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

AI-66597
19AF Pamela
Tempo
Tracker

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
SEP - 8 2020

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: #66597

1. **LEGAL Name of Applicant** *(must match name on required plan)*:
   C. Dale Story

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:** 1709 Barclay Rd.
   City: Barclay **State:** Md. **Zip Code:** 21607

6. **Telephone Number(s) of Applicant:** (Home)
   (Cell) [redacted]

7. **Email of Applicant** [redacted]

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)*: Village View Farm

9. **Farm Address:** 1709 Barclay Rd
   City: Barclay Md. **County:** QA **Zip Code:** 21607

10. **Watershed/Hydrologic Unit Code (HUC)** (12-digit): 021305100420

11. **Latitude/Longitude of Production Area** (Deg/Min/Sec): 39 -08 -35 / 75 -51 -30

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)*
Chicken / Dry	57,000	Medium	House

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

13. ***Number of poultry houses:** 2

14. ***Combined square footage of *all* poultry houses:** 60,000

15. ***Date(s) poultry houses constructed:** 2006

16. ***Integrator** *(check one)*:
   ☐ Allen-Harim ☐ Mountaire
   ☐ Amick ☐ Perdue
   ☑ Coleman ☐ Tyson
   ☐ Other *(please specify)*: _____

   Contact Information: Steve Cameron
   Phone No.: 443-521-0387
   Address: _____

AI-66501

Manure/Mortality Management

17. Total Manure/Litter/Wastewater generated *annually*: 464 *circle one:* (tons) / lbs / gallons)

18. Total Manure/Litter/Wastewater transported offsite *annually*: 326 *circle one* (tons) / lbs / gallons)

19. **Total number of acres controlled by applicant available for land application of manure/litter/process wastewater: *Owned:* 149 *Leased:* 207

***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	12,800 cu ft	Solid

21. Mortality Management Method:

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

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.

C. Dale Story — **Signature of Applicant / duly authorized representative**

8/6/2020 — **Date**

C. Dale Story — **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 ft^2	37,500—124,999 animals *and* less than total house size of 100,000 ft^2	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

COMPREHENSIVE NUTRIENT MANAGEMENT PLAN

Village View

C. Dale Story

1709 Barclay Road

Barclay, Maryland 21607

[redacted]

MAILING ADDRESS

1709 Barclay Road

Barclay, Maryland 21607

PREPARED IN COOPERATION WITH THE

Maryland Department of Agriculture
Office of Resource Conservation

AND THE

Queen Anne's Soil Conservation District

211 East Water Street

Centreville, MD 21617

Prepared by: Nathan Holsey

Plan Date: February 2025

Poultry - Organic Operation (Land Plan)

Concentrated Animal Feeding Operation (CAFO) M.D.E. Agency Interest **# 66597**

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 C. Dale Story 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.

C. Dale Story — 3/17/25

C. Dale Story — Date

Certified Comphrensive 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.

Katie Starr — 3/17/25

Katie Starr — Date

NRCS Planner Certification #167

Nutrient Management Certification # 2053

Queen Anne's Soil Conservation District

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

March 18th, 2025

Anthony Riggi — 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
Home	C. Dale Story	[redacted]	96	118	94.6	02-13-05-10-0420
Brzoska	Brzoska		98	120	92.2	02-13-05-10-0420
Campbell	Campbell		54	62	118.7	02-13-05-10-0419
Clough	Clough		84	161	33.4	02-13-05-10-0421
Cosden	Story		34	41	34.6	02-13-05-10-0420
Davis	Davis		94	114	19.8	02-13-05-10-0420
Hager	Hager		2611	7543	16.5	02-13-04-04-0515
Templeville	C. Dale Story		2396	7315	102.4	02-13-04-04-0515
Truitt	Truitt		106	128	41.1	02-13-05-10-0420

Description of Operation / Additional Information

Village View Farm owned and operated by C. Dale Story is an existing well-vegetated and maintained organic poultry operation in Queen Anne's County, MD. Two poultry houses exist with an average capacity of 57,000 broilers and about 4.5 flocks annually. The parcel is a total of 94.6 acres with approximately 82.75 acres of cropland. The remaining farmstead acres includes the poultry production area, 1.4 acres of organic poultry pasture and 4.7 acres of cow pasture being a total of 11.85 acres the remaining land is a homesite with grain storage and equipment barns. Some generated manure is used on Mr. Story's cropland according to his Nutrient Management plan the rest is exported.

When the poultry pasture (PP) is in use, weekly inspections must be made for any visible pollutant accumulations in the PP (such as manure, poultry litter, or process wastewater), with special attention paid to any excessive concentration of pollutants or pollutants in areas that are not vegetated. A minimum cover of 75% vegetation predominantly in grass or grass legume mix and legumes during the entire period that poultry have access to the PP must be maintained. This provides for nutrient assimilation based on the nutrient requirements of the vegetation in the PP.

To prevent the discharge of pollutants from the poultry pasture, birds may have access to the pasture area for approximately 50 days per year. The time may vary due to climate and age limitations. Birds weigh approximately three lbs. before having access to the PP. It is estimated that birds will have access

Description of Operation / Additional Information

to the PP for six (6) hours per day. At any given time, it is estimated that 1% of the birds will be accessing the pasture area. Information on the amount of manure deposited on the PP, manure analysis and soil test information and the type of vegetation in the PP are included in the "Estimate of Manure Deposited on Poultry Pasture for Integrated Organic Poultry Operations" worksheet included in the Nutrient Management plan.

Sensitive Environmental Information

Name of nearest regulatory waterbody	Distance to nearest regulatory waterbody (ft.)	Distance to nearest regulatory wetland (ft.)
Red Lion Branch	2400	1317

Account ID	12 Digit Watershed	Watershed Name	Tier II High Quality Waters Watershed	Impairments			
				Nitrogen	Phosphorus	Bacteria (e.coli, enterocci or fecal)	Sediment
[redacted]	02-13-05-10-0420	Upper Chester River	Yes	Yes	Yes	Yes	No
	02-13-05-10-0420	Upper Chester River	Yes	Yes	Yes	Yes	No
	02-13-05-10-0419	Upper Chester River	Yes	Yes	Yes	Yes	No
	02-13-05-10-0421	Upper Chester River	No	Yes	Yes	Yes	No
	02-13-05-10-0420	Upper Chester River	Yes	Yes	Yes	Yes	No
	02-13-05-10-0420	Upper Chester River	Yes	Yes	Yes	Yes	No
	02-13-04-04-0515	Upper Choptank	Yes	Yes	Yes	Yes	No
	02-13-04-04-0515	Upper Choptank	No	Yes	Yes	Yes	No
	02-13-05-10-0420	Upper Chester River	Yes	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	6.75	2	57000	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.

Livestock

Animal Type	Class	Average Weight (lbs)	Total Number of Animals	Total Day Equivalents Confined per Year **	Total Day Equivalents Unconfined (on Pasture) per Year **	Collected Solid Manure (tons) **	Uncollected Solid Manure (tons) **	Volume of Collected Liquid (cubic feet) **
Beef		800	30	0	365	356		

** See manure 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

Between every flock the operator windrows or littersaves or both depending on time between next flock coming back in. No crusting is currently done on current litter management. Centers are removed annually and exported or stored in Manure storage shed.

Manure Storage

Manure that is collected from chicken houses after each flock is stored in the poultry manure shed until spring when it is used by the receiving farm. Manure collected during spring crust out could be moved and spread directly onto the receiving farm.
Manure from the beef operation is stored in the beef manure shed and spread on the Home farm in the spring of each year.

Current / Proposed Manure Storage Conditions

Animal Type	Storage Structure	Size of Storage Structure	Storage Capacity	Date Constructed
Poultry - Organic	pwss	40x60	13,200	10/02/2006
Beef	wss	30x50	8,250	6/28/2014

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 - Organic	Sudler Story	740 Dixon Tavern Rd, Barclay, Maryland 21607

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. C. Dale Story 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 - Organic	Composting - Bins/Channels	1 / 10' X 20'	attached to pwss

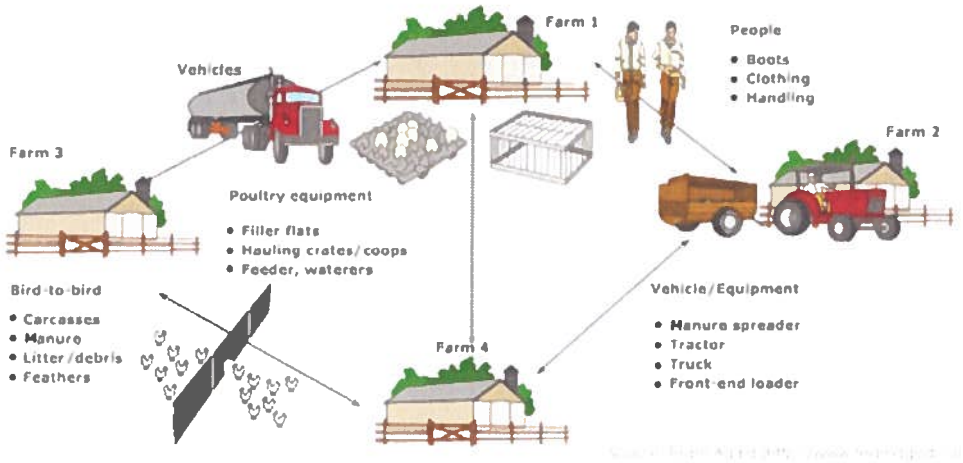
Catastrophic Mortality Management

In the event of catastrophic mortality, the operator will notify MDE, contact the integrator and follow in house poultry waste storage structure composting for catastrophic loss not due to disease. when in house compost for catastrophic mortality due to disease, follow UMD-Ext fact sheets #723 and #801 for guidance

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.

Organic Poultry Pasture Operational Guidance in Maryland

Organic poultry animal feeding operations (AFOs) must comply with the USDA organic standards established by 7 Code of Federal Regulations (CFR) Part 205 - National Organic Program. When weather, age (3+ weeks), predator security, health and safety permit, organic birds have access to outdoor areas [Poultry Pasture*(PP)]. Outdoor areas are fenced and provide fresh air, direct sunlight, shade, vegetative cover, and exercise opportunities that allow birds to engage in natural behaviors.

The PPs are designed to provide the minimum outdoor space requirements for chickens based on maximum stocking density. Outdoor stocking density requirements are referenced in 7 CFR Part 205. Poultry AFOs converted from established broiler operations can utilize vegetated areas between poultry houses and vegetated areas beyond the ends of houses to comply with USDA vegetative organic standards of 7 CFR Part 205. These areas are monitored and managed daily to limit potential nutrient and sediment run-off.

The following actions and documentation are required to mitigate risk and ensure comprehensive compliance & monitoring:

1. To ensure that the PP has the ability to assimilate nutrients deposited by poultry, the PP must be allowed to "rest" or lie fallow for at least 3 weeks between flocks to allow for vegetative nutrient uptake.
2. The PP must maintain a minimum cover of 75% vegetation predominantly in grass or grass legume mix and legumes during the entire period that poultry have access to the PP. Soil type(s) must be identified and considered for the selection of grass or grass legume mix and legumes for the successful establishment of the vegetation and capability to assimilate nutrients in the PP.
3. Except for a tall grass type selected and managed for the purpose of providing tall shade in designated areas at 10% or less tall grass area of total area in the PP, the maximum height of the vegetation shall be maintained not to exceed 10 inches during the period that poultry have access to the PP.
4. Vegetation in the PP must never become denuded to the extent that it cannot be sustained during its normal growing season.
5. The PP must have no ponding or standing water for more than 24 hours.
6. The permittee must maintain records during the operating period of the poultry pasture including:
    a. Record of all days when the PP is in use. The record of all days when the PP is in use can be recorded on a calendar or the same calendar already in use by the producer.
    b. Record of weekly inspections of soil conditions in the PP, including instances of ponding or standing water, runoff or saturated soil.
    c. Record of weekly inspections of the vegetative conditions in the PP.
    d. Record of weekly inspections for any visible pollutant accumulations in the PP (such as manure, poultry litter, or process wastewater), with special attention paid to any excessive concentration of pollutants or pollutants in areas that are not vegetated.
    e. Record of mortality disposal from within the PP including date of mortality, number of deceased animals and method of disposal. The record of mortality disposal within the PP can be recorded on an animal mortality record sheet for the poultry houses.
    f. Record of laboratory soil sample analysis results** for the PP to establish a nutrient baseline and monitor soil fertility values over time. Soil sampling and analysis protocols shall be consistent with Maryland's technical standards at COMAR 15.20.07 and 15.20.08 and, in following UMD guidance for soil sampling, sampling for each management unit (PP). The record of laboratory soil sample results can be contained in the Nutrient Management Plan (NMP).
7. The Comprehensive Nutrient Management Plan (CNMP) shall include a narrative that provides a description of the management and use of the PP designed to prevent the discharge of pollutants to waters of the State. The narrative may include but not be limited to the estimated schedule of poultry managed on the PP, the number of flocks managed on the PP in a calendar year, the type of vegetation and/or tree species established, and best management practices installed and

implemented. A conservation plan map shall delineate the boundaries of the PP and be included in the CNMP.

8. The Nutrient Management Plan (NMP) shall include a worksheet to calculate the manure deposited on the PP on a yearly basis. The "Estimate of Manure Deposited on Poultry Pasture For Integrated Organic Poultry Operations" has been developed by the University of Maryland Extension and may be used to provide this calculation.
9. Organic matter or carbon amendments, synthetic or non-synthetic materials, or practices as referenced in 7 CFR Part 205 may be applied or used in the PP for the purposes of improving soil organic matter content, improving organic crop production, and maintaining vegetative growth and vigor to maximize nutrient assimilation from the manure deposited by poultry. Crop fertility recommendations for the PP must be generated and followed in accordance with a NMP as required in COMAR 15.20.07 and 15.20.08.

* Poultry Pasture defined by 19AF NPDES Permit No. MDG01 (page 9 of 35): "means an area of an organic poultry CAFO or MAFO where chickens are allowed access to areas outside a poultry house. The Poultry Pasture allows for raising poultry on pasture in addition to indoor confinement. The Poultry Pasture is not considered part of the production area as long as the pasture area is managed to sustain vegetation during the normal vegetative growing season."

** The laboratory soil sample results may include analysis of soil organic matter to evaluate PP management decisions for the improvement of soil aeration, root growth, nutrient holding capacity, infiltration, and biological activity.

References:

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https://mda.maryland.gov/resource_conservation/Documents/15.20.08.pdf

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https://mda.maryland.gov/resource_conservation/Documents/nm_manual/1-D1-1-1D1-6.pdf

Clients(s): C DALE STORY
Location: F:96 T:118
Approximate Acres: 94.6 ac
Approximate Cropland: 82.75 ac

Date: 1/29/2025

Conservation Plan Map

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 376
Feet

Conservation Practice Points
- Waste Storage Facility (313)
- Animal Mortality Facility (316)
- Roofs and Covers (367)

Conservation Practice Lines
- Fence (382)
- 512 Pasture and Hay Planting

Conservation Practice Polygons
- Heavy Use Area Protection (561)
- Practice Schedule PLUs

USDA

United States Department of Agriculture

Natural Resources Conservation Service

CONSERVATION PLAN

C DALE STORY

Nathan Holsey
CENTREVILLE, MARYLAND

Nathan.Holsey@md.nacdnet.net
1/29/2025

QUEEN ANNE'S COUNTY SERVICE CENTER
215 E WATER ST
CENTREVILLE, MD 21617-1101
(410) 758-1671

Conservation Plan

C DALE STORY
1709 BARCLAY RD
BARCLAY, MD 21607

OBJECTIVE(S)

Commercial poultry operation operated by DALE STORY raising broilers for Coleman Farms wtih small beef herd of less than 15 head. Adjacent farmland is traditional corn/soybean
rotation with ephasis on soil health. The primary objective of this plan is to provide a schedule of best management practices BMP'swhich if implemented will improve the productivity of the farm while reducing their mpact of the farm
operations on the environment. This plan is subject to change and may be updated at any time based on the goals of the operator, available level of resources, and the nature of the farm operation.

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: 118

Fence (382)

Fence - Install fence to meet management objectives.

Field	Planned Amount	Month	Year	Applied Amount	Date
3	634.00 Ft	01	2008	634.00 Ft	01/01/2008
3	2268.00 Ft	01	2013	2268.00 Ft	01/01/2013
3	520.00 Ft	01	2016	520.00 Ft	01/01/2016
3	515.00 Ft	01	2016	515.00 Ft	01/01/2016
Total:	3937.00 Ft	--	--	3937.00 Ft	--

Farmstead

Tract: 118

Animal Mortality Facility (316)

Composting - Construct an on-farm mortality composting facility for the treatment or disposal of animal carcasses due to routine mortality.

Field	Planned Amount	Month	Year	Applied Amount	Date
4	1.00 No	01	2006	1.00 No	10/02/2006
Total:	1.00 No	--	--	1.00 No	--

Composting Facility (317)

Compost Facility - Construct a structure or install a device to contain and facilitate an aerobic microbial ecosystem for the decomposition of manure, other organic material, or both, into a final product sufficiently stable for storage, onfarm use, and application to land as a soil

amendment.

Field	Planned Amount	Month	Year	Applied Amount	Date
4	1.00 No	01	2006	01	2006
Total:	1.00 No	--	--	01	2006

Heavy Use Area Protection (561)

Stabilization - Stabilize or protect an intensively used area.

Field	Planned Amount	Month	Year	Applied Amount	Date
4	1600 SqFt	05	2006	1600 SqFt	05/19/2006
4	1600 SqFt	05	2006	1600 SqFt	05/19/2006
4	1600 SqFt	09	2008	1600 SqFt	08/25/2008
4	1600 SqFt	09	2008	1600 SqFt	08/25/2008
4	1600 SqFt	09	2008	1600 SqFt	08/25/2008
4	1600 SqFt	09	2008	1600 SqFt	08/25/2008
4	1600 SqFt	10	2014	1600 SqFt	08/25/2014
Total:	11,200 SqFt	--	--	11,200 SqFt	--

Roofs and Covers (367)

A rigid, semirigid, or flexible manufactured membrane,
composite material, or roof structure placed over a waste management facility,
agrichemical handling facility, or an on-farm secondary containment facility.

Field	Planned Amount	Month	Year	Applied Amount	Date
4	1.00 No	10	2014	1.00 No	09/16/2014
Total:	1.00 No	--	--	1.00 No	--

Waste Storage Facility (313)

Waste Storage Facility - Make an agricultural waste storage impoundment or containment by constructing an embankment, excavating a pit or dugout, or by fabricating a structure.

Field	Planned Amount	Month	Year	Applied Amount	Date
4	1.00 No	01	2006	1.00 No	10/02/2006
4	1.00 No	10	2014	1.00 No	08/28/2014
Total:	2.00 No	--	--	2.00 No	--

CERTIFICATION OF PARTICIPANTS

C Dale Story — C DALE STORY — 3/17/25 — DATE

CERTIFICATION OF:

CERTIFIED PLANNER — 3/18/25 — DATE

CONSERVATION DISTRICT — QUEEN ANNE'S SCD — March 18, 2025 — DATE

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
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).

Date: 12/16/2024

Soils Map and Report

Client(s): C DALE STORY
Location: F: 96 T: 118
Queen Anne's County, Maryland
Approximate Acres: 89.29

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 752
Feet

Conservation Practice Points
- Waste Storage Facility (313)
- Animal Mortality Facility (316)
- Roof Runoff Structure (558)
- Roofs and Covers (367)
- 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)

Queen Anne's County, Maryland

Map Unit: CaA--Carmichael loam, 0 to 2 percent slopes

Component: Carmichael, drained (45%)

The Carmichael, drained component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 high. 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Carmichael, undrained (35%)

The Carmichael, undrained component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 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 (depth from the mineral surface is 4 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is

about 5 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Pineyneck (10%)

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

Component: Corsica, undrained (5%)

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

Component: Fallsington, drained (5%)

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

Map Unit: HvA--Hurlock sandy loam, 0 to 2 percent slopes

Component: Hurlock, drained (42%)

The Hurlock, drained component makes up 42 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Hurlock, undrained (38%)

The Hurlock, undrained component makes up 38 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 occasionally ponded. A seasonal zone of water saturation is at 5 inches (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 2 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton 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.

Component: Klej (5%)

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

Component: Mullica, drained (5%)

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

Map Unit: IgB--Ingleside sandy loam, 2 to 5 percent slopes

Component: Ingleside (75%)

The Ingleside component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of loamy eolian deposits and/or 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches

during January. Organic matter content in the surface horizon is about 1 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown 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: Downer (5%)

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

Component: Cedartown (5%)

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

Component: Rosedale (5%)

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

Map Unit: MqA--Mattapex-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. This component is on flats, 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 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

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, Coastal Plain uplands. The parent material consists of silty eolian deposits over sandy or loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 24 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.

Component: Crosiadore (10%)

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: Pineyneck (5%)

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

Component: Carmichael, drained (3%)

Generated brief soil descriptions are created for major soil components. The Carmichael, drained 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: PiA--Pineyneck silt loam, 0 to 2 percent slopes

Component: Pineyneck (80%)

The Pineyneck 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 loamy 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 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 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 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Unicorn (10%)

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

Component: Carmichael, drained (5%)

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

Component: Greenwich (5%)

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

Map Unit: UsA--Unicorn-Sassafras loams, 0 to 2 percent slopes

Component: Unicorn (45%)

The Unicorn component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of loamy 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. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 2 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 1. Irrigated land capability classification is 1 This soil does not meet hydric criteria.

Component: Sassafras (35%)

The Sassafras component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, 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 1. Irrigated land capability classification is 1 This soil does not meet hydric criteria.

Component: Pineyneck (5%)

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

Component: Greenwich (5%)

Generated brief soil descriptions are created for major soil components. The Greenwich 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: Ingleside (5%)

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

Data Source Information

Soil Survey Area: Queen Anne's County, Maryland

Survey Area Data: Version 21, Sep 06, 2024

Soils Inventory Report

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
118	1	CaA	Carmichael loam, 0 to 2 percent slopes	14.5	38%
118	1	IgB	Ingleside sandy loam, 2 to 5 percent slopes	2.3	6%
118	1	MqA	Mattapex-Butlertown silt loams, 0 to 2 percent slopes	10.6	28%
118	1	PiA	Pineyneck silt loam, 0 to 2 percent slopes	10.9	28%
			Total	**38.3**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
118	2	CaA	Carmichael loam, 0 to 2 percent slopes	7.2	37%
118	2	PiA	Pineyneck silt loam, 0 to 2 percent slopes	7.5	39%
118	2	USA	Unicorn-Sassafras loams, 0 to 2 percent slopes	4.6	24%
			Total	**19.3**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
118	3	CaA	Carmichael loam, 0 to 2 percent slopes	17.2	70%
118	3	HvA	Hurlock sandy loam, 0 to 2 percent slopes	1.8	7%
118	3	PiA	Pineyneck silt loam, 0 to 2 percent slopes	5.5	22%
			Total	**24.5**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
118	4	CaA	Carmichael loam, 0 to 2 percent slopes	0.7	10%
118	4	HvA	Hurlock sandy loam, 0 to 2 percent slopes	0.4	6%
118	4	PiA	Pineyneck silt loam, 0 to 2 percent slopes	6.0	85%
			Total	**7.1**	**100%**
			Grand Total	**89.2**	**100%**

AFO RESOURCE CONCERNS EVALUATION WORKSHEET

Name:	C. Dale Story	**Agency Interest #:**	66597
Planner:	Nathan Holsey	**Farm # / Tract #:**	96 / 118
Site Visit Date:	12/3/2024	**Total Acres:**	94.6
County:	Queen Anne's	**Production Area Acres:**	8

	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	☐	☒	No feedlot resource concerns have been identified. BMPs have been constructed to mitigate the potential for discharges.
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	☐	☒	No resource concerns have been identified.
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	☐	☒	No Maryland regulated waterways have been identified on the property.
q.	Wetlands	☐	☒	No Maryland regulated wetlands have been identified on the property.)

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.	February 2017

The schedule of conservation practices presented here has been reviewed by C. Dale Story, who is responsible for compliance with the requirements of the agricultural farm operation.

I, C. Dale Story, 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 Queen Anne's Soil Conservation District and have this schedule revised.

C. Dale Story

C. Dale Story

3/17/25

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.

Animal Mortality Facility (316)

- Facilities for normal mortality will be operated or used on a regular basis. At each operation or use, inspect the facility to note any maintenance needs or indicators of operation problems, and promptly make repairs or adjustments to operation of the facility.
- Follow the management plan requirements for:
- The mix proportions, moisture requirements, and materials used.
- The sizing requirements.
- The timing of the disposal/utilization process including loading, unloading, and turning or aeration of the material.
- Temperature monitoring requirements, including a temperature log.
- What must be done to prevent scavenging animals and leachate problems.
- Bio-security requirements.
- If catastrophic mortality occurs, contact NRCS or the Soil Conservation District for assistance concerning proper disposal of the mortality.

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.

Roof Runoff Structure (558)

- Keep roof runoff structures clean and free of obstructions that reduce flow.
- Make regular inspections and perform repair maintenance as needed to ensure proper functioning of the roof runoff structures.

Fence (382)

- Inspect fences at least annually for structural integrity. Fences located near trees should be inspected after severe weather. In areas that flood, inspect fences after each storm event. Perform maintenance in a timely manner and promptly repair worn or otherwise damaged sections.
- Control the encroachment of weeds, brush, and trees along fences by mechanical or chemical methods to prevent them from damaging or otherwise impacting the life and function of the fence.
- For electric fences:
- Inspect insulators, energizers (chargers), and other components frequently (and especially after lightning storms) for proper function. Replace worn, damaged, or otherwise nonfunctional components.
- Keep all metallic implements away from electric fence lines. Do not tether animals with chains near any electric fences.
- Warn children that electric fencing is being used and let neighbors know where and how to shut off the current. Post warning signs every 150 – 200 feet in areas with public access.

Forage and Biomass Planting (512)

- Evaluate forage and biomass stands at least once each season, or more frequently as needed to determine appropriate management to achieve the desired purpose(s) of the planting.
- Apply soil amendments periodically, based on soil test results, to meet desired yield goals, promote plant regrowth, and help maintain the life of the stand. The use of commercial fertilizer and other forms of plant nutrients must be in compliance with Maryland nutrient management regulations.
- Control undesirable plants by mowing or spraying with a selective herbicide. To the extent feasible, "spot" spray or mow to control weeds, so that desirable plants are not destroyed unnecessarily. Noxious weeds must be controlled as required by state law.
- Control insects and/or diseases when an infestation threatens stand survival. Follow a pest management plan concerning the timing and methods of treatment.
- When optimum wildlife habitat is desired, do not mow, burn, or mechanically harvest fields during the nesting season. For Maryland, the primary nesting season is April 15 through August 15. Infrequent grazing may be allowed during the primary nesting season, provided the area is not grazed below 6 to 8 inches. During the establishment period, mowing may be needed during the nesting season to reduce heavy competition from annual weeds.
- Comply with 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 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 Map
- Soils Map
- Soils Descriptions
- RUSLE2 Soil Loss Calculations

Date: 1/22/2025

Client(s): C DALE STORY
Location: T:120
Queen Anne's County, Maryland
Approximate Acres: 70.74

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 752
Feet

Conservation Practice Polygons
- Conservation Crop Rotation (328)
- Cover Crop (340)
- Nutrient Management (590)
- Residue and Tillage Management, Reduced Till (345)
- Practice Schedule PLUs

USDA

Date: 2/19/2025

Soils Map and Report

Client(s): C DALE STORY
Location: T: 120
Queen Anne's County, Maryland
Approximate Acres: 70.74

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 752
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)

Queen Anne's County, Maryland

Map Unit: CaA--Carmichael loam, 0 to 2 percent slopes

Component: Carmichael, drained (45%)

The Carmichael, drained component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 high. 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Carmichael, undrained (35%)

The Carmichael, undrained component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 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 (depth from the mineral surface is 4 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is

about 5 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Pineyneck (10%)

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

Component: Corsica, undrained (5%)

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

Component: Fallsington, drained (5%)

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

Map Unit: CoA--Corsica mucky loam, 0 to 2 percent slopes

Component: Corsica, undrained (55%)

The Corsica, undrained component makes up 55 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad depressions, flats, uplands. The parent material consists of loamy fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 frequently ponded. A seasonal zone of water saturation is at 2 inches (depth from the mineral surface is 0 inches) during January, February, March, April. Organic matter content in the surface horizon is about 38 percent. Below this thin organic horizon the organic matter content is about 12 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Corsica, drained (25%)

The Corsica, drained component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of loamy fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 rarely ponded. A seasonal zone of water saturation is at 5 inches during January, February, March. Organic matter content in the surface horizon is about 9 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Fallsington, drained (5%)

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

Component: Kentuck, undrained (5%)

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

Component: Hurlock, drained (5%)

Generated brief soil descriptions are created for major soil components. The Hurlock, drained 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: HnB--Hammonton sandy loam, 2 to 5 percent slopes

Component: Hammonton (80%)

The Hammonton component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, shallow depressions, 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 moderately well drained. Water movement in

the most restrictive layer is high. 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 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. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Hurlock, drained (5%)

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

Component: Klej (5%)

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

Component: Ingleside (5%)

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

Component: Rosedale (5%)

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

Map Unit: HvA--Hurlock sandy loam, 0 to 2 percent slopes

Component: Hurlock, drained (42%)

The Hurlock, drained component makes up 42 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Hurlock, undrained (38%)

The Hurlock, undrained component makes up 38 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 occasionally ponded. A seasonal zone of water saturation is at 5 inches (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 2 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton 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.

Component: Klej (5%)

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

Component: Mullica, drained (5%)

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

Map Unit: PiB--Pineyneck silt loam, 2 to 5 percent slopes

Component: Pineyneck (75%)

The Pineyneck component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats,

uplands. The parent material consists of loamy 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 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 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. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Unicorn (10%)

Generated brief soil descriptions are created for major soil components. The Unicorn 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: Crosiadore (5%)

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

Component: Ingleside (5%)

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

Data Source Information

Soil Survey Area: Queen Anne's County, Maryland
Survey Area Data: Version 21, Sep 06, 2024

Soils Inventory Report

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
120	1	CaA	Carmichael loam, 0 to 2 percent slopes	6.8	43%
120	1	CoA	Corsica mucky loam, 0 to 2 percent slopes	0.0	0%
120	1	HnB	Hammonton sandy loam, 2 to 5 percent slopes	2.1	13%
120	1	HvA	Hurlock sandy loam, 0 to 2 percent slopes	0.4	3%
120	1	PiB	Pineyneck silt loam, 2 to 5 percent slopes	6.5	41%
			Total	**15.8**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
120	2	CaA	Carmichael loam, 0 to 2 percent slopes	0.3	5%
120	2	CoA	Corsica mucky loam, 0 to 2 percent slopes	0.7	11%
120	2	HvA	Hurlock sandy loam, 0 to 2 percent slopes	5.2	84%
			Total	**6.2**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
120	3	CaA	Carmichael loam, 0 to 2 percent slopes	2.4	44%
120	3	CoA	Corsica mucky loam, 0 to 2 percent slopes	0.9	16%
120	3	HnB	Hammonton sandy loam, 2 to 5 percent slopes	1.3	24%
120	3	HvA	Hurlock sandy loam, 0 to 2 percent slopes	0.9	16%
			Total	**5.5**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
120	4	CaA	Carmichael loam, 0 to 2 percent slopes	2.0	23%
120	4	CoA	Corsica mucky loam, 0 to 2 percent slopes	6.7	77%
			Total	**8.7**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
120	5	CaA	Carmichael loam, 0 to 2 percent slopes	8.0	23%
120	5	CoA	Corsica mucky loam, 0 to 2 percent slopes	22.8	66%
120	5	HnB	Hammonton sandy loam, 2 to 5 percent slopes	0.3	1%
120	5	HvA	Hurlock sandy loam, 0 to 2 percent slopes	3.4	10%
			Total	**34.5**	**100%**
			Grand Total	**70.7**	**100%**

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	*Tract #*	*Field name*
Broska	**120**	**1, 3**

Location	*Soil*	*T value, t/ac/yr*	*Slope length (horiz), ft*	*Avg. slope steepness, %*
USA\Maryland\Queen Annes County	Queen Anne's, MD\Ca Carmichael loam\Carmichael loam 35%	4.0	100	1.0

R Factor	*Annual precip*	*10-yr 24-hr rainfall*	*In Req area?*
180	42.6	5.3	No

Alternatives:

Description	*Base management*	*Contouring*	*Strips / barriers*	*Diversion/terrace, sediment basin*
	CMZ 59\c.Other Local Mgt Records\Dale Story cs cg; air rad; fssb	default	(none)	(none)

Alternatives Results:

Description	*Cons. plan. soil loss*	*Annual total biomass removal, lb/ac*	*Soil conditioning index (SCI)*	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*STIR value*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*	*Equiv. diesel use, gal/ac*	*Energy use, BTU/ac*	*Fuel cost, US$/ac*
	0.93	0	0.487	0.0025	0.90	0.63	10.2	0	6.2	860000	0

Before harvesting crop residue for off-site uses, the following issues need to be considered:

- Impact on wind and water erosion, runoff, and residue cover needed to comply with conservation programs
- Value of nutrients removed in crop residue and impact on fertilizer and lime requirement

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	Tract #	Field name
Broska	120	2

Location	Soil	T value, t/ac/yr	Slope length (horiz), ft	Avg. slope steepness, %
USA\Maryland\Queen Annes County	Queen Anne's, MD\Hr Hurlock sandy loam\Hurlock sandy loam 35%	5.0	100	1.0

R Factor	Annual precip	10-yr 24-hr rainfall	In Req area?
180	42.6	5.3	No

Alternatives:

Description	Base management	Contouring	Strips / barriers	Diversion/terrace, sediment basin
	CMZ 59\c.Other Local Mgt Records\Dale Story cs cg; air rad; fssb	default	(none)	(none)

Alternatives Results:

Description	Cons. plan. soil loss	Annual total biomass removal, lb/ac	Soil conditioning index (SCI)	SCI OM subfactor	SCI FO subfactor	SCI ER subfactor	STIR value	Wind & irrigation-induced erosion for SCI, t/ac/yr	Equiv. diesel use, gal/ac	Energy use, BTU/ac	Fuel cost, US$/ac
	0.50	0	0.521	0.0025	0.90	0.80	10.2	0	6.5	900000	0

Before harvesting crop residue for off-site uses, the following issues need to be considered:

- Impact on wind and water erosion, runoff, and residue cover needed to comply with conservation programs
- Value of nutrients removed in crop residue and impact on fertilizer and lime requirement

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	*Tract #*	*Field name*
Broska	**120**	**4**

Location	*Soil*	*T value, t/ac/yr*	*Slope length (horiz), ft*	*Avg. slope steepness, %*
USA\Maryland\Queen Annes County	Queen Anne's, MD\Co Corsica mucky loam\Corsica mucky loam 50%	5.0	100	1.0

R Factor	*Annual precip*	*10-yr 24-hr rainfall*	*In Req area?*
180	42.6	5.3	No

Alternatives:

Description	*Base management*	*Contouring*	*Strips / barriers*	*Diversion/terrace, sediment basin*
	CMZ 59\c.Other Local Mgt Records\Dale Story cs cg; air rad; fssb	default	(none)	(none)

Alternatives Results:

Description	*Cons. plan. soil loss*	*Annual total biomass removal, lb/ac*	*Soil conditioning index (SCI)*	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*STIR value*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*	*Equiv. diesel use, gal/ac*	*Energy use, BTU/ac*	*Fuel cost, US$/ac*
	0.80	0	0.497	0.0025	0.90	0.68	10.2	0	6.2	860000	0

Before harvesting crop residue for off-site uses, the following issues need to be considered:

- Impact on wind and water erosion, runoff, and residue cover needed to comply with conservation programs
- Value of nutrients removed in crop residue and impact on fertilizer and lime requirement

Date: 1/22/2025

Conservation Plan Map

Client(s): ANN O CAMPBELL
Location: T_62
Queen Anne's County, Maryland
Approximate Acres: 37.90

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 752
Feet

Practice Schedule PLUs

USDA

Date: 2/19/2025

Soils Map and Report

Client(s): ANN O CAMPBELL
Location: T_62
Queen Anne's County, Maryland
Approximate Acres: 37.90

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 752
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)

Queen Anne's County, Maryland

Map Unit: CaA--Carmichael loam, 0 to 2 percent slopes

Component: Carmichael, drained (45%)

The Carmichael, drained component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 high. 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Carmichael, undrained (35%)

The Carmichael, undrained component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 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 (depth from the mineral surface is 4 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is

about 5 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Pineyneck (10%)

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

Component: Corsica, undrained (5%)

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

Component: Fallsington, drained (5%)

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

Map Unit: OtA--Othello silt loams, 0 to 2 percent slopes, Mid-Atlantic Coastal Plain

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, coastal plains. The parent material consists of silty eolian deposits over 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 (or restricted depth) 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Othello, undrained (28%)

The Othello, undrained component makes up 28 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 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 (or restricted depth) 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 (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp 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: Crosiadore (7%)

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

Component: Mattapex (7%)

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

Component: Fallsington, undrained (5%)

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

Component: Kentuck, undrained (5%)

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

Map Unit: PiA--Pineyneck silt loam, 0 to 2 percent slopes

Component: Pineyneck (80%)

The Pineyneck 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 loamy 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 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 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 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Unicorn (10%)

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

Component: Carmichael, drained (5%)

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

Component: Greenwich (5%)

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

Map Unit: PiB--Pineyneck silt loam, 2 to 5 percent slopes

Component: Pineyneck (75%)

The Pineyneck component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of loamy 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 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 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. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Unicorn (10%)

Generated brief soil descriptions are created for major soil components. The Unicorn 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: Crosiadore (5%)

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

Component: Ingleside (5%)

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

Map Unit: UsB--Unicorn-Sassafras loams, 2 to 5 percent slopes

Component: Unicorn (40%)

The Unicorn 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 loamy 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. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 2 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Sassafras (35%)

The Sassafras component makes up 35 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, 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 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Pineyneck (5%)

Generated brief soil descriptions are created for major soil components. The Pineyneck 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: Ingleside (5%)

Generated brief soil descriptions are created for major soil components. The Ingleside 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: Downer (5%)

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

Map Unit: WhA--Whitemarsh silt loam, 0 to 2 percent slopes

Component: Whitemarsh, drained (45%)

The Whitemarsh, drained component makes up 45 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. 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 (or restricted depth) is high. 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 3 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Whitemarsh, undrained (30%)

The Whitemarsh, undrained component makes up 30 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. 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 (or restricted depth) 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 (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 3 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Crosiadore (10%)

Generated brief soil descriptions are created for major soil components. The Crosiadore 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: Othello, drained (5%)

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

Component: Kentuck, undrained (5%)

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

Data Source Information

Soil Survey Area: Queen Anne's County, Maryland

Survey Area Data: Version 21, Sep 06, 2024

Soils Inventory Report

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	11	CaA	Carmichael loam, 0 to 2 percent slopes	0.2	18%
62	11	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	0.9	82%
			Total	**1.1**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	12	CaA	Carmichael loam, 0 to 2 percent slopes	0.4	50%
62	12	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	0.4	50%
			Total	**0.8**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	13	CaA	Carmichael loam, 0 to 2 percent slopes	0.7	100%
62	13	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	0.0	0%
			Total	**0.7**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	14	CaA	Carmichael loam, 0 to 2 percent slopes	0.8	100%
62	14	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	0.0	0%
			Total	**0.8**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	15	CaA	Carmichael loam, 0 to 2 percent slopes	0.1	50%
62	15	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	0.1	50%
			Total	**0.2**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	16	CaA	Carmichael loam, 0 to 2 percent slopes	0.1	9%
62	16	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	1.0	91%
			Total	**1.1**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	17	CaA	Carmichael loam, 0 to 2 percent slopes	0.6	55%
62	17	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	0.5	45%
			Total	**1.1**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	18	CaA	Carmichael loam, 0 to 2 percent slopes	0.4	29%
62	18	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	0.6	43%
62	18	WhA	Whitemarsh silt loam, 0 to 2 percent slopes	0.4	29%
			Total	**1.4**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	2	CaA	Carmichael loam, 0 to 2 percent slopes	3.7	17%
62	2	OtA	Othello silt loams, 0 to 2 percent slopes, Mid-Atlantic Coastal Plain	4.4	20%
62	2	PiA	Pineyneck silt loam, 0 to 2 percent slopes	1.3	6%
62	2	PiB	Pineyneck silt loam, 2 to 5 percent slopes	0.3	1%
62	2	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	8.3	38%
62	2	WhA	Whitemarsh silt loam, 0 to 2 percent slopes	4.0	18%
			Total	**22.0**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	21	CaA	Carmichael loam, 0 to 2 percent slopes	0.5	33%
62	21	PiA	Pineyneck silt loam, 0 to 2 percent slopes	0.0	0%
62	21	WhA	Whitemarsh silt loam, 0 to 2 percent slopes	1.0	67%
			Total	**1.5**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	5	CaA	Carmichael loam, 0 to 2 percent slopes	1.4	42%
62	5	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	1.9	58%
			Total	**3.3**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	6	CaA	Carmichael loam, 0 to 2 percent slopes	0.4	67%
62	6	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	0.2	33%
			Total	**0.6**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	7	CaA	Carmichael loam, 0 to 2 percent slopes	0.5	71%
62	7	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	0.2	29%
			Total	**0.7**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	8	CaA	Carmichael loam, 0 to 2 percent slopes	0.1	25%
62	8	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	0.3	75%
			Total	**0.4**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
62	9	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	1.7	100%
			Total	**1.7**	**100%**
			Grand Total	**37.4**	**100%**

USDA NRCS Natural Resources Conservation Service

Rusle Program Version:
Rusle Science Version:
Data Base:

RUSLE2 Erosion Calculation Record

Campbell
Farm 54 Tract 62
File: plans\default
Access Group: R2_NRCS_Fld_Office

Inputs:
Owner name: Campbell
Location: Maryland\Queen Annes County
Info: conv.corn - conv. soybeans

Field name	*Soil*	*Slope T Value*	*Slope length, ft*	*Slope steepness, %*
2	Queen Anne's, MD\Ca Carmichael loam\Carmichael loam 35%	4.0	180	1.0
2	Queen Anne's, MD\UsB Unicorn-Sassafras loams, 2 to 5 percent slopes\Unicorn loam 35%	5.0	200	3.0
2	Queen Anne's, MD\Wh Whitemarsh silt loam\Whitemarsh silt loam 30%	4.0	180	1.0

Results:

Field name	*Description*	*Cons. plan. soil loss, t/ac/yr*	*Sed. delivery, t/ac/yr*	*Soil conditioning index (SCI)*	*STIR value*
2	test	2.4	2.4	-0.14	110
2	test	7.8	7.8	-0.56	110
2	test	2.5	2.5	-0.14	110

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: 1/22/2025

Conservation Plan Map

Client(s): WILLIAM A CLOUGH
Location: T_161
Queen Anne's County, Maryland
Approximate Acres: 29.77

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 376 Feet

Conservation Practice Polygons
- Conservation Crop Rotation (328)
- Cover Crop (340)
- Nutrient Management (590)
- Residue and Tillage Management, Reduced Till (345)
- Practice Schedule PLUs

Date: 2/19/2025

Soils Map and Report

Client(s): WILLIAM A CLOUGH
Location: T:161
Queen Anne's County, Maryland
Approximate Acres: 29.77

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 376
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)

Queen Anne's County, Maryland

Map Unit: CaA--Carmichael loam, 0 to 2 percent slopes

Component: Carmichael, drained (45%)

The Carmichael, drained component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 high. 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Carmichael, undrained (35%)

The Carmichael, undrained component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 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 (depth from the mineral surface is 4 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is

about 5 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Pineyneck (10%)

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

Component: Corsica, undrained (5%)

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

Component: Fallsington, drained (5%)

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

Map Unit: CoA--Corsica mucky loam, 0 to 2 percent slopes

Component: Corsica, undrained (55%)

The Corsica, undrained component makes up 55 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad depressions, flats, uplands. The parent material consists of loamy fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 frequently ponded. A seasonal zone of water saturation is at 2 inches (depth from the mineral surface is 0 inches) during January, February, March, April. Organic matter content in the surface horizon is about 38 percent. Below this thin organic horizon the organic matter content is about 12 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Corsica, drained (25%)

The Corsica, drained component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of loamy fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 rarely ponded. A seasonal zone of water saturation is at 5 inches during January, February, March. Organic matter content in the surface horizon is about 9 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Fallsington, drained (5%)

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

Component: Kentuck, undrained (5%)

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

Component: Hurlock, drained (5%)

Generated brief soil descriptions are created for major soil components. The Hurlock, drained 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: HnA--Hammonton sandy loam, 0 to 2 percent slopes

Component: Hammonton (80%)

The Hammonton component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, shallow depressions, 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 moderately well drained. Water movement in

the most restrictive layer is high. 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 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 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Rosedale (5%)

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

Component: Klej (5%)

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

Component: Ingleside (5%)

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

Component: Hurlock, drained (5%)

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

Map Unit: HvA--Hurlock sandy loam, 0 to 2 percent slopes

Component: Hurlock, drained (42%)

The Hurlock, drained component makes up 42 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Hurlock, undrained (38%)

The Hurlock, undrained component makes up 38 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 occasionally ponded. A seasonal zone of water saturation is at 5 inches (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 2 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Mullica, drained (5%)

Generated brief soil descriptions are created for major soil components. The Mullica, drained 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: Woodstown (5%)

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

Component: Klej (5%)

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

Map Unit: IgB--Ingleside sandy loam, 2 to 5 percent slopes

Component: Ingleside (75%)

The Ingleside component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats,

uplands. The parent material consists of loamy eolian deposits and/or 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 1 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown 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: Downer (5%)

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

Component: Cedartown (5%)

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

Component: Rosedale (5%)

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

Map Unit: KnA--Kentuck mucky silt loam, 0 to 2 percent slopes

Component: Kentuck, undrained (45%)

The Kentuck, undrained component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions, lowlands. 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 very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 2 inches during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 14 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Kentuck, drained (30%)

The Kentuck, drained component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions, lowlands. 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 very poorly 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 rarely ponded. A seasonal zone of water saturation is at 5 inches during January, February, March. Organic matter content in the surface horizon is about 13 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Whitemarsh, undrained (10%)

Generated brief soil descriptions are created for major soil components. The Whitemarsh, undrained 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: Othello, undrained (5%)

Generated brief soil descriptions are created for major soil components. The Othello, undrained 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: UsB--Unicorn-Sassafras loams, 2 to 5 percent slopes

Component: Unicorn (40%)

The Unicorn 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 loamy 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. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 2 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Sassafras (35%)

The Sassafras component makes up 35 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, 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 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Downer (5%)

Generated brief soil descriptions are created for major soil components. The Downer 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: Ingleside (5%)

Generated brief soil descriptions are created for major soil components. The Ingleside 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: Pineyneck (5%)

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

Map Unit: WhA--Whitemarsh silt loam, 0 to 2 percent slopes

Component: Whitemarsh, drained (45%)

The Whitemarsh, drained component makes up 45 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. 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 (or restricted depth) is high. 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 3 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Whitemarsh, undrained (30%)

The Whitemarsh, undrained component makes up 30 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. 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 (or restricted depth) 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 (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 3 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Crosiadore (10%)

Generated brief soil descriptions are created for major soil components. The Crosiadore 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: Othello, drained (5%)

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

Component: Kentuck, undrained (5%)

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

Data Source Information

Soil Survey Area: Queen Anne's County, Maryland
Survey Area Data: Version 21, Sep 06, 2024

Soils Inventory Report

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
161	1	CaA	Carmichael loam, 0 to 2 percent slopes	1.3	7%
161	1	CoA	Corsica mucky loam, 0 to 2 percent slopes	2.0	11%
161	1	HvA	Hurlock sandy loam, 0 to 2 percent slopes	3.6	19%
161	1	IgB	Ingleside sandy loam, 2 to 5 percent slopes	6.7	36%
161	1	KnA	Kentuck mucky silt loam, 0 to 2 percent slopes	0.3	2%
161	1	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	2.1	11%
161	1	WhA	Whitemarsh silt loam, 0 to 2 percent slopes	2.8	15%
			Total	**18.8**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
161	4	CoA	Corsica mucky loam, 0 to 2 percent slopes	4.5	47%
161	4	HnA	Hammonton sandy loam, 0 to 2 percent slopes	0.1	1%
161	4	HvA	Hurlock sandy loam, 0 to 2 percent slopes	3.5	37%
161	4	IgB	Ingleside sandy loam, 2 to 5 percent slopes	0.0	0%
161	4	KnA	Kentuck mucky silt loam, 0 to 2 percent slopes	1.4	15%
			Total	**9.5**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
161	7	CaA	Carmichael loam, 0 to 2 percent slopes	1.4	93%
161	7	IgB	Ingleside sandy loam, 2 to 5 percent slopes	0.1	7%
161	7	UsB	Unicorn-Sassafras loams, 2 to 5 percent slopes	0.0	0%
			Total	**1.5**	**100%**
			Grand Total	**29.8**	**100%**

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	Tract #	Field name
Clough	161	1

Location	Soil	T value, t/ac/yr	Slope length (horiz), ft	Avg. slope steepness, %
USA\Maryland\Queen Annes County	Queen Anne's, MD\IgB Ingleside sandy loam, 2 to 5 percent slopes\Ingleside sandy loam 60%	5.0	100	3.0

R Factor	Annual precip	10-yr 24-hr rainfall	In Req area?
180	42.6	5.3	No

Alternatives:

Description	Base management	Contouring	Strips / barriers	Diversion/terrace, sediment basin
	CMZ 59\c.Other Local Mgt Records\Dale Story cs cg; air rad; fssb	default	(none)	(none)

Alternatives Results:

Description	Cons. plan. soil loss	Annual total biomass removal, lb/ac	Soil conditioning index (SCI)	SCI OM subfactor	SCI FO subfactor	SCI ER subfactor	STIR value	Wind & irrigation-induced erosion for SCI, t/ac/yr	Equiv. diesel use, gal/ac	Energy use, BTU/ac	Fuel cost, US$/ac
	1.3	0	0.454	0.0025	0.90	0.47	10.2	0	6.5	900000	0

Before harvesting crop residue for off-site uses, the following issues need to be considered:

- Impact on wind and water erosion, runoff, and residue cover needed to comply with conservation programs
- Value of nutrients removed in crop residue and impact on fertilizer and lime requirement

Date: 1/22/2025

Conservation Plan Map

Client(s): C DALE STORY
Location: T_41
Queen Anne's County, Maryland
Approximate Acres: 39.78

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 376
Feet

Conservation Practice Polygons
Conservation Crop Rotation (328)
Residue Management, No-Till/Strip Till (329A)
Cover Crop (340)
Nutrient Management (590)
Integrated Pest Management (IPM) (595)
Residue and Tillage Management, Reduced Till (345)
Practice Schedule PLUs

USDA

Date: 2/19/2025

Soils Map and Report

Client(s): C DALE STORY
Location: T:41
Queen Anne's County, Maryland
Approximate Acres: 39.78

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 376
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)

Queen Anne's County, Maryland

Map Unit: CaA--Carmichael loam, 0 to 2 percent slopes

Component: Carmichael, drained (45%)

The Carmichael, drained component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 high. 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Carmichael, undrained (35%)

The Carmichael, undrained component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 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 (depth from the mineral surface is 4 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is

about 5 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Pineyneck (10%)

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

Component: Corsica, undrained (5%)

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

Component: Fallsington, drained (5%)

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

Map Unit: CoA--Corsica mucky loam, 0 to 2 percent slopes

Component: Corsica, undrained (55%)

The Corsica, undrained component makes up 55 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad depressions, flats, uplands. The parent material consists of loamy fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 frequently ponded. A seasonal zone of water saturation is at 2 inches (depth from the mineral surface is 0 inches) during January, February, March, April. Organic matter content in the surface horizon is about 38 percent. Below this thin organic horizon the organic matter content is about 12 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Corsica, drained (25%)

The Corsica, drained component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of loamy fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 rarely ponded. A seasonal zone of water saturation is at 5 inches during January, February, March. Organic matter content in the surface horizon is about 9 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Fallsington, drained (5%)

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

Component: Kentuck, undrained (5%)

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

Component: Hurlock, drained (5%)

Generated brief soil descriptions are created for major soil components. The Hurlock, drained 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: HvA--Hurlock sandy loam, 0 to 2 percent slopes

Component: Hurlock, drained (42%)

The Hurlock, drained component makes up 42 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Hurlock, undrained (38%)

The Hurlock, undrained component makes up 38 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 occasionally ponded. A seasonal zone of water saturation is at 5 inches (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 2 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton 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.

Component: Klej (5%)

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

Component: Mullica, drained (5%)

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

Map Unit: IgB--Ingleside sandy loam, 2 to 5 percent slopes

Component: Ingleside (75%)

The Ingleside component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of loamy eolian deposits and/or 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 1 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown 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: Downer (5%)

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

Component: Cedartown (5%)

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

Component: Rosedale (5%)

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

Map Unit: IgC--Ingleside sandy loam, 5 to 10 percent slopes

Component: Ingleside (75%)

The Ingleside component makes up 75 percent of the map unit. Slopes are 5 to 10 percent. This component is on knolls, fluviomarine terraces, uplands. The parent material consists of loamy eolian deposits and/or 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 1 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Cedartown (5%)

Generated brief soil descriptions are created for major soil components. The Cedartown 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: Hammonton (5%)

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

Component: Rosedale (5%)

Generated brief soil descriptions are created for major soil components. The Rosedale 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: PiA--Pineyneck silt loam, 0 to 2 percent slopes

Component: Pineyneck (80%)

The Pineyneck 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 loamy 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 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 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 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Unicorn (10%)

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

Component: Carmichael, drained (5%)

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

Component: Greenwich (5%)

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

Data Source Information

Soil Survey Area: Queen Anne's County, Maryland
Survey Area Data: Version 21, Sep 06, 2024

Soils Inventory Report

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
41	1	CaA	Carmichael loam, 0 to 2 percent slopes	0.2	1%
41	1	CoA	Corsica mucky loam, 0 to 2 percent slopes	0.1	0%
41	1	HvA	Hurlock sandy loam, 0 to 2 percent slopes	4.3	20%
41	1	IgB	Ingleside sandy loam, 2 to 5 percent slopes	12.8	58%
41	1	PiA	Pineyneck silt loam, 0 to 2 percent slopes	4.6	21%
			Total	**22.0**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
41	2	CaA	Carmichael loam, 0 to 2 percent slopes	1.0	20%
41	2	IgB	Ingleside sandy loam, 2 to 5 percent slopes	2.6	53%
41	2	PiA	Pineyneck silt loam, 0 to 2 percent slopes	1.3	27%
			Total	**4.9**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
41	5	CaA	Carmichael loam, 0 to 2 percent slopes	4.8	40%
41	5	CoA	Corsica mucky loam, 0 to 2 percent slopes	2.9	24%
41	5	HvA	Hurlock sandy loam, 0 to 2 percent slopes	0.2	2%
41	5	IgB	Ingleside sandy loam, 2 to 5 percent slopes	3.3	27%
41	5	IgC	Ingleside sandy loam, 5 to 10 percent slopes	0.1	1%
41	5	PiA	Pineyneck silt loam, 0 to 2 percent slopes	0.8	7%
			Total	**12.1**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
41	6	HvA	Hurlock sandy loam, 0 to 2 percent slopes	0.2	22%
41	6	IgB	Ingleside sandy loam, 2 to 5 percent slopes	0.7	78%
			Total	**0.9**	**100%**
			Grand Total	**39.9**	**100%**

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	Tract #	Field name
Cosden	41	1, 2

Location	Soil	T value, t/ac/yr	Slope length (horiz), ft	Avg. slope steepness, %
USA\Maryland\Queen Annes County	Queen Anne's, MD\IgB Ingleside sandy loam, 2 to 5 percent slopes\Ingleside sandy loam 60%	5.0	100	3.0

R Factor	Annual precip	10-yr 24-hr rainfall	In Req area?
180	42.6	5.3	No

Alternatives:

Description	Base management	Contouring	Strips / barriers	Diversion/terrace, sediment basin
	CMZ 59\c.Other Local Mgt Records\Dale Story cs cg; air rad; fssb	default	(none)	(none)

Alternatives Results:

Description	Cons. plan. soil loss	Annual total biomass removal, lb/ac	Soil conditioning index (SCI)	SCI OM subfactor	SCI FO subfactor	SCI ER subfactor	STIR value	Wind & irrigation-induced erosion for SCI, t/ac/yr	Equiv. diesel use, gal/ac	Energy use, BTU/ac	Fuel cost, US$/ac
	1.3	0	0.454	0.0025	0.90	0.47	10.2	0	6.5	900000	0

Before harvesting crop residue for off-site uses, the following issues need to be considered:

- Impact on wind and water erosion, runoff, and residue cover needed to comply with conservation programs
- Value of nutrients removed in crop residue and impact on fertilizer and lime requirement

Date: 1/22/2025

Conservation Plan Map

DAVIS FARM

Client(s): C DALE STORY
Location: T_114
Queen Anne's County, Maryland
Approximate Acres: 24.44

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 376 Feet

Conservation Practice Polygons
- Conservation Crop Rotation (328)
- Cover Crop (340)
- Nutrient Management (590)
- Residue and Tillage Management, Reduced Till (345)
- Practice Schedule PLUs

Date: 2/19/2025

Soils Map and Report

Client(s): C DALE STORY
Location: T_114
Queen Anne's County, Maryland
Approximate Acres: 24.44

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 376
Feet

Practice Schedule PLUs

Soils

Soil Mapunit

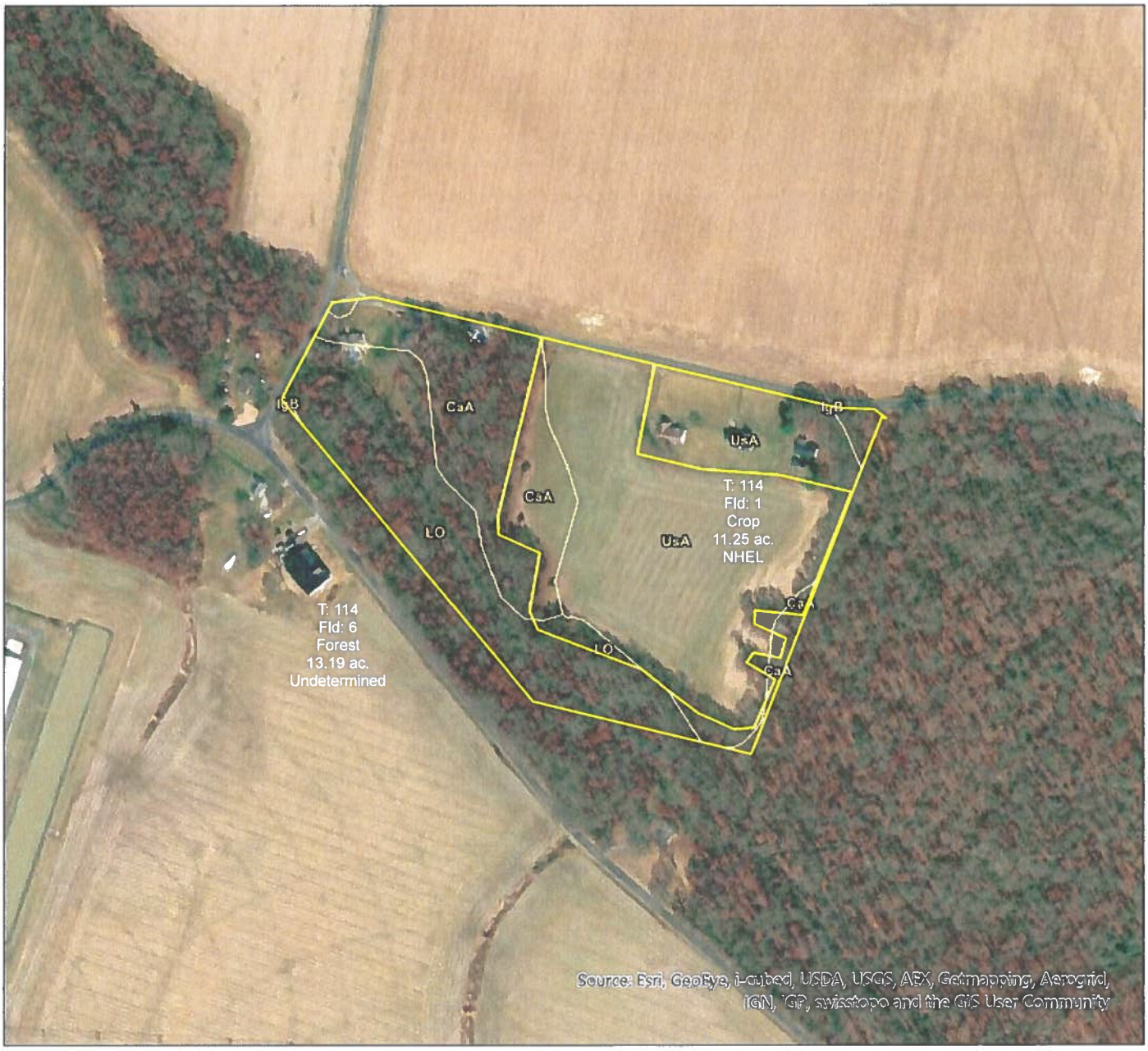
USDA

Date: 2/19/2025

Soils Map and Report

Client(s): C DALE STORY
Location: T_114
Queen Anne's County, Maryland
Approximate Acres: 24.44

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD



Prepared with assistance from USDA-Natural Resources Conservation Service

0 376
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)

Queen Anne's County, Maryland

Map Unit: CaA--Carmichael loam, 0 to 2 percent slopes

Component: Carmichael, drained (45%)

The Carmichael, drained component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 high. 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Carmichael, undrained (35%)

The Carmichael, undrained component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 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 (depth from the mineral surface is 4 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is

about 5 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Pineyneck (10%)

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

Component: Corsica, undrained (5%)

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

Component: Fallsington, drained (5%)

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

Map Unit: IgB--Ingleside sandy loam, 2 to 5 percent slopes

Component: Ingleside (75%)

The Ingleside component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of loamy eolian deposits and/or 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 1 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown 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: Downer (5%)

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

Component: Cedartown (5%)

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

Component: Rosedale (5%)

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

Map Unit: LO--Longmarsh and Indiantown soils, frequently flooded

Component: Longmarsh (43%)

The Longmarsh component makes up 43 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains, coastal plains. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very 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 frequently ponded. A seasonal zone of water saturation is at 5 inches (depth from the mineral surface is 3 inches) during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 13 percent. This component is in the R149AY060DE Wet Alluvial Floodplain ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Indiantown (37%)

The Indiantown component makes up 37 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains, coastal plains. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 5 inches (depth from the mineral surface is 3 inches) during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 12 percent. This component is in the R149AY060DE Wet Alluvial Floodplain ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Zekiah (10%)

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

Component: Klej (5%)

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

Component: Manahawkin (5%)

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

Map Unit: UsA--Unicorn-Sassafras loams, 0 to 2 percent slopes

Component: Unicorn (45%)

The Unicorn component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of loamy 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. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 2 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 1. Irrigated land capability classification is 1 This soil does not meet hydric criteria.

Component: Sassafras (35%)

The Sassafras component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, 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 1. Irrigated land capability classification is 1 This soil does not meet hydric criteria.

Component: Pineyneck (5%)

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

Component: Greenwich (5%)

Generated brief soil descriptions are created for major soil components. The Greenwich 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: Ingleside (5%)

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

Data Source Information

Soil Survey Area: Queen Anne's County, Maryland
Survey Area Data: Version 21, Sep 06, 2024

Soils Inventory Report

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
114	1	CaA	Carmichael loam, 0 to 2 percent slopes	1.7	15%
114	1	LO	Longmarsh and Indiantown soils, frequently flooded	0.3	3%
114	1	USA	Unicorn-Sassafras loams, 0 to 2 percent slopes	9.3	82%
			Total	**11.3**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
114	6	CaA	Carmichael loam, 0 to 2 percent slopes	4.1	31%
114	6	IgB	Ingleside sandy loam, 2 to 5 percent slopes	0.0	0%
114	6	LO	Longmarsh and Indiantown soils, frequently flooded	6.0	45%
114	6	USA	Unicorn-Sassafras loams, 0 to 2 percent slopes	3.1	23%
			Total	**13.2**	**100%**
			Grand Total	**24.5**	**100%**

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	Tract #	Field name
Davis	114	1

Location	Soil	T value, t/ac/yr	Slope length (horiz), ft	Avg. slope steepness, %
USA\Maryland\Queen Annes County	Queen Anne's, MD\UsA Unicorn-Sassafras loams, 0 to 2 percent slopes\Unicorn loam 45%	5.0	100	1.0

R Factor	Annual precip	10-yr 24-hr rainfall	In Req area?
180	42.6	5.3	No

Alternatives:

Description	Base management	Contouring	Strips / barriers	Diversion/terrace, sediment basin
	CMZ 59\c.Other Local Mgt Records\Dale Story cs cg; air rad; fssb	default	(none)	(none)

Alternatives Results:

Description	Cons. plan. soil loss	Annual total biomass removal, lb/ac	Soil conditioning index (SCI)	SCI OM subfactor	SCI FO subfactor	SCI ER subfactor	STIR value	Wind & irrigation-induced erosion for SCI, t/ac/yr	Equiv. diesel use, gal/ac	Energy use, BTU/ac	Fuel cost, US$/ac
	0.93	0	0.487	0.0025	0.90	0.63	10.2	0	6.2	860000	0

Before harvesting crop residue for off-site uses, the following issues need to be considered:

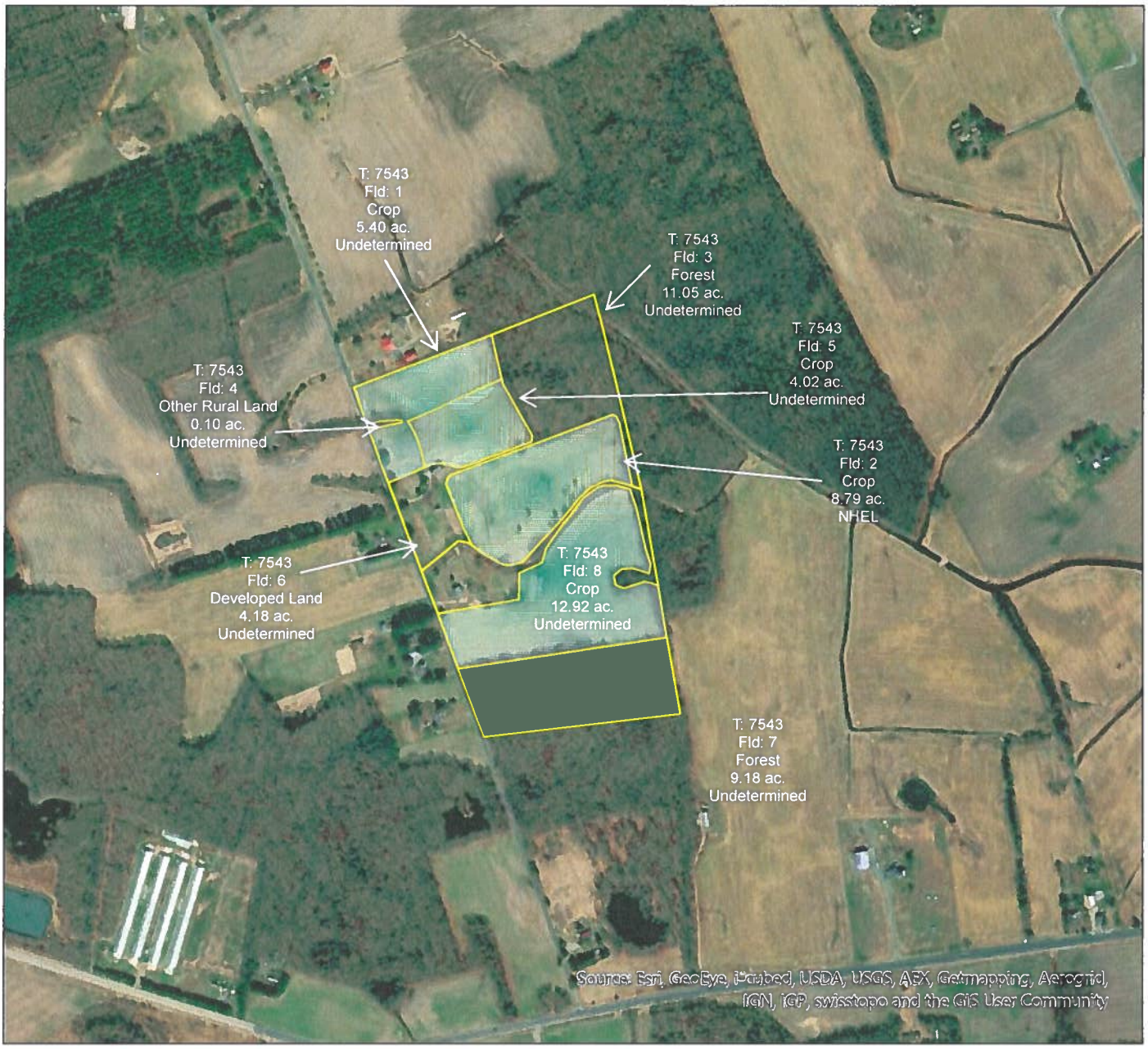
- Impact on wind and water erosion, runoff, and residue cover needed to comply with conservation programs
- Value of nutrients removed in crop residue and impact on fertilizer and lime requirement

Date: 1/22/2025

Conservation Plan Map

Client(s): C DALE STORY
Location: T_7543
Queen Anne's County, Maryland
Approximate Acres: 55.64

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD



Prepared with assistance from USDA-Natural Resources Conservation Service

0 752
Feet

Conservation Practice Polygons
- Conservation Crop Rotation (328)
- Cover Crop (340)
- Nutrient Management (590)
- Residue and Tillage Management, Reduced Till (345)
- Practice Schedule PLUs

Date: 2/19/2025

Soils Map and Report

Client(s): C DALE STORY
Location: T:7543
Queen Anne's County, Maryland
Approximate Acres: 55.64

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 376
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)

Queen Anne's County, Maryland

Map Unit: CaA--Carmichael loam, 0 to 2 percent slopes

Component: Carmichael, drained (45%)

The Carmichael, drained component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 high. 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Carmichael, undrained (35%)

The Carmichael, undrained component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 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 (depth from the mineral surface is 4 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is

about 5 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Pineyneck (10%)

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

Component: Corsica, undrained (5%)

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

Component: Fallsington, drained (5%)

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

Map Unit: CoA--Corsica mucky loam, 0 to 2 percent slopes

Component: Corsica, undrained (55%)

The Corsica, undrained component makes up 55 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad depressions, flats, uplands. The parent material consists of loamy fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 frequently ponded. A seasonal zone of water saturation is at 2 inches (depth from the mineral surface is 0 inches) during January, February, March, April. Organic matter content in the surface horizon is about 38 percent. Below this thin organic horizon the organic matter content is about 12 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Corsica, drained (25%)

The Corsica, drained component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of loamy fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 rarely ponded. A seasonal zone of water saturation is at 5 inches during January, February, March. Organic matter content in the surface horizon is about 9 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Fallsington, drained (5%)

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

Component: Kentuck, undrained (5%)

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

Component: Hurlock, drained (5%)

Generated brief soil descriptions are created for major soil components. The Hurlock, drained 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: HnA--Hammonton sandy loam, 0 to 2 percent slopes

Component: Hammonton (80%)

The Hammonton component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, shallow depressions, 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 moderately well drained. Water movement in

the most restrictive layer is high. 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 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 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Hurlock, drained (5%)

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

Component: Ingleside (5%)

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

Component: Klej (5%)

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

Component: Rosedale (5%)

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

Map Unit: HnB--Hammonton sandy loam, 2 to 5 percent slopes

Component: Hammonton (80%)

The Hammonton component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, shallow depressions, 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 moderately well drained. Water movement in the most restrictive layer is high. 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 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. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Hurlock, drained (5%)

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

Component: Klej (5%)

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

Component: Ingleside (5%)

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

Component: Rosedale (5%)

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

Map Unit: IgB--Ingleside sandy loam, 2 to 5 percent slopes

Component: Ingleside (75%)

The Ingleside component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of loamy eolian deposits and/or 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 1 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown 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: Downer (5%)

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

Component: Cedartown (5%)

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

Component: Rosedale (5%)

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

Map Unit: PiB--Pineyneck silt loam, 2 to 5 percent slopes

Component: Pineyneck (75%)

The Pineyneck component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of loamy 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 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 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. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Unicorn (10%)

Generated brief soil descriptions are created for major soil components. The Unicorn 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: Crosiadore (5%)

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

Component: Ingleside (5%)

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

Data Source Information

Soil Survey Area: Queen Anne's County, Maryland
Survey Area Data: Version 21, Sep 06, 2024

Soils Inventory Report

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7543	1	CoA	Corsica mucky loam, 0 to 2 percent slopes	3.4	63%
7543	1	IgB	Ingleside sandy loam, 2 to 5 percent slopes	2.0	37%
			Total	**5.4**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7543	2	CoA	Corsica mucky loam, 0 to 2 percent slopes	6.4	74%
7543	2	HnB	Hammonton sandy loam, 2 to 5 percent slopes	1.5	17%
7543	2	IgB	Ingleside sandy loam, 2 to 5 percent slopes	0.8	9%
			Total	**8.7**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7543	3	CaA	Carmichael loam, 0 to 2 percent slopes	0.8	7%
7543	3	CoA	Corsica mucky loam, 0 to 2 percent slopes	7.7	70%
7543	3	HnB	Hammonton sandy loam, 2 to 5 percent slopes	0.2	2%
7543	3	IgB	Ingleside sandy loam, 2 to 5 percent slopes	2.3	21%
			Total	**11.0**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7543	4	CoA	Corsica mucky loam, 0 to 2 percent slopes	0.1	100%
			Total	**0.1**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7543	5	CoA	Corsica mucky loam, 0 to 2 percent slopes	0.8	20%
7543	5	IgB	Ingleside sandy loam, 2 to 5 percent slopes	3.2	80%
			Total	**4.0**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7543	6	CaA	Carmichael loam, 0 to 2 percent slopes	0.5	12%
7543	6	CoA	Corsica mucky loam, 0 to 2 percent slopes	1.7	40%
7543	6	HnB	Hammonton sandy loam, 2 to 5 percent slopes	0.9	21%
7543	6	IgB	Ingleside sandy loam, 2 to 5 percent slopes	1.1	26%
7543	6	PiB	Pineyneck silt loam, 2 to 5 percent slopes	0.0	0%
			Total	**4.2**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7543	7	CoA	Corsica mucky loam, 0 to 2 percent slopes	6.4	70%
7543	7	HnA	Hammonton sandy loam, 0 to 2 percent slopes	2.6	28%
7543	7	IgB	Ingleside sandy loam, 2 to 5 percent slopes	0.2	2%
			Total	**9.2**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7543	8	CoA	Corsica mucky loam, 0 to 2 percent slopes	3.1	24%
7543	8	HnA	Hammonton sandy loam, 0 to 2 percent slopes	0.2	2%
7543	8	HnB	Hammonton sandy loam, 2 to 5 percent slopes	2.7	21%
7543	8	IgB	Ingleside sandy loam, 2 to 5 percent slopes	6.7	52%
7543	8	PiB	Pineyneck silt loam, 2 to 5 percent slopes	0.3	2%
			Total	**13.0**	**100%**

Grand Total	**55.6**	**100%**

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	*Tract #*	*Field name*
Dale Story (Hager)	**7543**	**1, 2**

Location	*Soil*	*T value, t/ac/yr*	*Slope length (horiz), ft*	*Avg. slope steepness, %*
USA\Maryland\Queen Annes County	Queen Anne's, MD\Co Corsica mucky loam\Corsica mucky loam 20%	5.0	100	1.0

R Factor	*Annual precip*	*10-yr 24-hr rainfall*	*In Req area?*
180	42.6	5.3	No

Alternatives:

Description	*Base management*	*Contouring*	*Strips / barriers*	*Diversion/terrace, sediment basin*
	CMZ 59\c.Other Local Mgt Records\Dale Story cs cg; air rad; fssb	default	(none)	(none)

Alternatives Results:

Description	*Cons. plan. soil loss*	*Annual total biomass removal, lb/ac*	*Soil conditioning index (SCI)*	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*STIR value*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*	*Equiv. diesel use, gal/ac*	*Energy use, BTU/ac*	*Fuel cost, US$/ac*
	0.80	0	0.497	0.0025	0.90	0.68	10.2	0	6.2	860000	0

Before harvesting crop residue for off-site uses, the following issues need to be considered:

- Impact on wind and water erosion, runoff, and residue cover needed to comply with conservation programs
- Value of nutrients removed in crop residue and impact on fertilizer and lime requirement

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	Tract #	Field name
Dale Story (Hager)	7543	5, 8

Location	Soil	T value, t/ac/yr	Slope length (horiz), ft	Avg. slope steepness, %
USA\Maryland\Queen Annes County	Queen Anne's, MD\IgB Ingleside sandy loam, 2 to 5 percent slopes\Ingleside sandy loam 60%	5.0	100	3.0

R Factor	Annual precip	10-yr 24-hr rainfall	In Req area?
180	42.6	5.3	No

Alternatives:

Description	Base management	Contouring	Strips / barriers	Diversion/terrace, sediment basin
	CMZ 59\c.Other Local Mgt Records\Dale Story cs cg; air rad; fssb	default	(none)	(none)

Alternatives Results:

Description	Cons. plan. soil loss	Annual total biomass removal, lb/ac	Soil conditioning index (SCI)	SCI OM subfactor	SCI FO subfactor	SCI ER subfactor	STIR value	Wind & irrigation-induced erosion for SCI, t/ac/yr	Equiv. diesel use, gal/ac	Energy use, BTU/ac	Fuel cost, US$/ac
	1.3	0	0.454	0.0025	0.90	0.47	10.2	0	6.5	900000	0

Before harvesting crop residue for off-site uses, the following issues need to be considered:

- Impact on wind and water erosion, runoff, and residue cover needed to comply with conservation programs
- Value of nutrients removed in crop residue and impact on fertilizer and lime requirement

Date: 1/22/2025

Conservation Plan Map

Client(s): C DALE STORY
Location: T_118
Queen Anne's County, Maryland
Approximate Acres: 94.6

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 752
Feet

Conservation Practice Points
- Waste Storage Facility (313)
- Animal Mortality Facility (316)
- Roof Runoff Structure (558)
- Roofs and Covers (367)

Conservation Practice Lines
- Fence (382)

Conservation Practice Polygons
- Conservation Crop Rotation (328)
- Residue Management, No-Till/Strip Till (329A)
- Cover Crop (340)
- Pasture and Hay Planting (512)
- Heavy Use Area Protection (561)
- Nutrient Management (590)
- Integrated Pest Management (IPM) (595)
- Residue and Tillage Management, Reduced Till (345)
- Practice Schedule PLUs

USDA

Date: 2/19/2025

Soils Map and Report

Client(s): C DALE STORY
Location: T:118
Queen Anne's County, Maryland
Approximate Acres: 94.6 ac

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 752
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)

Queen Anne's County, Maryland

Map Unit: CaA--Carmichael loam, 0 to 2 percent slopes

Component: Carmichael, drained (45%)

The Carmichael, drained component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 high. 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Carmichael, undrained (35%)

The Carmichael, undrained component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 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 (depth from the mineral surface is 4 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is

about 5 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Pineyneck (10%)

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

Component: Corsica, undrained (5%)

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

Component: Fallsington, drained (5%)

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

Map Unit: HvA--Hurlock sandy loam, 0 to 2 percent slopes

Component: Hurlock, drained (42%)

The Hurlock, drained component makes up 42 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Hurlock, undrained (38%)

The Hurlock, undrained component makes up 38 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 occasionally ponded. A seasonal zone of water saturation is at 5 inches (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 2 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton 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.

Component: Klej (5%)

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

Component: Mullica, drained (5%)

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

Map Unit: IgB--Ingleside sandy loam, 2 to 5 percent slopes

Component: Ingleside (75%)

The Ingleside component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of loamy eolian deposits and/or 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches

during January. Organic matter content in the surface horizon is about 1 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown 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: Downer (5%)

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

Component: Cedartown (5%)

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

Component: Rosedale (5%)

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

Map Unit: MqA--Mattapex-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. This component is on flats, 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 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

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, Coastal Plain uplands. The parent material consists of silty eolian deposits over sandy or loamy fluviomarine deposits. Depth to a root restrictive layer, fragipan, is 24 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.

Component: Crosiadore (10%)

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: Pineyneck (5%)

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

Component: Carmichael, drained (3%)

Generated brief soil descriptions are created for major soil components. The Carmichael, drained 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: PiA--Pineyneck silt loam, 0 to 2 percent slopes

Component: Pineyneck (80%)

The Pineyneck 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 loamy 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 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 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 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Unicorn (10%)

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

Component: Carmichael, drained (5%)

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

Component: Greenwich (5%)

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

Map Unit: UsA--Unicorn-Sassafras loams, 0 to 2 percent slopes

Component: Unicorn (45%)

The Unicorn component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of loamy 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. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 2 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 1. Irrigated land capability classification is 1 This soil does not meet hydric criteria.

Component: Sassafras (35%)

The Sassafras component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, 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 1. Irrigated land capability classification is 1 This soil does not meet hydric criteria.

Component: Pineyneck (5%)

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

Component: Greenwich (5%)

Generated brief soil descriptions are created for major soil components. The Greenwich 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: Ingleside (5%)

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

Data Source Information

Soil Survey Area: Queen Anne's County, Maryland

Survey Area Data: Version 21, Sep 06, 2024

Soils Inventory Report

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
118	1	CaA	Carmichael loam, 0 to 2 percent slopes	14.5	38%
118	1	IgB	Ingleside sandy loam, 2 to 5 percent slopes	2.3	6%
118	1	MqA	Mattapex-Butlertown silt loams, 0 to 2 percent slopes	10.6	28%
118	1	PiA	Pineyneck silt loam, 0 to 2 percent slopes	10.9	28%
			Total	**38.3**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
118	2	CaA	Carmichael loam, 0 to 2 percent slopes	7.2	37%
118	2	PiA	Pineyneck silt loam, 0 to 2 percent slopes	7.5	39%
118	2	USA	Unicorn-Sassafras loams, 0 to 2 percent slopes	4.6	24%
			Total	**19.3**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
118	3	CaA	Carmichael loam, 0 to 2 percent slopes	17.2	70%
118	3	HvA	Hurlock sandy loam, 0 to 2 percent slopes	1.8	7%
118	3	PiA	Pineyneck silt loam, 0 to 2 percent slopes	5.5	22%
			Total	**24.5**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
118	4	CaA	Carmichael loam, 0 to 2 percent slopes	0.7	10%
118	4	HvA	Hurlock sandy loam, 0 to 2 percent slopes	0.4	6%
118	4	PiA	Pineyneck silt loam, 0 to 2 percent slopes	6.0	85%
			Total	**7.1**	**100%**

Grand Total	**89.2**	**100%**

USDA NRCS Natural Resources Conservation Service

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	*Tract #*	*Field name*
Dale Story	****118****	**1, 3**

Location	*Soil*	*T value, t/ac/yr*	*Slope length (horiz), ft*	*Avg. slope steepness, %*
USA\Maryland\Queen Annes County	Queen Anne's, MD\Ca Carmichael loam\Carmichael loam 35%	4.0	100	1.0

R Factor	*Annual precip*	*10-yr 24-hr rainfall*	*In Req area?*
180	42.6	5.3	No

Alternatives:

Description	*Base management*	*Contouring*	*Strips / barriers*	*Diversion/terrace, sediment basin*
	CMZ 59\c.Other Local Mgt Records\Dale Story p man, corn, cc, sb	default	(none)	(none)

Alternatives Results:

Description	*Cons. plan. soil loss*	*Annual total biomass removal, lb/ac*	*Soil conditioning index (SCI)*	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*STIR value*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*	*Equiv. diesel use, gal/ac*	*Energy use, BTU/ac*	*Fuel cost, US$/ac*
	1.4	0	0.308	-0.33	0.88	0.44	12.6	0	7.3	1000000	0

Before harvesting crop residue for off-site uses, the following issues need to be considered:

- Impact on wind and water erosion, runoff, and residue cover needed to comply with conservation programs
- Value of nutrients removed in crop residue and impact on fertilizer and lime requirement

USDA NRCS Natural Resources Conservation Service

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	Tract #	Field name
Dale Story	**118**	2, 4

Location	Soil	T value, t/ac/yr	Slope length (horiz), ft	Avg. slope steepness, %
USA\Maryland\Queen Annes County	Queen Anne's, MD\PiA Pineyneck silt loam, 0 to 2 percent slopes\Pineyneck silt loam 50%	5.0	100	1.0

R Factor	Annual precip	10-yr 24-hr rainfall	In Req area?
180	42.6	5.3	No

Alternatives:

Description	Base management	Contouring	Strips / barriers	Diversion/terrace, sediment basin
	CMZ 59\c.Other Local Mgt Records\Dale Story p man, corn, cc, sb	default	(none)	(none)

Alternatives Results:

Description	Cons. plan. soil loss	Annual total biomass removal, lb/ac	Soil conditioning index (SCI)	SCI OM subfactor	SCI FO subfactor	SCI ER subfactor	STIR value	Wind & irrigation-induced erosion for SCI, t/ac/yr	Equiv. diesel use, gal/ac	Energy use, BTU/ac	Fuel cost, US$/ac
	1.5	0	0.302	-0.33	0.88	0.41	12.6	0	7.3	1000000	0

Before harvesting crop residue for off-site uses, the following issues need to be considered:

- Impact on wind and water erosion, runoff, and residue cover needed to comply with conservation programs
- Value of nutrients removed in crop residue and impact on fertilizer and lime requirement

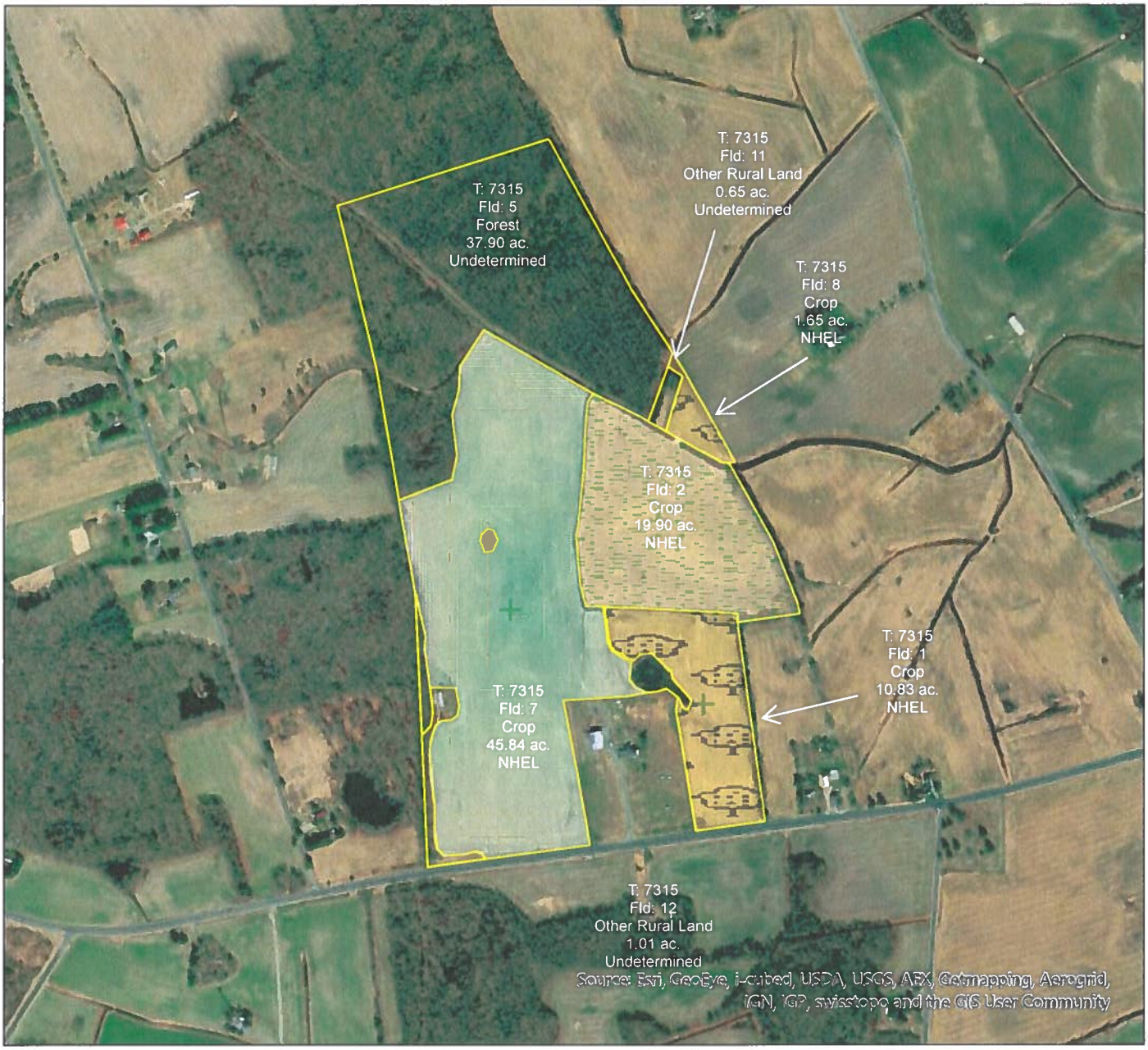
Date: 1/22/2025

Conservation Plan Map

TEMPLEVILLE FARM

Client(s): C DALE STORY
Location: T_7315
Queen Anne's County, Maryland
Approximate Acres: 120.16

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD



Prepared with assistance from USDA-Natural Resources Conservation Service

0 752
Feet

Conservation Practice Lines
- Hedgerow Planting (422)

Conservation Practice Polygons
- Conservation Crop Rotation (328)
- Cover Crop (340)
- Nutrient Management (590)
- Integrated Pest Management (IPM) (595)
- Residue and Tillage Management, Reduced Till (345)
- Practice Schedule PLUs

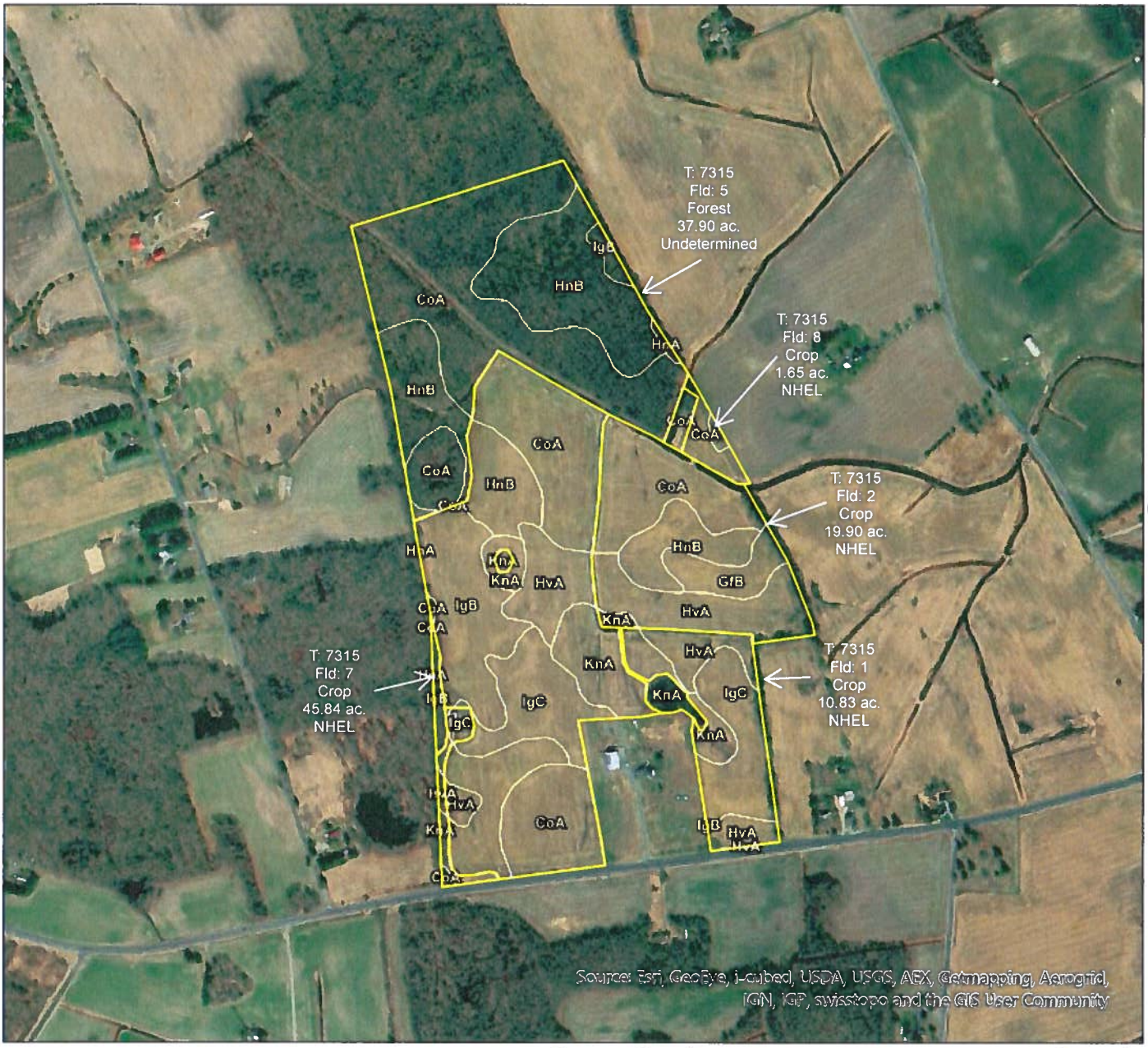
USDA

Date: 2/19/2025

Soils Map and Report

Client(s): C DALE STORY
Location: T:7315
Queen Anne's County, Maryland
Approximate Acres: 120.16

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD



Prepared with assistance from USDA-Natural Resources Conservation Service

0 752
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)

Caroline County, Maryland

Map Unit: HvA--Hurlock sandy loam, 0 to 2 percent slopes

Component: Hurlock, drained (42%)

The Hurlock, drained component makes up 42 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Hurlock, undrained (38%)

The Hurlock, undrained component makes up 38 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 occasionally ponded. A seasonal zone of water saturation is at 5 inches (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in

the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 2 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton 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.

Component: Klej (5%)

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

Component: Mullica, drained (5%)

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

Queen Anne's County, Maryland

Map Unit: CoA--Corsica mucky loam, 0 to 2 percent slopes

Component: Corsica, undrained (55%)

The Corsica, undrained component makes up 55 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad depressions, flats, uplands. The parent material consists of loamy fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 frequently ponded. A seasonal zone of water saturation is at 2 inches (depth from the mineral surface is 0 inches) during January, February, March, April. Organic matter content in the surface horizon is about 38 percent. Below this thin organic horizon the organic matter content is about 12 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Corsica, drained (25%)

The Corsica, drained component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of loamy fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 rarely ponded. A seasonal zone of water saturation is at 5 inches during January, February, March. Organic matter content in the surface horizon is about 9 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Fallsington, drained (5%)

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

Component: Kentuck, undrained (5%)

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

Component: Hurlock, drained (5%)

Generated brief soil descriptions are created for major soil components. The Hurlock, drained 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: GfB--Galestown-Fort Mott loamy sands, 0 to 5 percent slopes

Component: Galestown (40%)

The Galestown component makes up 40 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls, fluviomarine terraces, uplands. The parent material consists of sandy eolian deposits and/or fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. 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. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the F153DY170NJ Sandy, Excessively Drained Upland ecological site. Nonirrigated land capability classification is 3s. Irrigated land capability classification is 3s. This soil does not meet hydric criteria.

Component: Fort Mott (35%)

The Fort Mott component makes up 35 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls, uplands. The parent material consists of Sandy eolian deposits over fluviomarine sediments 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 low. 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 F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Hammonton (5%)

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

Component: Ingleside (5%)

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: Rosedale (5%)

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

Component: Cedartown (5%)

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

Map Unit: HnA--Hammonton sandy loam, 0 to 2 percent slopes

Component: Hammonton (80%)

The Hammonton component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, shallow depressions, 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 moderately well drained. Water movement in the most restrictive layer is high. 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 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 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Rosedale (5%)

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

Component: Klej (5%)

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

Component: Ingleside (5%)

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

Component: Hurlock, drained (5%)

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

component.

Map Unit: HnB--Hammonton sandy loam, 2 to 5 percent slopes

Component: Hammonton (80%)

The Hammonton component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, shallow depressions, 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 moderately well drained. Water movement in the most restrictive layer is high. 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 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. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Rosedale (5%)

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

Component: Ingleside (5%)

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

Component: Klej (5%)

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

Component: Hurlock, drained (5%)

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

Map Unit: HvA--Hurlock sandy loam, 0 to 2 percent slopes

Component: Hurlock, drained (42%)

The Hurlock, drained component makes up 42 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Hurlock, undrained (38%)

The Hurlock, undrained component makes up 38 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 occasionally ponded. A seasonal zone of water saturation is at 5 inches (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 2 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Mullica, drained (5%)

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

Component: Klej (5%)

Generated brief soil descriptions are created for major soil components. The Klej 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.

Component: Hammonton (5%)

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

Map Unit: IgB--Ingleside sandy loam, 2 to 5 percent slopes

Component: Ingleside (75%)

The Ingleside component makes up 75 percent of the map unit. Slopes are 2 to 5 percent. This component is on flats, uplands. The parent material consists of loamy eolian deposits and/or 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 1 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Woodstown (5%)

Generated brief soil descriptions are created for major soil components. The Woodstown 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: Downer (5%)

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

Component: Cedartown (5%)

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

Component: Rosedale (5%)

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

Map Unit: IgC--Ingleside sandy loam, 5 to 10 percent slopes

Component: Ingleside (75%)

The Ingleside component makes up 75 percent of the map unit. Slopes are 5 to 10 percent. This component is on knolls, fluviomarine terraces, uplands. The parent material consists of loamy eolian deposits and/or 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 moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 1 percent. This component is in the F153DY160NJ Well Drained Coarse-Loamy Upland ecological site. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Cedartown (5%)

Generated brief soil descriptions are created for major soil components. The Cedartown 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: Hammonton (5%)

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

Component: Rosedale (5%)

Generated brief soil descriptions are created for major soil components. The Rosedale 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: KnA--Kentuck mucky silt loam, 0 to 2 percent slopes

Component: Kentuck, undrained (45%)

The Kentuck, undrained component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions, lowlands. 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 very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 2 inches during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 14 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Kentuck, drained (30%)

The Kentuck, drained component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions, lowlands. 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 very poorly 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 rarely ponded. A seasonal zone of water saturation is at 5 inches during January, February, March. Organic matter content in the surface horizon is about 13 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Whitemarsh, undrained (10%)

Generated brief soil descriptions are created for major soil components. The Whitemarsh, undrained 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, undrained (5%)

Generated brief soil descriptions are created for major soil components. The Othello, undrained 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.

Data Source Information

Soil Survey Area: Caroline County, Maryland
Survey Area Data: Version 23, Sep 06, 2024
Soil Survey Area: Queen Anne's County, Maryland
Survey Area Data: Version 21, Sep 06, 2024

Soils Inventory Report

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7315	1	HvA	Hurlock sandy loam, 0 to 2 percent slopes	0.0	0%
7315	1	HvA	Hurlock sandy loam, 0 to 2 percent slopes	3.2	30%
7315	1	IgB	Ingleside sandy loam, 2 to 5 percent slopes	0.0	0%
7315	1	IgC	Ingleside sandy loam, 5 to 10 percent slopes	5.3	50%
7315	1	KnA	Kentuck mucky silt loam, 0 to 2 percent slopes	2.2	21%
			Total	**10.7**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7315	11	CoA	Corsica mucky loam, 0 to 2 percent slopes	0.6	100%
			Total	**0.6**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7315	12	HvA	Hurlock sandy loam, 0 to 2 percent slopes	0.0	0%
7315	12	KnA	Kentuck mucky silt loam, 0 to 2 percent slopes	1.0	100%
			Total	**1.0**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7315	2	CoA	Corsica mucky loam, 0 to 2 percent slopes	7.4	37%
7315	2	GfB	Galestown-Fort Mott loamy sands, 0 to 5 percent slopes	2.6	13%
7315	2	HnB	Hammonton sandy loam, 2 to 5 percent slopes	3.8	19%
7315	2	HvA	Hurlock sandy loam, 0 to 2 percent slopes	5.9	30%
7315	2	KnA	Kentuck mucky silt loam, 0 to 2 percent slopes	0.3	2%
			Total	**20.0**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7315	4	KnA	Kentuck mucky silt loam, 0 to 2 percent slopes	0.2	100%
			Total	**0.2**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7315	5	CoA	Corsica mucky loam, 0 to 2 percent slopes	22.7	60%
7315	5	HnA	Hammonton sandy loam, 0 to 2 percent slopes	0.2	1%
7315	5	HnB	Hammonton sandy loam, 2 to 5 percent slopes	14.5	38%
7315	5	IgB	Ingleside sandy loam, 2 to 5 percent slopes	0.6	2%
			Total	**38.0**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7315	6	CoA	Corsica mucky loam, 0 to 2 percent slopes	0.0	0%
7315	6	HnA	Hammonton sandy loam, 0 to 2 percent slopes	0.0	0%
7315	6	IgB	Ingleside sandy loam, 2 to 5 percent slopes	0.6	100%
			Total	**0.6**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7315	7	CoA	Corsica mucky loam, 0 to 2 percent slopes	14.2	31%
7315	7	HnA	Hammonton sandy loam, 0 to 2 percent slopes	0.0	0%
7315	7	HnB	Hammonton sandy loam, 2 to 5 percent slopes	3.9	8%
7315	7	HvA	Hurlock sandy loam, 0 to 2 percent slopes	4.3	9%
7315	7	IgB	Ingleside sandy loam, 2 to 5 percent slopes	13.1	29%
7315	7	IgC	Ingleside sandy loam, 5 to 10 percent slopes	5.6	12%
7315	7	KnA	Kentuck mucky silt loam, 0 to 2 percent slopes	4.8	10%
			Total	**45.9**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7315	8	CoA	Corsica mucky loam, 0 to 2 percent slopes	1.4	88%
7315	8	GfB	Galestown-Fort Mott loamy sands, 0 to 5 percent slopes	0.2	13%
			Total	**1.6**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
7315	9	CoA	Corsica mucky loam, 0 to 2 percent slopes	0.1	6%
7315	9	HvA	Hurlock sandy loam, 0 to 2 percent slopes	0.2	13%
7315	9	IgB	Ingleside sandy loam, 2 to 5 percent slopes	0.8	50%
7315	9	IgC	Ingleside sandy loam, 5 to 10 percent slopes	0.5	31%
7315	9	KnA	Kentuck mucky silt loam, 0 to 2 percent slopes	0.0	0%
			Total	**1.6**	**100%**
			Grand Total	**120.2**	**100%**

USDA NRCS Natural Resources Conservation Service

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	Tract #	Field name
Dale Story (Templeville)	7315	1

Location	Soil	T value, t/ac/yr	Slope length (horiz), ft	Avg. slope steepness, %
USA\Maryland\Queen Annes County	Queen Anne's, MD\IgC Ingleside sandy loam, 5 to 10 percent slopes\Ingleside sandy loam 55%	5.0	100	6.0

R Factor	Annual precip	10-yr 24-hr rainfall	In Req area?
180	42.6	5.3	No

Alternatives:

Description	Base management	Contouring	Strips / barriers	Diversion/terrace, sediment basin
	CMZ 59\c.Other Local Mgt Records\Dale Story cs cg; air rad; fssb	default	(none)	(none)

Alternatives Results:

Description	Cons. plan. soil loss	Annual total biomass removal, lb/ac	Soil conditioning index (SCI)	SCI OM subfactor	SCI FO subfactor	SCI ER subfactor	STIR value	Wind & irrigation-induced erosion for SCI, t/ac/yr	Equiv. diesel use, gal/ac	Energy use, BTU/ac	Fuel cost, US$/ac
	2.5	0	0.362	0.0025	0.90	0.0099	10.2	0	6.5	900000	0

Before harvesting crop residue for off-site uses, the following issues need to be considered:

- Impact on wind and water erosion, runoff, and residue cover needed to comply with conservation programs
- Value of nutrients removed in crop residue and impact on fertilizer and lime requirement

USDA NRCS Natural Resources Conservation Service

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	Tract #	Field name
Dale Story (Templeville)	7315	2, 7, 8

Location	Soil	T value, t/ac/yr	Slope length (horiz), ft	Avg. slope steepness, %
USA\Maryland\Queen Annes County	Queen Anne's, MD\Co Corsica mucky loam\Corsica mucky loam 50%	5.0	100	1.0

R Factor	Annual precip	10-yr 24-hr rainfall	In Req area?
180	42.6	5.3	No

Alternatives:

Description	Base management	Contouring	Strips / barriers	Diversion/terrace, sediment basin
	CMZ 59\c.Other Local Mgt Records\Dale Story cs cg; air rad; fssb	default	(none)	(none)

Alternatives Results:

Description	Cons. plan. soil loss	Annual total biomass removal, lb/ac	Soil conditioning index (SCI)	SCI OM subfactor	SCI FO subfactor	SCI ER subfactor	STIR value	Wind & irrigation-induced erosion for SCI, t/ac/yr	Equiv. diesel use, gal/ac	Energy use, BTU/ac	Fuel cost, US$/ac
	0.80	0	0.497	0.0025	0.90	0.68	10.2	0	6.2	860000	0

Before harvesting crop residue for off-site uses, the following issues need to be considered:

- Impact on wind and water erosion, runoff, and residue cover needed to comply with conservation programs
- Value of nutrients removed in crop residue and impact on fertilizer and lime requirement

Date: 1/22/2025

Conservation Plan Map

TRUITT FARM

Client(s): L SUDLER STORY JR
Location: T_128
Queen Anne's County, Maryland
Approximate Acres: 52.20

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 376
Feet

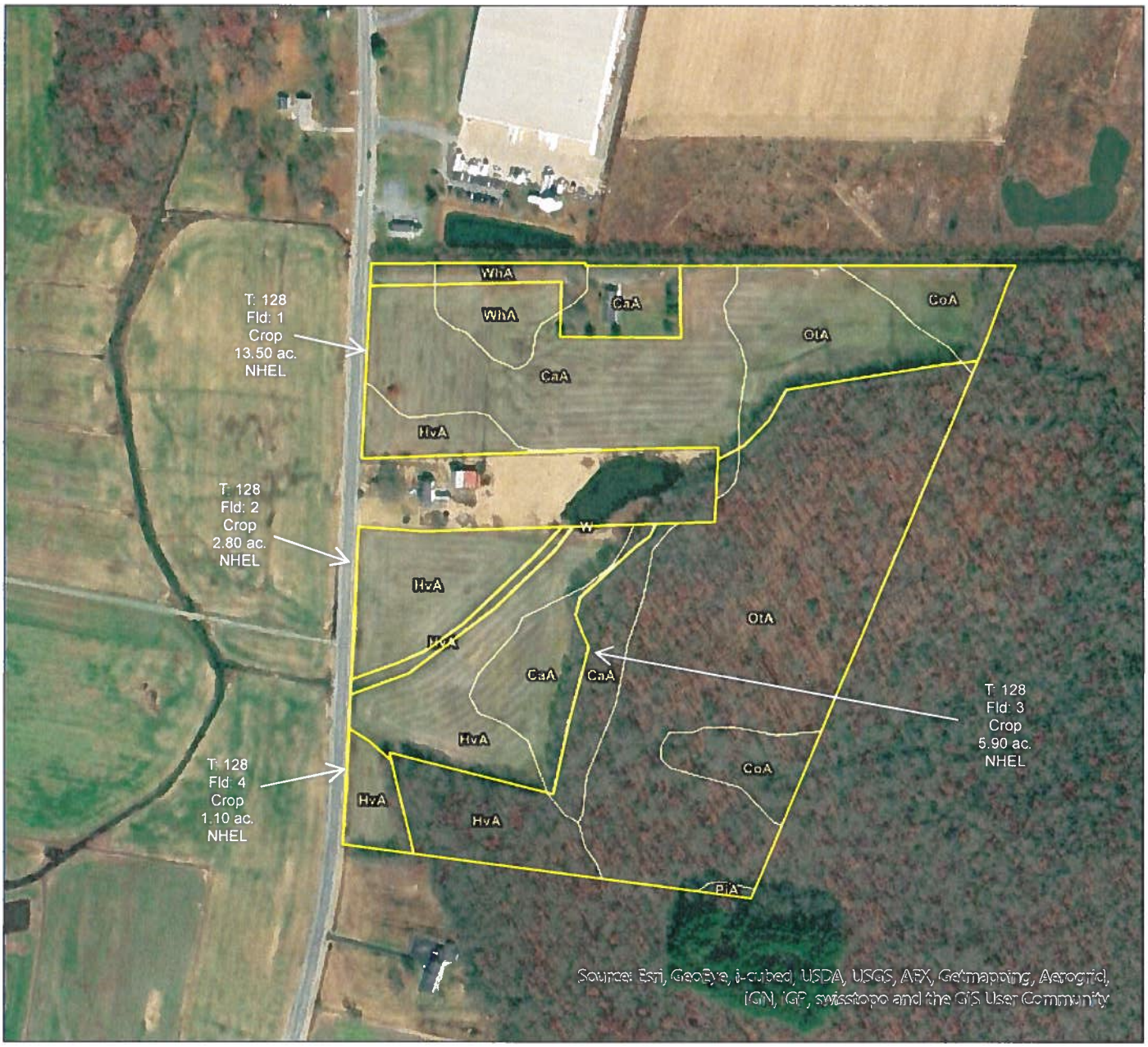
Conservation Practice Polygons
- Conservation Crop Rotation (328)
- Cover Crop (340)
- Nutrient Management (590)
- Residue and Tillage Management, Reduced Till (345)
- Practice Schedule PLUs

Date: 2/19/2025

Soils Map and Report

Client(s): L SUDLER STORY JR
Location: T: 128
Queen Anne's County, Maryland
Approximate Acres: 52.20

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD



Prepared with assistance from USDA-Natural Resources Conservation Service

0 376
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)

Queen Anne's County, Maryland

Map Unit: CaA--Carmichael loam, 0 to 2 percent slopes

Component: Carmichael, drained (45%)

The Carmichael, drained component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 high. 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Carmichael, undrained (35%)

The Carmichael, undrained component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of loamy eolian deposits over fluviomarine sediments. 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 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 (depth from the mineral surface is 4 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is

about 5 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Pineyneck (10%)

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

Component: Corsica, undrained (5%)

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

Component: Fallsington, drained (5%)

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

Map Unit: CoA--Corsica mucky loam, 0 to 2 percent slopes

Component: Corsica, undrained (55%)

The Corsica, undrained component makes up 55 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad depressions, flats, uplands. The parent material consists of loamy fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 frequently ponded. A seasonal zone of water saturation is at 2 inches (depth from the mineral surface is 0 inches) during January, February, March, April. Organic matter content in the surface horizon is about 38 percent. Below this thin organic horizon the organic matter content is about 12 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Corsica, drained (25%)

The Corsica, drained component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of loamy fluviomarine sediments fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly 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 rarely ponded. A seasonal zone of water saturation is at 5 inches during January, February, March. Organic matter content in the surface horizon is about 9 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Fallsington, drained (5%)

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

Component: Kentuck, undrained (5%)

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

Component: Hurlock, drained (5%)

Generated brief soil descriptions are created for major soil components. The Hurlock, drained 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: HvA--Hurlock sandy loam, 0 to 2 percent slopes

Component: Hurlock, drained (42%)

The Hurlock, drained component makes up 42 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Hurlock, undrained (38%)

The Hurlock, undrained component makes up 38 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, uplands. The parent material consists of Loamy 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 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 occasionally ponded. A seasonal zone of water saturation is at 5 inches (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is about 2 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Hammonton (5%)

Generated brief soil descriptions are created for major soil components. The Hammonton 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.

Component: Klej (5%)

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

Component: Mullica, drained (5%)

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

Map Unit: OtA--Othello silt loams, 0 to 2 percent slopes, Mid-Atlantic Coastal Plain

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, coastal plains. The parent material consists of silty eolian deposits over 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 (or restricted depth) 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. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Othello, undrained (28%)

The Othello, undrained component makes up 28 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 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 (or restricted depth) 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 (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp 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: Crosiadore (7%)

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

Component: Mattapex (7%)

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

Component: Fallsington, undrained (5%)

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

Component: Kentuck, undrained (5%)

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

Map Unit: PiA--Pineyneck silt loam, 0 to 2 percent slopes

Component: Pineyneck (80%)

The Pineyneck 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 loamy 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 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 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 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Unicorn (10%)

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

Component: Carmichael, drained (5%)

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

Component: Greenwich (5%)

Generated brief soil descriptions are created for major soil components. The Greenwich 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: WhA--Whitemarsh silt loam, 0 to 2 percent slopes

Component: Whitemarsh, drained (45%)

The Whitemarsh, drained component makes up 45 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. 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 (or restricted depth) is high. 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 3 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Whitemarsh, undrained (30%)

The Whitemarsh, undrained component makes up 30 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. 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 (or restricted depth) 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 (depth from the mineral surface is 3 inches) during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Below this thin organic horizon the organic matter content is

about 3 percent. This component is in the F149AY090NJ Coastal Plain Hardwood Swamp ecological site. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Crosiadore (10%)

Generated brief soil descriptions are created for major soil components. The Crosiadore 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: Othello, drained (5%)

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

Component: Kentuck, undrained (5%)

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

Data Source Information

Soil Survey Area: Queen Anne's County, Maryland
Survey Area Data: Version 21, Sep 06, 2024

Soils Inventory Report

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
128	1	CaA	Carmichael loam, 0 to 2 percent slopes	6.6	50%
128	1	CoA	Corsica mucky loam, 0 to 2 percent slopes	1.4	11%
128	1	HvA	Hurlock sandy loam, 0 to 2 percent slopes	1.0	8%
128	1	OtA	Othello silt loams, 0 to 2 percent slopes, Mid-Atlantic Coastal Plain	3.2	24%
128	1	WhA	Whitemarsh silt loam, 0 to 2 percent slopes	1.1	8%
			Total	**13.3**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
128	2	HvA	Hurlock sandy loam, 0 to 2 percent slopes	2.8	100%
			Total	**2.8**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
128	3	CaA	Carmichael loam, 0 to 2 percent slopes	1.9	36%
128	3	HvA	Hurlock sandy loam, 0 to 2 percent slopes	3.4	64%
128	3	W	Water	0.0	0%
			Total	**5.3**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
128	4	HvA	Hurlock sandy loam, 0 to 2 percent slopes	0.9	100%
			Total	**0.9**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
128	5	HvA	Hurlock sandy loam, 0 to 2 percent slopes	0.4	100%
			Total	**0.4**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
128	6	CaA	Carmichael loam, 0 to 2 percent slopes	1.9	9%
128	6	CoA	Corsica mucky loam, 0 to 2 percent slopes	1.3	6%
128	6	HvA	Hurlock sandy loam, 0 to 2 percent slopes	2.3	11%
128	6	OtA	Othello silt loams, 0 to 2 percent slopes, Mid-Atlantic Coastal Plain	14.9	73%
128	6	PiA	Pineyneck silt loam, 0 to 2 percent slopes	0.1	0%
			Total	**20.5**	**100%**

Tract	Land Unit	Map Unit Symbol	Map Unit Name	Acres	Percent
128	7	CaA	Carmichael loam, 0 to 2 percent slopes	1.4	74%
128	7	WhA	Whitemarsh silt loam, 0 to 2 percent slopes	0.5	26%
			Total	**1.9**	**100%**

RUSLE2 Worksheet Erosion Calculation Record

Info:

Owner name	Tract #	Field name
John Truitt Tract 128	**128**	1

Location	Soil	T value, t/ac/yr	Slope length (horiz), ft	Avg. slope steepness, %
USA\Maryland\Queen Annes County	Queen Anne's, MD\HnA Hammonton sandy loam, 0 to 2 percent slopes\Hammonton sandy loam 55%	5.0	180	1.0

R Factor	Annual precip	10-yr 24-hr rainfall	In Req area?
180	42.6	5.3	No

Alternatives:

Description	Base management	Contouring	Strips / barriers	Diversion/terrace, sediment basin
poultry manure before conventional corn, broadcast light-disc wheat cover crop	temp\Carrie	b. absolute row grade 0.3 percent	(none)	(none)

Alternatives Results:

Description	Cons. plan. soil loss	Annual total biomass removal, lb/ac	Soil conditioning index (SCI)	SCI OM subfactor	SCI FO subfactor	SCI ER subfactor	STIR value	Wind & irrigation-induced erosion for SCI, t/ac/yr	Equiv. diesel use, gal/ac	Energy use, BTU/ac	Fuel cost, US$/ac

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.

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.	February 2025

The schedule of conservation practices presented here has been reviewed by C. Dale Story, who is responsible for compliance with the requirements of the agricultural farm operation.

I, C. Dale Story, 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 Queen Anne's Soil Conservation District and have this schedule revised.

C. Dale Story

C. Dale Story

3/17/25

Date

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 custom applied and no chemicals are stored at the operation.

WILLARD

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NUTRIENT MANAGEMENT PLAN
FOR
Dale Story
1709 Barclay Road
Barclay, Maryland 21607

BRIEF DESCRIPTION OF OPERATION: Mr. Story operates approximately 345 acres of cropland in Queen Anne's County, Maryland. On the farm Mr. Story grows corn, soybeans, small grains, double crop soybeans and orchardgrass hay. Mr. Story also raises 30 head of beef cattle and has 2 organic poultry broiler houses which he grows for Coleman Natural Foods which is an organic division of Purdue. Mr. Story uses both poultry and beef manure as a nutrient source but his main nutrient source is commercial fertilizer. This updates the nutrient management component of a CNMP for an operation registered under the CAFO permit.

DATE OF PLAN: April 2, 2024

DURATION OF PLAN: April 2024 to April 2025

SOIL SAMPLING AND TESTING: Soil samples were collected by Willard Agri-Service in Fall of 2021-2023 and were analyzed at Spectrum Analytic Inc.

MANURE SAMPLING AND TESTING: Manure samples were collected by Willard Agri-Service and analyzed in January 2024 by Agro-Lab.

MANURE MANAGEMENT: Poultry Manure: (see attached Poultry NMP) Manure from the beef operation is stored in the beef manure shed and spread on the Home Farm in the spring of each year. **Some poultry manure is exported to Sudler Story, 740 Dixon Tavern RD, Barclay, MD 21607.**

BASIS OF RECOMMENDATIONS: Nutrient recommendations are both nitrogen & phosphorus based, as required by State of Maryland regulations.

SOURCE OF YIELD GOAL INFORMATION: Yield goals were based on information provided by Mr. Story.

BEST MANAGEMENT PRACTICES: Information and requirements for implementation of Best Management Practices are addressed your soil conservation water quality plan.

PHOSPHORUS MANAGEMENT TOOL (PMT): The farms/fields in the table below had **soil test phosphorus P (expressed as FIV-P) of 150 or above**. Phosphorus Management Tool (PMT) determinations were conducted for fields on which P-bearing materials will be applied and results of the PMT are listed as the P Loss Rating Score.

Farm or Tract	**Field with FIV>150**	**PMT done**	**P Loss Rating Score**	**Application Rate Used in Calculation; Explanation/Restriction**
Brzoska	1	Yes	Low	*Up to 30 lbs starter P per acre can be applied. P rate limited to 3 year crop removal rate*
Brzoska	2	Yes	Low	*Up to 30 lbs starter P per acre can be applied. P rate limited to 3 year crop removal rate*
Brzoska	3*	Yes	Low	*Up to 30 lbs starter P per acre can be applied. P rate limited to 3 year crop removal rate*
Brzoska	4	Yes	Low	*Up to 30 lbs starter P per acre can be applied. P rate limited to 3 year crop removal rate*
Cosden	1*	Yes	Low	*Up to 30 lbs starter P and 2 tons poultry manure per acre can be applied. P rate limited to 3 year crop removal rate*
Hager	H1*	Yes	Low	*Up to 30 lbs starter P per acre can be applied. P rate limited to 3 year crop removal rate*
Hager	H2*	Yes	Low	*Up to 30 lbs starter P per acre can be applied. P rate limited to 3 year crop removal rate*
Home	H1*	Yes	Low	*Up to 30 lbs starter P, 2 tons poultry manure and 10 tons cattle manure per acre can be applied. P rate limited to 3 year crop removal rate*
Home	H2	Yes	Low	*Up to 30 lbs starter P and 2 tons poultry manure per acre can be applied. P rate limited to 3 year crop removal rate*

Home	H3	Yes	Low	*Up to 30 lbs starter P and 2 tons poultry manure per acre can be applied. P rate limited to 3 year crop removal rate*
Templeville	T1*	Yes	Medium	*Up to 30 lbs starter P per acre can be applied. P rate limited to crop removal rate*
Templeville	T2	Yes	Low	*Up to 30 lbs starter P per acre can be applied. P rate limited to 3 year crop removal rate*
Templeville	T3*	Yes	Low	*Up to 30 lbs starter P per acre can be applied. P rate limited to 3 year crop removal rate*
Truitt	1*	Yes	Low	*Up to 30 lbs starter P and 2 tons poultry manure per acre can be applied. P rate limited to 3 year crop removal rate*
Truitt	2*	Yes	Low	*Up to 30 lbs starter P and 2 tons poultry manure per acre can be applied. P rate limited to 3 year crop removal rate*

***These fields have an FIV lower than 150 but more P was applied then the soil tests recommended**

3-YEAR CROP ROTATION RESTRICTION: Each crop has a specific Phosphorus removal rate based on research and listed by University of Maryland. For a 3-year crop rotation, add together the Phosphorus removal rate of the crops grown in those three years and that can be applied to the field over those three years as determined by the operator. The rate listed above is the recommended rate for the current crop but if you would like to apply more, please consult your plan writer for an updated PMT score.

Corn: at **180bu/ac**, the P removal rate is **72lbs** per acre. The P removal rate for corn is **0.4 pounds per bushel** (200bu x 0.4lbs P removed = 80lbs P removed by the crop total). Any other yield goals can be determined using this equation.

Soybeans: at **60bu/ac**, the P removal rate is **60lbs** per acre. The P removal rate for soybeans is **1 pound per bushel** (60bu x 1lbs P removed = 60lbs P removed by the crop total). Any other yield goals can be determined using this equation.

Wheat/DCSB: at **100bu/ac**, the P removal rate for wheat is **56lbs** per acre and at **50 bu/ac** the P removal rate for soybeans is **50 lbs** per acre. The P removal rate for wheat **is 0.56 pounds per bushel** (100bu x 0.56lbs P removed = 56lbs P removed by the crop total). Any other yield goals can be determined using this equation. The removal rate for DCSB is the same as above.

NUTRIENT APPLICATION EQUIPMENT CALIBRATION: Application equipment must be calibrated **annually** to estimate actual application rates for all nutrient applications. Equipment must be recalibrated when equipment settings, ground speed, consistency or density of a product varies from the original calibration. Documentation of the calibrations must be recorded and made available during an implementation review conducted by EPA, MDE or MDA. This documentation must include any of the necessary calculations to attain the nutrient rate that was determined.

RECORD KEEPING REQUIREMENTS: The Water Quality Improvement Act requires that producers maintain records on manure management, animal numbers, manure quantity and manure and fertilizer applications. The operator must keep records of the quantity, date, and destination of litter as it is removed from the production houses to either storage sheds or off-farm locations. The *Litter Removal Data Sheet* in the **Recordkeeping** section of this plan can be used for tracking movement of litter. Refer to the *General Discharge Permit for Animal Feeding Operations* for information for the type of records that are required by MDE and EPA.

SETBACK REQUIREMENTS:
Setbacks (areas where manure may not be applied) are required as follows:

a. A **setback** of at least 100' from waters of the State, including field ditches, other conduits, intermittent streams, and drinking water wells, shall be maintained; or an **approved alternative** may be substituted for the 100' setback.
b. A **setback** of at least 100' from property lines shall be maintained, unless an **approved alternative** setback for property lines is established with the consent of the adjacent property owner.

MDE has **approved alternatives** to setbacks from waters of the State. These are listed in the document "Maryland Setback Standards and Approved Alternatives Consistent with CAFO/MAFO Requirements", a copy of which is included in this nutrient management plan. **In your records, indicate whether you observed the setbacks or one of the approved alternatives.** Nutrient Management regulations require a nutrient application setback from all surface water, including direct deposition from livestock. A 10-foot permanent vegetative buffer is required on all fields next to surface water. The 10-foot buffer area cannot receive any nutrients. The no nutrient application setback is expanded to 35-foot when any nutrients are applied broadcast. For information on surface water setbacks go to the **Nutrient Application Guidelines** section of this plan**. Home fields H2+3, Templeville fields T1+T2 and Truitt fields 1+2 require setbacks. See maps for further details**

TIMING: Guidance on the timing of fertilizer applications is included on the recommendations sheet(s). Additional information of a general nature is included in the "NUTRIENT APPLICATION

Manure Summary Table

Animal Type and Number	Total Manure Generation (Tons/yr)*	Manure Avail. for Utilization (Tons/yr)*	Manure Storage Capacity/Conditions	Timing of Application
Beef Cattle – 30 (15 Cows + 15 Calves)	356 tons	184 Tons	New Shed	Spring

***See Manure Generation Sheets**

Farm Identification Summary

Farm Name	Tax Account ID Numbers	Watershed Location Code	Total Acres Farmed (Cropland and Pasture)
Brzoska	[redacted]	0045	36.8
Campbell		0045	63.8
Clough		0045	16.3
Cosden		0045	26.5
Davis		0045	11.2
Hager		0045	18.9
Home		0045	74.5
Templeville		0045	74.7
Truitt		0045	22.3

Total Acres Farmed: 345

William Kimbles Kimbles
Certification # 4181
License # 2009

Plan Update Requirements

As stated in the cover sheet, this plan was developed for use from

April 2024 to April 2025

The following is a list of situations that will impact whether or not the attached Nutrient Management Plan will need updating before **the end of the time period for which the plan was developed.**

1) A change to the **planned crop or cropping rotation**, or introduction of a **new crop** not currently addressed in the existing nutrient management plan.

2) A change in **nutrient source or soil test results**.

3) A change in **acreage** managed of 10 percent or greater, or 30 acres, whichever is less.

4) A change in **animal units** of 10 percent or greater if resultant manure production will require significant management adjustments.

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Account No. : 241

Beef Manure Analysis Report

DONOVAN, GARY
WILLARD AGRI SERVICES -- 241
11523 LYNCH RD
WORTON MD 21678

Invoice No. : 1147704
Date Received : 01/03/2024
Date Analyzed: 01/05/2024
Lab No. : 4774

Results For : DALE STORY
Sample ID : HOME
BEEF 2024

	Analysis Dry Basis	Analysis As Is Basis	Lbs / Ton Dry Basis	Lbs / Ton As Is Basis	Available First Year
Organic N, % N	1.73	0.31	34.7	6.3	2.2
Ammonium, % N	0.160	0.0290	3.2	0.6	0.6
Nitrate, % N	0.007	0.0010	0.1	0.0	0.0
Total N, % N	1.90	0.34	38.0	6.9	2.8
Phosphorus, % P_2O_5	0.46	0.08	9.3	1.7	1.2
Potassium, % K_2O	1.05	0.19	21.1	3.8	3.4
Sulfur, % S	0.25	0.05	4.9	0.9	0.4
Calcium, % Ca	1.66	0.30	33.1	6.0	4.2
Magnesium, % Mg	0.39	0.07	7.8	1.4	1.0
Sodium, % Na	0.04	0.01	0.8	0.1	0.1
Zinc, ppm Zn	396.2	71.7	0.8	0.1	0.1
Iron, ppm Fe	1368.9	247.6	2.7	0.5	0.3
Manganese, ppm Mn	143.5	26.0	0.3	0.1	0.0
Copper, ppm Cu	14.7	2.7	0.0	0.0	0.0
Aluminum, ppm Al	792.6	143.4	1.6	0.3	0.2
Boron, ppm B	10.7	1.9	0.0	0.0	0.0
pH		8.9			
Moisture, %	81.91				
Dry Matter (TS), %	18.09				

Note: The available first year Ammonium-N is calculated based on maximum availability, or incorporation within 24 hours. Advise a nutrient consultant for adjustments beyond 24 hr incorporation.

Reviewed By : B.T. Scott - AgroLab/Matrix Sciences Inc 1/5/2024 **Copy :** 1

Bus: 302/566-6094
Email: admin@agrolab.us
web site www.agrolab.us
101 Clukey Dr.
Harrington, DE 19952

AgroLab
Serving Agriculture and Soil Fertility Professionals

Account No. : 241

Poultry Manure Analysis Report

DONOVAN, GARY
WILLARD AGRI SERVICES -- 241
11523 LYNCH RD
WORTON **MD** **21678**

Invoice No. : 1147704
Date Received : 01/03/2024
Date Analyzed: 01/05/2024

Lab No. : 4775

Results For : DALE STORY
Sample ID : HOME
POULTRY 2024

	Analysis Dry Basis	Analysis As Is Basis	Lbs / Ton Dry Basis	Lbs / Ton As Is Basis	Available First Year
Organic N, % N	3.04	2.50	60.7	50.0	26.5
Ammonium, % N	0.531	0.4370	10.6	8.8	8.3
Nitrate, % N	0.014	0.0120	0.3	0.2	0.2
Total N, % N	3.58	2.95	71.6	59.0	35.0
Phosphorus, % P_2O_5	3.99	3.29	79.9	65.8	59.2
Potassium, % K_2O	4.88	4.02	97.5	80.3	76.3
Sulfur, % S	0.68	0.56	13.7	11.2	4.5
Calcium, % Ca	2.78	2.29	55.6	45.8	32.1
Magnesium, % Mg	0.87	0.72	17.4	14.3	10.0
Sodium, % Na	0.94	0.77	18.8	15.5	15.5
Zinc, ppm Zn	790.6	651.4	1.6	1.3	0.9
Iron, ppm Fe	468.2	385.7	0.9	0.8	0.5
Manganese, ppm Mn	653.6	538.5	1.3	1.1	0.8
Copper, ppm Cu	504.6	415.7	1.0	0.6	0.8
Aluminum, ppm Al	624.3	514.4	1.2	1.0	0.7
Boron, ppm B	248.5	204.7	0.5	0.4	0.4
pH		8.9			
Moisture, %	17.61				
Dry Matter (TS), %	82.39				

Note: The available first year Ammonium-N is calculated based on maximum availability, or incorporation within 24 hours. Advise a nutrient consultant for adjustments beyond 24 hr incorporation.

Reviewed By : B.T. Scott - AgroLab/Matrix Sciences Inc 1/5/2024 **Copy :** 1

Bus: 302/566-6094
Email: admin@agrolab.us
web site
www.agrolab.us
101 Clukey Dr.
Harrington, DE 19952

WILLARD

Farm Management Map

Dealer: Willard **Fields:** Multiple **Acres:** 36.81
Location: Lynch
Grower: Story Dale
Farm: Brzoska Farm

Notes:

Spectrum Analytic
1087 Jamison Road NW
Washingon Court House, OH 43160-8748
www.spectrumanalytic.com

Report To	Prepared For	
WILLARD AGRI-SERVICE 11523 LYNCH ROAD WORTON, MD 21678	DALE STORY / BROZSKA BROZSKA BROZSKA	Sampled 12-17-2023 Tested 12-21-2023

Sample Number	Lab Number	pH		Organic Matter %	P-Fiv Fertility Index Value	lbs/A - Rating			CEC	Base Saturation			ppm - Rating				Index - Rating	
		Soil pH	Buffer pH			Potassium K	Magnesium Mg	Calcium Ca		K %	Mg %	Ca %	Sulfur S	Boron B	Zinc Zn	Iron Fe	Copper Cu	Manganese Mn
1	H36581	6.4	7.2	2.1	194 X	254 G	248 G	990 G	3.8	8.5	27.0	64.6						
2	H36582	6.3	7.3	2.2	180 X	205 G	326 G	1247 G	4.7	5.5	28.6	65.8						
3	H36583	6.3	7.2	1.8	156 X	186 M	180 M	845 G	3.1	7.7	24.1	68.1						
4	H36584	6.2	7.3	1.9	136 X	213 G	260 G	1178 G	4.3	6.4	25.2	68.4						

Sample Number	Year	Acres	Previous Crop	Nitrogen Credit	Crop to be Grown	Tillage Method	Yield Goal
1	2024	15.5	UMD Corn	0	UMD Soybeans	No-Till	60 bu
2	2024	6.1	UMD Corn	0	UMD Soybeans	No-Till	60 bu
3	2024	3	UMD Corn	0	UMD Soybeans	No-Till	60 bu
4	2024	9.2	UMD Corn	0	UMD Soybeans	No-Till	60 bu

Sample Number	Year	CaCO3 Lime Tons	Recommendations			Manure		Remainder			Nutrient recommendations expressed in broadcast rates of lbs/A except						
			N	P2O5	K2O	Type and Analysis % N/P2O5/K2O	Amt To Apply	N	P2O5	K2O	Mg	S	B	Cu	Fe Foliar	Mn Row	Zn
1	2024	0.4	0	0	88						11						
2	2024	0.4	0	0	108						0						
3	2024	0.4 D	0	0	118						12						
4	2024	0.5	0	0	105						10						

WILLARD

Farm Management Map

Dealer:	Willard	**Fields:**	Multiple	**Acres:**	63.82
Location:	Lynch				
Grower:	Story Dale				
Farm:	Campbell Farm				

Notes:

Spectrum Analytic
1087 Jamison Road NW
Washington Court House, OH 43160-8748
www.spectrumanalytic.com

Report To	Prepared For	
WILLARD AGRI-SERVICE 11523 LYNCH ROAD WORTON, MD 21678	DALE STORY / CAMPBELL CAMPBELL CAMPBELL	Sampled 12-17-2023 Tested 12-21-2023

Sample Number	Lab Number	pH		Organic Matter	P-FIV Fertility Index Value	lbs/A - Rating			CEC	Base Saturation			ppm - Rating				Index - Rating	
		Soil pH	Buffer pH	%		Potassium K	Magnesium Mg	Calcium Ca		K %	Mg %	Ca %	Sulfur S	Boron B	Zinc Zn	Iron Fe	Copper Cu	Manganese Mn
1	H36576	6.3	7.2	2.0	65 O	306 G	238 G	999 G	3.9	10.1	25.5	64.4						
2	H36577	6.2	7.2	1.7	48 M	153 M	262 G	980 G	3.7	5.2	29.2	65.5						
3	H36578	6.2	7.2	1.5	44 M	134 M	225 M	869 G	3.3	5.2	28.6	66.2						
4	H36579	6.4	7.1	1.6	71 O	245 G	264 G	1004 G	3.9	8.0	28.0	63.9						
5	H36580	6.4	7.3	1.4	68 O	232 G	243 G	974 G	3.7	7.9	27.0	65.0						

Sample Number	Year	Acres	Previous Crop	Nitrogen Credit	Crop to be Grown	Tillage Method	Yield Goal
1	2024	22.1	UMD Soybeans	15	UMD Corn	Minimum	200 bu
2	2024	8.6	UMD Soybeans	15	UMD Corn	Minimum	200 bu
3	2024	5.5	UMD Soybeans	15	UMD Corn	Minimum	200 bu
4	2024	15.7	UMD Soybeans	15	UMD Corn	Minimum	200 bu
5	2024	2.3	UMD Soybeans	15	UMD Corn	Minimum	200 bu

Sample Number	Year	CaCO3 Lime Tons	Recommendations			Manure		Remainder			Nutrient recommendations expressed in broadcast rates of lbs/A except						
			N	P2O5	K2O	Type and Analysis % N/P2O5/K2O	Amt To Apply	N	P2O5	K2O	Mg	S	B	Cu	Fe Foliar	Mn Row	Zn
1	2024	0.3	185	43	63	Litter - 2.937/3.29/4.02	2.0 ton/A	121	0	0	32						
2	2024	0.4	185	54	207	Litter - 2.937/3.29/4.02	2.0 ton/A	121	0	46	13						
3	2024	0.4 D	185	63	215	Litter - 2.937/3.29/4.02	2.0 ton/A	121	0	54	10						
4	2024	0.2	185	39	114	Litter - 2.937/3.29/4.02	2.0 ton/A	121	0	0	13						
5	2024	0.2	185	41	124	Litter - 2.937/3.29/4.02	2.0 ton/A	121	0	0	16						

WILLARD

Farm Management Map

Dealer:	Willard	**Fields:**	Multiple	**Acres:**	16.28
Location:	Lynch				
Grower:	Story Dale				
Farm:	Clough Farm				

Notes:

Spectrum Analytic
1087 Jamison Road NW
Washington Court House, OH 43160-8748
www.spectrumanalytic.com

Report To	Prepared For	
WILLARD AGRI-SERVICE 11523 LYNCH ROAD WORTON, MD 21678	DALE STORY / CLOUGH CLOUGH	Sampled 11-22-2021 Tested 11-29-2021

Sample Number	Lab Number	pH		Organic Matter	P-FIV Fertility Index Value	lbs/A - Rating			CEC	Base Saturation			ppm - Rating				Index - Rating	
		Soil pH	Buffer pH	%		Potassium K	Magnesium Mg	Calcium Ca		K %	Mg %	Ca %	Sulfur S	Boron B	Zinc Zn	Iron Fe	Copper Cu	Manganese Mn
C1	B24946	6.3	7.2	1.0	63 O	92 L	183 M	711 M	2.7	4.5	28.7	66.9						

Sample Number	Year	Acres	Previous Crop	Nitrogen Credit	Crop to be Grown	Tillage Method	Yield Goal
C1	2024	16.3	UMD Corn	0	UMD Soybeans		65 bu

Sample Number	Year	CaCO3 Lime Tons	Recommendations			Manure		Remainder			Nutrient recommendations expressed in broadcast rates of lbs/A except						
			N	P2O5	K2O	Type and Analysis % N/P2O5/K2O	Amt To Apply	N	P2O5	K2O	Mg	S	B	Cu	Fe Foliar	Mn Row	Zn
C1	2024	0.4 D	0	58	165						11						

Analyzed by Spectrum Analytic Inc.
www.spectrumanalytic.com

HID:9460-0413-1681-0004

Maryland Nutrient Management Program

Variance for Animal Manure Nutrient Application

(August 2004)

Many operators throughout the state apply some form of animal manures to their fields to help meet crop nutrient requirements. Realizing the tremendous variability within organic nutrient sources such as the type of material, nutrient content, composition, along with various other factors such as equipment limitations, application methods and operator judgment, the following guidance was developed. This guidance document will be used by MDA Nutrient Management Program Specialists to evaluate past animal manure nutrient applications during a plan implementation review of a farm.

Variance in Nutrient Application Rates for Animal Manures

Nitrogen-based Plan: 10#/acre maximum allowance for nitrogen application *(per field)*
Operators who have over applied their animal manure based on the organic N recommended rate for any field, and **have not** met their total crop N requirement through the application of animal manure, will need to make the necessary adjustments in their commercial N recommended rate prior to applying commercial N. The total N application (organic and commercial) should not exceed the total recommended N rate for any field in the plan by more than 10#/acre. Any nutrient application over the recommended rate or the 10#/acre allowance must be justified and is subject to be in non-compliance.

Example:
A dairy producer's plan recommends 140 lbs/acre of Nitrogen for a particular field which will be planted in corn. The plan recommends 5,000 gal/acre of liquid dairy manure along with 40 lbs/acre of commercial N to meet the 140 lbs/acre N recommendation for that field. Due to an error in application, the operator actually applied 6,000 gal/acre. Because of this error, the operator will now need to adjust their commercial N application accordingly. Assuming the liquid dairy manure provided 20 lbs of PAN per 1000 gallons, the operator would need to reduce their commercial N application rate to 20 lbs/acre instead of the original 40 lbs/acre.

Nitrogen and Phosphorus-based plan: 10% maximum variance for N and P application *(per field)*
Operators who intend to meet the total crop N requirement in a field through the application of animal manures, or those operations that are applying to fields restricted to a P- based planning rate (FIV 150 or over and P-Site Index completed), should not exceed the total recommended rate by more than 10 percent. Any rate over the recommended rate, or the 10 percent variance, must be justified and is subject to be in non-compliance.

Example:
A poultry producer's plan recommends 140 lbs/acre of Nitrogen for a particular field which will be planted in corn. The plan recommends 3 tons of poultry litter/acre to meet the 140 lbs/acre N recommendation for a field, or is under a P-based plan restriction of 3 tons of litter/acre. The operator will need to keep their total organic nutrient application rate within 10% of the recommended rate. In this scenario, they would be allowed up to 3.3 tons/acre. This variance is given for equipment variability and possible operator error.

All applications of nutrients must follow the guidelines and standards documented in the *Maryland Nutrient Management Manual* Section I - Nutrient Recommendations, D - Timing of Nutrient Application. Any reasoning for exceeding the recommended plan application rates must be documented. Any applications of nutrients that exceed the above guidance are subject to be in non-compliance unless prior approval has been granted by the Department.

Note: This guidance document does not serve as a tool for those operations using biosolids as a nutrient source. The application of biosolids as a crop nutrient source is regulated under the Maryland Department of the Environment sewage sludge regulations. However, MDA does have planning guidance for the application of biosolids in the *Maryland Nutrient Management Manual* Fact Sheet Series # 6 entitled Nutrient Management Planning Guidance for Biosolid Use.

Maryland Nutrient Management Program

Variance for Commercial Fertilizer Nutrient Application

(August 2004)

Occasionally operators may need to group a number of fields within a close level (short range) of soil fertility and prepare a fertilizer blend for each group rather than field specific nutrient recommendation rates developed by the software programs. This guidance document will be used by MDA Nutrient Management Program Specialists during an implementation evaluation to evaluate the degree of variance between planned recommendation rates and actual applied rates for operators using commercial fertilizer sources.

Variance in Nutrient Application Rates for Commercial Fertilizer

Nitrogen:

Total application of commercial nitrogen should not exceed the recommended rate by more than #10/acre. Any rate over the recommended rate or the 10#/acre must be justified and is subject to be in non-compliance.

Phosphorus and Potassium

Recommended rates of commercial phosphorus and potassium can be applied at one rate when the plan recommends various rates for different fields. When using a blended fertilizer material containing phosphorus and potassium, the combined rates **cannot exceed** the phosphorus requirements. The following guidance should be used when evaluating the grouping of recommended nutrient rates.

Phosphorus

Maryland soil test FIV's will be used as a guide for what recommended rates can be grouped at one rate. Any soil test FIV's for phosphorus with the same rating (example: low, medium, optimum) can be managed at one rate. The rate should not exceed the highest recommended rate given in your nutrient management plan for that crop in that soil test range. The rate **cannot** exceed the upper limit of the nutrient recommended for that crop and yield goal within that soil test range, given in the Maryland Nutrient Management Manual, Section I-B1 and I-B2.
(See two examples below)

Example 1: An operator has 3 corn fields with a yield goal of 140 bushel/acre. The three fields all have different rates of phosphorus recommendations from NuMan. Field 1 recommends #30/acre, field 2 recommends #50/acre, and field 3 recommends #0/acre. Any of these three fields with the same soil test FIV rating can be grouped together and applied at one rate , not to exceed the upper limit recommended within the plan for these crops in the given soil test FIV range. Fields 1 & 2 have a recommendation of #30 and #50/acre and have a soil test FIV rating of medium. Therefore fields 1 and 2 can be applied at the same rate, of up to #50 (the highest recommended rate). Field 3's recommendation is #0/acre, with an excessive soil test FIV rating, and cannot be grouped with fields 1 & 2. Field 3 would be allowed a starter fertilizer of up to #30/acre (provided the P-FIV is less than 150 or a P-Site evaluation has been done) however, the operator **cannot** exceed this rate.

The consultant or person grouping the fields should stay within the lower range when grouping recommendations for one rate when a high range is provided in the manual.

Example 2: An operator again has 3 corn fields with a yield goal of 140 bushel/acre. The three fields all have different rates of phosphorus recommendations from NuMan. Field 1 recommends #120/acre, field 2 recommends #130/acre, and field 3 recommends #70/acre. According to the Maryland Nutrient Management Manual, Section I-B1, these three fields all have the same soil test FIV rating of Low and could be grouped together. However, MDA suggests that the fields be grouped together within the particular range as close to the recommendation as possible. In this case, field 3 should be treated separate from fields 1 and 2 since the FIV range of field 3 is almost half the recommendation of fields 1 and 2. Fields 1 and 2 can be grouped together not to exceed #130/acre.

Potassium Requirement #1

The same guidance of grouping fields together is used for potassium. Any fields with the same soil test FIV ratings for potassium can be managed at one rate. The rate should not exceed the highest recommended rate given in your nutrient management plan for that crop in that soil test range.

Potassium Requirement #2

If the operator has recommended rates of potassium that are lower than what can be achieved because of equipment limitations or product availability, they may apply **up to** the recommended rates of that crop and the crop to follow (will require a 2 year crop plan). However, the operator **must** account for the over application with the following crop.

Example: The operator has a recommendation for #30/acre of potassium for their soybean crop, however, they are unable to achieve this rate based on equipment limitations. They plan to follow this crop with wheat/beans which has a recommendation for #60/acre potassium. Therefore the operator may apply **up to** #90/acre potassium at anytime during that 2 year/2 crop rotation. This is only if the operator has equipment limitation issues. If there are no equipment limitations, the operator will need to follow Requirement No. 1.

All applications of nutrients and any reasoning for exceeding the recommended plan rates must be documented. Any applications that exceed the above guidance are subject to be in non-compliance unless prior approval has been granted by the Department.

NUTRIENT APPLICATION REQUIREMENTS

Source: Maryland Department of Agriculture 2016
Regulatory Citation: COMAR 15.20.07.02

I. GENERAL GUIDELINES

A. This document addresses (1) Setbacks for Nutrient Application, (2) Application Timing for all nutrients, organic and chemical, and (3) Temporary Field Stockpiling (staging) of Organic Materials. Application of nutrients may vary depending on the crop, season, nutrient source, and weather conditions. A person applying nutrients shall use best management practices, including following these "Nutrient Application Requirements," to maximize plant utilization efficiency as described in Section I-B of the *Maryland Nutrient Management Manual*, and minimize the potential for nutrient movement to sensitive areas and losses to surrounding water bodies, including surface and groundwater.

B. This document does not supersede Maryland Department of the Environment Animal Feeding Operations regulations in COMAR 26.08.01 and 26.08.03.09, or the Maryland Department of the Environment Sewage Sludge Management regulations in COMAR 26.04.06 regarding the requirements for sewage sludge storage, buffer zones, and the incorporation of sewage sludge into the soil by the end of each working day.

C. All materials that provide primary crop nutrients shall be included in, and managed by, a Nutrient Management Plan. These materials include chemical fertilizer, organic materials such as animal manure, sewage sludge, food processing wastes/residuals, spray irrigation from wastewater treatment plants, other waste streams containing nutrients, and soil conditioners/amendments.

D. These Nutrient Application Requirements shall be followed by certified consultants in the development of nutrient management plans, and by operators and applicators during plan implementation in order to comply with COMAR 15.20.08.05H and .05I

II. SETBACKS FOR NUTRIENT APPLICATION

A. "Nutrient Application Setback" means a vegetated area of a prescribed width where nutrient-containing material may not be applied, as measured from the edge of surface water, including perennial and intermittent streams. An intermittent stream means a stream or the reach of a stream that is below the local water table for at least some part of the year, and obtains its flow from both surface runoff and ground water discharge. Surface water does not include:

1. Ephemeral streams (defined as streams which flow only in direct response to precipitation in the immediate watershed and which have a channel bottom that is always above the local water table);

2. Irrigation and treatment ditches, as defined under "waters" in COMAR 15.20.08.03(B)(39), and

3. Field ditches, which, for purposes of this exception, are defined as channelized waterways that, as provided in the USDA-NRCS National Cooperative Soil Survey, are not within:
   a. A floodplain soil mapping unit;
   b. A hydric soil unit and mapped as a narrow, elongated feature in a fluvial/floodplain position; or
   c. A soil mapping unit that has a "B" slope class or steeper.

B. Effective January 1, 2014, a person who uses nutrients shall implement the following nutrient application setback requirements:

1. An application of crop nutrients using a broadcast method (e.g., spinners, splashers) either with or without incorporation requires a 35-foot setback.

2. A directed spray application or the injection of crop nutrients requires a 10-foot setback.

3. Excepting perennial forage crops grown for hay or pasture, vegetation in the 10-foot setback area may not include plants that would be considered part of the crop grown in the field.

4. Pastures and hayfields are subject to a 10-foot nutrient application setback.

5. Nutrients may not be applied mechanically within the setback. Except as provided in subsection II.B.6, livestock shall be excluded from the setback to prevent direct deposition of nutrients within the setback.

6. As an alternative to fencing livestock from the setback area, a person shall work with the soil conservation district to develop and implement a Soil Conservation and Water Quality Plan. The plan shall include Best Management Practices (BMPs) such as stream crossings, alternative watering facilities, pasture management or other MDA-approved BMPs that are considered to be equally protective of water quality and stream health.

7. As an alternative to a nutrient application setback, MDA may approve other BMPs that it finds equally protective of water quality and stream health.

8. Sacrifice lots (less than 75% grass or grass legume mix) shall maintain a 35-foot setback.

C. Operators are responsible for sediment and erosion control of stream crossing areas. Operators shall move livestock from one side of the stream to the other side only through stream crossings designed to prevent erosion and sediment loss. Operators shall gate crossing areas wider than 12 feet. Operators may allow livestock controlled access to streams for watering in accordance with USDA-NRCS Field Office Technical Guide standards and specifications.

III. APPLICATION TIMING

A. The consultant, applicator, operator, and the certified farm operator shall comply with the following management requirements when recommending or applying nutrients throughout the year. These requirements separately address the use of (1) chemical fertilizers and (2) organic fertilizers. An organic fertilizer is derived from either a plant or animal product, and contains carbon, and one or more elements other than hydrogen and oxygen that are essential for plant growth. The consultant, applicator, operator, and certified farm operator shall follow the nutrient application recommendations for crops as specified in the Maryland Nutrient Management Manual Section I-B. Nutrients shall be applied as close to plant nutrient uptake period as possible.

B. Spring and Summer (March 1 through September 9)

1. A person may make a nutrient application during the spring-summer time period for an existing crop or a crop to be planted either during this time period or in the fall provided that, for each such crop, the rates and applications are made in accordance with recommendations found in Section I-B of the Maryland Nutrient Management Manual.

2. Nutrient application is prohibited when the soil is saturated, when the ground is covered with snow greater than one inch, or when the ground is hard-frozen greater than two inches.

3. Organic nutrient sources shall be injected or incorporated as soon as possible, but no later than 48 hours after application, except those farm operations that choose to manage their farms to obtain the benefits of no-till farming will not be required to incorporate.

a. MDA reserves the right to require incorporation of organic nutrient sources on a case by case basis.

C. Fall Application (September 10 through December 15)

1. Chemical Fertilizers

A person may make a fall application of a chemical fertilizer for an existing crop or a crop to be planted during this time period provided that, for each such crop, the rates and applications are made in accordance with recommendations found in Section I-B of the Maryland Nutrient Management Manual.

2. Organic Fertilizers

a. General Rules for Fall Application of Organic Sources

(i) Excepting poultry litter, a person may make a fall application of an organic nutrient source for an existing crop or a crop to be planted either during this time period or the following spring (before June 1) provided that, for each such crop, the rates and applications are made in accordance with paragraph 2(b) of this subsection and the recommendations found in Section I-B of the *Maryland Nutrient Management Manual*.

(ii) A person may make a fall application of poultry litter for an existing crop or a crop to be planted during this time period provided that, for each such crop, the rates and applications are made in accordance with paragraph 2(b) of this subsection and the recommendations found in Section I-B of the Maryland Nutrient Management Manual.

b. General Conditions Relating to the Fall Application of Organic Nutrient Sources

(i) A person may make a fall-application on pasture land, hay-land or other acreage under vegetative cover.

(ii) Organic nutrient sources shall be injected or incorporated as soon as possible, but no later than 48 hours after application, except those farm operations that choose to manage their farms to obtain the benefits of no-till farming will not be required to incorporate.

(a) MDA reserves the right to require incorporation of organic nutrient sources on a case by case basis

(iii) A person making a fall-application of an organic nutrient source to fallow cropland shall plant a cover crop as soon as possible after application. The cover crop planting shall occur no later than November 15; and

(iv) The rate of nutrient application shall be determined based on recommendations outlined in Section I-B of the Maryland Nutrient Management Manual using either nitrogen or phosphorus–based criteria.

(v) If the application is phosphorus-based, the phosphorus application rate:

(aa) For a fall-seeded crop, shall be based on the phosphorus recommendations for that crop;

(bb) For crops to be planted the following spring (no later than June 1), may not exceed the one year crop removal rate of phosphorus for the spring-planted crop;

(cc) Shall follow the provisions of the Phosphorus Site Index, as they may otherwise apply; and

(dd) Shall result in an application rate of plant available nitrogen not exceeding 50 lbs. per acre.

(vi) If the application is nitrogen-based, the rate of application for a fall-seeded crop shall be based on recommendations for plant available nitrogen as outlined in Section I-B of the Maryland Nutrient Management Manual. If the application is related to a crop that is to be planted the following spring (before June 1), the application of nitrogen may not exceed 50 lbs. of plant available nitrogen per acre.

(vii) Nutrient application is prohibited when the soil is saturated, when the ground is covered with snow greater than one inch, or when the ground is hard-frozen greater than two inches.

3. Emergency Situations

Applications required in emergency situations due to an imminent overflow of a storage facility shall be managed in consultation with the Maryland Department of Agriculture. Operators in such situations shall contact the MDA regional nutrient management representative for guidance.

D. Winter Application (December 16 through February 28 of the following year)

1. Chemical Fertilizer

As a general rule, a person may not make a winter application of a chemical fertilizer to cropland. However, for small grains and perennial forage crops, a person may apply nitrogen at green-up when tillering begins as recommended in the Maryland Nutrient Management Manual section I-B. In addition, a person may apply certain nutrients for greenhouse production and for other vegetable and small fruit crops listed in the Maryland Nutrient Management Manual Section I-B. The restriction on the application of chemical fertilizers during winter also does not apply to potash or liming materials.

2. Organic Fertilizer

a. A person may make a winter application of an organic nutrient source to cropland only if:

(i) The operation has inadequate storage (i.e., the storage capacity will be exceeded before the March 1

winter application restriction);

(ii) The nutrient source is non-stackable; and

(iii) There is no other reasonable option to manage it.

b. Any such application shall be made in accordance with Section I-B of the Maryland Nutrient Management Manual.

c. Operators and generators of organic nutrient sources shall make plans for adequate storage to eliminate the need for a winter application before deadlines described in III. E.

d. The following restrictions apply to any such winter application:

(i) Nutrient application is prohibited during the winter if the organic nutrient source is stackable (equal to or less than 60 percent moisture content, such as poultry litter) or adequate storage is available.

(ii) Nutrient application is prohibited when the soil is saturated, when the ground is covered with snow greater than one inch or when the ground is hard-frozen greater than two inches.

(iii) Nutrient application is prohibited to land with a slope greater than 7 percent.

(iv) Rates of application shall be minimized and available acreage used to the greatest extent practical. In no case shall the application rate per acre exceed the one-year phosphorus removal rate or 50# of plant available nitrogen per acre for the next harvested crop. Any winter applied nutrients will be deducted from the recommendations of the next harvested crop.

(v) Winter applications shall be made on existing vegetative cover, small grain crops, or established hay fields and pastures and maintained as such until March 1st .

(vi)A setback of at least 100 feet from all surface waters shall be maintained, unless best management practices providing water quality protection equivalent to such a setback are in place. (Surface water is defined as any permanent or intermittent, continuous, physical conduit for transporting water. Shovel ditches and water leads are not included as surface waters for purposes of this policy.

(vii) Applications required in emergency situations due to an imminent overflow of a storage facility from on farm generated organic fertilizer shall be managed in consultation with the Maryland Department of Agriculture. Operators in such situations shall contact the MDA regional nutrient management representative for guidance. Operators will be required to enter into an agreement of intent with the Soil Conservation District or private entity that is a certified Technical Service Provider approved by NRCS.

E. Prohibition against Winter Application

1. Except as provided in subsections E.2 and, E.3 and E.4, after July 1, 2016, a person may not make a winter application of a nutrient source to agricultural land.

2. a. The prohibition against making a winter application after July 1, 2016 does not apply to a nutrient source that originates from:

(i) A dairy or livestock operation with less than 50 animal units; or

(ii) A municipal wastewater treatment [plan] plant with a design flow capacity of less than 0.5 million gallons per day.

b. This exception to the general prohibition referenced in subsection E.1 expires after the winter application that ends on February 28, 2020.

3. The prohibition against making a winter application does not apply to potash, liming materials, or manure deposited directly by livestock. A person may make a winter application of certain nutrients for greenhouse production and for certain vegetable crops, small fruit crops, small grain crops, and cool season grass sod production listed in the Maryland Nutrient Management Manual Section I-B.

4. Applications required in emergency situations due to an imminent overflow of a storage facility from on farm generated organic fertilizer shall be managed AS PROVIDED IN III D.2 [and] in consultation with the Maryland Department of Agriculture. Operators in such situations shall contact the MDA regional nutrient management representative for guidance. Operators will be required to enter into an agreement of intent with the Soil Conservation District or private entity that is a certified Technical Service Provider approved by NRCS.

IV. TEMPORARY FIELD STOCKPILING (STAGING) FOR STACKABLE ORGANIC NUTRIENT SOURCES (EQUAL TO OR LESS THAN 60% MOISTURE CONTENT)

A. General Provisions

1. When other immediate use options and alternatives are not available, temporary field stockpiling (staging) of organic nutrient sources is allowed. Temporary field stockpiling (staging) provides greater environmental protection

than a fall or winter application of nutrients or applying nutrients too far ahead of normal planting time and crop uptake.

2. To minimize the duration of temporary field stockpiling (staging), operators shall coordinate with integrators to schedule cleanouts as close to spring planting as possible, thereby providing a source of nutrients that is in phase with crop nutrient needs.

3. Existing storage shall be fully used prior to stockpiling material in the field.

4. Any material staged in a temporary field stockpile shall be land applied in the first spring season following the placement of the stockpile.

B. The temporary field stockpiling (staging) shall be located:

1. If a vegetated buffer is not in place, at least 100 feet from any surface water as defined in COMAR 15.20.08.03(B)(39) and any irrigation or treatment ditches; and if a vegetated buffer is in place, at least 35 feet from any such water;

2. At least 100 feet from wells, springs, and wetlands; however, if the well is located down gradient from the temporary field stockpiling (staging) area, at least 300 feet from the well;

3. At least 200 feet from any residence outside the operator's property;

4. Outside flood prone areas and areas subject to ponding;

5. If located on more than a 3 percent grade slope and no diversion installed, no farther than 150 feet from the top of the slope.

C. Poultry litter and other materials shall be stacked at least 6 feet high and peaked to prevent precipitation from soaking into the pile.

D. Materials shall be field stockpiled (staged) temporarily in a manner that prevents nutrient runoff. Temporary field stockpiling (staging) locations for subsequent piles should stay at the same location, rather than be moved from place to place.

F. All nutrients shall be removed from the temporary field (staged) stockpile and the ground area thoroughly scraped or cleaned when the application of the nutrients takes place.

G. Temporary field stockpile (staged) areas shall be restored to its original condition and, if necessary, reseeded with grass or an agronomic crop to facilitate nutrient uptake.

MARYLAND NUTRIENT MANAGEMENT PROGRAM

Agricultural Operation Record Keeping Requirements

(January 2003)

The Maryland Nutrient Management Program (MNMP) has developed a new record keeping system, which enables operators to evaluate crop management and nutrient management decisions, and helps consultants make more accurate nutrient recommendations. Included in the new system is a ***Field-By-Field Nutrient Application Record*** form, a ***Grain Yield Calculation*** sheet and a ***Forage Yield Calculation*** sheet.

According to the Water Quality Improvement Act (WQIA) of 1998, the application of nutrients on a farm operation must be documented, and certain records must be maintained by the operator for either 3 or 5 years (See Table 1). It may, at times, be necessary to make these records available to a Maryland Department of Agriculture (MDA) Nutrient Management Specialist when he/she evaluates the implementation of a nutrient management plan.

Table 1.

For 3 years, the following records/plan information must be kept:

- Nutrient management plan prepared by certified consultant
- Receipts for nutrients purchased
- Manure analysis laboratory report and management information (if applicable)
- Soil analysis laboratory report
- Documentation of field-by-field nutrient quantity, rates, timing, type and analysis
- Documentation justifying past revisions or adjustments to the nutrient management plan

For 5 years, the following records must be kept:

- Crop yields and support of crop yield data each year for 5 years

For nurseries or out -of-ground producers, the following records must be kept:

- Description of production cycles and nutrients applied, description of substrate, analysis of organic materials used as a source of nutrients in the substrate, and any monitoring information on run-off testing
- Documented nutrient use for crops without yield goals

In addition to documenting nutrient applications, it is important to document any adjustments to the nutrient management plan. These adjustments include:

- Change in land base
- Change in crops
- Change in nutrient source
- Change in the number of animals
- Change due to manure analysis

Some adjustments are beyond the operator's control, however they still must be documented. These kinds of adjustments include:

- Natural disasters
- Animal mortality or disease
- Economic factors (market changes)
- Weather

Field-by-Field Nutrient Application Record Form

On the new ***Field-by-Field Nutrient Application Record*** form, operators can easily document the application of nutrients on their farm operations, and account for each farm that they manage on an annual basis. Operators can also keep track of one or more fields that are planted with the same crop and managed similarly.

This form contains two separate areas for recording nutrient applications based on either the same field with different crops in a cropping year or different fields with different crops or management considerations. Each nutrient application can be documented by date, or if the applications are similar, multiple applications can be recorded with several dates on one row.

Other information recorded on this form include the application type (such as chemical fertilizer, animal manure or bio-solids), analysis, rate, total amount applied, method of application and acres applied. Lime application can also be recorded on this form although it is not required by the regulations. Operators can also record any notes specific to the application activity as needed.

Copies of the ***Field-by-Field Nutrient Application Record*** form can be made by the operator or obtained by contacting the MNMP. Questions regarding this form, record keeping in general or the MNMP can be directed to the county's Extension Agent in Agricultural Science or MDA's Nutrient Management Program at 410-841-5959.

Grain and Forage Yield Calculation Sheets

Two other forms that have been developed by the MNMP are the ***Grain Yield Calculation Sheet*** and ***Forage Yield Calculation Sheet***. These two forms are designed to help operators estimate their crop yields.

Yield information is based on each farm by crop per year. Multiple fields having similar soil characteristics and management for growing a particular crop can be combined to obtain a representative yield. The harvest of a crop can be documented on one or more dates and be based on a similar unit of weight for hay and percent moisture for grain. Once all of the crop harvest information is final, calculations are provided to determine yield estimates.

Grain factors are provided based on information from the University of Maryland Extension and the Penn State Agronomy Guide. On the bottom of each sheet there is a reminder to operators to include determined yields into their nutrient management plan record keeping requirements.

Maryland
Department of Agriculture

Office of Resource Conservation

Nutrient Management Program

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Phosphorus Management Tool (PMT)

Nutrient Management Plan Writing Guidance

The Phosphorus Management Tool (PMT) will be implemented when a soil sample analysis shows a Phosphorus Fertility Index Value (P-FIV) of 150 or greater and Phosphorus bearing materials will be applied. As a phased-in approach to PMT, each agricultural operation will be placed in one of three "tiers", as determined by the individual farm operations "Average P-FIV". This average is calculated by summing the P-FIV values from all management areas (fields) with a P-FIV of 150 or greater and dividing by the total number of those management areas.

Nutrient management plans prepared for 2016 & 2017 shall be developed using both the Phosphorus Site Index (PSI) and PMT for comparison, with management of phosphorus application governed by the PSI. For operations in tier C, starting July 1, 2017 nutrient management plans written for the 2018 crop year (including multi-year plans) shall begin implementation of the PMT following the transition management (TM) schedule below. Tiers A and B will begin following the transition schedule in subsequent years. Full PMT implementation to manage phosphorus application will be required for all tiers in crop year 2022.

PMT Implementation Schedule:

Crop Year	2016	2017	2018	2019	2020	2021	2022
Tier C – Avg. P FIV 450 or greater	PSI-PMT	PSI-PMT	TM I	TM I	TM II	TM II	PMT
Tier B – Avg. P FIV of 300-449	PSI-PMT	PSI-PMT	PSI	TM I	TM II	TM II	PMT
Tier A – Avg. P FIV of 150-299	PSI-PMT	PSI-PMT	PSI	PSI	TM II	TM II	PMT

Both the PSI-PMT are required to be completed in 2016 & 2017 for comparison purposes.

PMT Risk Category Ranges:

PMT Rating	PMT Risk Category
0 – 50	LOW
51 – 100	MEDIUM
>100	HIGH

Output from the PMT is a numeric risk category that governs how phosphorus is to be managed.

MARYLAND DEPARTMENT OF THE ENVIRONMENT
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410-537-3375 • 800-633-6101 x3375 • http://www.mde.state.md.us
Land Management Administration • Solid Waste Program

Maryland Setback Standards and Approved Alternatives Consistent with CAFO/MAFO Requirements

Introduction:

The Maryland Department of the Environment (MDE) current Regulations Governing the Control of Water Pollution to address permit requirements for Concentrated Animal Feeding Operations (CAFOs) and Maryland Animal Feeding Operations (MAFO) include options for manure application setback standards in the Code of Maryland Regulations (COMAR) 26.08.03.09b(1). These setbacks for CAFOs are also included in 40 CFR Part 412.4(c)(5).

As written in Part IVB8 of the General Discharge (GD) Permit for Animal Feeding Operations (NPDES Permit No. MDG01, Maryland Permit No 09AF), the current "Protocols for the Land Application of Manure and Wastewater" include, for both CAFOs and MAFOs, the following setback provisions:

a. A **setback** of at least 100' from waters of the State, including field ditches, other conduits, intermittent streams, and drinking water wells, shall be maintained; or an **approved alternative** may be substituted for the 100' setback.
b. A setback of at least 100' from property lines shall be maintained, unless an approved alternative setback for property lines is established with the consent of the adjacent property owner.

I. Alternative Setback Option Applicable to Poultry MAFOs ONLY which is included in the GD Permit:

For slopes of 2% or less, a MAFO may satisfy the land application setback and buffer requirements of this permit by maintaining: 1) a vegetated filter strip at least 10 feet wide along field ditches and in the final 35 feet of the field ditches (applicable to ditch embankments and, to the maximum extent practicable, the channel) adjoining the receiving waters or the facility boundary, whichever occurs first, 2) a 35' vegetated filter strip or 3) a 50' setback from all other surface waters of the State.

II. Approved Alternative Setback Options to the Requirement in COMAR 26.08.03.09B(1)(a) for all CAFOs and MAFOs.

The following are the approved alternatives to the 100-foot setback, which have been established by MDE in consultation with the Maryland Department of Agriculture (MDA), Natural Resources Conservation Service (NRCS) and the University of Maryland Extension (UME).

Option 1: A 35-foot vegetative buffer strip established in accordance with the NRCS Practice Standards 390, 391, or 393, or systems as approved by MDE in coordination with the MDA, NRCS and UME which is included in the GD Permit.

The buffer strip shall consist of a permanent vegetative planting that is not part of a cropland or pasture rotation. The location, layout, and density of the buffer strip shall reflect the intended purpose of the practice, conditions of the site, and the objectives of the land user. Site preparation and planting to establish the buffer strip shall be done at a time and manner to insure survival and growth of the selected species. Select plant species that are native to Maryland, or are introduced and are non-invasive (i.e., not likely to spread beyond the planted area and displace native species). See Maryland NRCS 390, 391, and 393 Conservation Practice Standards for more details. Existing naturally vegetated areas may also qualify as buffers if they meet the criteria in the applicable standard.

Date: March 30, 2011
TTY Users: 800-201-7165

Note: For any fields with slopes 8% or above, the NRCS approved soil loss prediction tool shall be used to determine risk. If significant risk (above tolerable soil loss) is determined, the appropriate Best Management Practices to reduce soil loss risk will be implemented according to NRCS standards.

Option 2: 10-foot no nutrient application zone from Surface Waters Plus One of Three Land Treatment Practices

The producer (CAFO or MAFO) shall maintain a minimum 10-foot setback from surface waters on which no manure, chemical fertilizer or any other nutrient containing soil amendments are applied AND must implement at least ONE additional of the following Best Management Practices:

Option 2A: Winter crop establishment including small grains, brassicas, or other species in accordance with MDA Nutrient Management Plan (NMP) requirements with no nitrogen or phosphorus applications before March 1st.

Such crops shall be planted during the fall in the year manure application took place. The winter crop shall be applied to the entire field that received manure.

Option 2B: Subsurface injection or surface application of manure with incorporation within three days (72 hours) of manure or wastewater surface application.

If vertical tillage is used to minimally incorporate manure with surface residue, soil loss needs to be "T" or less as determined by RUSLE 2. Plug or spike aerators (such as Aerway®), seed bed conditioners and vertical till (such as Turbotill ™) may be used for incorporation.

Option 2C: Dry Manure Injection.

Injection of poultry litter and dry manure application (Subsurfer®).

Option 3: Other – Must be approved in writing by MDE in coordination with NRCS, UME and MDA. Applicant must demonstrate to the satisfaction of MDE and the other agencies that this option conserves and protects public health, natural resources, and the environment of the State, and controls water and land pollution to at least the same extent as would be obtained by compliance with the applicable requirements.

Policy for Part IV B(8b) of the GD Permit for Animal Feeding Operations

In accordance with 40 CFR Part 412.4(c)(5), and Part IV B(8b) of the GD Permit for Animal Feeding Operations, which states: "Protocols for the Land Application of Manure and Wastewater … the following requirements for setbacks shall be maintained: … b. A setback of at least 100' from property lines shall be maintained, unless an approved alternative setback for property lines is established with the consent of the adjacent property owner."

Policy: If the property line is coincident with a hydrologic conveyance to the waters of the State, then the setback requirements of Part IV B(8a) apply: A setback of at least 100' from waters of the State, including field ditches, other conduits, intermittent streams, and drinking water wells shall be maintained; or an approved alternative including options 1 through 5 may be substituted for the 100' setback."

Date: March 30, 2011
TTY Users: 800-201-7165

ORGANIC AFO NUTRIENT MANAGEMENT PLAN
For General Discharge Permit Coverage

Concentrated Animal Feeding Operation (CAFO) M.D.E. Agency Interest # 66597

Village View
C. Dale Story

1709 Barclay Road
Barclay, Maryland 21607
[redacted]

PREPARED BY
QUEEN ANNE'S SOIL CONSERVATION DISTRICT
211 East Water Street • Centreville, MD 21617 • 410-758-1671 x3
http://www.qascd.com/

Plan Date: 3/1/2025

DESCRIPTION OF OPERATION

Village View Farm owned and operated by C. Dale Story is an existing well-vegetated and maintained organic poultry operation in Queen Anne's County, MD. Two poultry houses exist with an average capacity of 57,000 broilers and about 4.5 flocks annually. The parcel is a total of 94.6 acres with approximately 82.75 acres of cropland. The remaining farmstead acres includes the poultry production area, 1.4 acres of organic poultry pasture and 4.7 acres of cow pasture being a total of 11.85 acres the remaining land is a homesite with grain storage and equipment barns. Some generated manure is used on Mr. Story's cropland according to his Nutrient Management plan the rest is exported.

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: 3/1/2025 - 2/28/2028

It is the sole responsibility of the permittee to have the plan updated before its three (3) year expiration date. 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) 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

Between every flock the operator windrows or littersaves or both depending on time between next flock coming back in. No crusting is currently done on current litter management. Centers are removed annually and exported or stored in Manure storage shed. Manure from the beef operation is stored in the beef manure shed and spread on the Home Farm in the spring of each year. Some poultry manure is exported to Sudler Story, 740 Dixon Tavern RD, Barclay, MD 21607.

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. **Organic CAFOs and MAFOs shall not stockpile poultry litter in the production area (immediately outside of the manure shed and poultry houses).** If an issue should arise with manure storage and management, the permittee should contact the Queen Anne's Soil Conservation District (SCD) or the MDE AFO program office for assistance.

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

BEST MANAGEMENT PRACTICES

If there are resource concerns present on this operation, the permittee should contact the Queen Anne's Soil Conservation District located in Centreville 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 (MDE form)
- Manure, Litter, and Wastewater Storage Structures Documentation (MDE form)
- Manure, Litter, and Wastewater Transfer Record Keeping Form (MDE form)
- Poultry Litter Removal Data Collection Sheet (MDA form)

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
Home	[redacted]	02-13-05-10-0420	1.4

Manure Summary Table

Animal Type and Number	Total Manure Generation (tons/yr.)*	Manure Available for Export (tons/yr.)*	Manure Storage Capacity
57000 Broiler/flock @ 4.5/yr. = 256500 birds/yr.	349	2022 = 149 2023 = 246 2024 = 301 2025 = 322 2026 = 338 2027 = 341 2028 = 348 2029 = 346 2030 = 350	40x60 pwss w/ 13,200 cubic feet of capacity 30x50 wss w/ 8,250 cubic feet of capacity

3/17/25

Nathan Holsey
Certified Nutrient Management Consultant
MDA Certification # 4515
License # 4241

Date

Poultry Litter Quantity Estimate

Name: Home Tract / Farm: 118 / 96 Date: 3/13/2025

Houses Included: 2 Bird Type: Broiler

Average Bird Market Weight (lbs): 6.75

A.	Years between total cleanouts:	Yr. next total cleanout:	2030
		Yr. last total cleanout:	2021
		= Years in cleanout cycle:	9
B.	Total # of birds per flock (for all houses on this cleanout cycle):		57,000
C.	Flocks per year		4.5
D.	Number of flocks per cleanout cycle (A x C):		40
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: *		1.375975
G.	Tons cake/crust produced per flock (B x E/1000):		11
H.	Tons cake/crust produced per cycle (G x D):		456
I.	Tons litter + cake/crust produced per cycle (B x D x F/1000):		3,137
J.	Tons of litter produced per cycle (less cakeout/crustout) (I-H):		2,681
K.	Tons of litter produced per year (less cakeout/crustout) (J/A):		298
L.	Tons of litter + cake/crust produced per year (I/A):		349

* 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)
2022	0	298	50	149	4	46	0	149
2023	195	492	50	246	5	57	0	246
2024	303	601	50	301	4	46	0	301
2025	346	644	50	322	5	57	0	322
2026	379	677	50	338	4	46	0	338
2027	384	682	50	341	5	57	0	341
2028	398	696	50	348	4	46	0	348
2029	394	691	50	346	5	57	0	346
2030	403	701	50	350	4	46	0	350
			Total	**2741**	**40**	**458**	**0**	**2741**

*** 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.

Clients(s): C. Dale Story
Location: F:96 T:118
Approximate Acres: 94.6
Approximate Cropland: 82.75

Date: 1/29/2025

Conservation Plan Map

Assisted By: Nathan Holsey
QUEEN ANNE'S COUNTY SERVICE CENTER
QUEEN ANNE'S SCD

Prepared with assistance from USDA-Natural Resources Conservation Service

0 376 Feet

Conservation Practice Points
- Waste Storage Facility (313)
- Animal Mortality Facility (316)
- Roofs and Covers (367)

Conservation Practice Lines
- Fence (382)
- 512 Pasture and Hay Planting

Conservation Practice Polygons
- Heavy Use Area Protection (561)
- Practice Schedule PLUs

USDA

TOTAL POULTRY PASTURE AREA:
61,365 sqft or 1.4 ac
POULTRY PASTURE AREA HOUSE 1:
31,350 sqft
POULTRY PASTURE AREA HOUSE 2:
30,015 sqft

IMER: Property information contained on this map is for reference purposes only and is NOT to be construed as a "legal description". The map scale displayed is not accurate and serves as a general representation only.

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Account No. : 4590

Soil Analysis Report

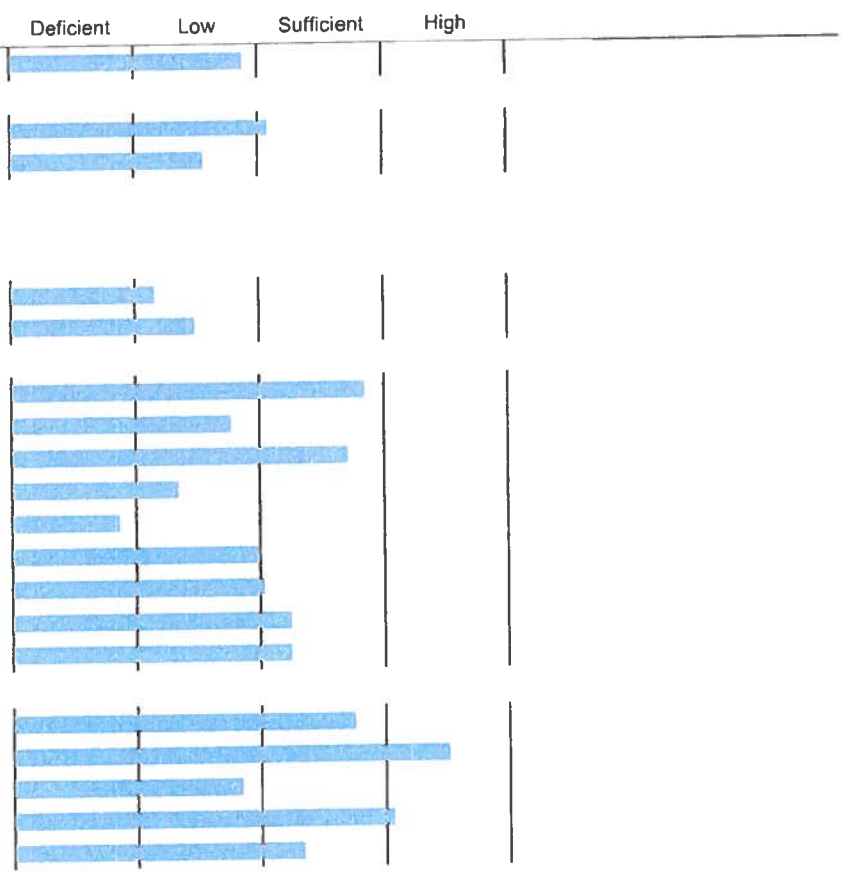
Invoice No. : 1155912
Date Received : 02/05/2025
Date Analyzed: 02/06/2025
Lab Number : 41330

STORY, DALE
1709 BARCLAY ROAD
BARCLAY MD 21607

Extraction Method: Mehlich 3

Results For : DALE STORY
Location : VILLAGE VIEW FARM
Sample ID : PASTURE 1

	Analysis
pH	5.9
Buffer pH	6.82
Soluble Salts, EC mmho/cm	0.07
Nitrate-N, ppm N	7.8
Nitrate-N, Lbs N/A	19.00
Depth	0 - 8 in
Ammonium-N ppm	2.2
Phosphorus, ppm P	29
P Saturation	12
UMD P FIV	34
Potassium, ppm K	168
Calcium, ppm Ca	441
Magnesium, ppm Mg	112
Sulfur, ppm S	8
Boron, ppm B	0.26
Zinc, ppm Zn	1.55
Manganese, ppm Mn pH sensitive	16.1
Copper, ppm Cu	1.09
Sodium, ppm Na	10
CEC Sum of Cations, meq/100g	4.3
H % Saturation	17
K % Saturation	10
Ca % Saturation	50
Mg % Saturation	22
Na % Saturation	1
Organic Matter, %	2.72
Est. Organic Carbon, %	1.58
Aluminum, ppm Al	762.5
Iron, ppm Fe	82.4



Reviewed By : L.D. Severson - AgroLab/Matrix S 2/7/2025 Copy : 1 Page 1 of 2

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Harrington, DE 19952

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Account No. : 4590

Soil Analysis Report

Invoice No. : 1155912
Date Received : 02/05/2025
Date Analyzed: 02/06/2025
Lab Number : 41331

STORY, DALE
1709 BARCLAY ROAD
BARCLAY **MD 21607**

Extraction Method: Mehlich 3

Results For : DALE STORY
Location : VILLAGE VIEW FARM
Sample ID : PASTURE 2

	Analysis	Sufficiency Levels (Deficient / Low / Sufficient / High)
pH	5.8	
Buffer pH	6.79	
Soluble Salts, EC mmho/cm	0.08	
Nitrate-N, ppm N	7.2	
Nitrate-N, Lbs N/A	17.00	
Depth	0 - 8 in	
Ammonium-N ppm	11.2	
Phosphorus, ppm P	33	
P Saturation	13	
UMD P FIV	38	
Potassium, ppm K	201	
Calcium, ppm Ca	425	
Magnesium, ppm Mg	124	
Sulfur, ppm S	9	
Boron, ppm B	0.25	
Zinc, ppm Zn	1.50	
Manganese, ppm Mn pH sensitive	16.8	
Copper, ppm Cu	0.78	
Sodium, ppm Na	9	
CEC Sum of Cations, meq/100g	4.6	
H % Saturation	19	
K % Saturation	11	
Ca % Saturation	46	
Mg % Saturation	23	
Na % Saturation	1	
Organic Matter, %	2.80	
Est. Organic Carbon, %	1.62	
Aluminum, ppm Al	808.5	
Iron, ppm Fe	78.0	

Reviewed By : L.D. Severson - AgroLab/Matrix S **2/7/2025** **Copy : 1**

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Harrington, DE 19952

Estimate of Manure Deposited on Poultry Pasture for Integrated Organic Poultry Operations

You can only edit values highlighted in blue

Farm Name: **VILLAGE VIEW FARM by C. Dale Story**

Manure Production period (calculate on a yearly basis): Starting date: **1/1/2025** Ending date: **12/31/2025**

A. Total days in manure production period: 365

Poultry Information						
	1	2	3	4	5	6
B. Poultry Group or Management Unit	Pasture 1	Pasture 2				
C. Market Weight (lbs.)	6.75	6.75				
D. Avg. weight during pasture access period **(C + 3)/2**	4.875	4.875				
E. # of birds/house	28,500	28,500				
F. Percentage of birds accessing pasture	1	1				
G. Animal units (AU) of birds accessing pasture **[(D x E)/1000]**	1.389375	1.389375				
H. Full days confined during manure production period (no access to pasture)	315	315				
I. Days partially confined during manure production period (access to pasture)	50	50				
J. Hours per day access to pasture	6	6				
K. Day equivalents partially confined **(I * (24-J))/24**	37.5	37.5				
L. Total day equivalents confined **(H + K)**	352.5	352.5				
M. Total day equivalents unconfined on pasture **(A - L)**	12.5	12.5				
N. Weight of manure/AU/day (lbs.) **57 lbs/AU/day for Broilers**	57	57				
O. Weight of manure on pasture (tons) **[(G x M x N)/2000]**	0.5	0.5				

Plant Available Nitrogen (PAN) Deposited on PRA						
	1	2	3	4	5	6
P. Length of pasture (feet)	330.0	345.0				
Q. Width of pasture (feet)	100.0	88.0				
R. Area of pasture (acres) **[(P x Q)/43,560]**	0.76	0.70				
S. PAN applied via excreted manure (lbs/ac/yr) **[(O x 34)/R]**	22.2	24.1				
T. Dominant Grass Species in Pasture:	Tall fescue	Tall fescue				
U. Nitrogen (N) recommendation for plant species (lbs/ac/yr) **(Table 1)**	130	130				
V. Ratio of PAN applied to N recommendation **(S / U)**	0.17	0.19				

Soil Test Analysis Information						
W. Soil Test Lab	AgroLab ppm	AgroLab ppm				
X. Phosphorus Soil Test Value	29	33				
Y. Potassium Soil Test Value	168	201				
Phosphorus Fertility Index Value (P-FIV):	34	38				
P-FIV Category:	Medium	Medium				
Potassium Fertility Index Value (K-FIV):	107	128				
K-FIV Category:	Excessive	Excessive				

Assumptions Included in Calculations:
1) Birds access the pasture a maximum of 50 days per year, due to climate and age limitations. If integrator has more exact data, use the integrator's data instead.
2) Birds weigh approximately 3 lbs when first allowed access to the pasture.
3) Birds will have access to the pasture for a maximum of 6 hours per day.
4) 1% of the total birds accessing the pasture at any given time is a reasonable estimate. If integrator has more exact data, use the integrator's data instead.
5) These estimates are valid for all poultry houses on the operation as long as bird type/market weight, house capacity, and pasture area are all the same.
6) Free-range broiler manure contains approximately 34 lbs PAN, 50 lbs of P2O5, and 59 lbs of K2O per ton. (Based on the UME 2022 Manure Summary Report.)

**This worksheet was adapted from the University of Maryland Extension worksheet titled "Pastured Poultry Litter Quantity Estimation", which was updated on 6/26/2024. This version was created by the Maryland Department of Agriculture Office of Resource Conservation on 9/25/2024.*

*Nutrient Application Recommendations for Pasture on Integrated Organic Poultry Operations										
Management Unit	**Acres**	**Grass Species**	**Soil Test Lab**	**P205 (ppm)**	**K20 (ppm)**	**P-FIV**	**K-FIV**		**N**	**P**	**K**
Pasture 1	0.76	Tall fescue	AgroLab ppm	29	168	34	107	Maximum Recommendation (lbs/ac/year):	130	44	0
								Nutrients Supplied by Deposited Manure (lbs/ac/year):	22	33	39
								Allowable Nutrient Application (lbs/ac/year):	108	11	0
Pasture 2	0.70	Tall fescue	AgroLab ppm	33	201	38	128	Maximum Recommendation (lbs/ac/year):	130	44	0
								Nutrients Supplied by Deposited Manure (lbs/ac/year):	24	36	42
								Allowable Nutrient Application (lbs/ac/year):	106	8	0
								Maximum Recommendation (lbs/ac/year):			
								Nutrients Supplied by Deposited Manure (lbs/ac/year):			
								Allowable Nutrient Application (lbs/ac/year):			
								Maximum Recommendation (lbs/ac/year):			
								Nutrients Supplied by Deposited Manure (lbs/ac/year):			
								Allowable Nutrient Application (lbs/ac/year):			
								Maximum Recommendation (lbs/ac/year):			
								Nutrients Supplied by Deposited Manure (lbs/ac/year):			
								Allowable Nutrient Application (lbs/ac/year):			
								Maximum Recommendation (lbs/ac/year):			
								Nutrients Supplied by Deposited Manure (lbs/ac/year):			
								Allowable Nutrient Application (lbs/ac/year):			

**These recommendations are applicable for three years after the date of the soil test analysis for each management unit. Soil test analyses are valid for three years.*

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**

Poultry Litter Removal Data Collection Sheet

OPERATOR NAME: _____ **DATE:** _____

FARM NAME: _____

A	B	C	D	E	F	G	H
Date (mm/dd/yr)	Removal From (house or shed)	Load Description*	Load Weight (Tons)**	Number of Loads	Total Removed (D) x (E) = (F) (Tons)	Destination (on-farm shed, on-farm field or if exported; name/address of receiving party)	Quantity Received (if other than total removed)

* identify type of equipment used to remove waste (i.e. truck, spreader, etc)

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** if load weight is unknown, calculate it based on the following estimates: 1 cu.ft. litter = 28 lbs; 1 bushel litter = 35 lbs

1) Measure the equipment volume in cu. ft. or bushels
2) Load weight (lbs) = equipment volume in cu. ft. or bushels X lbs per cu. ft. or bushel
3) Load weight (tons) = load weight (lbs) divided by 2,000

The Agricultural Nutrient Management Program is funded by the Maryland Department of Agriculture.

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
- Nutrient Land Application Form
- Weekly Storage Form
- Manure Litter Storage Form
- Manure Application Form
- Manure Litter Transfer Form
- Daily Waterline Form

DALE STORY
F: 96 T:118
1709 Barclay Road,
Barclay MD 21607

WATER CONVEYANCE MAP

1:2257

DISCLAIMER: Property information contained on this map is for reference purposes only and is NOT to be construed as a "legal description". The map scale displayed is not accurate and serves as a general representation only.

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*	

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 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**
pwss	40x60		13,200	
wss	30x50		8,250	

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

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

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)

Daily Water Line Inspection Log Sheet

Facility Name: _____ NPDES Permit No.:_____

Instructions:

- Initial the form *each day* after the inspection is complete
- If a leak is detected, place a check in the "leak detected" column

January, 20____		
Day	Initials	√ if Leak Detected
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
February, 20____		
Day	Initials	√ if Leak Detected
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		

March, 20____		
Day	Initials	√ if Leak Detected
1		
2		
3		
4		
5		
6		

7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		

April, 20____		
Day	Initials	√ if Leak Detected

1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		

29		
30		
May, 20____		
Day	Initials	√ if Leak Detected
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

25		
26		
27		
28		
29		
30		
31		
June, 20____		
Day	Initials	√ if Leak Detected
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		

20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
July, 20____		
Day	Initials	√ if Leak Detected
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		

August, 20____

Day	Initials	√ if Leak Detected
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

11		
12		
13		
14		
15		
16		
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18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		

September, 20____

Day	Initials	√ if Leak Detected
1		
2		
3		
4		
5		

6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

October, 20____		
Day	Initials	√ if Leak Detected
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		

November, 20____		
Day	Initials	√ if Leak Detected
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

December, 20____		
Day	Initials	√ if Leak Detected
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		

18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		

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…)
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- 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 Litter Removal Data Collection Sheet

OPERATOR NAME: _____ **DATE:** _____

FARM NAME: _____

A	B	C	D	E	F	G	H
Date (mm/dd/yr)	Removal From (house or shed)	Load Description*	Load Weight (Tons)**	Number of Loads	Total Removed (D) x (E) = (F) (Tons)	Destination (on-farm shed, on-farm field or if exported; name/address of receiving party)	Quantity Received (if other than total removed)

* identify type of equipment used to remove waste (i.e. truck, spreader, etc)

** if load weight is unknown, calculate it based on the following estimates: 1 cu.ft. litter = 28 lbs; 1 bushel litter = 35 lbs

1) Measure the equipment volume in cu. ft. or bushels
2) Load weight (lbs) = equipment volume in cu. ft. or bushels X lbs per cu. ft. or bushel
3) Load weight (tons) = load weight (lbs) divided by 2,000

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The Agricultural Nutrient Management Program is funded by the Maryland Department of Agriculture.