 M MD = 74	157 H MD = 122	872 M MD = 83	16 VL	6.3		0.7	6.7

Sample ID / Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts		
	K %	Mg %	Ca %	Na %	H %	NO_3N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate		
10	4.5	16.5	65.9	1.0	12.7		11 L	6.6 H	39 H	147 VH	5.2 VH	0.5 L			
11	5.7	15.8	58.3	1.0	19.0		9 VL	4.8 H	47 H	96 VH	2.9 H	0.4 L			
12	4.9	22.0	62.8	0.8	9.1		9 VL	6.7 H	43 H	116 VH	4.7 VH	0.4 L			
5	5.7	18.2	61.1	1.1	14.5		9 VL	5.4 H	33 H	92 VH	2.4 H	0.3 VL			
6	4.5	19.5	65.1	1.0	10.4		9 VL	4.7 H	55 VH	153 VH	2.2 H	0.6 M			

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

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This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: Brandi Watson

Brandi Watson

Maryland
Nutrient Management Plan

Prepared for:

Stephen Lamar Stoltzfus
~~Iron Hill Farm~~
29231 Morgnec Road
Kennedyville, Maryland 21645

Date
February 10, 2025

Prepared by:

Don Moore, CCA
MD Certification Number MD-1048
MD License Number MD-2175

Plan Type: Updated NMP- Poultry, beef, grain

Plan Period: 2025 Growing Season

AET
Agricultural Consulting

MARYLAND NUTRIENT MANAGEMENT PLAN

TABLE OF CONTENTS

(Use "N/A" where component is not applicable to the operation.)

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2. Operator's name, address, and telephone number	4
3. Consultant's name, certification number, and license number	4
4. Date Nutrient Management Plan was prepared or updated	4
5. Period of time plan covers	4
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2. Plan maintenance and updating requirements	5-6
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2. Manure summary (if applicable):	
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3. Manure Management (if applicable):	
a) current manure handling procedure	7
b) evaluate existing manure handling conditions and procedures	7
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Field or Management Unit Specific Information

1. Source and type of information used to determine crop yield	
2. Method of tillage (moldboard, chisel, no-till, etc.)	
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6. Residual nitrogen (legumes, past applications of past manure/biosolids/etc.) and PSNT information	
7. ID, field or management unit identifier and acreage/growing area	
8. Crop rotation(s), expected crop yield, and primary nutrient requirements	

Additional Plan Content for Container or Out-of-Ground Production

N/A

1. List of plants to be grown, est. greatest number of plants, and total growing area	
2. Summary of production and respective container sizes	
3. Month or time frame of peak production	
4. Description of substrate, irrigation, and nutrient application method	
5. Environmental Risk Assessment	
6. Program and recommendations for monitoring runoff	
7. Methods for sampling and testing runoff	
8. Required best management practices and/or specific recommendations	

2 Map(s) of the Agricultural Operation

1. Location & boundaries of ag operation with field or management unit boundaries	
2. Parcel identifier, field identifier, and acreage of fields or management units	

2 Summary of Nutrient Recommendations

1. Miscellaneous notes in regards to nutrient application	
2. Nutrient Recommendations (A snapshot which includes parcel ID, field or management unit identifier, crop/plant yield/production goal, acreage/growing area, recommended nutrient rates necessary to meet expected crop yields (amount and type of all nutrient sources per acre or management unit), method and time frame for nutrient application and incorporation, and liming recommendations)	

01/01

+ = Items which MUST be submitted to the MDA Nutrient Management Regional Office if receiving MACS cost share.

Certification and Review

Planner Declaration

I certify that this plan has been written according to the Maryland Nutrient Management Certification Regulations and that I am a certified planner in the State of Maryland.

Name of planner: Don Moore, CCA
AET Consulting, Inc.

Certification Number: MD-1048
License Number: MD-2175

Planner Signature: _____

Date: 2-25-25

Operation Record Keeping Requirements and Acknowledgement of Responsibility

1. All nutrient management plans and updates for the last 3 years.
2. A record of crops and actual yields for the last 5 years.
3. Analysis of nutrients (all forms) applied to plants and/or crop acreage.
4. Soil analysis results for the entire agricultural operation.
5. Record of timing, location, and amounts of all nutrient applications.
6. Receipts related to the purchase of nutrients.
7. Documentation to justify any changes from the Nutrient Management Plan as written.
8. **If operator is an applicator of nutrients to 10 acres or more; operator must hold a current Maryland Nutrient Applicator's Voucher.**
9. Operator is required to have a copy of a current state chemist label of any imported or exported organic fertilizer material that contains primary nutrients such as food processing waste, spent mushroom substrate, composted waste products, or other waste streams containing nutrients.

The operator has the primary responsibility for plan implementation, installation of the agreed upon Best Management Practices outlined in the plan and required by the Water Quality Improvement Act (WQIA). The operator also has the responsibility of maintaining all practices associated with the nutrient management plan and all record keeping associated with the WQIA Regulations.

Farm Owner/Operator: _____

Date: 4-10-25

Plan Identification

Operator information:

Iron Hill Farm
Lamar Stoltzfus
29231 Morgnec Rd
Kennedyville, MD 21645
443-480-3280

Consultant information:

Don Moore, CCA
2677 Telegraph Rd.
North East, MD 21901
410-620-0275
Certification # MD-1048
License # MD-2175

Nutrient Management Plan Narrative:

This plan was written for the 2025 growing season. The farm is a poultry operation with three broiler houses on site. In addition, the farm has beef feeders housed on pasture. Collected manure is utilized within the operation to supplement commercial fertilizer. The fields are in a corn and soybean rotation, and the crops are grown for grain. There is no irrigation used.

Date Nutrient Management Plan Developed:

February 10, 2025
This NMP is required to be updated prior to Fall 2025 nutrient applications.

Crops:	2025	Acres
SB	Soybean	649.00
C	Corn	405.00
Past	Pasture	28.00
Total		**1,082.00** Acres

Property ID	Acct ID Acres	Farm	Plan Acres	County	Watershed
1502020406	220.0	Fox	174.0	Kent	1051
1502011077	198.0	Home	194.0	Kent	1051
1502016060	141.9	Iron Hill	113.0	Kent	0058
1502009579	140.0	Johnston	132.0	Kent	1051
1502006014	370.8	Lepter	469.0	Kent	1051
1502006006	2.0				
1502016907	2.0				
1502020130	40.0				
1502020122	49.6				

Plan Maintenance

This nutrient management plan was written for the 2025-growing season and will need updated for the 2026-growing season. In addition, if any of the following events occur, the plan will need to be updated before the 2025-growing season.

1. A change in the planned crop or a change in acreage of 10 percent or greater, or 30 acres, whichever is less.
2. Modification of the sidedress application of nitrogen based on PSNT results.
3. Adjustments to the nutrients applied or manure application additions.
4. A change in animal units of 10 percent or greater or changes in housing of animals.
5. New manure or soil analysis (minimum of once every 2 years).
6. New soil analysis taken.

Soil samples should be collected at least every other year to maximize utilization of soil nutrients

Crop rotation is important to prevent soil borne diseases and to use soil nutrients efficiently.

Split applications of nitrogen on environmentally sensitive sites reduce potential for runoff and leaching. Utilization of a Pre-Sidedress Nitrogen Test (PSNT) or tissue test can help determine additional N requirements during the growing season. **Fall Soil Nitrate Test (FSNT) is now required prior to fall application (September 10 through December 15) of nitrogen on wheat or barley to be harvested for grain to determine crop need.**

Each year all application equipment including the planter should be calibrated to ensure the correct rate of nutrients are applied. Application of nutrients should be timed as close as possible to crop growth or uptake and placed near the root zone for efficient crop use. Application to ground that is frozen 2 inches or greater and/or snow covered 1 inch or greater is prohibited. Application to saturated ground must be avoided. Winter applications are defined as occuring from December 16-March 1 and setbacks of 100 feet from surface waters must be maintained. Emergency winter applications may be made if the operation has inadequate storage, a non-stackable manure(greater than 75% moisture), and no other reasonable option to manage it. All applications shall be made in accordance with MDA's restrictions. The operator must obtain permission from MDA's regional office before winter application occurs. All applications of organic/manure materials should be incorporated within 48 hours unless applied to a hay crop or HEL designated ground or the ground is under long-term no-till practices.

Storage of manure and other organic waste products should be in an appropriate roofed structure or covered with an impermeable cover. If no structure is available, manure and other organic waste products must be in a 6-foot conical pile, and staged temporarily in a way that will prevent nutrient runoff. Any material that is temporarily stockpiled must be land applied the following spring, by June 30th.
When choosing a site to temporarily store manure and other organic waste products, wetlands and low lying areas should be avoided, as should any site that would allow runoff from storage to enter into any ditch, stream, or other surface water body. Locations for temporary field stockpiling should not be moved place to place. Locations should stay the same.

When choosing an area to temporarily field stockpile, these requirements must be met:

- At least 100 feet from wells, springs, and wetlands *(unless well is down gradient from stockpile, then at least 300 feet from the well)*
- 100 feet from surface waters OR 35 feet when there is 35 feet of vegetative buffer
- At least 200 feet from any residence *(outside of operators property)*
- Away from any areas that are subject to flooding or ponding
- No farther than 150 feet from the top of the slope when area is on more than a 3% grade slope, with no diversion

When the temporary field stockpiled material is applied, the ground shall be thoroughly scraped or cleaned to remove any residual material. Furthermore, the temporary stockpile area must be returned to its original condition. In order to facilitate nutrient uptake, the area may require reseeding with a grass or a crop.

Manure and other organic waste products should not be spread within the following buffer areas:

- 100 feet from wells or springs
- 100 feet from surface waters (unless injected or incorporated) OR 35 feet when there is 35 feet of vegetative buffer
- 35 feet on all sacrifice lots with less than 75% grass or grass legume mix from all streams, water bodies, and areas of water flow

- 50 feet from sinkholes
- 50 feet from limestone rock outcroppings
- 25 feet from other rock outcroppings
- 10 feet from agricultural drainage ditches (5 feet if injected or incorporated within 24 hours)
- **100 feet from occupied dwellings (unless waived in writing by the occupant)**
- **10 feet on all pasture and hay fields for both mechanical and self-applied nutrients from all streams, water bodies, and areas of water flow**

NUTRIENT APPLICATION SETBACKS FROM SURFACE WATER:

Setbacks for Nutrient Application are required in the development of nutrient management plans. Application and livestock setback regulations are contained under the Nutrient Application Requirements, Maryland Department of Agriculture 2012, COMAR 15.20.07.02, Maryland Nutrient Management Manual, 1-D1.

A minimum of a 10' vegetative setback must be in place next to surface water. The chart below indicates if surface water is present that requires a setback on any farm/operation and identifies the fields that are required to have a nutrient application setback. **An application of crop nutrients using a broadcast method either with or without incorporation requires a 35'setback. A directed spray application or the injection of crop nutrients only requires a 10'setback.** Excepting perennial forage crops grown for hay and pasture, vegetation in the 10' setback area may not include plants that would be considered part of the crop grown in the field (i.e. row crops). Pastures and hayfields are subject to a 10' and/or a 35' nutrient application setback depending on application methods. Nutrients may not be applied within the 10' setback.

Livestock on pasture are required to meet the minimum 10' setback by means of fencing unless a Best Management Practice (BMP) is approved by MDA or a Soil Conservation and Water Quality Plan is developed and implemented that prescribes an alternative to fencing animals 10' from surface water. Alternative BMP's may include stream crossings, watering facilities, pasture management, or other practices that are equally protective of water quality. Sacrifice lots for livestock require a 35' setback from surface water.

If nutrients are custom-applied, it is the operator's responsibility to inform the applicator of the setback distance based on the method of application.

			Nutrient Application Setback Requirements Indicate with "Yes" in appropriate column(s))		
Farm Name(s)	**Is Surface Water Present on the farm that requires a setback (Yes or No)**	**Field(s) requiring a Nutrient Application Setback***	**Livestock on Pasture ≥ 10 ft.**	**Directed Application ** ≥ 10 ft.**	**Broadcast Application or Sacrifice Lots *** ≥ 35 ft.**
Fox	No				
Home	No				
Iron Hill	No				
Johnston	No				
Lepter	No				

*** If a field contains multiple sources of surface water (i.e. a pond and a stream), list each separately or identify on the map.**

** **Directed Application** = Directed Spray Application (Vertical Fan or Drop Nozzle), Air Flow Application, Knifed/Injected application of Nutrients, Planter Applied nutrients

*** **Broadcast Application or Sacrifice Lots** = Spinner Spreaders (Manure or Fertilizer), High Volume Horizontal Nozzles, Manure Spreaders (Box type with beaters, Splasher plates for liquid, Side Discharge V-Type)

Manure Management

Animal Type	Number of Animals	Total Generated	Total Collected	Total Used		Total Exported
				Rate/Ac	Field	
Broiler	75,000	683T	523T	3T	***Fox*** 9,10,11, 12,13, ***Johnston*** 1, ***Lepter*** 9	NA
Beef feeders	16	146T	none	6T uncoll	P1,P2	NA

The farm has 3 broiler houses with a capacity of 75,000 birds per flock. The houses get an average of 4.5 flocks/year. Birds have a finish weight of about 10.5lbs. Cleanout schedules are dictated by the integrator. A 40'X140' manure storage shed is located on site.
When applied at 3T/acre, broiler manure will have a nutrient value of 117-122-164.
Beef feeders are housed on pasture. All generated manure is uncollected. When dispersed on the pasture at a rate of 6T/ acre, uncollected manure will provide a nutrient content of 32-48-95.
Residual nitrogen from 2024 is 14lbs from broiler manure, and 14lbs from uncollected manure.

Anyone importing spent mushroom substrate, food waste products, or other organic material shall make sure imported product has a current registration with the state chemist. The generator or broker is responsible for providing a current registration. If the sender does not provide a current registration, the product shall not be imported.

Best Management Practices

Best management practices could be added to the farming operation. **Manure application equipment should always be calibrated** at the onset of application to better gage the application rate per acre. Manure should be sampled at the time manure is being removed at least every 2 years until a base line of nutrient content is established.

Immediate incorporation would make the most efficient use of nitrogen. Immediate incorporation would also reduce odor and fly problems.

Application of nutrients should be timed as close as possible to crop growth or uptake and placed near the root zone for efficient crop use. Application to saturated, frozen or snow-covered ground should be avoided unless a crop covers the ground.

Split applications of nitrogen on environmentally sensitive sites reduce potential for runoff and leaching. Utilization of a **Pre-Side Dress Nitrogen Test (PSNT)** or **tissue test** can help determine additional N requirements during the growing season. **Fall Soil Nitrate Test (FSNT) is now required prior to fall application of nitrogen on wheat or barley to determine crop need.**

Operators are responsible for sediment and erosion control of stream crossings. Livestock must travel across a stream crossing designed to prevent erosion and sediment loss. Operators must gate a crossing area wider than 12 feet.

Soil testing revealed 2 field(s) with Phosphorus levels above a FIV 150.

FIELDS w/ Phosphorus FIV Levels ≥150 These fields will not receive any

FARM	FIELD	FIV LEVEL	N or P Based *
Home	P1	298	N
Home	P2	298	N

additional P nutrients prior to running the PMT.

Note: Home P1, P2 are both in pasture and do not receive any poultry litter or other fertilizer beyond what is deposited by the cows

Soil Summary from Waypt MD

Farm	Field	Acres	Last Test	Crop		OM	CEC	pH	P	P	K	% Saturation		
				2024	2025				ppm	FIV	ppm	K	Mg	Ca
Fox	5	22.0	03/14/23	C	SB	3.1	5.5	6.1	40	46	123	5.7	18.2	61.1
Fox	6	12.0	03/14/23	C	SB	3.5	6.7	6.3	42	48	117	4.5	19.5	65.1
Fox	7	12.0	03/14/23	C	SB	3.2	6.2	5.9	31	36	99	4.1	17.2	59.7
Fox	8	10.0	03/14/23	C	SB	3.4	5.1	5.3	40	46	112	5.6	13.7	47.8
Fox	9	25.0	03/14/23	SB	C	2.7	5.3	6.0	45	51	106	5.1	14.6	63.7
Fox	10	48.0	03/14/23	SB	C	3.1	6.3	6.2	64	72	111	4.5	16.5	65.9
Fox	11	15.0	03/14/23	SB	C	3.2	5.8	5.8	31	36	129	5.7	15.8	58.3
Fox	12	15.0	03/14/23	SB	C	3.2	6.6	6.4	55	62	126	4.9	22.0	62.8
Fox	13	15.0	03/14/23	SB	C	3.2	6.6	6.4	55	62	126	4.9	22.0	62.8
Home	1	30.0	03/14/23	C	SB	2.5	5.8	6.0	89	99	163	7.2	17.5	58.5
Home	2A	17.5	03/14/23	C	SB	2.9	5.3	5.8	72	81	201	9.7	15.9	54.7
Home	2B	17.5	03/14/23	C	SB	2.9	5.3	5.8	72	81	201	9.7	15.9	54.7
Home	3A	28.0	03/14/23	C	SB	3.1	6.1	6.1	61	69	178	7.5	19.9	58.3
Home	3B	28.0	03/14/23	C	SB	3.1	6.1	6.1	61	69	178	7.5	19.9	58.3
Home	4	45.0	03/14/23	C	SB	3.2	6.3	6.0	38	44	112	4.6	18.3	60.7
Home	**P1**	**12.0**	**03/14/23**	**Past**	**Past**	**4.4**	**9.8**	**6.2**	**272**	**298**	**195**	**5.1**	**16.2**	**65.9**
Home	**P2**	**16.0**	**03/14/23**	**Past**	**Past**	**4.4**	**9.8**	**6.2**	**272**	**298**	**195**	**5.1**	**16.2**	**65.9**
Iron Hill	1	67.7	03/14/23	SB	SB	2.5	5.7	6.2	64	72	104	4.7	18.0	64.2
Iron Hill	2	9.9	03/14/23	C	SB	3.5	6.7	5.8	70	79	111	4.2	19.8	55.9
Iron Hill	3	35.4	03/14/23	C	SB	3.1	6.3	5.8	54	61	87	3.5	19.8	56.7
Johnston	1	67.0	03/14/23	SB	C	3.1	5.6	6.5	50	57	142	6.5	21.1	63.7
Johnston	2	65.0	03/14/23	C	SB	3.1	5.7	6.2	65	73	168	7.6	16.5	62.3
Lepter	1	40.0	02/13/24	C	SB	2.9	5.1	6.0	58	65	93	4.7	19.0	59.8
Lepter	2	50.0	02/13/24	C	SB	2.5	5.7	6.6	58	65	142	6.4	27.2	59.1
Lepter	3	62.0	02/13/24	C	SB	2.8	7.2	6.5	48	55	70	2.5	24.1	64.7
Lepter	4	50.0	02/13/24	C	SB	2.9	6.9	6.5	129	143	136	5.1	26.6	59.8
Lepter	5	40.0	02/13/24	C	SB	2.5	6.3	6.3	115	127	121	4.9	26.1	57.5
Lepter	6	80.0	02/13/24	SB	C	2.8	6.2	6.4	107	119	215	8.9	23.9	57.0
Lepter	7	50.0	02/13/24	SB	C	2.6	6.5	6.5	112	124	111	4.4	27.3	59.6
Lepter	8	50.0	02/13/24	SB	C	2.4	7.8	6.5	121	134	122	4.0	28.1	59.0
Lepter	9	40.0	02/13/24	SB	C	2.9	7.3	6.5	119	132	112	3.9	22.4	66.0
Lepter	10	7.0	02/13/24	C	SB	2.5	5.8	6.5	59	67	119	5.3	28.0	59.3

Field Specific Information

Farm	Field	Acres	Crop		Yield Goal[1]	Total Nutrients Allowed (lb/ac)[2]			Residual Nitrogen (lb/ac)			Tillage
									Manure		Legume	
			2024	2025		N	P_2O_5	K_2O	2023	2024	2024	
Fox	5	22	C	SB	65	0	118	78				MIN
Fox	6	12	C	SB	65	0	118	78				MIN
Fox	7	12	C	SB	65	0	118	78				MIN
Fox	8	10	C	SB	65	0	118	78				MIN
Fox	9	25	SB	C	250	250	63	104			20	MIN
Fox	10	48	SB	C	250	250	63	104			20	MIN
Fox	11	15	SB	C	250	250	131	104			20	MIN
Fox	12	15	SB	C	250	250	63	104			20	MIN
Fox	13	15	SB	C	250	250	63	104			20	MIN
Home	1	30	C	SB	65	0	64	78				MIN
Home	2A	17.5	C	SB	65	0	64	0				MIN
Home	2B	17.5	C	SB	65	0	64	0				MIN
Home	3A	28	C	SB	65	0	64	78				MIN
Home	3B	28	C	SB	65	0	64	78				MIN
Home	4	45	C	SB	65	0	118	78				MIN
Home	P1	12	Past	Past	4T	200	0	0		14		NONE
Home	P2	16	Past	Past	4T	200	0	0		14		NONE
Iron Hill	1	67.7	SB	SB	65	0	64	78				MIN
Iron Hill	2	9.9	C	SB	65	0	64	78		14		MIN
Iron Hill	3	35.4	C	SB	65	0	64	155		14		MIN
Johnston	1	67	SB	C	250	250	63	104			20	MIN
Johnston	2	65	C	SB	65	0	64	78		14		MIN
Lepter	1	40	C	SB	65	0	64	78				MIN
Lepter	2	50	C	SB	65	0	64	78				MIN
Lepter	3	62	C	SB	65	0	64	155				MIN
Lepter	4	50	C	SB	65	0	0	78				MIN
Lepter	5	40	C	SB	65	0	0	78				MIN
Lepter	6	80	SB	C	210	210	0	0			20	MIN
Lepter	7	50	SB	C	210	210	0	84			20	MIN
Lepter	8	50	SB	C	210	210	0	84			20	MIN
Lepter	9	40	SB	C	210	210	0	84			20	MIN

Field Specific Information

Farm	Field	Acres	Crop		Yield	Total Nutrients Allowed (lb/ac)[2]			Residual Nitrogen (lb/ac)			Tillage
									Manure		Legume	
			2024	2025	Goal[1]	N	P_2O_5	K_2O	2023	2024	2024	
Lepter	10	7	C	SB	65	0	64	78				MIN

1. Yield goal based onpast history provided by the operator.
2. Recs are the max nutrient tolerances (withstanding certain exceptions) handed down by the Univ of MD based on your soil test results for the prescribed crop.

Summary of Nutrient Recommendations

Farm	Field	Acres	Crop	Yield Goal[1]	Actual Nutrient Recommendations						
					Lime	Manure[2]	Nitrogen[3] Credit	Starter[4]	Additional Commercial Fertilizers		
			2025	(Bu/A)	(ton/ac)	(ton/ac)		(lb/ac)	N	P_2O_5	K_2O
Fox	5	22	SB	65					10	40	80
Fox	6	12	SB	65					10	40	80
Fox	7	12	SB	65					10	40	80
Fox	8	10	SB	65					10	40	80
Fox	9	25	C	250		3T Broiler	137		113	0	50
Fox	10	48	C	250		3T Broiler	137		113	0	50
Fox	11	15	C	250		3T Broiler	137		113	0	50
Fox	12	15	C	250		3T Broiler	137		113	0	50
Fox	13	15	C	250		3T Broiler	137		113	0	50
Home	1	30	SB	65					10	25	60
Home	2A	17.5	SB	65					10	25	60
Home	2B	17.5	SB	65					10	25	60
Home	3A	28	SB	65					10	30	60
Home	3B	28	SB	65					10	30	60
Home	4	45	SB	65					10	40	80
Home	P1	12	Past	4T		6T uncoll	46		50	0	0
Home	P2	16	Past	4T		6T uncoll	46		50	0	0
Iron Hill	1	67.7	SB	65					10	30	80
Iron Hill	2	9.9	SB	65			14		10	30	80
Iron Hill	3	35.4	SB	65			14		10	30	80
Johnston	1	67	C	250		3T Broiler	137		113	0	50
Johnston	2	65	SB	65			14		10	30	80
Lepter	1	40	SB	65					10	30	80
Lepter	2	50	SB	65					10	30	80
Lepter	3	62	SB	65					10	30	80
Lepter	4	50	SB	65					10	0	80
Lepter	5	40	SB	65					10	0	80
Lepter	6	80	C	210			20		190	20	70
Lepter	7	50	C	210			20		190	20	70
Lepter	8	50	C	210			20		190	20	70
Lepter	9	40	C	210		3T Broiler	137		73	0	50

Summary of Nutrient Recommendations

Lepter	10	7	SB	65					10	30	80
1.	Yield goal based on past history.										
2.	Broiler manure at 3tons/ acre provides 117-122-164 and uncollected beef manure will provide 32-48-95.										
3.	Nitrogen credit includes current and past manure applications as well as previous legume crop.										
4.	No starter applied.										
5.	Additional Fertilizer-										
	Corn- Broadcast recommended fertilizer where indicated prior to planting. Split apply indicated nitrogen with herbicides and at sidedress.										
	Soybeans- Broadcast recommended fertilizer where indicated prior to planting.										
	Pasture- Apply indicated fertilizer at green-up in the spring.										
Alfalfa and other legumes – It is recognized by both the planner and the grower that nitrogen is not needed for these crops. The fertilizer blend used had the lowest possible nitrogen value while still providing other nutrients needed by the crop.											

Summary Sheet of Plan Content

Animal Type and Number: Broiler- 75,000birds/flock, 4.5 flocks/year, Beef feeders- 16

Manure Quantity Generated Per Year: Broiler- 683T, Beef feeders- 146T

Manure Quantity Collected Per Year: Broiler- 523T, Beef feeders- none

Manure Imported, Type and Quantity Per Year:

Manure Exported, Type and Quantity Per Year:

Total Acres In Plan: 1,082.0 acres
Total Irrigated Acres:

Account ID information:

Consultant Name: Don Moore, CCA

Certificate Number: MD-1048

License Number: MD-2175

Summary of Nutrient Use:

Crop*	Acres	Total Pounds available nutrients applied from:											
		Commercial Fertilizer			Manure			Biosolids (sludge)			Other Organic Sources (SMS)		
		N	P_2O_5	K_2O	N	P_2O_5	K_2O	N	P_2O_5	K_2O	N	P_2O_5	K_2O
SB	649.00	6,490	17,455	49,500									
C	405.00	58,025	3,600	23,850	26,325	27,450	36,900						
Past	28.00	1,400											
Total	**1,082.0**	**65,915**	**21,055**	**73,350**	**26,325**	**27,450**	**36,900**						

* For small grains, specify whether nutrients were applied in spring or fall.

Type	Maintain Records of:	Frequency	Applicable to Liquid/Dry Manure Handling or Both
Land & No-Land	Any transfers of manure, litter, and process wastewater, will include the following information: 1.) Name and address of recipient and 2.) Date and quantity transferred. The permittee shall supply the recipient of the animal waste with the most recent annual nutrient analysis of the manure, litter, or process wastewater. If the recipient performs the analysis, the permittee shall obtain a copy and maintain it as part of the permittee's records.	Each occurrence	Both
Land	Each application event where manure, litter, or process wastewater is applied. Including 1.) Fields where animal waste is distributed, using field names consistent with those in the required plan, 2.) Application method, rate, time and date, 3.) Soil conditions, including instances of ponding or runoff, saturated soil, and frozen ground or snow covered ground and 4.) Weather conditions, including precipitation and temperature at the time of application and precipitation 24 hours prior to, and following, application.	Each land application event	Both
No-Land	Manure samples shall include the following information, 1.) Date sample taken, 2.) Test methods used to sample and analyze manure, litter, and process wastewater; and 3.) Results from manure, litter, and process wastewater sampling.	Annually	Both
Land & No-Land	Mortality disposal including date, numbers of animals, and method of disposal	As necessary	Both
Land & No-Land	Inspections conducted, including date, of the animal waste storage areas	Weekly	Both
Land	The results of manure samples and soil samples, including the following information, 1.) Date sample taken, 2.) Test methods used to sample and analyze manure, litter, process wastewater, and soil, 3.) Results from manure, litter, process wastewater, and soil sampling and 4.) Total amount of nitrogen and phosphorus actually applied to each field, including documentation of calculations for the total amount applied.	Annually for manure samples, at least once every three years for soil samples	Both
Land	Manure application equipment inspections, including the following information, 1.) Date inspection conducted and 2.) Calibration date; and iii. Maintenance of equipment used for manure application.	At least annually	Both
Land & No-Land	Inspections, including date, of the storm water routing structures	Weekly	Both
Land & No-Land	Inspections, including date, for all indoor and outdoor water lines, including drinking or cooling water lines	Daily	Both
Land & No-Land	The depth of manure and process wastewater, including date of reading, as indicated by the depth marker in all liquid animal waste impoundments	Weekly	Liquid
Land & No-Land	Inspections, including date, of all wastewater operations and pumps	Weekly	Liquid
Land & No-Land	All manure, litter, and wastewater storage structures including the following information, 1.) Date inspection conducted, 2.) Volume for solids accumulation, 3.) Design treatment volume, 4.) Total design storage volume, 5.) Days of storage capacity and 6.) Structural stability inspection of all earthen embankment structures.	As necessary	Liquid
Land & No-Land	Any additional self – inspection and recordkeeping activities required by this General Permit	As necessary	Both

Self-Inspection and Recordkeeping for CAFOs/MAFOs that DO NOT Land Apply (No-Land Operations):

The permittee that transports all and/or some of its manure, litter, or process wastewater to an area that is not under the control of the owner or operator of the no-land operation shall maintain no-land operation records on-site for five years. The records shall be available for inspection by the Maryland Department of the Environment personnel upon request. The record shall also include a notation of periods when the facility is not in operation (out of production).

Nutrient Land Application Log Sheet

Facility Name: _____ **NPDES Permit No.:** _____

Instructions:
For each land application for each field, provide the following information in the table below:

- Date: the date you applied the manure/litter/process wastewater to the field
- Field ID: the field where you applied manure/litter/process wastewater. Use the same field identification that is used in your nutrient management plan
- Method: how you applied the manure/litter/process wastewater (e.g. surface w/incorporation, surface w/out incorporation, subsurface injection…)
- Application Rate: the number of tons or gallons *actually* applied per acre
- Acres Applied: the number of acres the manure/litter/process wastewater was applied to on the field
- Total N: the total amount of nitrogen you applied to the field from animal waste
- Total P: the total amount of phosphorous you applied to the field from animal waste

Date	Field ID	Method	Actual Application Rate	Acres Applied	Total N	Total P

Date	Field ID	Method	Actual Application Rate	Acres Applied	Total N	Total P

Weather and Soil Condition Documentation

When land applying manure/litter/process wastewater, you also need to document the **weather and soil conditions**. Please provide this information in the following table:

Date	Field ID	Weather Conditions			Soil Conditions
		24 hours before	*During*	*24 hours after*	

Manure, Litter, and Wastewater Storage Structures Documentation

Facility Name: _____ NPDES Permit No.: _____

Instructions:
For each storage structure, provide the following information in the table below:

- Structure Type: the type of storage structure (e.g. roofed storage shed, storage pond, anaerobic lagoon…)
- Total Design Storage Volume: the total capacity the storage structure was designed to hold (e.g. 100 ft^3 or 1000 gallons)
- Design Treatment Volume: **(*N/A for dry manure storage)** the treatment capacity the structure was designed to treat
- Days of Storage Capacity: **(*N/A for dry manure storage)** the number of days the structure can accommodate its contents at the rate the operation places waste in it
- Volume for Solids Accumulation: the capacity of the structure available to accumulate solids

Structure Type	**Total Design Storage Volume**	**Design Treatment Volume** (N/A for dry manure storage)	**Days of Storage Capacity** (N/A for dry manure storage)	**Volume for Solids Accumulation**
Poultry Waste Storage Structure	40' x140'		5760	

Manure Application Equipment Inspection and Calibration Record

Facility Name: _____ NPDES Permit No.: _____

Instructions:
Use this form to keep records of your manure equipment inspections. For each inspection, provide the following information in the table below:

- Inspection/Calibration Date: the date of the inspection/calibration
- Calibration Method: method used for calibration (e.g. weight-area method, load-area method…)
- Inspection/Calibration Results: provide statements such as "recalibrated equipment" or "equipment in calibration"
- Date Calibration Corrected: the date that any observed deficiencies were fixed **must be corrected within 30 days*

Inspection/Calibration Date	Calibration Method	Inspection/Calibration Results	Date Re-Calibrated or Fixed*

Maryland
Department of
the Environment

Wes Moore, Governor
Aruna Miller, Lt. Governor

Serena McIlwain, Secretary
Suzanne E. Dorsey, Deputy Secretary

Weekly Storage and Containment Structure Inspections Log Sheet

Facility Name: _____ NPDES Permit No.: _____

Instructions:
Use this form to keep records of weekly visual inspections of the structures you use to store or contain manure/litter/process wastewater. Use a separate form for each structure.

**Any deficiencies observed must be corrected within 30 days*

Storage or Containment Structure: _____

	Date	**Initials**	**Depth Marker Reading** (N/A for dry manure handling)	**OK** (√ if no problems)	**Description of any Deficiencies Observed** (put "N/A" if none observed)	**Date Deficiency Corrected***
Week 1						
Week 2						
Week 3						
Week 4						
Week 5						
Week 6						
Week 7						

	Date	**Initials**	**Depth Marker Reading** (N/A for dry manure handling)	**OK** (√ if no problems)	**Description of any Deficiencies Observed** (put "N/A" if none observed)	**Date Deficiency Corrected***
Week 8						
Week 9						
Week 10						
Week 11						
Week 12						
Week 13						
Week 14						
Week 15						
Week 16						
Week 17						
Week 18						
Week 19						

	Date	Initials	**Depth Marker Reading** (N/A for dry manure handling)	**OK** (√ if no problems)	**Description of any Deficiencies Observed** (put "N/A" if none observed)	**Date Deficiency Corrected***
Week 20						
Week 21						
Week 22						
Week 23						
Week 24						
Week 25						
Week 26						
Week 27						
Week 28						
Week 29						
Week 30						
Week 31						

	Date	Initials	**Depth Marker Reading** (N/A for dry manure handling)	**OK** (√ if no problems)	**Description of any Deficiencies Observed** (put "N/A" if none observed)	**Date Deficiency Corrected***
Week 32						
Week 33						
Week 34						
Week 35						
Week 36						
Week 37						
Week 38						
Week 39						
Week 40						
Week 41						
Week 42						
Week 43						

	Date	**Initials**	**Depth Marker Reading** (N/A for dry manure handling)	**OK** (√ if no problems)	**Description of any Deficiencies Observed** (put "N/A" if none observed)	**Date Deficiency Corrected***
Week 44						
Week 45						
Week 46						
Week 47						
Week 47						
Week 49						
Week 50						
Week 51						
Week 52						

Manure, Litter, and Wastewater Transfer Record Keeping Form

Facility Name: _____ **NPDES Permit No.:** _____

Use this sheet any time that manure or poultry litter is removed from a production or storage area and transferred to other persons (not under the control of your CAFO). Use additional sheets as necessary.

Date of Transfer (indicate whether import or export)	**Manure Type** (e.g. litter, wastewater)	**Name and Address of Person(s) Received From or Transferred To**	**Quantity Transported** (tons/gallons)

Manure, Litter, and Wastewater Storage Structures Documentation

Facility Name: _____ NPDES Permit No.: _____

Instructions:
For each storage structure, provide the following information in the table below:

- Structure Type: the type of storage structure (e.g. roofed storage shed, storage pond, anaerobic lagoon…)
- Total Design Storage Volume: the total capacity the storage structure was designed to hold (e.g. 100 ft^3 or 1000 gallons)
- Design Treatment Volume: **(*N/A for dry manure storage)** the treatment capacity the structure was designed to treat
- Days of Storage Capacity: **(*N/A for dry manure storage)** the number of days the structure can accommodate its contents at the rate the operation places waste in it
- Volume for Solids Accumulation: the capacity of the structure available to accumulate solids

Structure Type	**Total Design Storage Volume**	**Design Treatment Volume** (N/A for dry manure storage)	**Days of Storage Capacity** (N/A for dry manure storage)	**Volume for Solids Accumulation**