MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

NOTICE OF INTENT

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

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

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: 99189

1. **LEGAL Name of Applicant** *(must match name on required plan)*:
   William E Thomas Jr.

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:** 22924 Hog Creek Rd
   City: Preston **State:** MD **Zip Code:** 21655

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

7. **Email of Applicant:**

Farm Information

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

8. **Farm Name:** ☐ Same as Legal Name
   ☐ Other *(please specify)*: Preston Farm

9. **Farm Address:** 5204 Harmony Rd
   City: Preston **County:** Caroline **Zip Code:** 21655

10. **Watershed/Hydrologic Unit Code (HUC)** (12-digit): 021302040495

11. **Latitude/Longitude of Production Area** (Deg/Min/Sec): 38-45-53 / 75-52-57

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)*
Chickens	105,000 broilers	Lg	Chicken houses

**For poultry only (13-16)*

13. ***Number of poultry houses:** 6

14. ***Combined square footage of *all* poultry houses:** 120,000

15. ***Date(s) poultry houses constructed:** 1989, 1995

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

Contact Information:
Phone No.: _____
Address: _____

Manure/Mortality Management

17. **Total Manure/Litter/Wastewater generated *annually*:** 760 *circle one:* (tons / lbs / gallons) — tons circled

18. **Total Manure/Litter/Wastewater transported offsite *annually*:** 640 (2024) *circle one:* (tons / lbs / gallons) — tons circled

19. ****Total number of acres controlled by applicant available for land application of manure/litter/process wastewater:** *Owned:* *Leased:* 36

***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 *(ft³, gal)*	C. Solid/Liquid
40x124 Puss	≈ 29,500 cuft	Solid
40x50 Puss	≈ 14,000 cuft	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.

Signature of Applicant / duly authorized representative

11/20/20
Date

William R Thomas Jr.
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

CNMP WEB TOOL

Version 4.0

COMPREHENSIVE NUTRIENT MANAGEMENT PLAN

Preston Farm
William R. Thomas, Jr

5704 Harmony Road
Preston, Maryland 21655

MAILING ADDRESS
5704 Harmony Road
Preston, Maryland 21655

PREPARED IN COOPERATION WITH THE

U.S. Department of Agriculture
Natural Resources Conservation Service

AND THE

Caroline Soil Conservation District
9194 Legion Road
Denton, MD 21629

Prepared by: Alison Taylor

Plan Date: March 2024

Poultry Operation (No Land Plan)

Concentrated Animal Feeding Operation (CAFO)
M.D.E. Agency Interest # 99089

COMPREHENSIVE NUTRIENT MANAGEMENT PLAN

FOR

Preston Farm
William R. Thomas, Jr

LOCATION ADDRESS
5704 Harmony Road
Preston, Maryland 21655

MAILING ADDRESS
5704 Harmony Road
Preston, Maryland 21655

PREPARED BY

Caroline Soil Conservation District
9194 Legion Road
Denton, MD 21629

Plan Date:
March 2024

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
McGuckian	Thomas McGuckian	[redacted]	1739	538	83.0 & 12.0	02-13-04-04-0485

Description of Operation / Additional Information

This farm is leased by Mr. Thomas, it has 6 poultry houses with a holding capacity of 108,000 birds. Mr. Thomas grows roasters and keeps the birds to a market weight of approximately 9 pounds. He anticipates 4.5 flocks per year. Mr. Thomas operates the grain farm as well as the poultry operation. The total parcel acreage is 82.99 acre, the poultry headquarters is 12 acres, there is 36 acres that is tillable, the remaining 34.9 acres is wooded or wildlife areas. All manure is exported, and no manure is planned to be applied in the next 3 years, therefore this is a no land CNMP. The Environmental justice Score for this tract is 27.33 percent.

Sensitive Environmental Information

Name of nearest regulatory waterbody	Distance to nearest regulatory waterbody (ft.)	Distance to nearest regulatory wetland (ft.)
Lake Pinehurst	1100 feet	1300 feet

Account ID	MD DNR 12 Digit Watershed	Watershed Name	Tier II High Quality Waters Watershed	Impairments			
				Nitrogen	Phosphorus	Bacteria (e.coli, enterocci or fecal)	Sediment
[redacted]	02-13-04-04-0485	Upper Choptank	No	No	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	Manure Generated/Produced (tons/year)*	Manure Available for Utilization/Removed (tons/year)**
Roaster	9	6	108,000	4.5	760 tons	2024-640 tons

* 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.

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 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 William Thomas, Jr 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.

William Thomas, Jr — Date: 4/3/24

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.

Alison Taylor — Date: 3/29/24

NRCS Planner Certification # 161

Nutrient Management Certification # 2128

Caroline Soil Conservation District

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

John Shepard — Date: 3/29/24

Manure Collection

Manure is windrowed and ground between each flock in all houses and no manure is removed. A center cut removing 33% is planned for all houses in the Spring. A total cleanout occurred on all houses in the Spring of 2021. The next cleanout is not anticipated in the foreseeable future. For planning purposes, a total cleanout is planned for 2027 for all houses. The manure is exported.

Manure Storage

All manure is stored in the poultry waste storage structures on the farm, until it is removed by local farmers. Mr. Thomas does not utilize any manure on his cropland. There is adequate manure storage on the farm.

Current / Proposed Manure Storage Conditions

Animal Type	Storage Structure	Size of Storage Structure	Storage Capacity	Date Constructed
Poultry	PWSS	40' x 60'	14000 cubic feet	11/14/1991
Poultry	PWSS	40' x 124'	29,500 cubic feet	3/24/1997

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	Marc Clopper	22719 Thawley Road, Denton, Maryland 21629
Poultry	Neal Farms Inc	7275 Federalsburg Hwy, Federalsburg, Maryland 21632

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. William Thomas, Jr will follow local and state guidance if it is determined that burial is an acceptable means of disposal.

Typical Mortality Management

Current Normal Mortality Disposal Method(s)

Animal Type	Disposal Method	Number of Bins/Capacity	Location of Disposal/Facility
Poultry	Composting - Bins/Channels	6 Bins	Attached to 40' x 60' PWSS

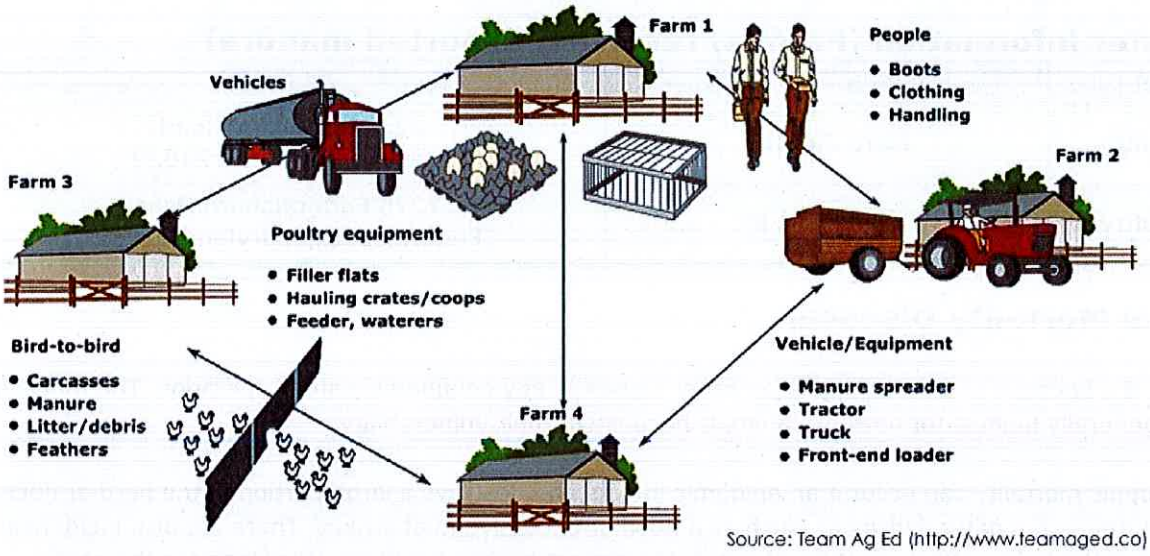
Catastrophic Mortality Management

In the event of catastrophic mortality, the operator will compost either in the house or in the waste storage structure.

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)



Source: Team Ag Ed (http://www.teamaged.co)

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.

b. Keep doors and gates locked.
c. Have tracking records on animals.
d. Give germs space - Newly acquired animals should be isolated for at least two weeks to ensure you don't introduce disease to your main herd or flock. As an added protection, isolate and quarantine new animals for 30 days before putting them with your other animals. Keep show animals segregated for at least two weeks after they've been to a fair or exhibit.

5. Look for signs
   a. Unusual animal health symptoms or behavior
   b. Sudden, unexplained death loss in the herd or flock
   c. Severe illness affecting a high percentage of animals
   d. Blisters around an animal's mouth, nose, teats or hooves
   e. Staggering, falling or central nervous system disorders that prevent animals from rising or walking normally.
   f. Large number of dead insects, rodents or wildlife
6. Don't wait - call in signs of disease immediately. Do not self-diagnose. Seek veterinary services, as early detection is your best protection. If you have animals with signs of suspect disease, call your local veterinarian, UMD extension agent () or the state veterinarian. Rapid response and investigation are the only ways to control and eliminate disease and stop large numbers of casualties or damage to our economic system.

Farm Contact Information

The following tables contain important contact information specific to this CNMP for William Thomas, Jr.

Emergency Contact Information

Farm Name	Preston Farm
Farm Address	5704 Harmony Road, Preston, Maryland 21655
Mailing Address	5704 Harmony Road, Preston, Maryland 21655
Directions to the farm	From the crossroads of Dover Bridge Road and Bethlehem Road: Turn left onto Bethlehem Road and travel approximately 4.2 miles. At the stop sign, turn right onto Harmony Road and the farm will be approximately one mile on the right.

Farm Contacts

	Name	Farm Phone	Cell Phone
Farm Owner	Thomas McGuckian		
Farm Operator	William R. Thomas, Jr		[redacted]
Fire or Ambulance	911		

State Agency Contacts

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

Caroline County Agency Contacts

	Day Phone	Emergency Number
MDA Regional Nutrient Management (Region)	410-479-1202 x3	410-479-1202 x3
Health Department	410-479-8045	410-479-8045
Sherriff's Office	410-479-2515	911
University of Maryland Extension Office (Denton)	410-479-1202 x3	410-479-1202 x3

Integrator Information

Name	Address	Phone
Amick Farms	274 Nealson Street, Hurlock MD 21643	410-943-3989

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*	

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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						

Weekly Wastewater Facilities Inspections Log Sheet

Facility Name: _____ NPDES Permit No.: _____

Instructions:
Use this form to keep records of weekly visual inspections of your wastewater facilities (including pumps, storm water and runoff diversion devices, and devices used to channel contaminated storm water to a wastewater storage or containment structure).

**Any deficiencies observed must be corrected within 30 days*

List the items that need to be inspected below:

_____ _____
_____ _____
_____ _____
_____ _____

	Date	**Initials**	**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					

	Date	**Initials**	**OK** (√ if no problems)	**Description of any Deficiencies Observed** (put "N/A" if none observed)	**Date Deficiency Corrected***
Week 7					
Week 8					
Week 9					
Week 10					
Week 11					
Week 12					
Week 13					
Week 14					
Week 15					
Week 16					
Week 17					
Week 18					
Week 19					
Week 20					

	Date	**Initials**	**OK** (√ if no problems)	**Description of any Deficiencies Observed** (put "N/A" if none observed)	**Date Deficiency Corrected***
Week 21					
Week 22					
Week 23					
Week 24					
Week 25					
Week 26					
Week 27					
Week 28					
Week 29					
Week 30					
Week 31					
Week 32					
Week 33					
Week 34					

	Date	Initials	OK (√ if no problems)	Description of any Deficiencies Observed (put "N/A" if none observed)	Date Deficiency Corrected*
Week 35					
Week 36					
Week 37					
Week 38					
Week 39					
Week 40					
Week 41					
Week 42					
Week 43					
Week 44					
Week 45					
Week 46					
Week 47					
Week 48					

	Date	**Initials**	**OK** (√ if no problems)	**Description of any Deficiencies Observed** (put "N/A" if none observed)	**Date Deficiency Corrected***
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**

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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*

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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)

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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		
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June, 20____

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July, 20____

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August, 20____

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September, 20____

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UNIVERSITY OF
MARYLAND
EXTENSION

Caroline County
9194 Legion Road, Suite 4
Denton, Maryland 21629
TEL 410-479-4030
FAX 410-479-4042
cyohn@umd.edu

William R. Thomas, Jr.
22929 Hog Creek Road
Preston, MD 21655
BillDen, Preston & Three Bridges

Nutrient Management Program

December 13, 2023 through December 12, 2026

Caroline County

UNIVERSITY OF MARYLAND EXTENSION

Caroline County
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NUTRIENT MANAGEMENT PLAN
FOR
William R. Thomas, Jr.
22929 Hog Creek Road
Preston, MD 21655
(Cell) [redacted]

BRIEF DESCRIPTION OF OPERATION: This is a partial plan for Mr. William R. Thomas, Jr. who operates a cash grain farm and poultry operation. Mr. Thomas manages an additional 2 Non-CAFO farms with 3 poultry houses with a holding capacity of 13,000 roasters in 1 house and 38,000 broilers in 2 houses and 13 acres of cropland which are all under a separate nutrient management plan.

This document addresses 4 farms with 11 fields that total of 297.8 acres managed under this plan. Mr. Thomas is a poultry producer for Amick Farms with a total of 13 poultry houses on 3 farms that have a total holding capacity of 260,000 roasters (2470 Animal Units). There are three registered Concentrated Animal Feeding Operations (CAFO) farms addressed in this nutrient management plan. This is a 3 year plan. Mr. Tomas does not usually plant a cover crop behind corn or soybeans. Below is a summary of the Chicken Houses addressed in this plan.

Farm	Address	Number of Poultry Houses	Holding Capacity	Registered CAFO\MDE AI Number
BillDen Farm T-259 AI#99102	22929 Hog Creek Road, Preston, MD 21655	4	79,000 Roasters	99102
Preston Farm T-538 AI#99089	5704 Harmony Road Preston, MD 21655	6	108,000 Roasters	99089
Three Bridges Farm T-849 AI#66823	257 Three Bridges Road Federalsburg, MD 21632	3	73,000 Roasters	66823
TOTAL		13	260,000 Roasters	

Bill Den Farm:
There are 125.7 acres and 4 poultry houses with a holding capacity of 79,000 roasters. Bill Den Farm fields 1 and 2 (38.1 acres) will be leased to Black Gold Potatoes of 5615 Rhodesdale Vienna Road, Rhodesdale, MD 21659 and is included in their nutrient management plan over the duration of this plan. Mr. Thomas plans to grow soybeans behind the potatoes and that is addressed in this nutrient management plan.

Bill Den Poppy's Farm:
60.9 acres are addressed in this plan, the irrigated land is used to grow grain crops. The entire acreage will also be leased to Black Gold Potatoes of 5615 Rhodesdale Vienna Road, Rhodesdale, MD 21659 during a portion of this plan and will be included in their nutrient management plan. Mr. Thomas plans to grow soybeans behind the potatoes and that is addressed in this nutrient management plan.

Preston Farm:
There are 36.0 acres and 6 poultry houses with a holding capacity of 108,000 roasters. Fields 1 and 2 (36.0 acres) will be leased to Black Gold Potatoes of 5615 Rhodesdale Vienna Road, Rhodesdale, MD 21659 during a portion of this plan and will be included in their nutrient management plan. Mr. Thomas plans to grow soybeans behind the potatoes and that is addressed in this nutrient management plan.

Three Bridges Farm:
There are 75.2 acres and 3 poultry houses with a holding capacity of 73,000 roasters. Field 1 (75.2 acres) will be leased to Black Gold Potatoes of 5615 Rhodesdale Vienna Road, Rhodesdale, MD 21659 during a portion of this plan and is included in their nutrient management plan. Mr. Thomas plans to grow soybeans behind the potatoes and that is addressed in this nutrient management plan.

This nutrient management plan is one of the required plans needed for a CAFO permit 19AF. **It is Mr. Thomas's responsibility to send a copy of this plan to Maryland Department of the Environment (MDE).**

DATE OF PLAN: December 13, 2023

DURATION OF PLAN: This plan is valid from December 13, 2023 through December 12, 2026. **This plan will need to be updated for prior to December 13, 2026.**

SOIL SAMPLING AND TESTING: Soil samples were provided by the operator and analyzed in November of 2023 at Waypoint Analytical, Inc. **New Soil samples for all farms will be required to be taken in October or early November of 2026.**

Soil sample results in the Optimum or Excessive range have been highlighted to accentuate that yield response to additional nutrients is unlikely.

MANURE SAMPLING AND TESTING: Maryland Department of the Environment and the Environmental Protection Agency require that CAFO operations have a copy of an analysis of the manure generated on the operation in their records. Operator may either collect a sample of manure before it is transported off-farm and obtain an analysis or obtain a copy of the manure analysis from one of the farmers who will be receiving the manure from the operation. A copy of each year's manure analysis must be submitted with each year's Annual Implementation Report (AIR).

MANURE MANAGEMENT and UTILIZATION: Manure management will be broken down by farm sections:

Bill Den Farm:
Manure is ground between each flock in all houses and no manure is removed. A center cut is planned for all houses removing approximately 33% of the manure. A cleanout last occurred on all houses in 2023 and is not anticipated in the for-seeable future. For planning purposes a total cleanout is planned for 2029 for all houses. All manure will be exported.

Preston Farm:
Manure is windrowed and ground between each flock in all houses and no manure is removed. A center cut is planned for all houses each spring. A cleanout occurred on all houses in the spring of 2021. The next cleanout is not anticipated in the for-seeable future. For planning purposes a total cleanout is planned for 2027 for all houses. The manure is exported.

Three Bridges Farm:
Manure is ground between each flock in all houses and no manure is removed. A center cut removing 33% is planned for all houses each spring. A cleanout occurred in the spring of 2021. The next cleanout is not anticipated in the for-seeable future. For planning purposes a total cleanout is planned for 2027 for all houses. All manure will be exported.

The operator must keep records of the quantity, date, and destination of manure removed from the houses and off the farm. Manure not utilized on cropland for all three farms is exported to one of four producers listed in Table 1.

Table 1

Producer	**Address**
Marc Clopper	22719 Thawley Road Denton, MD 21629
Wheatley Neal	7275 Federalsburg Highway Federalsburg, MD 21632

Maryland Department of Agriculture (MDA) requires that producers keep records of manure exports, including the name and address of all receiving operations and quantity of manure removed. Operators must report this information in their Annual Implementation Report (AIR) due to MDA by March 1 each year.

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

UM-PHOSPHORUS MANAGEMENT TOOL (UM-PMT): All fields with Phosphorus Fertility Index Value (FIV-P) soil test levels greater than or equal to 150 must have a Phosphorus Management Tool (PMT) risk assessment before any manure and /or commercial fertilizer P applications can be made. The farms/fields in the table below had soil test phosphorus P (expressed as FIV-P) of 150 or above:

Farm or Tract	Field with FIV>150	PMT done	P Loss Rating Score	Application Rate Used in Calculation; Explanation/Restriction
BillDen Farm Poppy's T-259	P1, P2,	No		*No P-bearing material will be applied to this field throughout the duration of this plan.*
BillDen Farm T-259	1,2, 3,4,5,6	No		*No P-bearing material will be applied to this field throughout the duration of this plan.*

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.

SOURCE OF YIELD GOAL INFORMATION: Yield goals were obtained from information provided by the operator.

TIMING: Guidance on the timing of fertilizer applications is included on the recommendations sheet(s). Also note that 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. Additional information of a general nature is included in the "NUTRIENT APPLICATION REQUIREMENTS" and "GENERAL PRINCIPLES OF NUTRIENT MANAGEMENT" sections of this plan.

FIELD STORAGE OF LITTER: Refer to the *General Discharge Permit for Animal Feeding Operations* for information for the requirements for field storage or stacking of litter.

BEST MANAGEMENT PRACTICES: Mr. Thomas must consult the USDA-Comprehensive Nutrient Management Plan (CNMP) for each of the three farms for this information.

CUSTOM APPLICATION OF NUTRIENTS: If any nutrient sources are custom-applied, it is imperative that the farmer/operator inform the custom applicator(s) of the recommendations contained in this plan as well as any setbacks that are required. The farmer/operator is solely responsible for ensuring that the nutrient recommendations and setback requirements contained in this plan are followed by all hired contractors and employees.

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 or the Poultry ***Operation Recordkeeping Guide and Quick Reference Booklet*** (pages 6 to 12) 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.

CAFO MANURE 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.**

Farm Identification Summary

Farm Name	Tax Account ID Numbers	Watershed Location Code	Total Acres Managed Under Plan
Bill Den Farm: Poppy's T-259	[redacted]	0079	60.9
BillDen Farm T-259	[redacted]	0079	114.8
Preston Farm T-538	[redacted]	0079	36.0
Three Bridges Farm T-849	[redacted]	0076	75.2
TOTAL ACRES MANAGED UNDER PLAN:			**297.8**

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
Bill Den Farm (T-259) Roasters 79,000 birds per flock x 4.5 flocks per year = 355,500 birds per year	555 tons	2024: 0 tons 2025: 387 tons 2026: 468 tons	50' x 108' P.W.S.S. 40' x 60' P.W.S.S 36' channel composter	Exported.
Preston Farm (T-538) Roasters 108,000 birds – per flock x 4.5 flocks per year = 486,000 birds per year	760 tons	2024: 641 tons 2025: 709 tons 2026: 762 tons	40' x 124' P.W.S.S. 40' x 60' P.W.S.S 6 bin composter	Exported.
Three Bridges Farm (T-849) Roasters 73,000 birds –per flock x 4.5 flocks per year = 328,500 birds per year	514 tons	2024: 552 tons 2025: 558 tons 2026: 568 tons	40' x 60' P.W.S.S 6 bin composter	Exported.

*See manure generation sheets

Plan Update Requirements

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

December 13, 2023 through December 12, 2026.

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.

James Lewis

James W. Lewis Jr.
Agricultural Agent
Certification # 1100
License # 2030

Craig W. Yohn

Craig W. Yohn
Nutrient Management Advisor
Certification # 2169
License # 2030

2024 - 2026 Nutrient Management Plan for William Thomas Jr

ID Information Sheet

Name (Farmer/Operator)	William R. Thomas Jr. - BillDen Farm	Certification #	2169	License #	2030
Address	22924 Hog Creek Road	Consultant Name	Craig W. Yohn		
City, State, Zip, County	Preston MD 21655 Caroline	Company	UM Extension - ANMP		

Account ID	County	Tract ID	Field ID	Account ID	County	Tract ID	Field ID	Account ID	County	Tract ID	Field ID
	Caroline	T-259 Poppy's	P2								
	Caroline	T-259 BillDen	2								
	Caroline	T-259 BillDen	1								
	Caroline	T-259 BillDen	3								
	Caroline	T-259 BillDen	5								
	Caroline	T-259 BillDen	4								
	Caroline	T-259 Poppy's	P1								
	Caroline	T-259 BillDen	6								
	Caroline	T-538 Preston	1								
	Caroline	T-538 Preston	2								
	Caroline	T849 Three Bridges	1								

Maryland Supplemental ID Report

Farmer ID	0	Certification #	2169
Farmer Name	William R Thomas Jr. - BillDen Farm	Consultant Name	Craig W Yohn
Address	22924 Hog Creek Road	License #	2030
City, State, & Zip	Preston MD 21655	Company	UM Extension - ANMP
Phone	[redacted]		

	4	5	8
Account ID	1		
County	Caroline	Caroline	Caroline
Tract ID	T-259 BillDen Farm	T-259 BillDen Farm	T-259 BillDen Farm
Field ID	2	5	6
Supplemental ID			
Supplemental ID			
Supplemental ID			
Supplemental ID			
Supplemental ID			

Account ID	
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Supplemental ID	

NUTRIENT APPLICATION SETBACKS FROM SURFACE WATER:

(5-19-15)

Setbacks for Nutrient Application are required in the development of nutrient management plans. Application and livestock setback regulations are contained under the Nutrient Application Requirements, Maryland Department of Agriculture 2012, COMAR 15.20.07.02, Maryland Nutrient Management Manual, 1-D1.

A minimum of a 10' vegetative setback must be in place next to surface water. The chart below indicates if surface water is present that requires a setback on any farm/operation and identifies the fields that are required to have a nutrient application setback. **An application of crop nutrients using a broadcast method either with or without incorporation requires a 35'setback. A directed spray application or the injection of crop nutrients only requires a 10'setback.** Excepting perennial forage crops grown for hay and pasture, vegetation in the 10' setback area may not include plants that would be considered part of the crop grown in the field (i.e. row crops). Pastures and hayfields are subject to a 10' and/or a 35' nutrient application setback depending on application methods. Nutrients may not be applied within the 10' setback.

Livestock on pasture are required to meet the minimum 10' setback by means of fencing unless a Best Management Practice (BMP) is approved by MDA or a Soil Conservation and Water Quality Plan is developed and implemented that prescribes an alternative to fencing animals 10' from surface water. Alternative BMP's may include stream crossings, watering facilities, pasture management, or other practices that are equally protective of water quality. Sacrifice lots for livestock require a 35' setback from surface water.

As a CAFO, you have additional setback requirements for manure application. A setback of 100 feet is required from any water of the state, including field ditches, unless you utilize one of the approved alternatives to setbacks. A copy of Maryland Setback Standards and Approved Alternatives Consistent with CAFO/MAFO Requirements is included in this plan.

If nutrients are custom-applied, it is the operator's responsibility to inform the applicator of the setback distance based on the method of application.

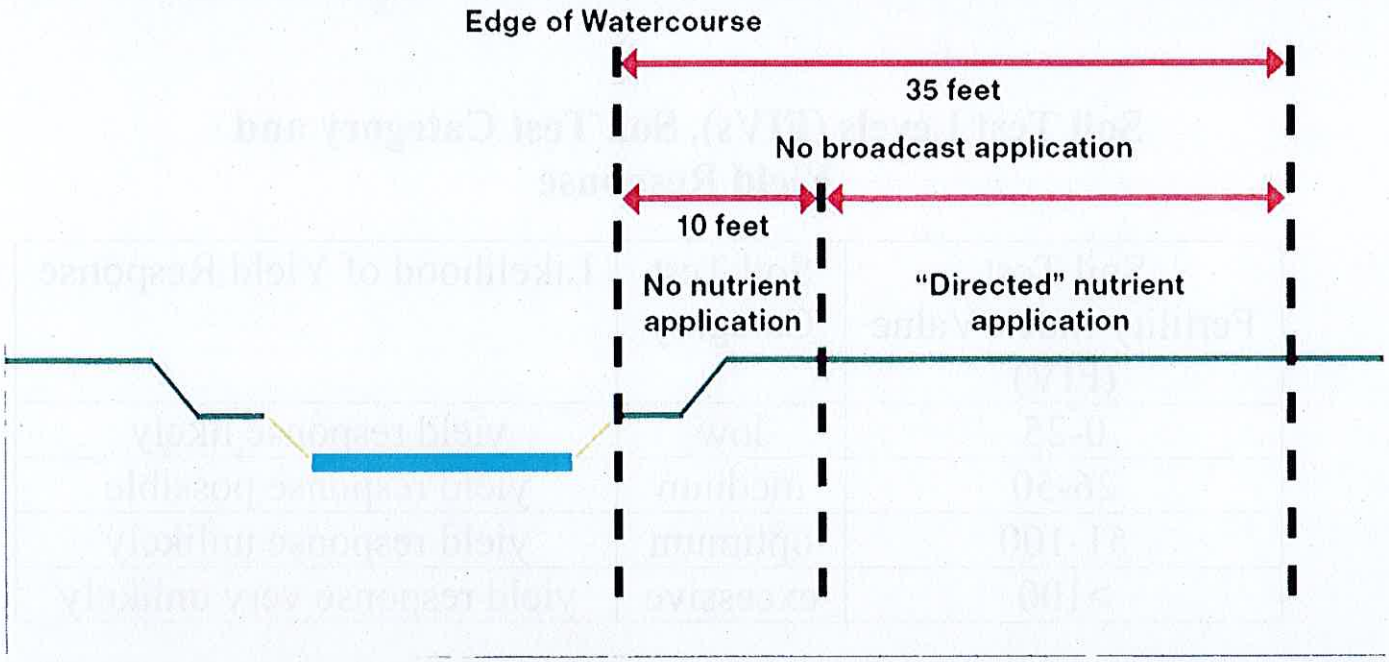
Farm Name(s)	Is Surface Water Present on the farm that requires a setback (Yes or No)	Field(s) requiring a Nutrient Application Setback*	Nutrient Application Setback Required (Indicate with "Yes" in appropriate column(s).)		
			Livestock on Pasture ≥ 10 ft.	Directed Application** ≥ 10 ft.	Broadcast Application or Sacrifice Lots*** ≥ 35 ft.
BillDen Farm T-259	Yes	1, 2	No	Yes	Yes
BillDen Farm - Poppy's T-259	Yes	P1, P2	No	No	Yes
Preston Farm T-538	Yes	1	No	Yes	Yes
Three Bridges Farm T-849	No				

***If a field contains multiple sources of surface water (i.e. a pond and a stream), list each separately or identify on the map.**

****Directed Application** = Directed Spray Application (Vertical Fan or Drop Nozzle), Air Flow Application, Knifed/Injected application of Nutrients, Planter Applied nutrients

*****Broadcast Application or Sacrifice Lots** = Spinner Spreaders (Manure or Fertilizer), High Volume Horizontal Nozzles, Manure Spreaders (Box type with beaters, Splasher plates for liquid, Side Discharge V-Type)

NUTRIENT APPLICATION SETBACKS



WHEN DO NUTRIENT APPLICATION SETBACKS APPLY?

If the watercourse is:	It is defined as a:	For crop and pastureland adjacent to the watercourse, a setback is:
Natural *and* either perennial or intermittent	Stream	Required
Channelized *and* perennial *and*: A. Lies within a floodplain soil map unit, or B. Lies within a hydric soil map unit mapped as a narrow, elongated feature in a fluvial (stream-like) floodplain position, or C. Lies within a "B" slope or greater soil	Stream	Required
Channelized and intermittent	Ditch	Not Required
Ephemeral (natural or channelized)	Ditch	Not Required

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www.extension.umd.edu anmp

Soil Test Levels (FIVs), Soil Test Category and Yield Response

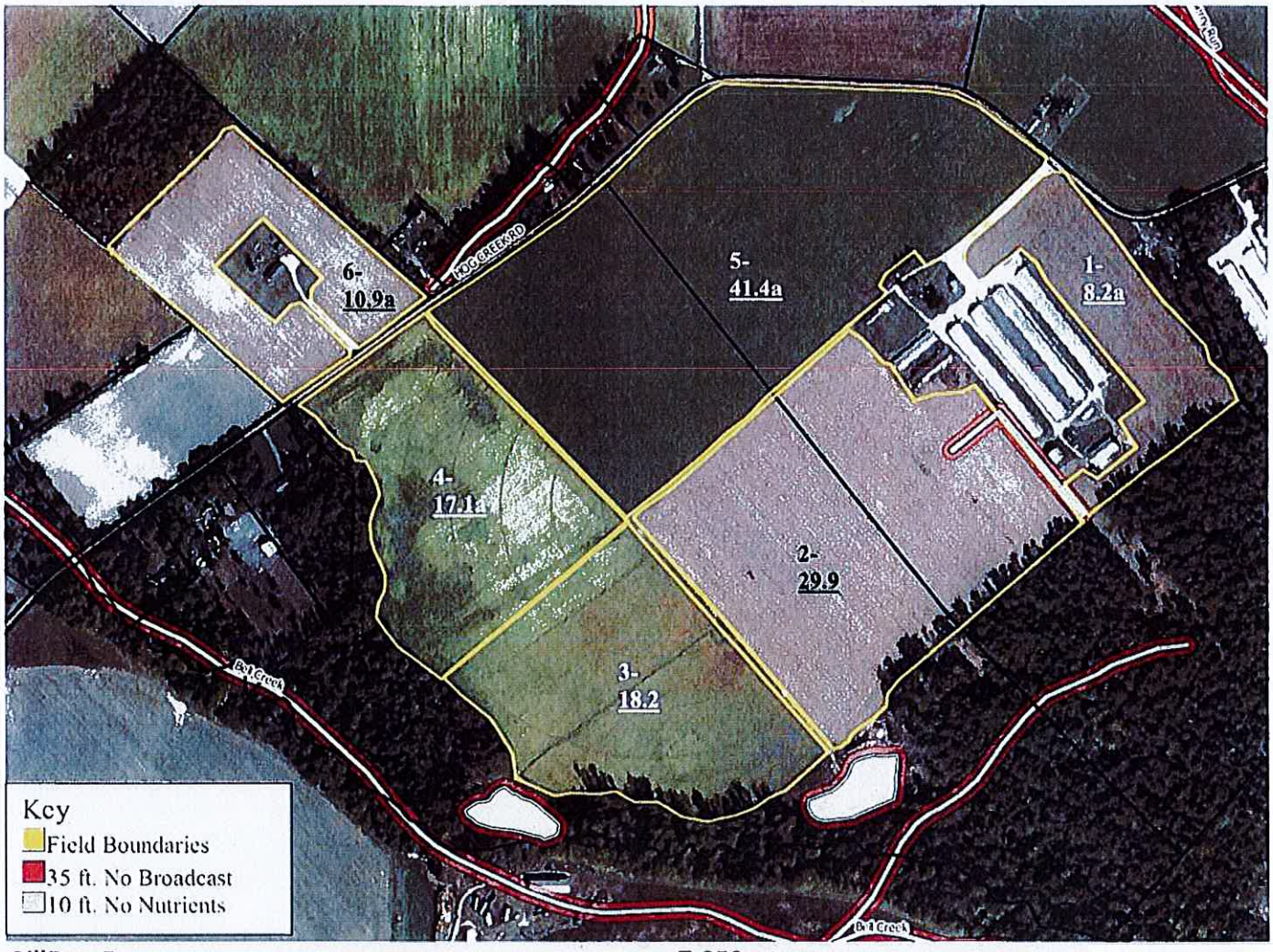
Soil Test Fertility Index Value (FIV)	Soil Test Category	Likelihood of Yield Response
0-25	low	yield response likely
26-50	medium	yield response possible
51-100	optimum	yield response unlikely
>100	excessive	yield response very unlikely

Your soil tests have been converted to the Maryland Fertility Index Value (FIV) scale.

Not all soil testing laboratories use the same extraction methods. There are also a number of ways in which the results can be reported (i.e., pounds per acre or ppm; P or P_2O_5). Converting soil test results from several laboratories to a common scale simplifies the process of making recommendations for agricultural crops grown in Maryland.

For more information about converting soil test results to the FIV scale and the basis for the conversions, please consult Soil Fertility Management 4 (SFM-4), *Converting Among Soil Test Analyses Frequently Used in Maryland.*

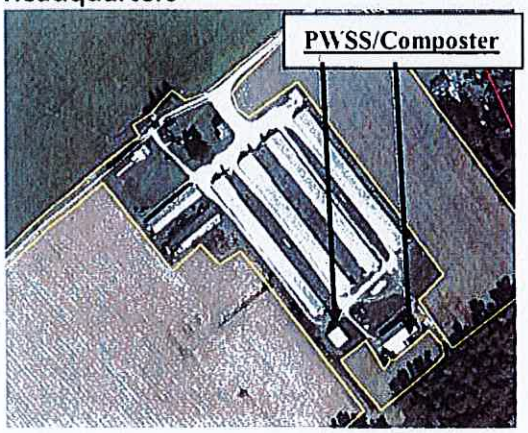
07-01-2020



BillDen Farm

T-259
Acres Managed Under Plan: 125.7
23211 Hog Creek Road
Preston, MD 21655

Headquarters



Buffers are mapped based on surface waters as defined by the USGS national hydrography database and ponds that are not part of the database. This map is intended to serve as a guide for potential surface waters in your fields, as actual surface water locations may be different than indicated on the map.

As a CAFO, you have additional setback requirements for manure application. A setback of 100 feet is required from any water of the state, including field ditches, unless you utilize one of the approved alternatives to setbacks. A copy of Maryland Setback Standards and Approved Alternatives Consistent with CAFO/MAFO Requirements is included in this plan.

Field Information Sheet

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2024
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Area	Crops	Yield Goal	Tillage Method	Past Legume N Credit	Nutrient Source Manure/Sludge Field History			
							Last Year		2 Years Ago	
							Type	Rate	Type	Rate
T-259 BillDen Farm	1	8.20 Acres	Soybeans	55	Conv tillage, res < 30%	0				
T-259 BillDen Farm	2	29.90 Acres	Soybeans	70	Conv tillage, res < 30%	15				
T-259 BillDen Farm	3	18.20 Acres	Soybeans	70	Conv tillage, res < 30%	15				
T-259 BillDen Farm	4	17.10 Acres	Soybeans	70	Conv tillage, res < 30%	15				
T-259 BillDen Farm	5	41.40 Acres	Soybeans	70	Conv tillage, res < 30%	15				
T-259 BillDen Farm	6	10.90 Acres	Soybeans	70	Conv tillage, res < 30%	15				

Field Information Sheet

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2025
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Area	Crops	Yield Goal	Tillage Method	Past Legume N Credit	Nutrient Source Manure/Sludge Field History			
							Last Year		2 Years Ago	
							Type	Rate	Type	Rate
T-259 BillDen Farm	1	8.20 Acres	Corn grain, conven. till.	250	Conv tillage, res < 30%	15				
T-259 BillDen Farm	2	29.90 Acres	Soybeans	55	Conv tillage, res < 30%	15				
T-259 BillDen Farm	3	18.20 Acres	Wheat/Double Crop Soybeans	80 - 50	Conv tillage, res < 30%	15				
T-259 BillDen Farm	4	17.10 Acres	Wheat/Double Crop Soybeans	80 - 50	Conv tillage, res < 30%	15				
T-259 BillDen Farm	5	41.40 Acres	Soybeans	70	Conv tillage, res < 30%	15				
T-259 BillDen Farm	6	10.90 Acres	Soybeans	70	Conv tillage, res < 30%	15				

Field Information Sheet

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2026
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Area	Crops	Yield Goal	Tillage Method	Past Legume N Credit	Nutrient Source Manure/Sludge Field History			
							Last Year		2 Years Ago	
							Type	Rate	Type	Rate
T-259 BillDen Farm	1	8.20 Acres	Soybeans	70	Conv tillage, res < 30%	0				
T-259 BillDen Farm	2	29.90 Acres	Corn grain, conven. till.	250	Conv tillage, res < 30%	15				
T-259 BillDen Farm	3	18.20 Acres	Corn grain, conven. till.	250	Conv tillage, res < 30%	15				
T-259 BillDen Farm	4	17.10 Acres	Corn grain, conven. till.	250	Conv tillage, res < 30%	15				
T-259 BillDen Farm	5	41.40 Acres	Soybeans	70	Conv tillage, res < 30%	15				
T-259 BillDen Farm	6	10.90 Acres	Corn grain, conven. till.	250	Conv tillage, res < 30%	15				

2024
Recommendations

Fertilizer Recommendations

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2024
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T-259 BillDen Farm	1 2024 [*]	10 Soybeans 7 3 4	8.20 Acres	55 Bu/A	0-0-50 #/A	0 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	50 #/A		1.6 t/A
									brdcst/band @plntg	0 #/A	0 #/A	50 #/A		
T-259 BillDen Farm	2 2024 [*]	10 Soybeans 3 4	29.90 Acres	70 Bu/A	0-0-82 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	82 #/A		0.0 t/A
									brdcst/band @plntg	0 #/A	0 #/A	82 #/A		
T-259 BillDen Farm	3 2024 [*]	10 Soybeans 7 3 4	18.20 Acres	70 Bu/A	0-0-84 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	84 #/A		0.7 t/A
									brdcst/band @plntg	0 #/A	0 #/A	84 #/A		

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

[*] - indicates primary recommendation used for the PMT calculation.

Fertilizer Recommendations

Farmer/Operator		William R Thomas Jr. - BillDen Farm				Plan Year			2024					
Street Address		22924 Hog Creek Road				MDA operator no.								
City, State, Zip, County		Preston MD 21655 Caroline				Date Plan Prepared			12-13-2023					
Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T-259 BillDen Farm	4 2024 [*]	10 Soybeans 7 3 4	17.10 Acres	70 Bu/A	0-0-72 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	72 #/A		1.0 t/A
									brdcst/band @plntg	0 #/A	0 #/A	72 #/A		
T-259 BillDen Farm	5 2024 [*]	10 Soybeans 7 3 4	41.40 Acres	70 Bu/A	0-0-167 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	167 #/A		2.2 t/A
									brdcst/band @plntg	0 #/A	0 #/A	167 #/A		
T-259 BillDen Farm	6 2024 [*]	10 Soybeans 7 3 4	10.90 Acres	70 Bu/A	0-0-77 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	77 #/A		1.0 t/A
									brdcst/band @plntg	0 #/A	0 #/A	77 #/A		

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

[*] - indicates primary recommendation used for the PMT calculation.

2025
Recommendations

Fertilizer Recommendations

Farmer/Operator		William R Thomas Jr. - BillDen Farm				Plan Year			2025						
Street Address		22924 Hog Creek Road				MDA operator no.									
City, State, Zip, County		Preston MD 21655 Caroline				Date Plan Prepared			12-13-2023						
Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied						Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg		
T-259 BillDen Farm	1 2025 [*]	1 Corn grain, conven. till. 7 1 2 3 27 60 92 93	8.20 Acres	250 Bu/A	250-0-79 #/A	15 #/A	0 #/A	0 #/A	Total	235 #/A	0 #/A	79 #/A			1.6 t/A
									broadcast	30 #/A	0 #/A	40 #/A			
									banded w/planter	30 #/A	0 #/A	39 #/A			
									sidedress	175 #/A	0 #/A	0 #/A			
T-259 BillDen Farm	2 2025 [*]	10 Soybeans 3 4	29.90 Acres	55 Bu/A	0-0-60 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	60 #/A			0.0 t/A
									brdcst/band w/plntg	0 #/A	0 #/A	60 #/A			
T-259 BillDen Farm	3 2025 [*]	15 Wheat-Double Crop Soybeans 7 3 4 30 41 44 142	18.20 Acres	80 Bu/A 50 Bu/A	80-0-96 #/A	0 #/A	0 #/A	0 #/A	Total	80 #/A	0 #/A	96 #/A			0.7 t/A
									tpdrs/a green-up	40 #/A	0 #/A	96 #/A			
									tpdrs/a Feekes 5-6	40 #/A	0 #/A	0 #/A			

[*] - indicates primary recommendation used for the PMT calculation.

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

Fertilizer Recommendations

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2025
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T-259 BillDen Farm	4 2025 [*]	15 Wheat/Double Crop Soybeans 7 3 4 30 41 44 142	17.10 Acres	80 Bu/A 50 Bu/A	80-0-59 #/A	0 #/A	0 #/A	0 #/A	Total	80 #/A	0 #/A	59 #/A		1.0 t/A
									tpdrs/a green-up	40 #/A	0 #/A	59 #/A		
									tpdrs /a Feekes 5-6	40 #/A	0 #/A	0 #/A		
T-259 BillDen Farm	5 2025 [*]	10 Soybeans 7 3 4	41.40 Acres	70 Bu/A	0-0-167 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	167 #/A		2.2 t/A
									brdcst/band /a plntg	0 #/A	0 #/A	167 #/A		
T-259 BillDen Farm	6 2025 [*]	10 Soybeans 7 3 4	10.90 Acres	70 Bu/A	0-0-77 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	77 #/A		1.0 t/A
									brdcst/band /a plntg	0 #/A	0 #/A	77 #/A		

[*] - indicates primary recommendation used for the PMT calculation.

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

2026
Recommendations

Fertilizer Recommendations

Farmer/Operator		William R Thomas Jr. - BillDen Farm				Plan Year			2026					
Street Address		22924 Hog Creek Road				MDA operator no.								
City, State, Zip, County		Preston MD 21655 Caroline				Date Plan Prepared			12-13-2023					
Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T-259 BillDen Farm	1 2026 [*]	10 Soybeans 7 3 4	8.20 Acres	70 Bu/A	0-0-73 #/A	0 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	73 #/A		1.6 t/A
									brdcst/band w/plntg	0 #/A	0 #/A	73 #/A		
T-259 BillDen Farm	2 2026 [*]	1 Corn grain, conven. till. 1 2 3 27 60 92 93	29.90 Acres	250 Bu/A	250-0-99 #/A	15 #/A	0 #/A	0 #/A	Total	235 #/A	0 #/A	99 #/A		0.0 t/A
									broadcast	30 #/A	0 #/A	59 #/A		
									banded w/planter	30 #/A	0 #/A	40 #/A		
									sidedress	175 #/A	0 #/A	0 #/A		
T-259 BillDen Farm	3 2026 [*]	1 Corn grain, conven. till. 7 1 2 3 27 60 92 93	18.20 Acres	250 Bu/A	250-0-102 #/A	15 #/A	0 #/A	0 #/A	Total	235 #/A	0 #/A	102 #/A		0.7 t/A
									broadcast	30 #/A	0 #/A	62 #/A		
									banded w/planter	30 #/A	0 #/A	40 #/A		
									sidedress	175 #/A	0 #/A	0 #/A		

[*] - indicates primary recommendation used for the PMT calculation.

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

Fertilizer Recommendations

Farmer/Operator		William R Thomas Jr. - BillDen Farm				Plan Year			2026						
Street Address		22924 Hog Creek Road				MDA operator no.									
City, State, Zip, County		Preston MD 21655 Caroline				Date Plan Prepared			12-13-2023						
Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime	
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg		
T-259 BillDen Farm	4 2026 [*]	1 Corn grain, conven. till. 7 1 2 3 27 60 92 93	17.10 Acres	250 Bu/A	250-40-79 #/A	15 #/A	0 #/A	0 #/A	Total	235 #/A	0 #/A	79 #/A		1.0 t/A	
									broadcast	30 #/A	0 #/A	40 #/A			
									banded w/planter	30 #/A	0 #/A	39 #/A			
									sidedress	175 #/A	0 #/A	0 #/A			
T-259 BillDen Farm	5 2026 [*]	10 Soybeans 7 3 4	41.40 Acres	70 Bu/A	0-0-167 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	167 #/A		2.2 t/A	
									brdcst/band w plntg	0 #/A	0 #/A	167 #/A			
T-259 BillDen Farm	6 2026 [*]	1 Corn grain, conven. till. 7 1 2 3 27 60 92 93	10.90 Acres	250 Bu/A	250-0-87 #/A	15 #/A	0 #/A	0 #/A	Total	235 #/A	0 #/A	87 #/A		1.0 t/A	
									broadcast	30 #/A	0 #/A	47 #/A			
									banded w/planter	30 #/A	0 #/A	40 #/A			
									sidedress	175 #/A	0 #/A	0 #/A			

[*] - indicates primary recommendation used for the PMT calculation.

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

Soil Test Results

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2024
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No.	Field No.	Lab	Test Date	Soil Texture	Test Number	pH	O.M	P	K	Mg	Ca	Al	Fe
T-259 BillDen Farm	1	WPT	10/11/23	SL	05523	5.50	1.80	239	129	67	366		
					Conversion to FIV	**5.50**	**1.80**	**259 (E)**	**81 (O)**	**54 (O)**	**20 (L)**		
T-259 BillDen Farm	2	WPT	10/11/23	SL	05524	6.50	1.70	264	91	85	446		
					Conversion to FIV	**6.50**	**1.70**	**289 (E)**	**57 (O)**	**67 (O)**	**30 (M)**		
T-259 BillDen Farm	3	WPT	10/11/23	LS	05525	5.70	1.10	261	86	54	357		
					Conversion to FIV	**5.70**	**1.10**	**286 (E)**	**54 (O)**	**44 (M)**	**18 (L)**		
T-259 BillDen Farm	4	WPT	10/11/23	SL	05526	5.90	1.50	285	129	79	430		
					Conversion to FIV	**5.90**	**1.50**	**312 (E)**	**82 (O)**	**63 (O)**	**28 (M)**		
T-259 BillDen Farm	5	WPT	10/11/23	SL	05527	5.10	1.50	214	46	45	205		
					Conversion to FIV	**5.10**	**1.50**	**234 (E)**	**28 (M)**	**37 (M)**	**0 (L)**		
T-259 BillDen Farm	6	WPT	10/11/23	SL	05528	5.90	2.00	321	113	96	468		
					Conversion to FIV	**5.90**	**2.00**	**351 (E)**	**71 (O)**	**76 (O)**	**32 (M)**		

FERTILITY INDEX VALUE (FIV)

(L)- Low: 0-25

(M)-Medium: 26-50

(O)-Optimum: 51-100

(E)-Excess: >100

Report Number: 23-283-0773

Account Number: [redacted]

Send To: Nagel Farm Service
Box 340
Preston MD 21655

Waypoint ANALYTICAL

"Every acre...Every year."™

7621 Whitepine Road, Richmond, VA 23237
Main 804-743-9401 ° Fax 804-271-6446
www.waypointanalytical.com

Grower: William Thomas Jr
[redacted]

SOIL ANALYSIS REPORT

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

Date Received: 10/10/2023 **Date Of Analysis:** 10/11/2023 **Date Of Report:** 11/02/2023 MD = Maryland Fertility Index Value

Sample ID / Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C
		% / Rate	Soil Class	lbs/A	M3 ppm Rate	ppm Rate	ppm Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
Home 1 BillDen	05523	1.8 L	MIN	81	236 VH MD = 259			128 VH MD = 81	67 M MD = 54	366 L MD = 20	13 VL	5.5	6.83	1.0	3.8
Home 2 BillDen	05524	1.7 L	MIN	79	264 VH MD = 289			91 M MD = 57	85 H MD = 67	446 M MD = 30	20 L	6.5		0.3	3.6
Home 3 BillDen	05525	1.1 L	MIN	67	261 VH MD = 286			86 M MD = 54	54 M MD = 44	357 M MD = 18	10 VL	5.7	6.86	0.7	3.2
Home 4 BillDen	05526	1.5 L	MIN	74	285 VH MD = 312			129 VH MD = 82	79 H MD = 63	430 M MD = 28	21 L	5.9	6.86	0.7	3.9
Home 5 BillDen	05527	1.5 L	MIN	76	213 VH MD = 234			46 L MD = 28	45 M MD = 37	205 L MD = -1	11 VL	5.1	6.84	0.9	2.5

Sample ID / Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts		
	K %	Mg %	Ca %	Na %	H %	NO_3 N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate		
Home 1	8.6	14.7	48.2	1.5	26.3		16 M	7.1 H	34 H	180 VH	5.5 VH	0.3 VL			
Home 2	6.5	19.7	61.9	2.4	8.3		21 M	9.3 VH	99 VH	179 VH	6.6 VH	0.6 M			
Home 3	6.9	14.1	55.8	1.4	21.9		11 L	12.7 VH	26 H	130 VH	6.9 VH	0.2 VL			
Home 4	8.5	16.9	55.1	2.3	17.9		29 H	9.9 VH	43 H	160 VH	7.0 VH	0.5 L			
Home 5	4.7	15.0	41.0	1.9	36.0		13 L	4.4 H	26 H	167 VH	4.5 VH	0.2 VL			

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

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

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

Analysis prepared by: Waypoint Analytical Virginia, Inc

by: Brandi Watson

Brandi Watson

Report Number: 23-283-0773

Account Number: [redacted]

Send To: Nagel Farm Service
Box 340
Preston MD 21655

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Grower: William Thomas Jr

[redacted]

SOIL ANALYSIS REPORT

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

Date Received: 10/10/2023 **Date Of Analysis:** 10/11/2023 **Date Of Report:** 11/02/2023

MD = Maryland Fertility Index Value

Sample ID / Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C
		% Rate	Soil Class	lbs/A	M3 ppm Rate	ppm Rate	ppm Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
Home 6	05528	2.0		84	321 VH			113 VH	96 H	468 M	8 VL	5.9	6.86	0.7	4.2
Bill Den		L	MIN		MD = 351			MD = 71	MD = 76	MD = 32					

Sample ID / Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts		
	K %	Mg %	Ca %	Na %	H %	NO_3 N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate		
Home 6	6.9	19.0	55.7	0.8	16.7		9 VL	7.7 H	22 H	179 VH	7.1 VH	0.3 VL			

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

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

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

Analysis prepared by: Waypoint Analytical Virginia, Inc.

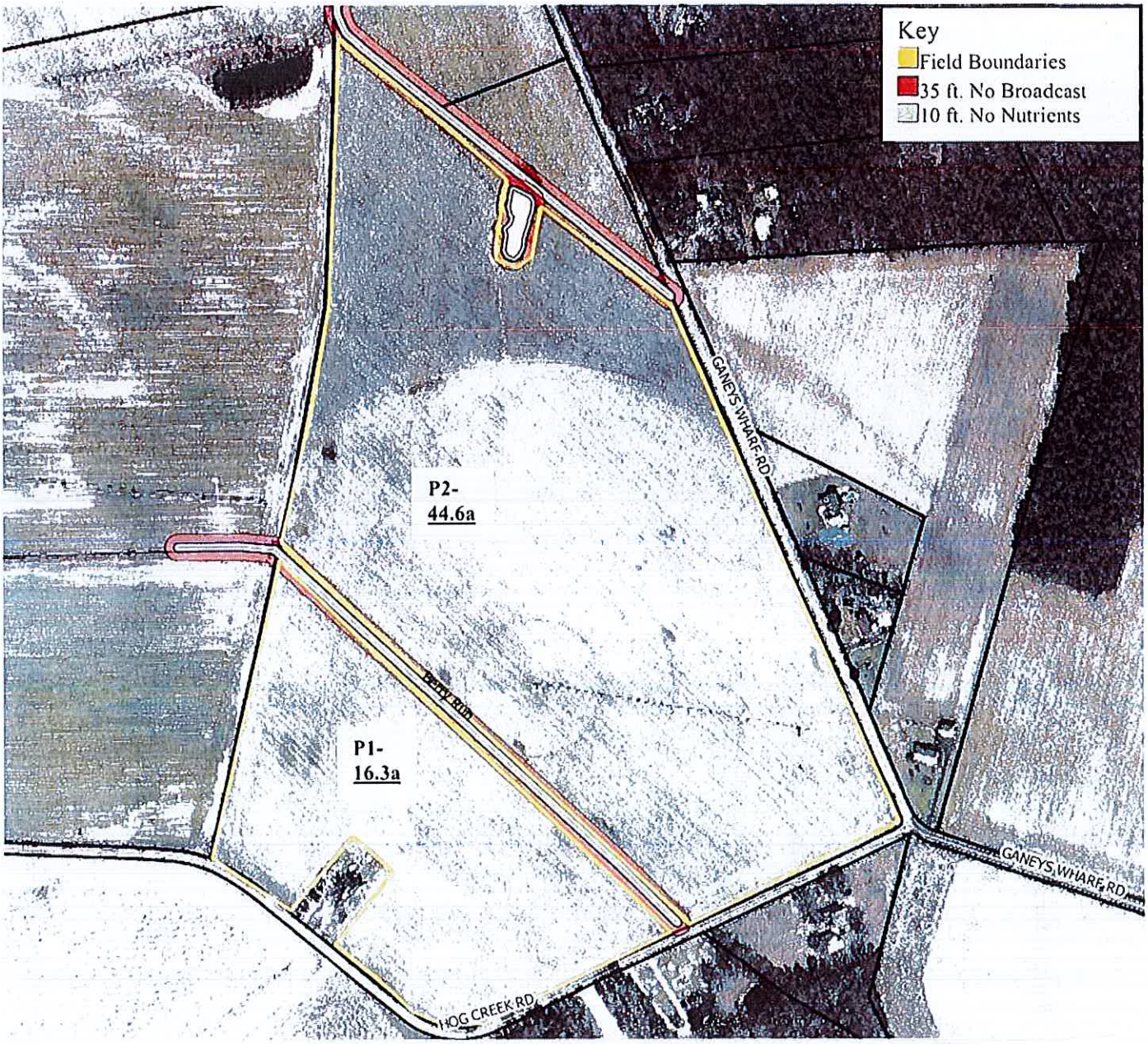
by: Brandi Watson

Brandi Watson

Field Information Sheet

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2024
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Area	Crops	Yield Goal	Tillage Method	Past Legume N Credit	Nutrient Source Manure/Sludge Field History			
							Last Year		2 Years Ago	
							Type	Rate	Type	Rate
T-259 Poppy's Farm	P1	16.30 Acres	Soybeans	55	Conv tillage, res < 30%	0				
T-259 Poppy's Farm	P2	44.60 Acres	Soybeans	55	Conv tillage, res < 30%	0				



Poppy's

T-259

Acres Managed Under Plan: 60.9

23170 Hog Creek Road

Preston, MD 21655

Buffers are mapped based on surface waters as defined by the USGS national hydrography database and ponds that are not part of the database. This map is intended to serve as a guide for potential surface waters in your fields, as actual surface water locations may be different than indicated on the map. As a CAFO, you have additional setback requirements for manure application. A setback of 100 feet is required from any water of the state, including field ditches, unless you utilize one of the approved alternatives to setbacks. A copy of Maryland Setback Standards and Approved Alternatives Consistent with CAFO/MAFO Requirements is included in this plan.

Field Information Sheet

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2025
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Area	Crops	Yield Goal	Tillage Method	Past Legume N Credit	Nutrient Source Manure/Sludge Field History			
							Last Year		2 Years Ago	
							Type	Rate	Type	Rate
T-259 Poppy's Farm	P1	16.30 Acres	Corn grain, conven. till.	250	Conv tillage, res < 30%	15				
T-259 Poppy's Farm	P2	44.60 Acres	Corn grain, conven. till.	250	Conv tillage, res < 30%	15				

Field Information Sheet

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2026
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Area	Crops	Yield Goal	Tillage Method	Past Legume N Credit	Nutrient Source Manure/Sludge Field History			
							Last Year		2 Years Ago	
							Type	Rate	Type	Rate
T-259 Poppy's Farm	P1	16.30 Acres	Corn grain, conven. till.	250	Conv tillage, res < 30%	0				
T-259 Poppy's Farm	P2	44.60 Acres	Corn grain, conven. till.	250	Conv tillage, res < 30%	0				

Fertilizer Recommendations

Farmer/Operator		William R Thomas Jr. - BillDen Farm				Plan Year			2024					
Street Address		22924 Hog Creek Road				MDA operator no.								
City, State, Zip, County		Preston MD 21655 Caroline				Date Plan Prepared			12-13-2023					
Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T-259 Poppy's Farm	P1 2024 [*]	10 Soybeans 7 3 4	16.30 Acres	55 Bu/A	0-0-58 #/A	0 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	58 #/A		0.7 t/A
									brdcst/band w/plntg	0 #/A	0 #/A	58 #/A		
T-259 Poppy's Farm	P2 2024 [*]	10 Soybeans 7 3 4	44.60 Acres	55 Bu/A	0-0-58 #/A	0 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	58 #/A		0.9 t/A
									brdcst/band w/plntg	0 #/A	0 #/A	58 #/A		

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

[*] - indicates primary recommendation used for the PMT calculation.

2024
Recommendations

2025
Recommendations

Fertilizer Recommendations

Farmer/Operator		William R Thomas Jr. - BillDen Farm				Plan Year			2025					
Street Address		22924 Hog Creek Road				MDA operator no.								
City, State, Zip, County		Preston MD 21655 Caroline				Date Plan Prepared			12-13-2023					
Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T-259 Poppy's Farm	P1 2025 [*]	1 Corn grain, conven. till. 7 1 2 3 27 60 92 93	16.30 Acres	250 Bu/A	250-0-96 #/A	15 #/A	0 #/A	0 #/A	Total	235 #/A	0 #/A	96 #/A		0.7 t/A
									broadcast	30 #/A	0 #/A	56 #/A		
									banded w/planter	30 #/A	0 #/A	40 #/A		
									sidedress	175 #/A	0 #/A	0 #/A		
T-259 Poppy's Farm	P2 2025 [*]	1 Corn grain, conven. till. 7 1 2 3 27 60 92 93	44.60 Acres	250 Bu/A	250-0-96 #/A	15 #/A	0 #/A	0 #/A	Total	235 #/A	0 #/A	96 #/A		0.9 t/A
									broadcast	30 #/A	0 #/A	56 #/A		
									banded w/planter	30 #/A	0 #/A	40 #/A		
									sidedress	175 #/A	0 #/A	0 #/A		

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

[*] - indicates primary recommendation used for the PMT calculation.

2026
Recommendations

Fertilizer Recommendations

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2026
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T-259 Poppy's Farm	P1 2026 [*]	1 Corn grain, conven. till. 7 1 2 3 27 60 92 93	16.30 Acres	250 Bu/A	250-0-96 #/A	0 #/A	0 #/A	0 #/A	Total	250 #/A	0 #/A	96 #/A		0.7 t/A
									broadcast	30 #/A	0 #/A	56 #/A		
									banded w/planter	30 #/A	0 #/A	40 #/A		
									sidedress	190 #/A	0 #/A	0 #/A		
T-259 Poppy's Farm	P1 2026	10 Soybeans 7 3 4	16.30 Acres	70 Bu/A	0-0-81 #/A	0 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	81 #/A		0.7 t/A
									brdcst/band (@ plntg	0 #/A	0 #/A	81 #/A		
T-259 Poppy's Farm	P2 2026 [*]	1 Corn grain, conven. till. 7 1 2 3 27 60 92 93	44.60 Acres	250 Bu/A	250-0-96 #/A	0 #/A	0 #/A	0 #/A	Total	250 #/A	0 #/A	96 #/A		0.9 t/A
									broadcast	30 #/A	0 #/A	56 #/A		
									banded w/planter	30 #/A	0 #/A	40 #/A		
									sidedress	190 #/A	0 #/A	0 #/A		

Recommendations for more than one crop (multiple recommendations) are given for some/all fields. Use the recommendation for the crop you choose to grow.

[*] - indicates primary recommendation used for the PMT calculation.

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

Fertilizer Recommendations

Farmer/Operator	William R Thomas Jr. - BillDen Farm
Street Address	22924 Hog Creek Road
City, State, Zip, County	Preston MD 21655 Caroline
Plan Year	2026
MDA operator no.	
Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T-259 Poppy's Farm	P2 2026	10 Soybeans 7 3 4	44.60 Acres	70 Bu/A	0-0-81 #/A	0 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	81 #/A		0.9 t/A
									brdcst/band w/plntg	0 #/A	0 #/A	81 #/A		

Recommendations for more than one crop (multiple recommendations) are given for some/all fields. Use the recommendation for the crop you choose to grow.

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

[*] - indicates primary recommendation used for the PMT calculation.

Soil Test Results

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2024
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No.	Field No.	Lab	Test Date	Soil Texture	Test Number	pH	O.M	P	K	Mg	Ca	Al	Fe
T-259 Poppy's Farm	P1	WPT	10/11/23	SL	05552	6.10	1.70	220	97	90	424		
					Conversion to FIV	**6.10**	**1.70**	**241 (E)**	**61 (O)**	**71 (O)**	**27 (M)**		
T-259 Poppy's Farm	P2	WPT	10/11/23	SL	05553	6.00	1.70	198	97	74	414		
					Conversion to FIV	**6.00**	**1.70**	**218 (E)**	**61 (O)**	**59 (O)**	**26 (M)**		

FERTILITY INDEX VALUE (FIV)

(L)- Low: 0-25

(M)-Medium: 26-50

(O)-Optimum: 51-100

(E)-Excess: >100

Report Number: 23-283-0800

Account Number: [redacted]

Send To: Nagel Farm Service
Box 340
Preston MD 21655

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www.waypointanalytical.com

Grower: William Thomas Jr - [redacted]

SOIL ANALYSIS REPORT

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

Date Received: 10/10/2023 **Date Of Analysis:** 10/11/2023 **Date Of Report:** 11/02/2023

MD = Maryland Fertility Index Value

Sample ID / Field ID	Lab Number	OM % / Rate	W/V Soil Class	ENR lbs/A	Phosphorus M3 ppm / Rate	Phosphorus ppm / Rate	Phosphorus ppm / Rate	Potassium K ppm / Rate	Magnesium Mg ppm / Rate	Calcium Ca ppm / Rate	Sodium Na ppm / Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C meq/100g
Willin 1 Three Bridges	05549	1.5 L	 MIN	75	128 VH MD = 141			75 M MD = 47	62 M MD = 50	446 M MD = 30	12 VL	5.8	6.86	0.7	3.7
Stormes 1	05550	1.6 L	 MIN	78	158 VH MD = 174			79 M MD = 49	34 M MD = 29	260 L MD = 6	6 VL	5.2	6.84	0.9	2.7
Poppys 1	05552	1.7 L	 MIN	79	220 VH MD = 241			97 H MD = 61	90 H MD = 71	424 M MD = 27	8 VL	6.1	6.88	0.5	3.7
Poppys 2	05553	1.7 L	 MIN	79	198 VH MD = 218			97 H MD = 61	74 H MD = 59	414 M MD = 26	8 VL	6.0	6.88	0.5	3.5
McGuckian 1 Preston	05554	1.5 L	 MIN	75	126 VH MD = 139			68 M MD = 42	53 M MD = 43	518 M MD = 39	9 VL	6.0	6.87	0.6	3.8

Sample ID / Field ID	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO_3N ppm / Rate	Sulfur S ppm / Rate	Zinc Zn ppm / Rate	Manganese Mn ppm / Rate	Iron Fe ppm / Rate	Copper Cu ppm / Rate	Boron B ppm / Rate	Soluble Salts SS ms/cm / Rate		
Willin 1	5.2	14.0	60.3	1.4	18.9		9 VL	127.6 VH	12 M	92 VH	3.2 VH	0.3 VL			
Stormes 1	7.5	10.5	48.1	1.0	33.3		7 VL	8.8 VH	13 M	171 VH	3.7 VH	0.2 VL			
Poppys 1	6.7	20.3	57.3	0.9	13.5		10 L	7.3 H	23 H	203 VH	6.6 VH	0.3 VL			
Poppys 2	7.1	17.6	59.1	1.0	14.3		11 L	6.5 H	24 H	197 VH	6.3 VH	0.3 VL			
McGuckian 1	4.6	11.6	68.2	1.0	15.8		6 VL	69.1 VH	11 M	83 VH	2.7 H	0.3 VL			

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

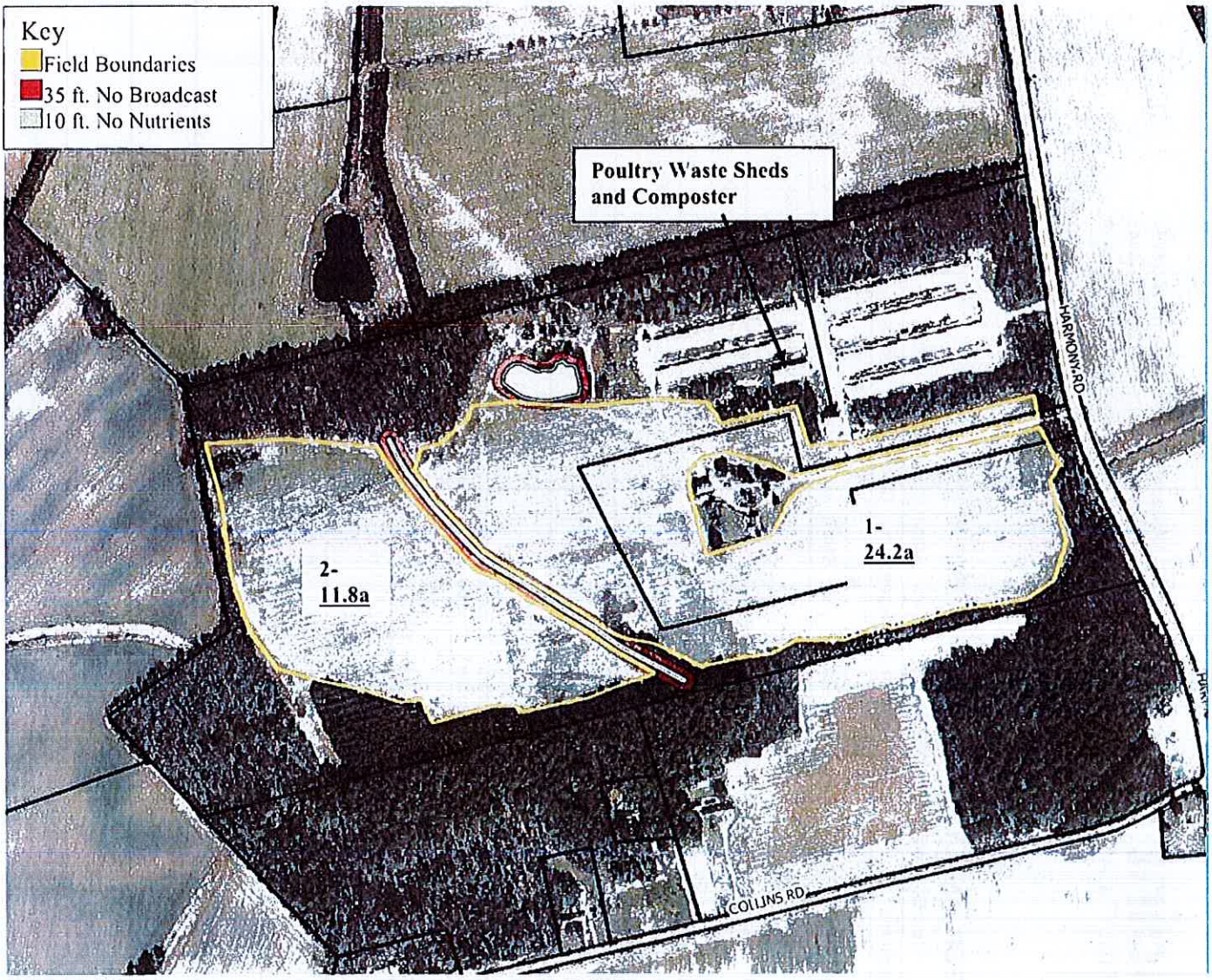
Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A. Soluble Salts ms/cm x 640 = ppm.

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

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: Brandi Watson

Brandi Watson



Preston Farm **T-538**

Total Acres Under Plan: 36.0

5704 Harmony Road

Preston, MD 21655

Buffers are mapped based on surface waters as defined by the USGS national hydrography database and ponds that are not part of the database. This map is intended to serve as a guide for potential surface waters in your fields, as actual surface water locations may be different than indicated on the map. As a CAFO, you have additional setback requirements for manure application. A setback of 100 feet is required from any water of the state, including field ditches, unless you utilize one of the approved alternatives to setbacks. A copy of Maryland Setback Standards and Approved Alternatives Consistent with CAFO/MAFO Requirements is included in this plan.

Field Information Sheet

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2024
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Area	Crops	Yield Goal	Tillage Method	Past Legume N Credit	Nutrient Source Manure/Sludge Field History			
							Last Year		2 Years Ago	
							Type	Rate	Type	Rate
T-538 Preston Farm	1	24.20 Acres	Soybeans	70	Conv tillage, res < 30%	15				
T-538 Preston Farm	2	11.80 Acres	Soybeans	70	Conv tillage, res < 30%	15				

Field Information Sheet

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2025
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Area	Crops	Yield Goal	Tillage Method	Past Legume N Credit	Nutrient Source Manure/Sludge Field History			
							Last Year		2 Years Ago	
							Type	Rate	Type	Rate
T-538 Preston Farm	1	24.20 Acres	Soybeans	55	Conv tillage, res < 30%	15				
T-538 Preston Farm	2	11.80 Acres	Soybeans	55	Conv tillage, res < 30%	15				

Field Information Sheet

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2026
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Area	Crops	Yield Goal	Tillage Method	Past Legume N Credit	Nutrient Source Manure/Sludge Field History			
							Last Year		2 Years Ago	
							Type	Rate	Type	Rate
T-538 Preston Farm	1	24.20 Acres	Corn grain, conven. till.	250	Conv tillage, res < 30%	15				
T-538 Preston Farm	2	11.80 Acres	Corn grain, conven. till.	250	Conv tillage, res < 30%	15				

2024
Recommendations

Fertilizer Recommendations

Farmer/Operator		William R Thomas Jr. - BillDen Farm				Plan Year			2024					
Street Address		22924 Hog Creek Road				MDA operator no.								
City, State, Zip, County		Preston MD 21655 Caroline				Date Plan Prepared			12-13-2023					
Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T-538 Preston Farm	1 2024 [*]	10 Soybeans 7 3 4	24.20 Acres	70 Bu/A	0-0-143 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	143 #/A		0.9 t/A
									brdcst/band @ plntg	0 #/A	0 #/A	143 #/A		
T-538 Preston Farm	2 2024 [*]	10 Soybeans 7 3 4	11.80 Acres	70 Bu/A	0-61-147 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	61 #/A	147 #/A		1.4 t/A
									brdcst/band @ plntg	0 #/A	61 #/A	147 #/A		

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

[*] - indicates primary recommendation used for the PMT calculation.

2025
Recommendations

Fertilizer Recommendations

Farmer/Operator		William R Thomas Jr. - BillDen Farm				Plan Year			2025					
Street Address		22924 Hog Creek Road				MDA operator no.								
City, State, Zip, County		Preston MD 21655 Caroline				Date Plan Prepared			12-13-2023					
Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T-538 Preston Farm	1 2025 [*]	10 Soybeans 7 3 4	24.20 Acres	55 Bu/A	0-0-98 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	98 #/A		0.9 t/A
									brdcst/band w/plntg	0 #/A	0 #/A	98 #/A		
T-538 Preston Farm	2 2025 [*]	10 Soybeans 7 3 4	11.80 Acres	55 Bu/A	0-50-102 #/A	15 #/A	0 #/A	0 #/A	Total	0 #/A	50 #/A	102 #/A		1.4 t/A
									brdcst/band w/plntg	0 #/A	50 #/A	102 #/A		

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

[*] - indicates primary recommendation used for the PMT calculation.

2026
Recommendations

Fertilizer Recommendations

Farmer/Operator		William R Thomas Jr. - BillDen Farm				Plan Year			2026					
Street Address		22924 Hog Creek Road				MDA operator no.								
City, State, Zip, County		Preston MD 21655 Caroline				Date Plan Prepared			12-13-2023					
Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T-538 Preston Farm	1 2026 [*]	1 Corn grain, conven. till. 7 1 2 3 27 60 92 93	24.20 Acres	250 Bu/A	250-0-164 # A	15 #/A	0 #/A	0 #/A	Total	235 #/A	0 #/A	164 #/A		0.9 t/A
									broadcast	30 #/A	0 #/A	124 #/A		
									banded w/planter	30 #/A	0 #/A	40 #/A		
									sidedress	175 #/A	0 #/A	0 #/A		
T-538 Preston Farm	2 2026 [*]	1 Corn grain, conven. till. 7 1 2 3 27 60 92 93	11.80 Acres	250 Bu/A	250-60-170 #/A	15 #/A	0 #/A	0 #/A	Total	235 #/A	60 #/A	170 #/A		1.4 t/A
									broadcast	30 #/A	30 #/A	130 #/A		
									banded w/planter	30 #/A	30 #/A	40 #/A		
									sidedress	175 #/A	0 #/A	0 #/A		

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

[*] - indicates primary recommendation used for the PMT calculation.

Soil Test Results

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2024
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No.	Field No.	Lab	Test Date	Soil Texture	Test Number	pH	O.M	P	K	Mg	Ca	Al	Fe
T-538 Preston Farm	1	WPT	10/11/23	SL	05554	6.00	1.50	139	42	43	516		
					Conversion to FIV	**6.00**	**1.50**	**139 (E)**	**42 (M)**	**43 (M)**	**38 (M)**		
T-538 Preston Farm	2	WPT	10/11/23	SL	05555	5.60	1.90	63	40	43	275		
					Conversion to FIV	**5.60**	**1.90**	**63 (O)**	**40 (M)**	**43 (M)**	**8 (L)**		

FERTILITY INDEX VALUE (FIV)
(L)- Low: 0-25
(M)-Medium: 26-50
(O)-Optimum: 51-100
(E)-Excess: >100

Report Number: 23-283-0809

Account Number: [redacted]

Send To: Nagel Farm Service
Box 340
Preston MD 21655

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www.waypointanalytical.com

Grower: William Thomas Jr - [redacted]

SOIL ANALYSIS REPORT

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

Date Received: 10/10/2023 **Date Of Analysis:** 10/11/2023 **Date Of Report:** 11/02/2023 MD = Maryland Fertility Index Value

Sample ID / Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C
		% Rate	Soil Class	lbs/A	M3 ppm Rate	ppm Rate	ppm Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
Willin 1	05549	1.5		75	128 VH			75 M	62 M	446 M	12 VL	5.8	6.86	0.7	3.7
Three Bridges		L	MIN		MD = 141			MD = 47	MD = 50	MD = 30					
Stormes 1	05550	1.6		78	158 VH			79 M	34 M	260 L	6 VL	5.2	6.84	0.9	2.7
		L	MIN		MD = 174			MD = 49	MD = 29	MD = 6					
Poppys 1	05552	1.7		79	220 VH			97 H	90 H	424 M	8 VL	6.1	6.88	0.5	3.7
		L	MIN		MD = 241			MD = 61	MD = 71	MD = 27					
Poppys 2	05553	1.7		79	198 VH			97 H	74 H	414 M	8 VL	6.0	6.88	0.5	3.5
		L	MIN		MD = 218			MD = 61	MD = 59	MD = 26					
McGuckian 1	05554	1.5		75	126 VH			68 M	53 M	518 M	9 VL	6.0	6.87	0.6	3.8
Preston		L	MIN		MD = 139			MD = 42	MD = 43	MD = 39					

Sample ID / Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts		
	K %	Mg %	Ca %	Na %	H %	NO_3 N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate		
Willin 1	5.2	14.0	60.3	1.4	18.9		9 VL	127.6 VH	12 M	92 VH	3.2 VH	0.3 VL			
Stormes 1	7.5	10.5	48.1	1.0	33.3		7 VL	8.8 VH	13 M	171 VH	3.7 VH	0.2 VL			
Poppys 1	6.7	20.3	57.3	0.9	13.5		10 L	7.3 H	23 H	203 VH	6.6 VH	0.3 VL			
Poppys 2	7.1	17.6	59.1	1.0	14.3		11 L	6.5 H	24 H	197 VH	6.3 VH	0.3 VL			
McGuckian 1	4.6	11.6	68.2	1.0	15.8		6 VL	69.1 VH	11 M	83 VH	2.7 H	0.3 VL			

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

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

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

Analysis prepared by: Waypoint Analytical Virginia, Inc

by: Brandi Watson

Brandi Watson

Report Number: 23-283-0809

Account Number: [redacted]

Send To: Nagel Farm Service
Box 340
Preston MD 21655

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www.waypointanalytical.com

Grower: William Thomas Jr [redacted]

SOIL ANALYSIS REPORT

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

Date Received: 10/10/2023 **Date Of Analysis:** 10/11/2023 **Date Of Report:** 11/02/2023 MD = Maryland Fertility Index Value

Sample ID / Field ID	Lab Number	OM % Rate	W/V Soil Class	ENR lbs/A	Phosphorus M3 ppm Rate	Phosphorus ppm Rate	Phosphorus ppm Rate	Potassium K ppm Rate	Magnesium Mg ppm Rate	Calcium Ca ppm Rate	Sodium Na ppm Rate	pH Soil pH	pH Buffer Index	Acidity H meq/100g	C.E.C meq/100g
McGuckian 2	05555	1.9 L	MIN	84	56 H MD = 63			64 L MD = 40	53 H MD = 43	275 M MD = 8	7 VL	5.6	6.87	0.6	2.6

Sample ID / Field ID	Percent Base Saturation K %	Mg %	Ca %	Na %	H %	Nitrate NO_3 N ppm Rate	Sulfur S ppm Rate	Zinc Zn ppm Rate	Manganese Mn ppm Rate	Iron Fe ppm Rate	Copper Cu ppm Rate	Boron B ppm Rate	Soluble Salts SS ms/cm Rate		
McGuckian 2 Preston	6.3	17.0	52.9	1.2	23.1		9 VL	3.0 M	8 L	168 VH	1.4 M	0.2 VL			

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

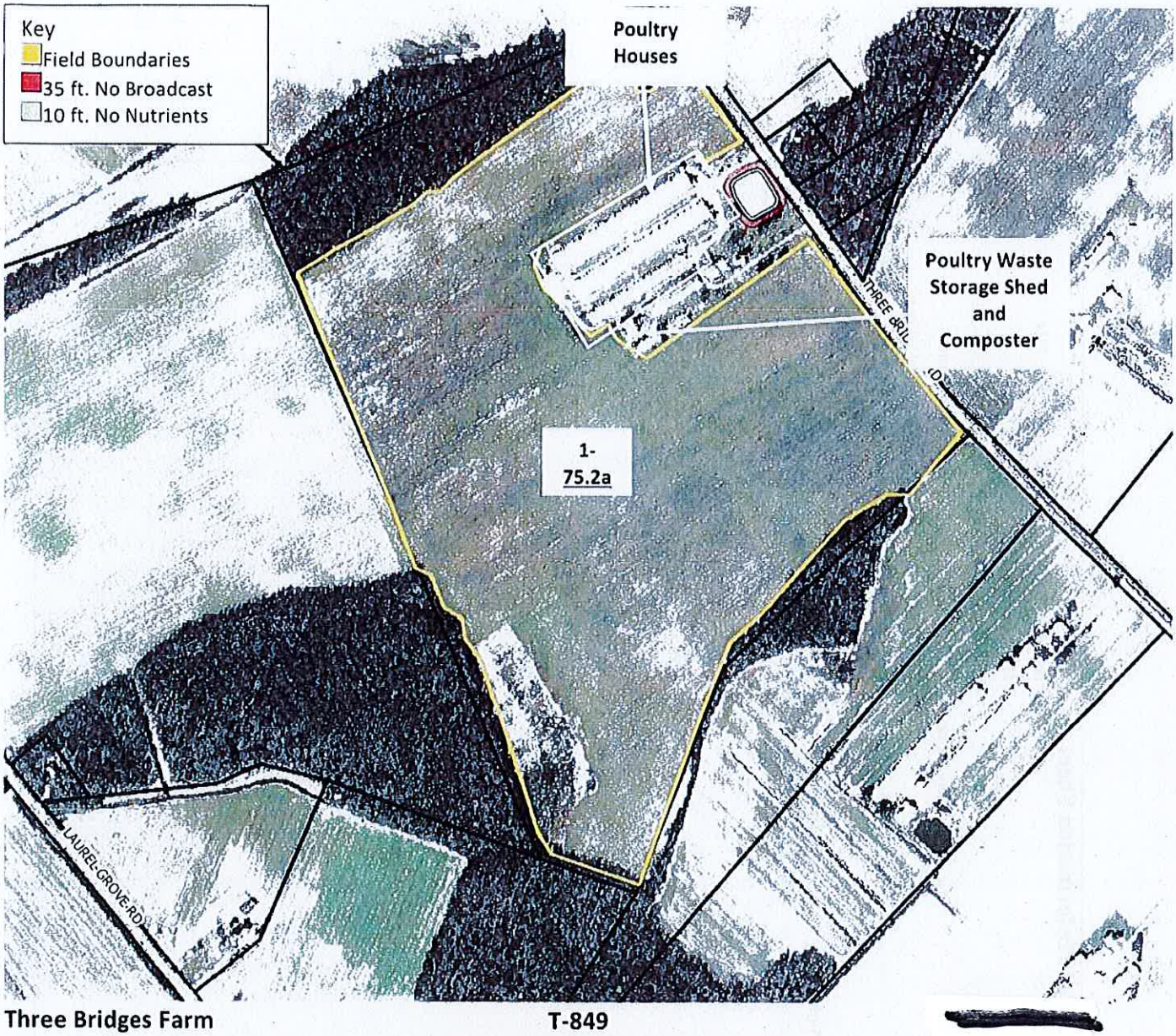
Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

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

Analysis prepared by Waypoint Analytical Virginia, Inc.

by: Brandi Watson

Brandi Watson



Three Bridges Farm **T-849**

Total Acres Managed Under Plan: 75.2

25715 Three Bridges Road

Federalsburg, MD 21632

Buffers are mapped based on surface waters as defined by the USGS national hydrography database and ponds that are not part of the database. This map is intended to serve as a guide for potential surface waters in your fields, as actual surface water locations may be different than indicated on the map.

As a CAFO, you have additional setback requirements for manure application. A setback of 100 feet is required from any water of the state, including field ditches, unless you utilize one of the approved alternatives to setbacks. A copy of Maryland Setback Standards and Approved Alternatives Consistent with CAFO/MAFO Requirements is included in this plan.

Field Information Sheet

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2024
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Area	Crops	Yield Goal	Tillage Method	Past Legume N Credit	Nutrient Source Manure/Sludge Field History			
							Last Year		2 Years Ago	
							Type	Rate	Type	Rate
T849 Three Bridges	1	75.20 Acres	Wheat/Double Crop Soybeans	80 - 50	Conv tillage, res < 30%	15				

Field Information Sheet

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2025
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Area	Crops	Yield Goal	Tillage Method	Past Legume N Credit	Nutrient Source Manure/Sludge Field History			
							Last Year		2 Years Ago	
							Type	Rate	Type	Rate
T849 Three Bridges	1	75.20 Acres	Soybeans	55	Conv tillage, res < 30%	15				

Field Information Sheet

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2026
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Area	Crops	Yield Goal	Tillage Method	Past Legume N Credit	Nutrient Source Manure/Sludge Field History			
							Last Year		2 Years Ago	
							Type	Rate	Type	Rate
T849 Three Bridges	1	75.20 Acres	Corn grain, conven. till.	250	Conv tillage, res < 30%	15				

2024
Recommendations

Fertilizer Recommendations

Farmer/Operator		William R Thomas Jr. - BillDen Farm				Plan Year			2024					
Street Address		22924 Hog Creek Road				MDA operator no.								
City, State, Zip, County		Preston MD 21655 Caroline				Date Plan Prepared			12-13-2023					
Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T849 Three Bridges	1 2024 [*]	15 Wheat-Double Crop Soybeans 7 3 4 30 41 44 142	75.20 Acres	80 Bu/A 50 Bu/A	80-0-123 #/A	0 #/A	0 #/A	0 #/A	Total	80 #/A	0 #/A	123 #/A		0.6 t/A
									tpdrs/a green-up	40 #/A	0 #/A	123 #/A		
									tpdrs /a Feekes 5-6	40 #/A	0 #/A	0 #/A		

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

[*] - indicates primary recommendation used for the PMT calculation.

2025
Recommendations

Fertilizer Recommendations

Farmer/Operator		William R Thomas Jr. - BillDen Farm				Plan Year			2025					
Street Address		22924 Hog Creek Road				MDA operator no.								
City, State, Zip, County		Preston MD 21655 Caroline				Date Plan Prepared			12-13-2023					
Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T849 Three Bridges	1 2025 [*]	10 Soybeans 7 3 4	75.20 Acres	55 Bu/A	0-0-90 # A	15 #/A	0 #/A	0 #/A	Total	0 #/A	0 #/A	90 #/A		0.6 t/A
									brdcst/band w/plntg	0 #/A	0 #/A	90 #/A		

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

[*] - indicates primary recommendation used for the PMT calculation.

2026 Recommendations

Fertilizer Recommendations

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2026
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No. / Farm Name	Field No.	Crops & Note Numbers	Area	Yield Goal	Plant Nutrients Needed N-P2O5-K2O	Nitrogen Credits			Fertilizer To Be Applied					Lime
						Leg.	Man.	Slu.	Method	N	P2O5	K2O	Mg	
T849 Three Bridges	1 2026 [*]	1 Corn grain, conven. till 7 1 2 3 27 60 92 93	75.20 Acres	250 Bu/A	250-0-155 # A	15 #/A	0 #/A	0 #/A	Total	235 #/A	0 #/A	155 #/A		0.6 t/A
									broadcast	30 #/A	0 #/A	115 #/A		
									banded w/planter	30 #/A	0 #/A	40 #/A		
									sidedress	175 #/A	0 #/A	0 #/A		

Lime Recommendations:

If Lime has been applied since the soil samples were taken, the lime recommendations are invalid.

[*] - indicates primary recommendation used for the PMT calculation.

Soil Test Results

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2024
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

Tract No.	Field No.	Lab	Test Date	Soil Texture	Test Number	pH	O.M	P	K	Mg	Ca	Al	Fe
T849 Three Bridges	-	WPT	10/11/23	LS	05549	5.90	1.50	128	75	62	446		
					Conversion to FIV	**5.80**	**1.50**	**141 (E)**	**47 (M)**	**50 (M)**	**30 (M)**		

FERTILITY INDEX VALUE (FIV)
(L)- Low: 0-25
(M)-Medium: 26-50
(O)-Optimum: 51-100
(E)-Excess: >100

Report Number: 23-283-0809

Account Number [redacted]

Send To: Nagel Farm Service
Box 340
Preston MD 21655

Waypoint ANALYTICAL

"Every acre...Every year."

7621 Whitepine Road, Richmond, VA 23237
Main 804-743-9401 ° Fax 804-271-6446
www.waypointanalytical.com

Grower: William Thomas Jr - [redacted]

SOIL ANALYSIS REPORT

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

Date Received: 10/10/2023 **Date Of Analysis:** 10/11/2023 **Date Of Report:** 11/02/2023 MD = Maryland Fertility Index Value

Sample ID / Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C
		% Rate	Soil Class	lbs/A	M3 ppm Rate	ppm Rate	ppm Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g
Willin 1	05549	1.5		75	128 VH			75 M	62 M	446 M	12 VL	5.8	6.86	0.7	3.7
Three Bridges		L	MIN		MD = 141			MD = 47	MD = 50	MD = 30					
Stormes 1	05550	1.6		78	158 VH			79 M	34 M	260 L	6 VL	5.2	6.84	0.9	2.7
		L	MIN		MD = 174			MD = 49	MD = 29	MD = 6					
Poppys 1	05552	1.7		79	220 VH			97 H	90 H	424 M	8 VL	6.1	6.88	0.5	3.7
		L	MIN		MD = 241			MD = 61	MD = 71	MD = 27					
Poppys 2	05553	1.7		79	198 VH			97 H	74 H	414 M	8 VL	6.0	6.88	0.5	3.5
		L	MIN		MD = 218			MD = 61	MD = 59	MD = 26					
McGuckian 1	05554	1.5		75	126 VH			68 M	53 M	518 M	9 VL	6.0	6.87	0.6	3.8
Preston		L	MIN		MD = 139			MD = 42	MD = 43	MD = 39					

Sample ID / Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts		
	K %	Mg %	Ca %	Na %	H %	NO_3 N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate		
Willin 1	5.2	14.0	60.3	1.4	18.9		9 VL	127.6 VH	12 M	92 VH	3.2 VH	0.3 VL			
Stormes 1	7.5	10.5	48.1	1.0	33.3		7 VL	8.8 VH	13 M	171 VH	3.7 VH	0.2 VL			
Poppys 1	6.7	20.3	57.3	0.9	13.5		10 L	7.3 H	23 H	203 VH	6.6 VH	0.3 VL			
Poppys 2	7.1	17.6	59.1	1.0	14.3		11 L	6.5 H	24 H	197 VH	6.3 VH	0.3 VL			
McGuckian 1	4.6	11.6	68.2	1.0	15.8		6 VL	69.1 VH	11 M	83 VH	2.7 H	0.3 VL			

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

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

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

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: Brandi Watson

Brandi Watson

Crop Notes

Notes

Farmer/Operator	William R Thomas Jr. - BillDen Farm	Plan Year	2026
Street Address	22924 Hog Creek Road	MDA operator no.	
City, State, Zip, County	Preston MD 21655 Caroline	Date Plan Prepared	12-13-2023

1. To satisfy TOTAL recommendation for many crops, it may be necessary to adjust SUGGESTED TIMING AND METHODS of application, (i.e. broadcast, topdress, sidedress, row, etc.) to be compatible with available equipment and materials.

2. These recommendations assume that the highest level of nitrogen (N) management will be utilized and that N losses due to leaching, volatilization and denitrification are minimized by utilizing to best management practices.

3. For conventional tillage, ag-lime recommendations are based upon the amount of oxides required for the surface 8" of soil. Lime should be thoroughly mixed with the soil by plowing and disking. If recommended amount of oxides exceeds 1.5 tons of lime per acre (assuming 50% total oxides), Â½ should be plowed down and the remainder applied after plowing and disked in thoroughly.

4. If topdressing ag-lime without tillage, reduce the total amount of oxides recommended by 50 percent. When topdressing ag-lime, and soil mixing is not possible, do not apply more than 1500 lbs per acre of oxides in any one application. The balance can be applied the next year. It would be best to do a soil test before making the second application.

7. Magnesium will be recommended when the soil test indicates a low or very low level. Use dolomitic lime as a liming material when magnesium is recommended AND when lime is needed to correct soil acidity. The magnesium (Mg) recommendation is expressed as elemental Mg when lime is not required.

27. If soil test FIV-P is 150 or greater, a phosphorus risk assessment (Phosphorus Site Index [PSI] or Phosphorus Management Tool [PMT]) must first be conducted to determine if a starter containing phosphorus is allowed. A starter may be beneficial in stimulating early plant growth, especially on cold, wet soils. A good starter fertilizer should supply 20-30 lbs/A of N, P2O5, and K2O.

60. If the nitrogen requirement is met by surface broadcasting UAN either prior to or at planting, use of proven urease and nitrification inhibitors is recommended to minimize nitrogen loss via volatilization and/or denitrification pathways.

92. If UAN is dribbled or streamed on the soil surface, use a proven urease inhibitor to help minimize nitrogen loss via volatilization.

93. If nitrogen source is granular urea, use a proven urease inhibitor to help minimize loss via volatilization.

Poultry Litter Quantity Estimation				
Operator	William Thomas Jr. - BillDen Farm	Organic Source	Preston (6)	2024

Poultry Litter Quantity Estimate	
Houses included	6
Bird type	Roaster
Average bird market weight, lbs	9
Number of birds per flock	108,000
Number of flocks per year	4.5
Year of last total cleanout, YYYY	2021
Year of next total cleanout, YYYY	2027
Years in cleanout cycle	6
Cake/crust, tons/1000 birds	0.20
Litter + Cake/crust, tons/1000 birds	1.7650
Cake/crust, tons/flock	21
Litter, tons/year	760

Quantity of Poultry Litter, Cake/Crust Available per Year										
Year	Litter present in house, tons	% of litter cleaned out this year above the amnt cake/crust removed	Litter removed this year, tons	Flocks this year	Cake/crust produced this year, tons	Cake/crust removed this year, tons	Litter + cake/crust removed this year, tons	Link to manure analysis	Date removed mm/dd/yyyy	Stock piled?
2022	760	0	0	4	86	0	0			
2023	1,607	33	530	5	108	0	530			
2024	1,945	33	641	4	86	0	641			
2025	2,150	33	709	5	108	0	709			
2026	2,309	33	762	4	86	0	762			
2027	2,393	100	2,393	5	108	0	2,393			

Poultry Litter Quantity Estimation				
Operator	William Thomas Jr. - BillDen Farm	Organic Source	BillDen 45 x 500 (3)	2024

Poultry Litter Quantity Estimate	
Houses included	3
Bird type	Roaster
Average bird market weight, lbs	9
Number of birds per flock	60,000
Number of flocks per year	4.5
Year of last total cleanout, YYYY	2023
Year of next total cleanout, YYYY	2029
Years in cleanout cycle	6
Cake/crust, tons/1000 birds	0.20
Litter + Cake/crust, tons/1000 birds	1.7650
Cake/crust, tons/flock	12
Litter, tons/year	422

Quantity of Poultry Litter, Cake/Crust Available per Year										
Year	Litter present in house, tons	% of litter cleaned out this year above the amnt cake/crust removed	Litter removed this year, tons	Flocks this year	Cake/crust produced this year, tons	Cake/crust removed this year, tons	Litter + cake/crust removed this year, tons	Link to manure analysis	Date removed mm/dd/yyyy	Stock piled?
2024	422	0	0	4	48	0	0			
2025	893	33	294	5	60	0	294			
2026	1,080	33	356	4	48	0	356			
2027	1,194	33	394	5	60	0	394			
2028	1,283	33	423	4	48	0	423			
2029	1,330	100	1,330	5	60	0	1,330			

Poultry Litter Quantity Estimation				
Operator	William Thomas Jr. - BillDen Farm	Organic Source	Three Bridges (3)	2024

Poultry Litter Quantity Estimate	
Houses included	3
Bird type	Roaster
Average bird market weight, lbs	9
Number of birds per flock	73,000
Number of flocks per year	4.5
Year of last total cleanout, YYYY	2021
Year of next total cleanout, YYYY	2027
Years in cleanout cycle	6
Cake/crust, tons/1000 birds	0.20
Litter + Cake/crust, tons/1000 birds	1.7650
Cake/crust, tons/flock	14
Litter, tons/year	514

Quantity of Poultry Litter, Cake/Crust Available per Year										
Year	Litter present in house, tons	% of litter cleaned out this year above the amnt cake/crust removed	Litter removed this year, tons	Flocks this year	Cake/crust produced this year, tons	Cake/crust removed this year, tons	Litter + cake/crust removed this year, tons	Link to manure analysis	Date removed mm/dd/yyyy	Stock piled?
2022	514	0	0	4	58	0	0			
2023	1,086	0	0	5	73	0	0			
2024	1,673	33	552	4	58	0	552			
2025	1,693	33	558	5	73	0	558			
2026	1,721	33	568	4	58	0	568			
2027	1,725	100	1,725	5	73	0	1,725			

Supplements that may be included in the delivered Nutrient Management Plan:

1. MDA 's Nutrient Application Guidelines
    a. Farming with Your Nutrient Management Plan
    b. 6-22 Nutrient Application Requirements
2. Recordkeeping, Application Variances, Inspection
    a. Field-By-Field Nutrient Application Record Form Definitions
    b. Field-By-Field Nutrient Application Record
    c. Grain Yield Calculation Sheet
    d. Forage Yield Calculation Sheet
    e. MDA Variance for Commercial Fertilizer Nutrient Application
    f. Variance for Animal Manure Nutrient Application
    g. Plan Implementation Review Process for Operators
    h. Nutrient Management Plan Maintenance and Annual Reporting Requirements
    i. Poultry Operations
        i. Poultry Litter Removal Data Collection Sheet
    j. Horses
        i. MDA Horse Owners Guide
3. General Principles
    a. General Principles of Nutrient Management

Bill Thomas NMP 2024-26

Final Audit Report 2023-12-13

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SECTION 5: Additional Documentation

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

The following documents are located in this section:

- Water Conveyance Map Around Production Area
- Nutrient Land Application Form
- Weekly Storage Form
- Weekly Wastewater Form
- Manure Litter Storage Form
- Manure Application Form
- Manure Litter Transfer Form
- Daily Waterline Form

Poultry Litter Quantity Estimation				
Operator	William Thomas Jr. - BillDen Farm	Organic Source	41x500 (1)	2024

Poultry Litter Quantity Estimate	
Houses included	1
Bird type	Roaster
Average bird market weight, lbs	9
Number of birds per flock	19,000
Number of flocks per year	4.5
Year of last total cleanout, YYYY	2023
Year of next total cleanout, YYYY	2029
Years in cleanout cycle	6
Cake/crust, tons/1000 birds	0.20
Litter + Cake/crust, tons/1000 birds	1.7650
Cake/crust, tons/flock	3
Litter, tons/year	133

Quantity of Poultry Litter, Cake/Crust Available per Year										
Year	Litter present in house, tons	% of litter cleaned out this year above the amnt cake/crust removed	Litter removed this year, tons	Flocks this year	Cake/crust produced this year, tons	Cake/crust removed this year, tons	Litter + cake/crust removed this year, tons	Link to manure analysis	Date removed mm/dd/yyyy	Stock piled?
2024	133	0	0	4	15	0	0			
2025	282	33	93	5	19	0	93			
2026	342	33	112	4	15	0	112			
2027	378	33	124	5	19	0	124			
2028	406	33	134	4	15	0	134			
2029	420	100	420	5	19	0	420			

Manure Information

CAROLINE COUNTY SERVICE CENTER
9194 LEGION RD
DENTON, MD 21629
(410) 479-1202

Conservation Plan

WILLIAM THOMAS JR!
22924 HOG CREEK RD!
PRESTON, MD 21655

OBJECTIVE(S)

This plan is being revised, because a new CNMP was written to remain in compliance with MDE CAFO coverage.

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: 538

Conservation Crop Rotation (328)

These fields will be farmed in a crop rotation that reduces erosion, improves soil quality, and helps to break up pest cycles. Use a crop rotation of: Corn, Small Grain, Soybeans.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	10.0 Ac	03	2013	10.0 Ac	03/20/2013
2	16.0 Ac	03	2013	16.0 Ac	03/20/2013
3	1.0 Ac	03	2013	1.0 Ac	03/20/2013
4	0.7 Ac	03	2013	0.7 Ac	03/20/2013
1	1.8 Ac	05	2013	--	--
2	6.5 Ac	05	2013	--	--
Total:	36.0 Ac	--	--	27.7 Ac	--

Nutrient Management (590)

Apply nutrients in amounts to meet crop need and based on a realistic (5 year average) yield goal. Apply manure and commercial fertilizer according to a nutrient management plan. To obtain this plan, contact a nutrient management consultant at the Cooperative Extension Office (410-479-4030), or contact a private certified consultant.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	10.0 Ac	03	2013	10.0 Ac	03/20/2013
2	16.0 Ac	03	2013	16.0 Ac	03/20/2013
3	1.0 Ac	03	2013	1.0 Ac	03/20/2013
4	0.7 Ac	03	2013	0.7 Ac	03/20/2013
1	1.8 Ac	05	2013	--	--
2	6.5 Ac	05	2013	--	--
Total:	36.0 Ac	--	--	27.7 Ac	--

Residue and Tillage Management, No Till (329)

Manage organic residue so maximum amounts are left on the soil surface on a year-round basis. Plant crops in narrow slots or narrow tilled strips in previously untilled soil.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	10.0 Ac	03	2013	10.0 Ac	03/20/2013
2	16.0 Ac	03	2013	16.0 Ac	03/20/2013
3	1.0 Ac	03	2013	1.0 Ac	03/20/2013
4	0.7 Ac	03	2013	0.7 Ac	03/20/2013
1	1.8 Ac	05	2013	--	--
2	6.5 Ac	05	2013	--	--
Total:	36.0 Ac	--	--	27.7 Ac	--

Farmstead

Tract: 538

Animal Mortality Facility (316)

Construct a composter to provide for the normal daily accumulation of dead birds from the poultry operation. Maintain the structure according to the operation and maintenance plan and in accord with the training provided by the Extension Service. There is a 6-bin composter present (CR-92-0757)

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ	1.00 No	07	1992	1.00 No	03/03/1993
Total:	1.00 No	--	--	1.00 No	--

Critical Area Planting (342)

Establish a vigorous stand of vegetation on critical areas. Maintain the vegetation by mowing at least once every two years to control woody vegetation. Control noxious weeds according to State Law, and apply lime and fertilizer following soil test recommendations. This is being planned for the reseeding of the grassed swale between houses 2 and 3.

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ	0.3 Ac	04	2014	--	--
Total:	0.3 Ac	--	--	--	--

Heavy Use Area Protection (561)

Protect heavily used areas by providing soil protection with vegetation, surfacing material or mechanical structures. Areas at the "A" ends of the poultry houses and also on both ends of the 40'X 124' PWSS need additional protection due to ponded water and/or a soft base. There are cost-share opportunities for concrete HUA pads; however, stone or material that can create a hard packed surface may also be used.

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ	0.3 Ac	10	2014	--	--
Total:	0.3 Ac	--	--	--	--

Pond (378)

Construct a pond in the location shown on the Conservation Plan Map. Lime, seed, and fertilize the pond banks and the spoil within seven days after construction. Maintain the pond by establishing a 25 foot wide buffer of permanent vegetation around the pond. Sediment Pond-(CR-1990-0017)

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ	1.00 No	10	1989	1.00 No	10/13/1989
Total:	1.00 No	--	--	1.00 No	--

Waste Storage Facility (313)

Construct a manure storage structure at the location shown on the plan map. The structure will be built according to NRCS design, and operated and maintained in accordance with a Comprehensive Nutrient Management Plan or a Waste Management System plan developed for this operation. All necessary permits and notifications will be obtained before construction. A 40 X 60 was constructed in 1991 (CR-91-0118). A 40 X 124 was constructed in 1997 (CR-96-1119X).

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ	1.00 No	07	1991	1.00 No	11/14/1991
HQ	1.00 No	01	1996	1.00 No	03/24/1997
Total:	2.00 No	--	--	2.00 No	--

CERTIFICATION OF PARTICIPANTS

WILLIAM THOMAS JR — DATE: 4/3/24

SIGN HERE

CERTIFICATION OF:

CERTIFIED PLANNER — DATE: 3/29/24

CONSERVATION DISTRICT
CAROLINE SCD — DATE: 3/29/24

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).

CONSERVATION PLAN MAP

District: CAROLINE SCD

Owner(s): THOMAS MCGUCKIAN

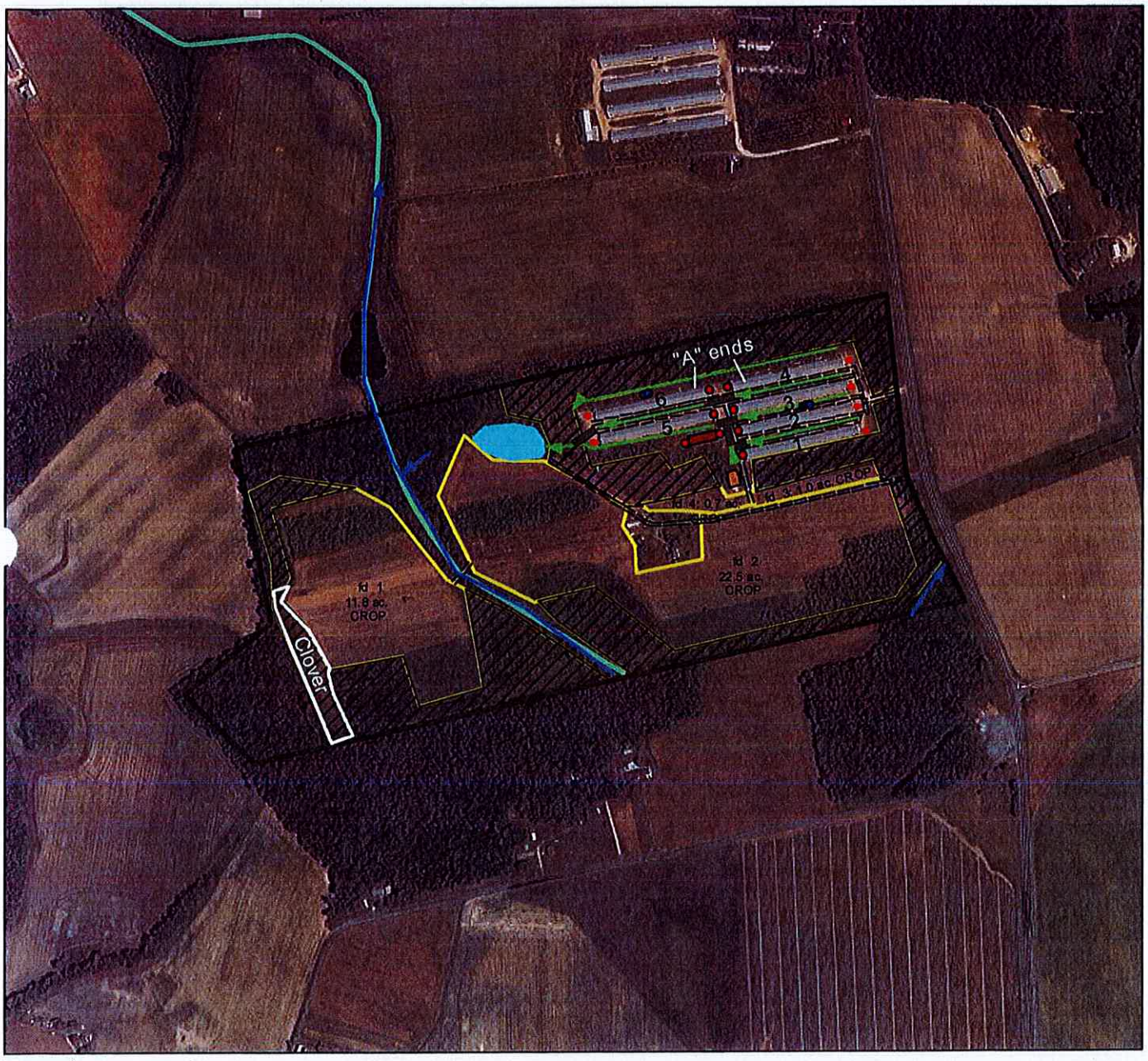
Operator: William Thomas

Farm 1739 Tract 538

Opid: GROVE_20

Approximate Acres: 95

Assisted By: Alison Taylor



Legend

- Approx. Property Boundaries
- Field Boundaries
- Well
- HUA recommended
- PDA's
- Culvert Pipe
- Drainage Swale
- Farm Lane
- Surface Drainage
- 40 X 124 PWSS (CR-96-1119X)
- 40 X 60 PWSS (CR-91-0118)
- 6 Bin DBCF (CR-92-0757)
- Expired CRP/CREP: no longer cropped
- Sediment Pond (CR-90-0017)

N

660 0 660 1,320 Feet

SOILS MAP

District: CAROLINE SCD

Owner(s): THOMAS MCGUCKIAN

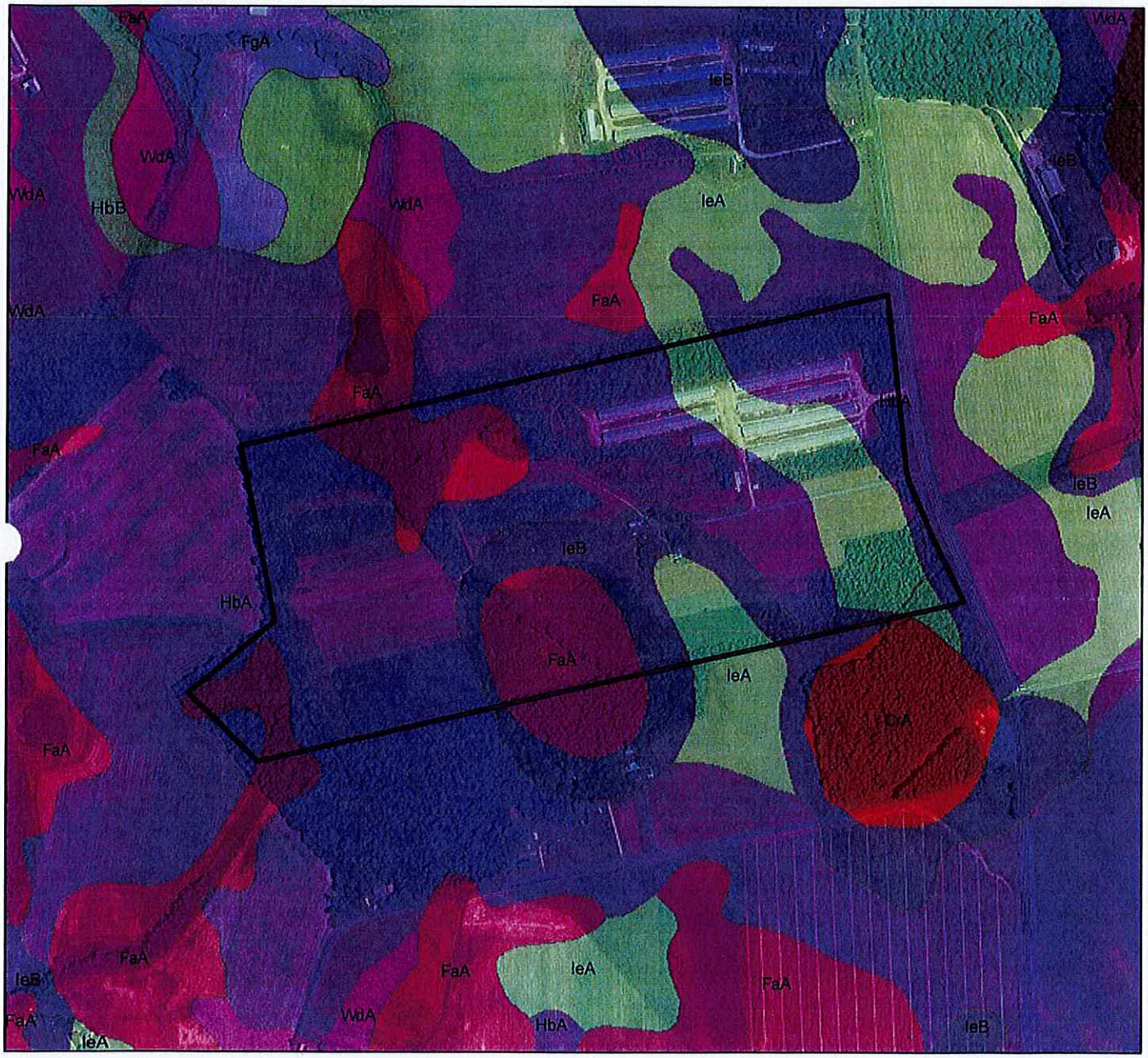
Operator: William Thomas

Farm 1739 Tract 538

Opid: GROVE_20

Approximate Acres: 95

Assisted By: Alison Taylor



Soils Inventory Report

THOMAS MCGUCKIAN

Map Unit Symbol	Percent
CrA	0%
FaA	18%
HbA	55%
IeA	16%
IeB	12%

Map Unit Description

Caroline County, Maryland

[Minor map unit components are excluded from this report]

Map unit: CrA - Corsica mucky loam, Carolina Bay, 0 to 2 percent slopes

Component: Corsica, undrained (50%)

The Corsica, undrained component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on Carolina Bays, 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 very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April. Organic matter content in the surface horizon is about 38 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria.

Component: Corsica, drained (25%)

The Corsica, drained component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on Delmarva Bays, 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 very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is 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 14 percent. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Map unit: FaA - Fallsington sandy loam, 0 to 2 percent slopes

Component: Fallsington, drained (40%)

The Fallsington, drained 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 loamy 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 is moderate. Shrink-swell potential is low. This soil is not flooded. It is rarely ponded. A seasonal zone of water saturation is at 14 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Fallsington, undrained (40%)

The Fallsington, undrained component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on uplands, flats. The parent material consists of loamy 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 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 during January, February, March, April. Organic matter content in the surface horizon is about 68 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria.

Map unit: HbA - Hambrook sandy loam, 0 to 2 percent slopes

Component: Hambrook (80%)

The Hambrook component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on uplands, flats. The parent material consists of loamy fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 1. Irrigated land capability classification is 1 This soil does not meet hydric criteria.

Map unit: IeA - Ingleside loamy sand, 0 to 2 percent slopes

Component: Ingleside (75%)

The Ingleside component makes up 75 percent of the map unit. Slopes are 0 to 2 percent. This component is on uplands, flats. The parent material consists of loamy eolian deposits and/or fluviomarine sediments. Depth to a root restrictive layer is greater than 60

Map Unit Description

Caroline County, Maryland

Map unit: IeA - Ingleside loamy sand, 0 to 2 percent slopes

Component: Ingleside (75%)

inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is 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. Nonirrigated land capability classification is 1. Irrigated land capability classification is 1 This soil does not meet hydric criteria.

Map unit: IeB - Ingleside loamy sand, 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 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. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map Unit Description

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

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

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

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

AFO RESOURCE CONCERNS EVALUATION WORKSHEET

Name:	William Thomas, Jr	**Agency Interest #:**	99089
Planner:	Alison Taylor	**Farm # / Tract #:**	1739 / 538
Site Visit Date:	3/6/24	**Total Acres:**	83.0 & 12.0
County:	Caroline	**Production Area Acres:**	12

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

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

Practice and Facility Implementation Schedule

Identify Resource Concern	Practice Name (NRCS Code)	Description of Practice	Date to be Implemented
The ends of all the poultry houses and ends of 40' x 124' PWSS and 40' x 60'need additional hard packing surface material such as stones, shells or concrete HUA is recommended.	Heavy Use Area Protection (561)	The stabilization of areas frequently and intensively used by people, animals or vehicles by establishing vegetative cover, by surfacing with suitable materials, and/or by installing needed HUA structures.	6/1/2025
Non mobile farm equipment and things in PWSS.		Make sure all equipment is mobile and anything in on the floor of the PWSS is on mobile equipment.	6/1/2024
Lane maintenance		Operator has clam shells on site to continue ongoing lane maintenance.	6/1/2024

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

I, William Thomas, Jr, 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 Caroline Soil Conservation District and have this schedule revised.

William Thomas, Jr

4/3/24

Date

SIGN HERE

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.

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.

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

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.

This CNMP is considered a "No Land" plan, therefore no additional documents have been included in this section.

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.

CONSERVATION PLAN MAP

District CAROLINE SCD

Owner(s) THOMAS MCGUCKIAN

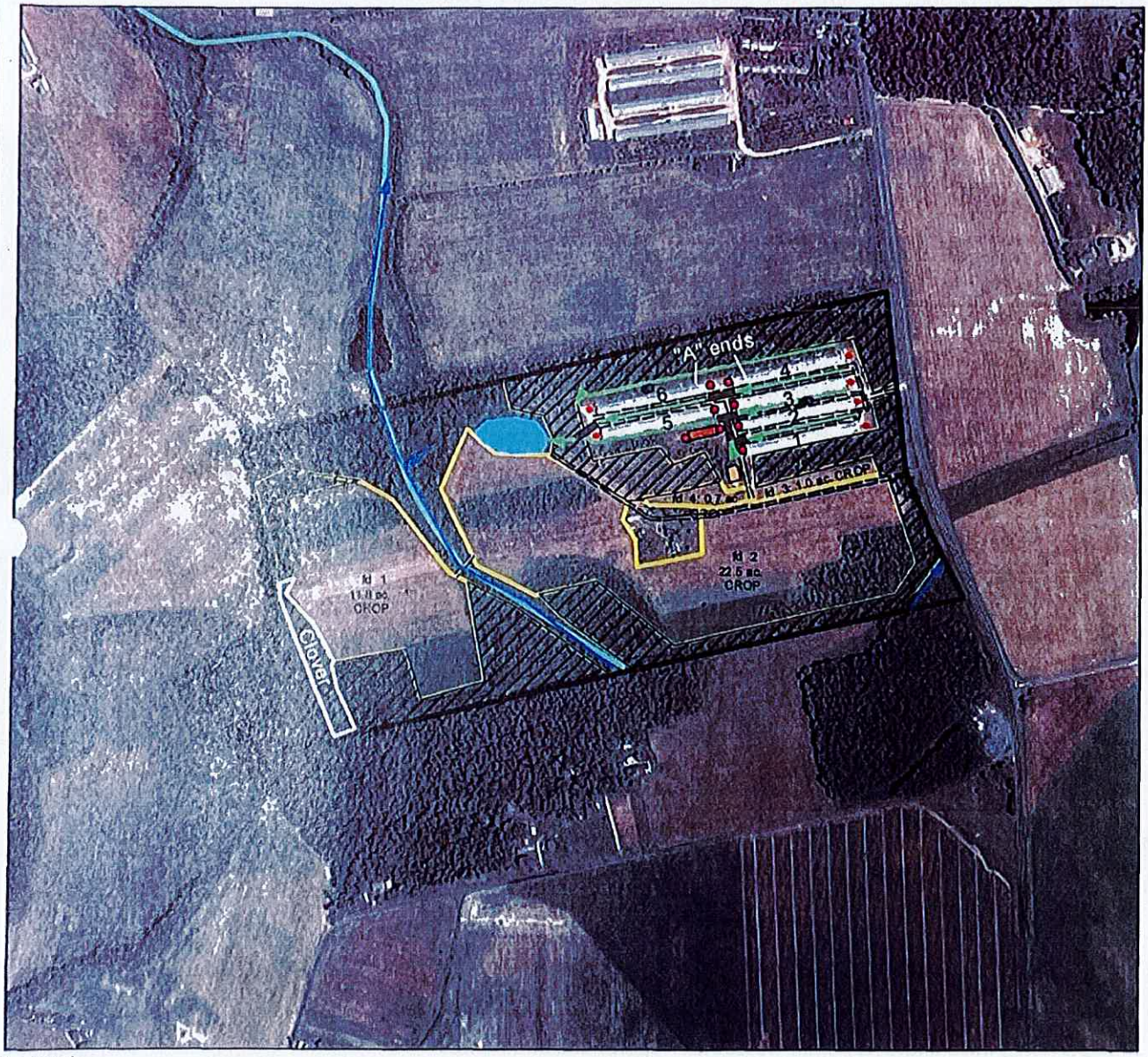
Farm 1739 Tract 538

Opid GROVE_20

Approximate Acres 95

Operator William Thomas

Assisted By Alison Taylor



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- Expired CRP/CREP: no longer cropped
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N

660 0 660 1,320 Feet

MDE SELF INSPECTION AND RECORDKEEPING REQUIREMENTS FOR LAND & NO-LAND OPERATIONS

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).