MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land and Materials Administration • Resource Management Program
1800 Washington Boulevard • Suite 610 • Baltimore Maryland 21230-1
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: 136467

1. LEGAL Name of Applicant *(must match name on required plan)*:
A + B Lewis, LLC

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:** 6704 Worcester Hwy.
City: Newark **State:** MD **Zip Code:** 21841

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

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

Farm Information

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

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

9. **Farm Address:** 6706 Worcester Hwy.
City: Newark **County:** Worcester **Zip Code:** 21841

10. **Watershed/Hydrologic Unit Code (HUC)** (12-digit): 021302030642

11. **Latitude/Longitude of Production Area** (Deg/Min/Sec): 38 -14 -5.66 / 75 -18 -47.91

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	Poultry 50,000 (corrected)	medium	House

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

13. ***Number of poultry houses:** 4

14. ***Combined square footage of *all* poultry houses:** 69,600

15. ***Date(s) poultry houses constructed:** 1978/2015

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

Contact Information:
Phone No.: 1-757-824-3471
Address: P.O. Box 8
Temperanceville, VA 23442

Manure/Mortality Management

17. Total Manure/Litter/Wastewater generated *annually*: 595 *circle one:* (tons) / lbs / gallons)

18. Total Manure/Litter/Wastewater transported offsite *annually*: 595 *circle one:* (tons)/ lbs / gallons)

19. **Total number of acres controlled by applicant available for land application of manure/litter/process wastewater: *Owned:* 0 *Leased:* 0

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

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

A. Type *(e.g. shed, lagoon, pit)*	B. Capacity *(ft^3, gal)*	C. Solid/Liquid
Shed	32,000 Cu. Ft	Solid

21. Mortality Management Method:

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

CAFOs Only - Fees

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

Required Plan

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

Certification

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

Bonnie Lewis — **Signature of Applicant / duly authorized representative**

9-3-2020 — **Date**

Bonnie Lewis — **Printed Name of Applicant / duly authorized representative**

Owner — **Title**

AFO Size Chart

Animal Type	Circumstances under which Animal Feeding Operations Require Permit Coverage		
	CAFO or MAFO Registration Required	**CAFO/MAFO Registration Required under Certain Circumstances**	**Registration Needed Only if Designated**
	Large	**Medium**	**Small**
Cattle (includes heifers)	1000 or more animals	300—999 animals	less than 300 animals
Dairy cattle	700 or more animals	200—699 animals	less than 200 animals
Horses	500 or more animals	150—499 animals	less than 150 animals
Veal	1000 or more animals	300—999 animals	less than 300 animals
Swine ≥ 55 pounds	2500 or more animals	750—2499 animals	less than 750 animals
Swine < 55 pounds	10,000 or more animals	3,000—9,999 animals	less than 3,000 animals
Sheep and lambs	10,000 or more animals	3,000—9,999 animals	less than 3,000 animals
Ducks with liquid manure handling+	5,000 or more animals	1,500—4,999 animals	less than 1,500 animals
Chickens with liquid manure handling	30,000 or more animals	9,000—29,999 animals	less than 9,000 animals
Ducks with dry manure handling	30,000 or more animals	10,000—29,999 animals	less than 10,000 animals
Laying hens with dry manure handling	82,000 or more animals	25,000—81,999 animals	less than 25,000 animals
Chickens (other than laying hens) with dry manure handling	125,000 or more animals or greater than or equal to total house size of 100,000 ft^2	37,500—124,999 animals *and* less than total house size of 100,000 ft^2	less than 37,500 animals
Turkeys	55,000 or more animals	16,500—54,999 animals	less than 16,500 animals

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

Comprehensive Nutrient Management Plan

Prepared for

A&B Lewis, LLC
Hammond Farm
6704 Worcester Highway
Newark, MD 21841

MDE Agency Interest #136467
Poultry Operation – No Land Application

Prepared By

Todd A. Keen
Certified Comprehensive Nutrient Management Planner
TSP #05-4996
takkeen@comcast.net

KEEN CONSULTING
26229 Prettyman Road
Georgetown, DE 19947
(302) 684-5270

Plan Preparation: April 2024

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 Bonnie Lewis 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.

Bonnie Lewis

3/27/24

Bonnie Lewis — Date

Certified Comphrensive Nutrient Management Plan (CNMP) Planner

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

Todd A Keen

3/27/24

Todd Keen — Date

NRCS Planner Certification # 54996

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
Hammond Farm	Andre & Bonnie Lewis	[redacted]		3363	19.04	02-13-02-03-0642

Description of Operation / Additional Information

A&B Lewis, LLC operates a 50,000 bird capacity poultry (broiler) operation that encompasses 2 production house (40' X 500' each) and waste storage/composter structure (40' X 100'). All wastes generated are exported (no land application).

Sensitive Environmental Information

Name of nearest regulatory waterbody	Distance to nearest regulatory waterbody (ft.)	Distance to nearest regulatory wetland (ft.)
Coonfoot Branch	80	85

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]	02-13-02-03-0642	Upper Pocomoke River	No	No	Yes	Yes	Yes

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)**
Broiler	6.85	2	50,000	5	348	100-150

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

Operators must keep records of the actual:

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

Manure Collection

A crust out along with windrowing is performed between flocks. Crust out wastes are transferred to

Manure Storage

All manure is stored in the production houses and/or the waste storage structure located on site.

Current / Proposed Manure Storage Conditions

Animal Type	Storage Structure	Size of Storage Structure	Storage Capacity	Date Constructed
Poultry	Manure Shed	40' X 100'	22,000 (330 Tons)	1/22/1992

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	Watson Powell Farms	6656 Worcester Highway, Newark, Maryland 21841

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. Bonnie Lewis 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	2 Bins (4' X 8' each)	Attached to PWSS

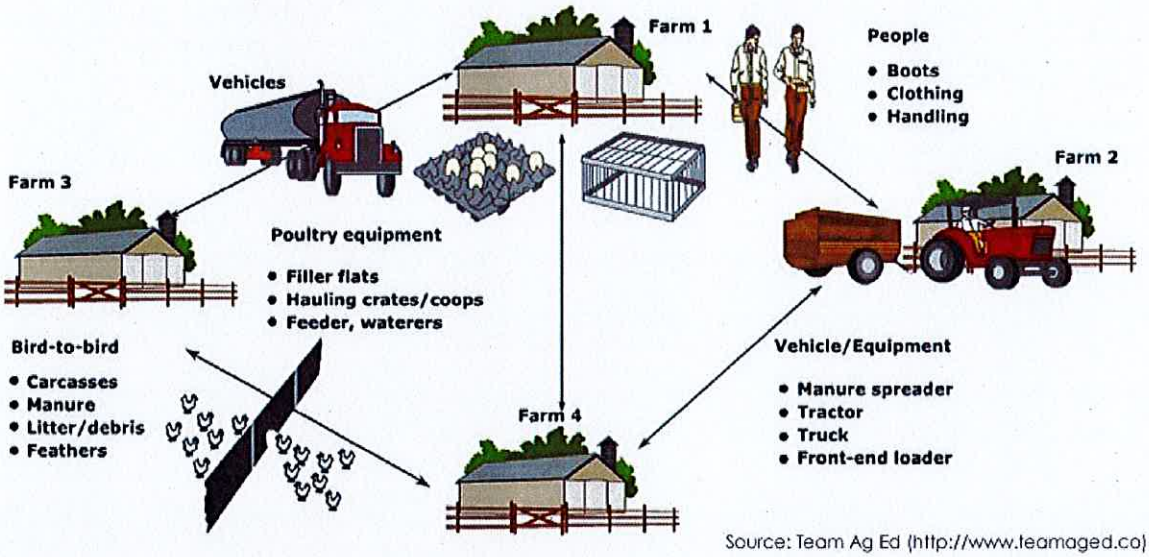
Catastrophic Mortality Management

In the event of catastrophic mortality, the operator will contact the integrator and most likely, follow an 'in house' or 'in PWSS' windrow method of composting as outlined in UMD-Ext fact sheets #723 and #801. If 'in PWSS' composting is used, MDE must be notified for approval.

Biosecurity

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.
4. Keep your farm secure
    a. Restrict access to your property and animals.
    b. Keep doors and gates locked.
    c. Have tracking records on animals.
    d. Give germs space - Newly acquired animals should be isolated for at least two weeks to ensure you don't introduce disease to your main herd or flock. As an added protection, isolate and quarantine new animals for 30 days before putting them with your other animals. Keep show animals segregated for at least two weeks after they've been to a fair or exhibit.
5. Look for signs
    a. Unusual animal health symptoms or behavior
    b. Sudden, unexplained death loss in the herd or flock
    c. Severe illness affecting a high percentage of animals
    d. Blisters around an animal's mouth, nose, teats or hooves
    e. Staggering, falling or central nervous system disorders that prevent animals from rising or walking normally.
    f. Large number of dead insects, rodents or wildlife

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 Bonnie Lewis.

Emergency Contact Information

Farm Name	Hammond Farm
Farm Address	6704 Worcester Highway, Newark, Maryland 21841
Mailing Address	6704 Worcester Highway, Newark, Maryland 21841
Directions to the farm	Property is located on the southeast side of Worcester Highway (RT 113) 500 feet south intersection of Worcester Highway (Route 113) and Basket Switch Road.

Farm Contacts

	Name	Farm Phone	Cell Phone
Farm Owner	Bonnie Lewis		[redacted]
Farm Operator	Bonnie Lewis		[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

Worcester County Agency Contacts

	Day Phone	Emergency Number
MDA Regional Nutrient Management (Region)	410-632-5439	410-632-5439
Health Department		
Sherriff's Office		
University of Maryland Extension Office (Snow Hill)	410-632-5439	410-632-5439

Integrator Information

Name	Address	Phone
Tyson Foods, Inc.	11224 Lankford Highway, Temperanceville VA 23442	757-990-3574

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).

Online References

1. **MDE Regulations and General Permit for Animal Feeding Operations (AFO)**
   http://www.mde.state.md.us/programs/Land/SolidWaste/CAFOMAFO/
   Pages/Programs/LandPrograms/Solid_Waste/cafo/index.aspx
2. **Environmental Protection Agency (EPA) Concentrated Animal Feeding Operations (CAFO) - Final Rule**
   http://cfpub.epa.gov/npdes/afo/cafofinalrule.cfm
3. **Crop Fertilizer Recommendations**
   "Soil Fertility Management," Maryland Cooperative Extension, SFM-1, Oct. 2002
   http://www.anmp.umd.edu/Pubs/Pubs_Crops.cfm
4. **Nutrient Management Information Sheets**
   http://www.anmp.umd.edu/Pubs/index.cfm
5. **Manure Nutrient Availability**
   Maryland Department of Agriculture, COMAR 15.20.08.05
   http://mda2.maryland.gov/ resource_conservation/ Documents/consultant_information/
   2009%20I-C%20p1-3%20s6.pdf
6. **Calibrating Manure Spreaders**
   University of Maryland Extension Fact Sheet 416 and Worksheets
   http://www.anmp.umd.edu/Pubs/Pubs_Manure.cfm
   http://www.anmp.umd.edu/Pubs/Pubs_Equip.cfm
7. **Phosphorus Assessment**
   "The Maryland Phosphorus Site Index: An Overview," Maryland Cooperative Extension SFM-6, April 2005
   http://www.anmp.umd.edu/files/SFM-6.pdf
   "The Maryland Phosphorus Site Index: Technical Users Guide," Maryland Cooperative Extension SFM-7, March 2008
   http://www.anmp.umd.edu/files/SFM-7.pdf
8. **Mid-Atlantic Nutrient Management Handbook**
   http://www.mawaterquality.org/Publications/pubs/manhcomplete.pdf
9. **Maryland Pesticide Regulation**
   http://www.mda.state.md.us/plants-pests/pesticide_regulation/index.php
10. **Maryland Practice Standards**
    eFOTG Section IV - Practice Standards and Specifications
    http://www.nrcs.usda.gov/technical/efotg/
11. **County University of Maryland Extension Office**
12. **Soil Conservation District**
13. **Tyson Foods, Inc.**
    http://www.tyson.com/

MANURE EXPORTS

Farm Name:	Hammond Farm	Year:	
Operator:	Bonnie Lewis		

Manure Source	Date	Amount (Gal or Ton)	Receiving Operation	Address	Contact	Phone

MONTHLY ANIMAL & MORTALITY COUNT

Farm Name:	Hammond Farm	Year:	
Operator:	Bonnie Lewis		

Month	Animal Count and Weight	Mortality	Mortaliy %	Comments

INSPECTION / MONITORING RECORDS

Farm Name:	Hammond Farm	Year:	
Operator:	Bonnie Lewis		

Date	Activity Description	Operator / Inspector	Activity Data

Weekly Storage and Containment Structure Inspections Log Sheet

Facility Name: _____ NPDES Permit No.: _____

Instructions:
Use this form to keep records of weekly visual inspections of the structures you use to store or contain manure/litter/process wastewater. Use a separate form for each structure.

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

Storage or Containment Structure: _____

	Date	**Initials**	**Depth Marker Reading** (N/A for dry manure handling)	**OK** (√ if no problems)	**Description of any Deficiencies Observed** (put "N/A" if none observed)	**Date Deficiency Corrected***
Week 1						
Week 2						
Week 3						
Week 4						
Week 5						
Week 6						
Week 7						

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

	Date	Initials	**Depth Marker Reading** (N/A for dry manure handling)	**OK** (√ if no problems)	**Description of any Deficiencies Observed** (put "N/A" if none observed)	**Date Deficiency Corrected***
Week 20						
Week 21						
Week 22						
Week 23						
Week 24						
Week 25						
Week 26						
Week 27						
Week 28						
Week 29						
Week 30						
Week 31						

	Date	Initials	Depth Marker Reading (N/A for dry manure handling)	OK (√ if no problems)	Description of any Deficiencies Observed (put "N/A" if none observed)	Date Deficiency Corrected*
Week 32						
Week 33						
Week 34						
Week 35						
Week 36						
Week 37						
Week 38						
Week 39						
Week 40						
Week 41						
Week 42						
Week 43						

	Date	**Initials**	**Depth Marker Reading** (N/A for dry manure handling)	**OK** (√ if no problems)	**Description of any Deficiencies Observed** (put "N/A" if none observed)	**Date Deficiency Corrected***
Week 44						
Week 45						
Week 46						
Week 47						
Week 47						
Week 49						
Week 50						
Week 51						
Week 52						

Manure, Litter, and Wastewater Storage Structures Documentation

Facility Name: _____ NPDES Permit No.: _____

Instructions:
For each storage structure, provide the following information in the table below:

- Structure Type: the type of storage structure (e.g. roofed storage shed, storage pond, anaerobic lagoon…)
- Total Design Storage Volume: the total capacity the storage structure was designed to hold (e.g. 100 ft^3 or 1000 gallons)
- Design Treatment Volume: **(*N/A for dry manure storage)** the treatment capacity the structure was designed to treat
- Days of Storage Capacity: **(*N/A for dry manure storage)** the number of days the structure can accommodate its contents at the rate the operation places waste in it
- Volume for Solids Accumulation: the capacity of the structure available to accumulate solids

Structure Type	**Total Design Storage Volume**	**Design Treatment Volume** (N/A for dry manure storage)	**Days of Storage Capacity** (N/A for dry manure storage)	**Volume for Solids Accumulation**

Maryland
Department of
the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

Manure, Litter, and Wastewater Transfer Record Keeping Form

Facility Name: _____ NPDES Permit No.: _____

Use this sheet any time that manure or poultry litter is removed from a production or storage area and transferred to other persons (not under the control of your CAFO). Use additional sheets as necessary.

Date of Transfer (indicate whether import or export)	**Manure Type** (e.g. litter, wastewater)	**Name and Address of Person(s) Received From or Transferred To**	**Quantity Transported** (tons/gallons)

Daily Water Line Inspection Log Sheet

Facility Name: _____ NPDES Permit No.:_____

Instructions:

- Initial the form *each day* after the inspection is complete
- If a leak is detected, place a check in the "leak detected" column

January, 20____		
Day	Initials	√ if Leak Detected
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
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February, 20____		
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March, 20____		
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April, 20____		
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July, 20___		
Day	Initials	√ if Leak Detected
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August, 20___

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September, 20____

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November, 20____		
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December, 20____		
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NUTRIENT MANAGEMENT PLAN

Prepared for

A&B LEWIS, LLC
BONNIE LEWIS
6704 WORCESTER HIGHWAY
NEWARK, MD 21841

Prepared By

TODD A. KEEN
CERTIFIED NUTRIENT MANAGEMENT PLANNER
MD CERTIFICATION #: 1557
MD LICENSE #: 2025

PLAN PERIOD: 2/2023 – 2/2026

26229 PRETTYMAN ROAD
GEORGETOWN, DE 19947
(302) 684-5270
TAKKEEN@COMCAST.NET

COMMENTS ON PLAN IMPLEMENTATION, UPDATING AND MAINTENANCE REQUIREMENTS

Maryland regulations require that certified nutrient management planners prepare Nutrient Management Plans (NMP) that meet guidance provided by University of Maryland and the Maryland Department of Agriculture. In so doing, this may result in NMP's that do not address nutrient management planning from the best economic viewpoint.

General:

Please review your Nutrient Management Plan (NMP) and contact us with any questions or concerns

Update Requirements:

This plan should be modified if any of the following occur:

- Changes in animal numbers (10% increase) or types
- Changes in manure handling or storage procedures

Manure Handling & Storage Guidelines:

Manure should be sampled annually to determine average nutrient content for each manure type utilized in the operation. A copy of the manure analysis is to be provided to any receivers of the manure.

Farm storage of manure (solid) must be:

- Placed on an impermeable surface (cement pad or compacted clay base) that is covered
- Contact your Soil Conservation District for advice on design and cost share programs for storage structures if you do not have storage or require additional storage capacity

Handling & Spreading:

- Reasonable effort should be made to minimize odors from the storage and transportation of manures
- **If your operation is subject to regulations governing Maryland Animal Feeding Operations (MAFO) or Concentrated Animal Feeding Operations (CAFO), then you may be subject to additional manure handling guidelines. Consult your CAFO/MAFO documentation for guidance.**

Erosion & Runoff Control:

Best Management Practices should be utilized to minimize soil erosion and runoff which can carry nutrients to surface waters (vegetative buffer strips around drainage ditches and surface waters are a good example). Advice on soil erosion control can be obtained through your Soil Conservation District

Record Keeping Requirements:

- Nutrient Management Plans (NMP)
- Animal waste generation estimations, measurements, and applications
- Documentation to justify any changes from the written nutrient management plan

Information Summary

Operator: A&B Lewis, LLC
6704 Worcester Highway
Newark, MD 21841
[redacted]

Premises: Hammond Farm
6706 Worcester Highway
Newark, MD 21841

County: Worcester

Watershed: 0203

Hammond Farm:
Account ID#: [redacted] ***Parcel Acres:*** 1.04 ***Tillable Acres:*** N/A
18.63

Plan Type: Animal Waste Management Plan ***(No land application plan)***

Animal Type: Poultry

Animal Number: 50,000 per cycle, 250,000 annually (5 Flocks)

Manure Storage Facilities: Shed 40' X 100'

Manure Management: Generally, crust-outs performed between 2 flocks and windrowing performed between 3 flocks. Center cleanouts performed between total cleanouts as needed (generally once annually).

Dead Animal Disposal Method: Animal Mortality Facility (Composter)

Manure Receiver: Watson Powell Farms
6656 Worcester Highway
Newark, MD 21841

Manure Amount Transferred: All (See Estimation Sheet)

Notes: Producer exports all wastes generated in this operation.

KEEN CONSULTING

POULTRY LITTER QUANTITY ESTIMATE

KEEN CONSULTING
26229 Prettyman Road
Georgetown, DE 19947
(302) 684-5270

Name: **A&B Lewis, LLC** Tract / Farm: **Hammond** Date: **1/25/2023**

Houses included: **2** **Bird type:** **Broiler**

Average Bird Market Weight (lbs): **6.85**

A.	Years between total cleanouts:	7
B.	Total # of birds per flock (for all houses on this cleanout cycle):	50,000
C.	Flocks per year	5
D.	Number of flocks per cleanout cycle (A x C):	35
E.	Estimated tons of cake/crust per 1000 birds per flock: *	0.2
F.	Estimated tons of litter + cake/crust per 1000 birds per flock: *	1.393265
G.	Tons cake/crust produced per flock (B x E/1000):	10
H.	Tons cake/crust produced per cycle (G x D)	350
I.	Tons litter + cake/crust produced per cycle (B x D x F/1000):	2,438
J.	Tons of litter produced per cycle (less cakeout/crustout) (I - H):	2,088
K.	Tons of litter produced per year (less cakeout/crustout) (J/A):	298
L	Tons of litter + cake/crust produced per year (I/A)	348

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

Quantity of Poultry Litter, Cake/Crust Available per Year

Year	M Tons of litter remaining in the house from last year (N-P) + (R-S) (previous year)	N Total tons of litter present in the house this year (K) + (M, this year)	O % of partial or total litter to be removed this year in excess of cakeout/crustout (enter % of N removed)	P Tons of litter removed this year (N x O)/100	Q Flocks this Year	R *** Tons Cake/Crust Produced this Year (Q x G)	S Tons Cake/Crust removed this Year	T Tons litter + cake/crust removed this year (P + S)
1	0	298	**10**	30	5	50	50	80
2	268	567	**5**	28	5	50	50	78
3	538	837	**5**	42	5	50	50	92
4	795	1,093	**5**	55	5	50	50	105
5	1,039	1,337	**5**	67	5	50	50	117
6	1,270	1,568	**5**	78	5	50	50	128
7	1,490	1,788	**100**	1,788	5	50	50	1,838
				2,088	35	350	350	2,438

Wastes Storage Structure(s): ***40' X 100'*** ***On Site*** Animal Mortality Facilty: ***On Site - Attached***

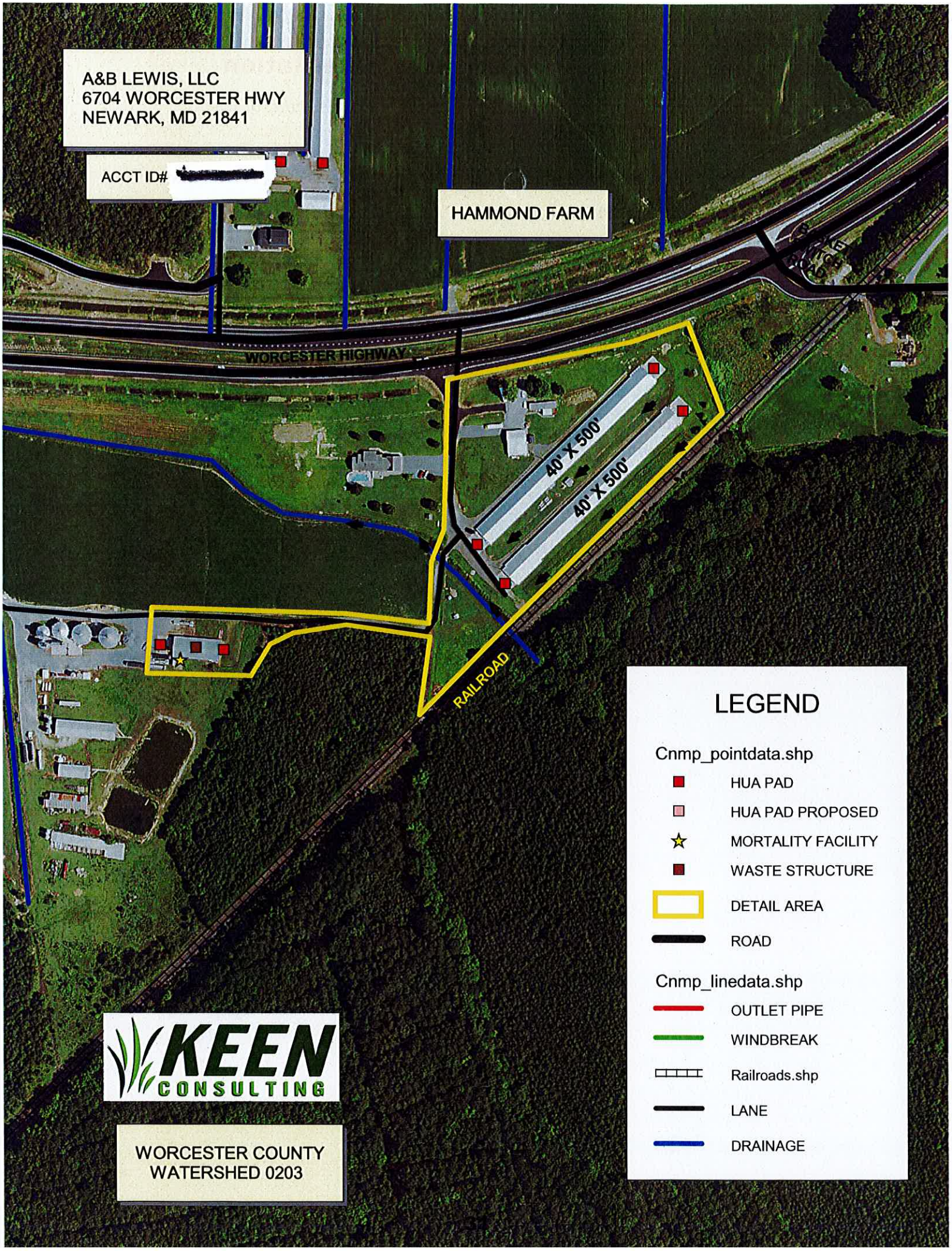
Last Total Cleanout: **April 2023**

Animal wastes generated on this farm are stored in the waste storage structure(s) and/or exported as conditions warrant.

** This estimation is provided to comply with Nutrient Management Regulations. Manure amounts utilized within the NMP are from producer records and are not necessarily consistent with amounts shown in this estimation.*

Operators are advised to follow Best Management Practices (BMP's) when handling and storing manures. Please refer to the Comments on Plan Implementation, Updating and Maintenance Requirements (Manure Handling & Storage Guidelines Section) included in your Nutrient Management Plan (NMP).

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


A&B LEWIS, LLC
6704 WORCESTER HWY
NEWARK, MD 21841
ACCT ID# [redacted]
HAMMOND FARM
WORCESTER HIGHWAY
40' X 500'
40' X 500'
RAILROAD
LEGEND
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HUA PAD
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MORTALITY FACILITY
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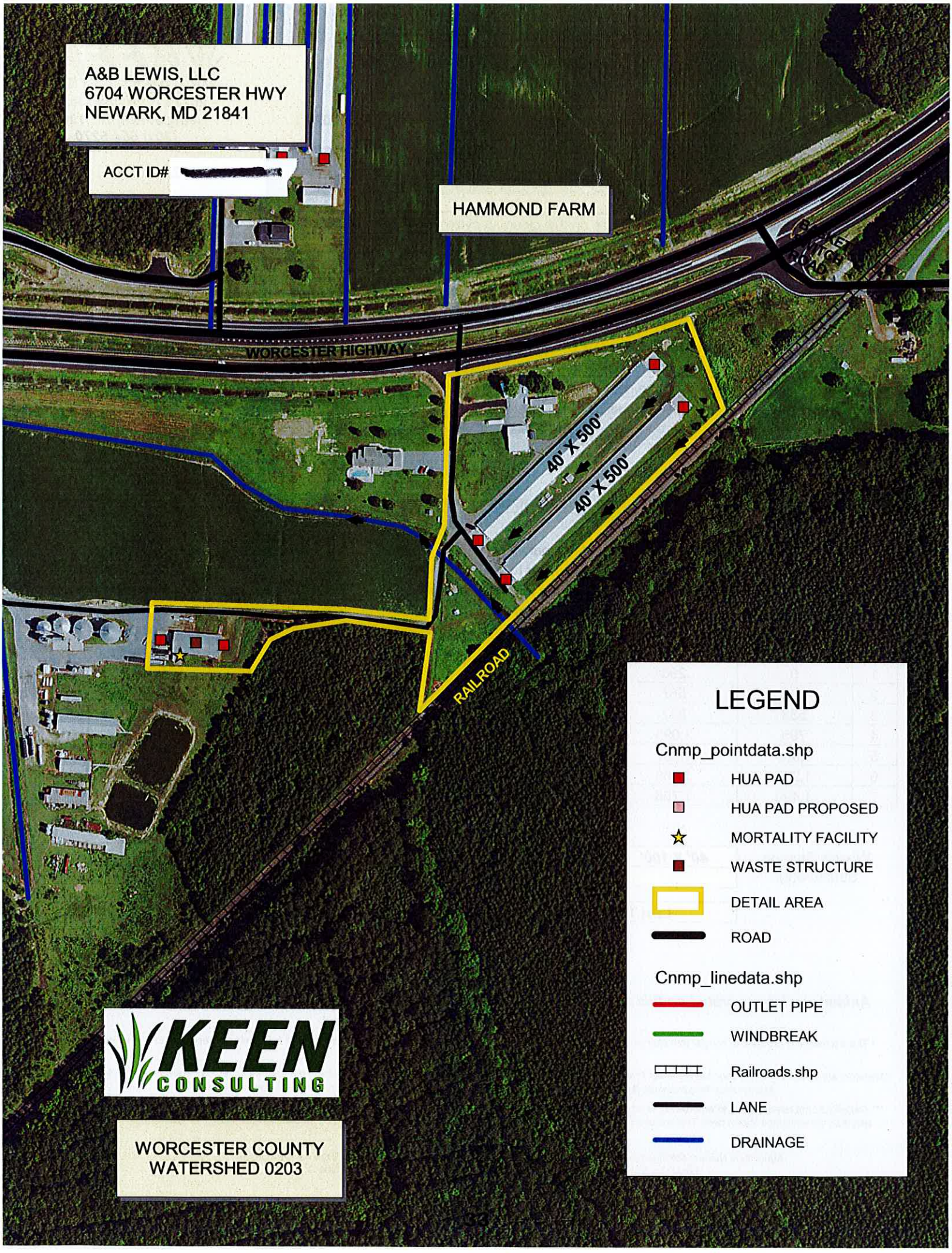
DRAINAGE
KEEN CONSULTING
WORCESTER COUNTY
WATERSHED 0203

SECTION 5: Additional Documentation

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

The following documents are located in this section:

- Water Conveyance Map Around Production Area
- Resource Inventory Map
- Poultry Litter Estimation Worksheet
- Online References
- Manure Export Form
- Monthly Animal & Mortality Count
- Inspection/Monitoring Records
- Weekly Storage Form
- Weekly Wastewater Form
- Manure Litter Storage Form
- Manure Application Form
- Manure Litter Transfer Form
- Daily Waterline Form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WASTE STRUCTURE
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LANE
DRAINAGE
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WATERSHED 0203

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KEEN CONSULTING
26229 Prettyman Road
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				2,088	35	350	350	2,438

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NRCS Natural Resources Conservation Service
WORCESTER COUNTY SERVICE CENTER
304 COMMERCE ST
SNOW HILL, MD 21863-1008
(410) 632-5439

NELSON BRICE
DISTRICT CONSERVATIONIST

Conservation Plan

BONNIE P LEWIS
6704 WORCESTER HWY
NEWARK, MD 21841

OBJECTIVE(S)

Implement Comprehenstve Nutrient Management Plan and obtain and implement AgEmp

Farmstead

Tract: 3375

Agriculture Energy Management Plan for Headquarters-Written **EQIP 2014**

The written site specific Agriculture Energy Management Plan will meet the planning criteria described in the Field Office Technical Guide.

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ1	1 no	5	2015		
Total:	1 no				

Agriculture Energy Management Plan, Headquarters - Applied

The energy assessment and all planned energy-related conservation treatment activities contained in the written Agriculture Energy Management Plan are applied according to NRCS standards and specifications.

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ1	1 no	5	2017		
Total:	1 no				

Animal Mortality Facility

Construct a composting facility for poultry according to NRCS standards and specifications at the approximate location shown on the plan map, to provide for the composting of the normal daily accumulation of dead birds from the operation.

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ3	1 no	1	1994	1 no	8/22/1994
Total:	1 no			1 no	

Comprehensive Nutrient Management Plan - Applied

All planned practices contained in the written Comprehensive Nutrient Management Plan are applied according to NRCS standards and specifications.

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ1	1 no	9	2012		
Total:	1 no				

Comprehensive Nutrient Management Plan - Written

The written site specific Comprehensive Nutrient Management Plan will meet the planning criteria described in the Field Office Technical Guide.

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ1	1 no	9	2011	1 no	9/1/2011
Total:	1 no			1 no	

FARMSTEAD ENERGY IMPROVEMENT

Install, replace, or retrofit agricultural equipment systems and/or related components or devices which results in an on-farm and/or off-site reduction in actual or potential emissions of greenhouse gases.

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ1	1 no	5	2016		
Total:	1 no				

Heavy Use Area Protection **MACS**

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

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ1	0.1 ac	9	2013	0.1 ac	10/18/2011
HQ1	0.1 ac	9	2013	0.1 ac	10/18/2011
HQ1	0.1 ac	9	2013	0.1 ac	10/18/2011
HQ1	0.1 ac	9	2013	0.1 ac	10/18/2011
HQ3	0.1 ac	9	2012	0.1 ac	10/18/2011
Total:	0.5 ac			0.5 ac	

Waste Storage Facility

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.

Field	Planned Amount	Month	Year	Applied Amount	Date
HQ3	1 no	1	1991	1 no	1/22/1992
Total:	1 no			1 no	

CERTIFICATION OF PARTICIPANTS

Bonnie P. Lewis 7-22-14
BONNIE P LEWIS DATE

CERTIFICATION OF:

DISTRICT CONSERVATIONIST
NELSON BRICE 7/17/14 DATE

CONSERVATION DISTRICT
WORCESTER SCD 7/17/14 DATE

PUBLIC BURDEN STATEMENT

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

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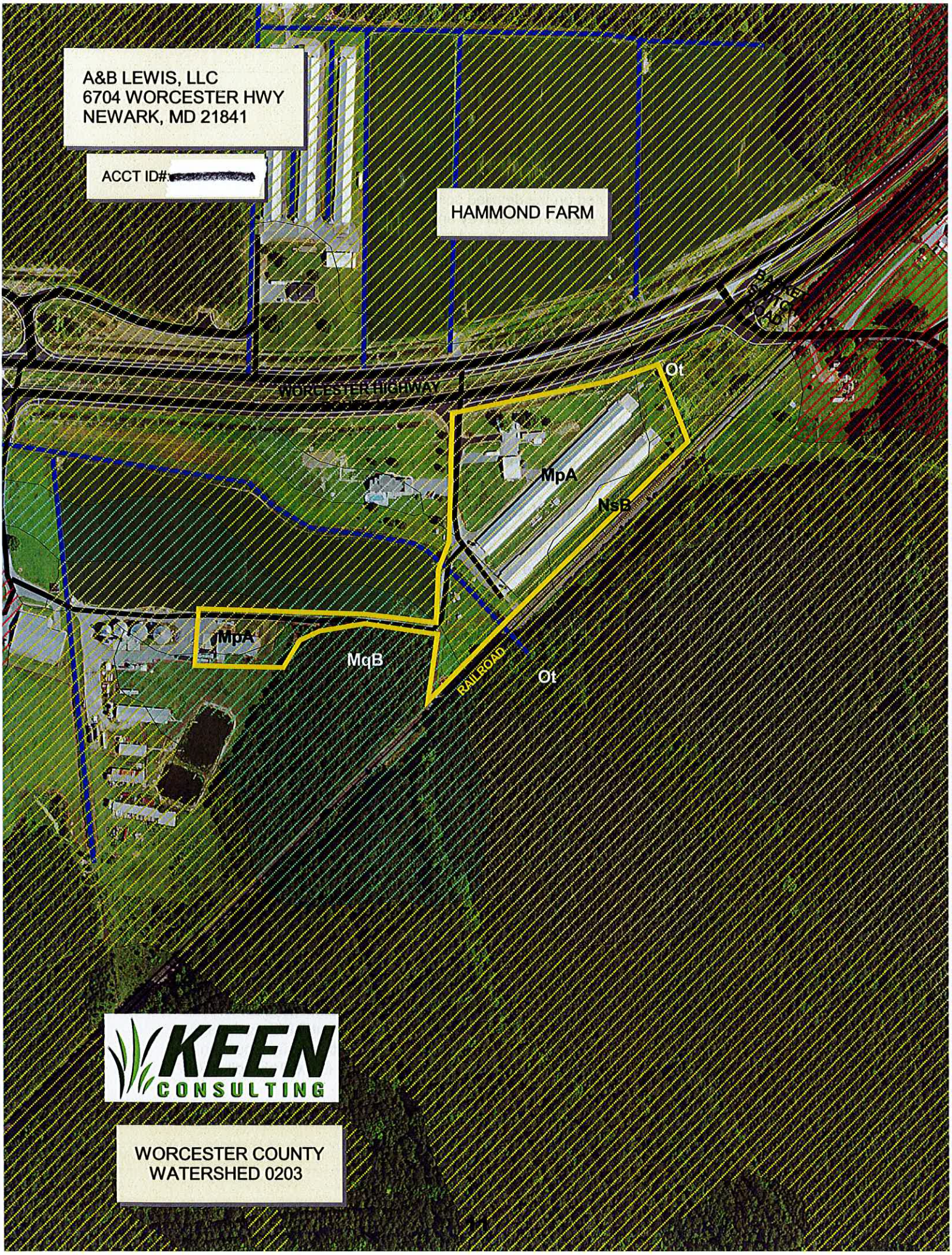
USDA Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW.
Washington, DC 20250-9410
Or call toll free at (866) 632-9992 (voice) to obtain additional information, the appropriate office or to request documents. Individuals who are deaf, hard of hearing, or have speech disabilities may contact USDA through the Federal Relay service at (800) 877-8339 or (800) 845-6136 (in Spanish). USDA is an equal opportunity provider, employer, and lender. Persons with disabilities who require alternative means for communication of program information (e.g., Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).


A&B LEWIS, LLC
6704 WORCESTER HWY
NEWARK, MD 21841
ACCT ID#[redacted]
HAMMOND FARM
WORCESTER HIGHWAY
Ot
MpA
NsB
MpA
MqB
RAILROAD
Ot
KEEN
CONSULTING
WORCESTER COUNTY
WATERSHED 0203

Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, 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.

Report—Map Unit Description (Brief, Generated)

Worcester County, Maryland

Map Unit: EmA—Elkton silt loam, 0 to 2 percent slopes

Component: Elkton, undrained (40%)

The Elkton, undrained component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of silty eolian deposits and/or fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is occasionally ponded. A seasonal zone of water saturation is at 5 inches during January, February, March, April. Organic matter content in the surface horizon is about 57 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Elkton, drained (35%)

The Elkton, drained component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, lowlands. The parent material consists of silty eolian deposits and/or fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is rarely ponded. A seasonal zone of water saturation is at 14 inches during January, February, March, April. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Crosiadore (10%)

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

Component: Kentuck, undrained (5%)

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

Component: Keyport (5%)

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

Component: Mattapex (5%)

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

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

Component: Mattapex (80%)

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

Component: Nassawango (10%)

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

Component: Crosiadore (5%)

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

Component: Othello, drained (5%)

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

Map Unit: MpB—Mattapex fine sandy loam, 2 to 5 percent slopes

Component: Mattapex (80%)

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

Component: Nassawango (10%)

The Nassawango component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on uplands, flats. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is 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.

Component: Crosiadore (5%)

The Crosiadore component makes up 75 percent of the map unit. Slopes are 0 to 2 percent. This component is on lowlands, flats. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 14 inches during January, February, March. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria.

Component: Othello, drained (5%)

The Othello, drained component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on lowlands, flats. The parent material consists of silty eolian deposits and/or fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is rarely ponded. A seasonal zone of water saturation is at 14 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Map Unit: NnA—Nassawango fine sandy loam, 0 to 2 percent slopes

Component: Nassawango (80%)

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

Component: Othello, drained (5%)

The Othello, drained component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on lowlands, flats. The parent material consists of silty eolian deposits and/or fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is rarely ponded. A seasonal zone of water saturation is at 14 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. Irrigated land capability classification is 3w. This soil meets hydric criteria.

Component: Mattapex (5%)

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

Component: Crosiadore (5%)

The Crosiadore component makes up 75 percent of the map unit. Slopes are 0 to 2 percent. This component is on lowlands, flats. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 14 inches during January, February, March. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria.

Component: Matapeake (5%)

The Matapeake component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on uplands, flats. The parent material consists of silty eolian deposits 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 high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 1. Irrigated land capability classification is 1 This soil does not meet hydric criteria.

Map Unit: NnB—Nassawango fine sandy loam, 2 to 5 percent slopes

Component: Nassawango (80%)

The Nassawango component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on uplands, flats. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is 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.

Component: Crosiadore (5%)

The Crosiadore component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on lowlands, flats. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 14 inches during January, February, March. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria.

Component: Matapeake (5%)

The Matapeake component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on uplands, flats. The parent material consists of silty eolian deposits 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 high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Othello, drained (5%)

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

Component: Mattapex (5%)

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

Map Unit: NsA—Nassawango silt loam, 0 to 2 percent slopes

Component: Nassawango (80%)

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

Component: Othello, drained (5%)

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

Component: Crosiadore (5%)

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

Component: Matapeake (5%)

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

Component: Mattapex (5%)

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

Map Unit: NsB—Nassawango silt loam, 2 to 5 percent slopes

Component: Nassawango (80%)

The Nassawango component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on uplands, flats. The parent material consists of silty eolian deposits over fluviomarine sediments. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. 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.

Component: Matapeake (5%)

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

Component: Crosiadore (5%)

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

Component: Othello, drained (5%)

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

Component: Mattapex (5%)

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

Map Unit: OtA—Othello silt loam, 0 to 2 percent slopes

Component: Othello, drained (48%)

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

Component: Othello, undrained (27%)

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

Component: Crosiadore (10%)

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

Component: Hurlock, drained (5%)

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

Component: Kentuck, undrained (5%)

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

Component: Mattapex (5%)

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

Map Unit: Za—Zekiah sandy loam, frequently flooded

Component: Zekiah (75%)

The Zekiah component makes up 75 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains, coastal plains. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 5 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Longmarsh (10%)

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

Component: Hammonton (5%)

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

Component: Askecksy, undrained (5%)

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

Component: Fallsington, undrained (5%)

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

Data Source Information

Soil Survey Area: Worcester County, Maryland
Survey Area Data: Version 12, Sep 30, 2015

Maryland
Department of
the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

AFO RESOURCE CONCERNS EVALUATION WORKSHEET

Name:	Bonnie Lewis	**Agency Interest #:**	136467
Planner:	Todd Keen	**Farm # / Tract #:**	/ 3363
Site Visit Date:	3/26/2024	**Total Acres:**	19.04
County:	Worcester	**Production Area Acres:**	3.1

	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	☐	☑	Streambank or shoreline areas are present in the production area. Proper BMP's are in place. No action necessary.
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	☑	☐	This is an existing operation and Maryland regulated waterway has been identified on the property and is within 100 feet from the production facilities. The location of the regulated waterway is adjacent to the production area. All best management practices are in place to protect the waterway.
q.	Wetlands	☐	☑	No Maryland regulated wetlands have been identified on the property.)

Implementation Schedule for Farmstead

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

Practice and Facility Implementation Schedule

Description	Date
All resource concerns have been addressed and no additional best management practices are recommended or required at this time.	April 2024

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

I, Bonnie Lewis, 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 Keen Consulting, Inc. and have this schedule revised.

Bonnie Lewis

Bonnie Lewis

3/27/24

Date

Operation and Maintenance for BMP's in Farmstead

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

Waste Storage Facility (313)

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

Composting Facility (317)

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

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.

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. No chemical storage on site.