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: 67785

1. **LEGAL Name of Applicant** *(must match name on required plan)*:
David Tatman

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)*: ☒ 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:** 9430 Old Ocean City Blvd
   City: Berlin **State:** Maryland **Zip Code:** 21811

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

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

Farm Information

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

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

9. **Farm Address:** 10308 Caleb Road
   City: Berlin **County:** Worcester **Zip Code:** 21811

10. **Watershed/Hydrologic Unit Code (HUC)** (12-digit): 021301030691

11. **Latitude/Longitude of Production Area** (Deg/Min/Sec): 38°-21'-31.20" 75°-14'-13.17"

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	61,800 Broilers	Medium	House

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

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

14. ***Combined square footage of *all* poultry houses:** 56,600

15. ***Date(s) poultry houses constructed:** 1978 + 1985

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

   Contact Information:
   Phone No.: 302-629-9136
   Address: 29984 Pinnacle Way
   Millsboro, DE. 19966

Manure/Mortality Management

17. Total Manure/Litter/Wastewater generated *annually*: 227 *circle one:* (tons / lbs / gallons)

18. Total Manure/Litter/Wastewater transported offsite *annually*: 80 *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
Roofed Shed	42'x 92' (318 tons)	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

8-18-2022
Date

DAVID TATMAN
Printed Name of Applicant / duly authorized representative

Poultry Manager
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

4-12-18

Version 3.0

CNMP Web Tool

COMPREHENSIVE NUTRIENT MANAGEMENT PLAN

John Taylor Farm
David Tatman

10308 Caleb Road
Berlin, MD 21811
Worcester County

PREPARED IN COOPERATION WITH THE

United States Department of Agriculture,
Natural Resources Conservation Service

WITH TECHNICAL SERVICES PROVIDED BY

Trap Woods, Inc.
25018 East Trap Pond Road
Georgetown, DE 19947

Plan Date:
March 2017

Poultry Operation (Existing No Land Plan)

Concentrated Animal Feeding Operation (CAFO)
Animal Identification Number
67785

Maryland Comprehensive Nutrient Management Plan

Prepared For: David Tatman
John Taylor Farm and Quillin Farm

TRAP WOODS
CROP CONSULTING
302-856-3858

TRAP WOODS CROP CONSULTING

26206 Tuscany Drive
Millsboro, DE. 19966
Phone: 302-530-6822
Fax: 302-258-0304

Comprehensive Nutrient Management Plan 2021 Addendum

John Taylor Farm and Quillin Farm
David Tatman
9430 Old Ocean City Blvd.
Berlin, MD. 21811

Consultant:	Thomas Coleman *MD Certification Number*: 0229 *TSP*: 04-3738 (B 04 479) *MD Nutrient Management*: 2265
Original Date Prepared:	3/7/18
Addendum Date:	2/17/21
Counties:	Worcester County, MD.
Watersheds:	Pocomoke River, Coastal Areas
AI Number:	67785

Plan Description: This is an addendum to the No-Land Comprehensive Nutrient Management plan that is on file that covers both the "John Taylor" Farm and the "Quillin" Farm. There has been no change in the poultry operation since the writing of the original CNMP plan, however the 19AF General Discharge (GD) Permit for Animal Feeding Operations has several new requirements that must be met in order to stay in compliance, all of which are addressed in this addendum.

Updates: See Section 1: CNMP Update Requirements in the CNMP Plan

Technical Service Provider — Date: 7-30-21

Operator — Date: 7-30-24

Please direct any questions to Staci Warrington at Trap Woods, Inc.
Phone: 302-249-2800 E-Mail: staciwarrington@trapwoods.com

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:	John Taylor Farm	**Agency Interest #:**	67785
Planner:	Trap Woods, Inc.	**Farm # / Tract #:**	Tract 2988
Site Visit Date:	2/5/21	**Total Acres:**	5.1
County:	Worcester	**Production Area Acres:**	5.1

	RESOURCE CONCERN	YES	NO	ASSESSMENT
a.	Biosecurity measures		✓	No issues noted.
b.	Chemical handling		✓	Custom applied, no chemicals stored on site.
c.	Cultural resources		✓	No issues noted.
d.	Feedlot area		✓	Not applicable.
e.	Floodplains		✓	Not in the 100 year flood plain as determined by FEMA
f.	Gully erosion		✓	None noted.
g.	Livestock travel lanes		✓	Not applicable.
h.	Nutrient discharge		✓	No events noted.
i.	Objectionable odors		✓	Within reason for a poultry operation.
j.	Particulate matter emissions		✓	Minimal particulate around tunnel fans.
k.	Ponding, flooding, seasonal high water table		✓	None noted.
l.	Sediment		✓	No issues found.
m.	Streambank/shoreline erosion		✓	None found.
n.	Threatened/endangered species		✓	No endangered species listed for this area.
o.	Waste storage		✓	Waste properly stored in roofed shed.
p.	Waterways		✓	No issues noted.
q.	Wetlands		✓	Over 100 feet from production area.

AFO RESOURCE CONCERNS EVALUATION WORKSHEET

Name:	Quillin Farm			**Agency Interest #:**	67785
Planner:	Trap Woods, Inc.			**Farm # / Tract #:**	Tract 145
Site Visit Date:	2/5/21			**Total Acres:**	3.1
County:	Worcester			**Production Area Acres:**	3.1
RESOURCE CONCERN		**YES**	**NO**	**ASSESSMENT**	
a.	Biosecurity measures		✓	No issues noted.	
b.	Chemical handling		✓	Custom applied, no chemicals stored on site.	
c.	Cultural resources		✓	No issues noted.	
d.	Feedlot area		✓	Not applicable.	
e.	Floodplains		✓	Not in the 100 year flood plain as determined by FEMA	
f.	Gully erosion		✓	None noted.	
g.	Livestock travel lanes		✓	Not applicable.	
h.	Nutrient discharge		✓	No events noted.	
i.	Objectionable odors		✓	Within reason for a poultry operation.	
j.	Particulate matter emissions		✓	Minimal particulate around tunnel fans.	
k.	Ponding, flooding, seasonal high water table		✓	None noted.	
l.	Sediment		✓	No issues found.	
m.	Streambank/shoreline erosion		✓	None found.	
n.	Threatened/endangered species		✓	No endangered species listed for this area.	
o.	Waste storage		✓	Waste properly stored in roofed shed.	
p.	Waterways		✓	No issues noted.	
q.	Wetlands		✓	Over 100 feet from production area.	


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Designated Use Classes for Maryland's Surface Waters
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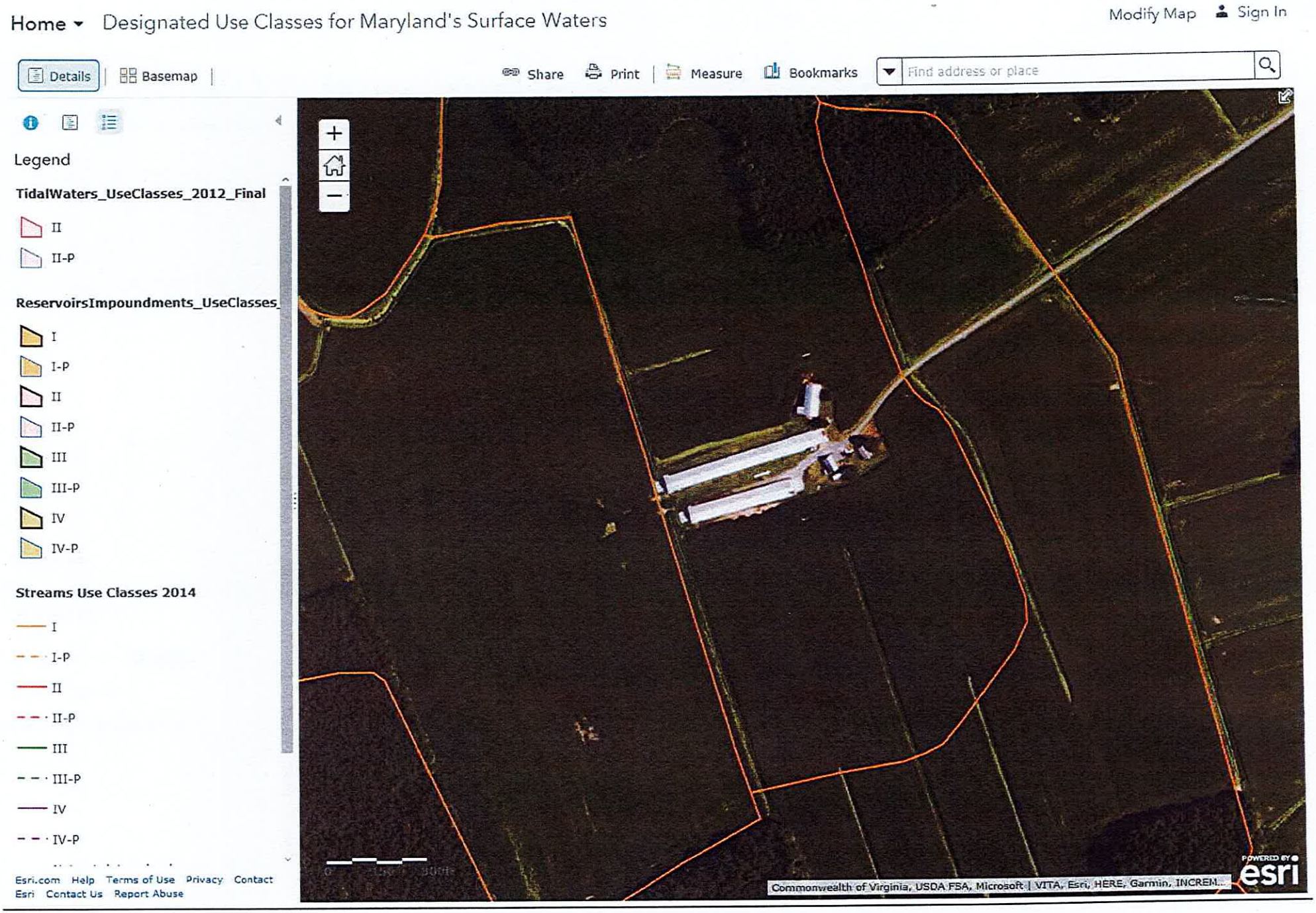
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John Taylor Farm Watershed (1 of 2)

Home 12-Digit Watersheds

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Legend

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Share Print Measure Find address or place

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Home 12-Digit Watersheds

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John Taylor Farm Watershed (2 of 2)

Modify Map Sign In

Share Print Measure Find address or place


Home
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Maryland 12-Digit Watershed
Number: 021302030646
Area: 7,676.69 acres
Part of 8-Digit watershed:
02130203 Upper Pocomoke River
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Deer Park Dr
Doe Dr
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Libertytown Rd
Old Ocean City Blvd
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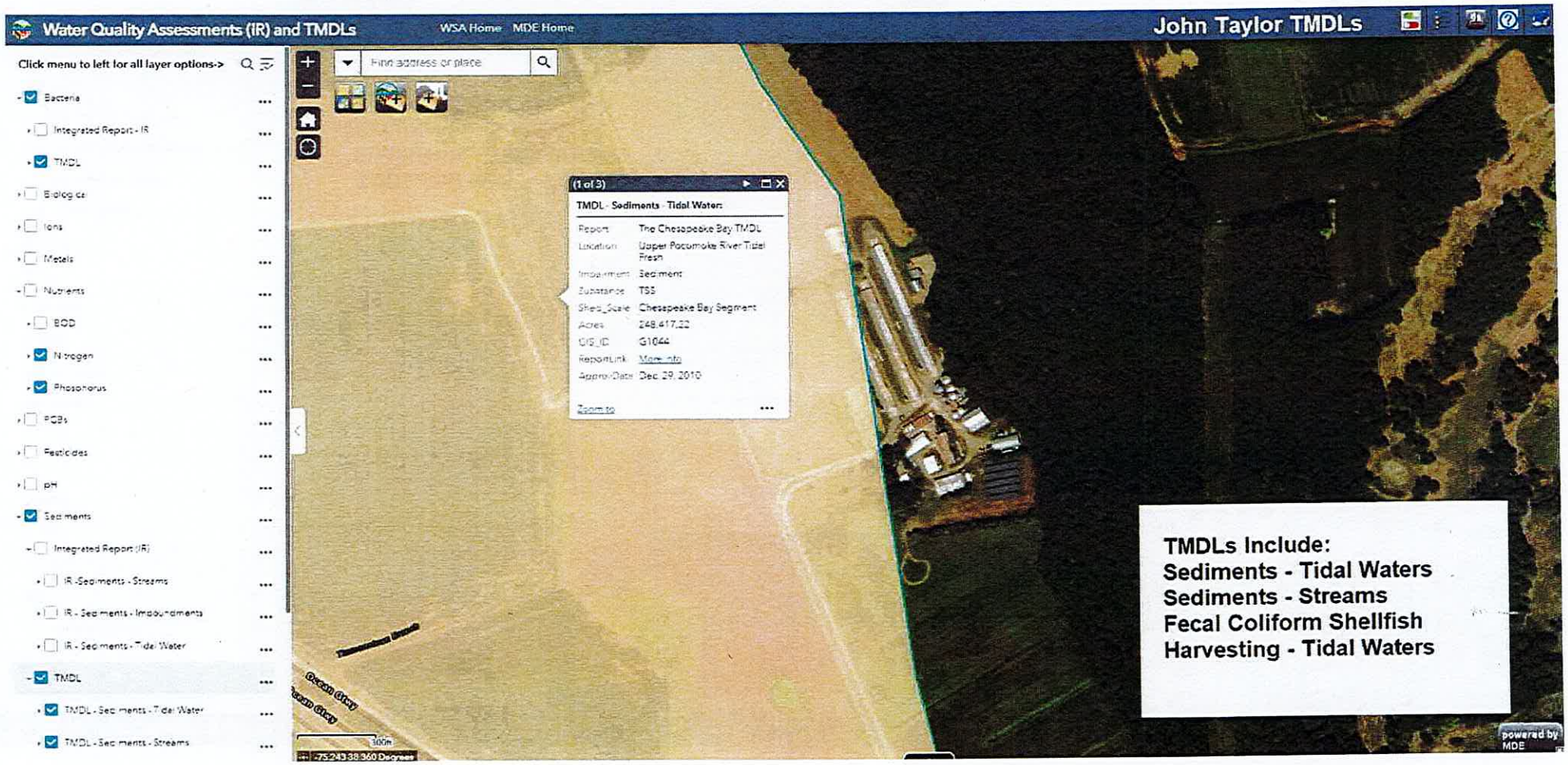
Water Quality Assessments (IR) and TMDLs
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MDE Home
John Taylor TMDLs
Click menu to left lor all layer options->
Bacteria
Integrated Report - IR
TMDL
Biological
Ions
Metals
Nutrients
BOD
Nitrogen
Phosphorus
PCBs
Pesticides
pH
Sediments
Integrated Report (IR)
IR -Sediments - Streams
IR - Sediments - Impoundments
IR - Sediments - Tidal Water
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TMDL - Sediments - Tidal Water
TMDL - Sediments - Streams
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TMDL - Sediments - Tidal Water:
Report
The Chesapeake Bay TMDL
Location
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More info
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Sediments - Streams
Fecal Coliform Shellfish
Harvesting - Tidal Waters
powered by MDE

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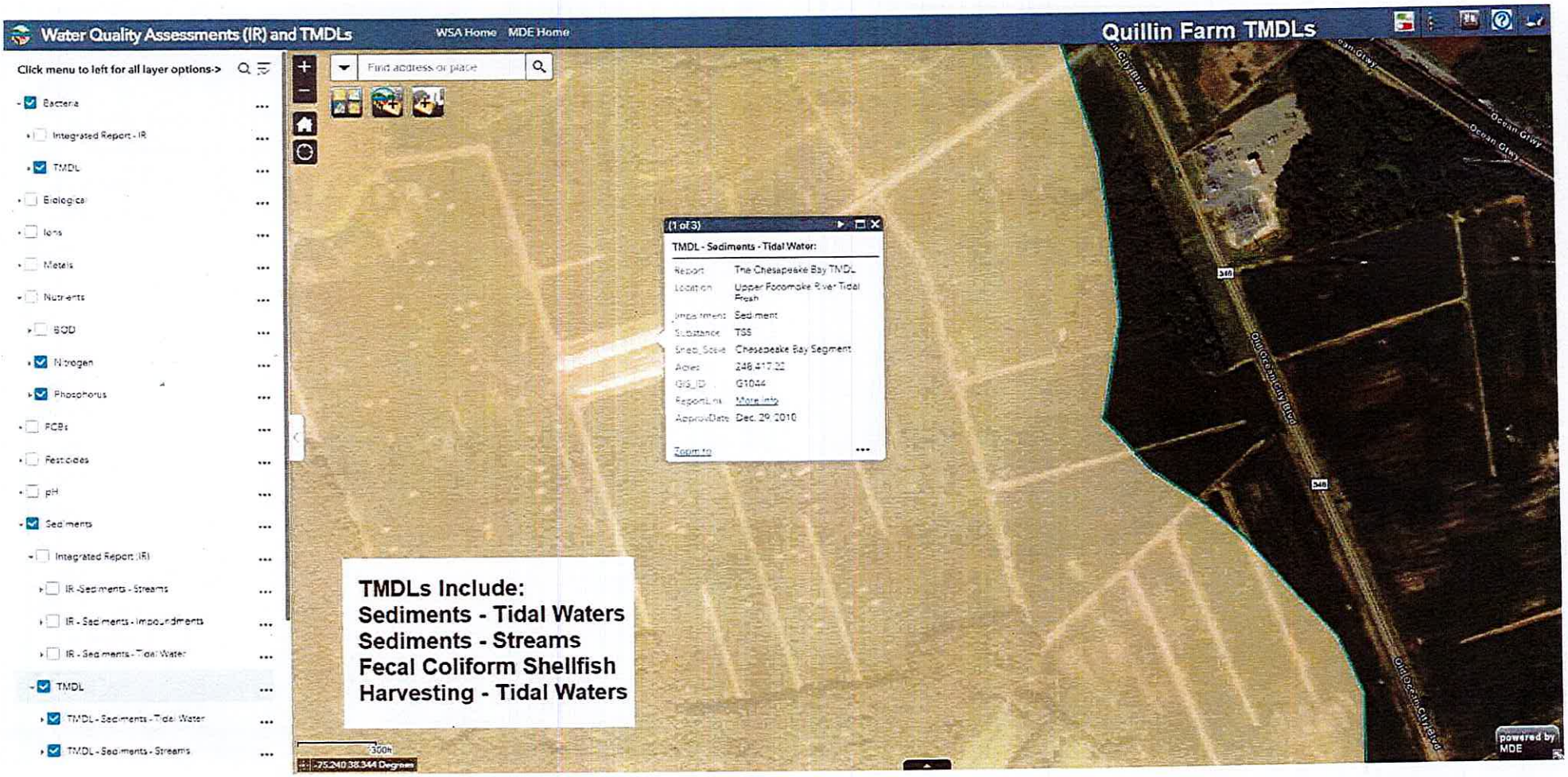
Water Quality Assessments (IR) and TMDLs
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MDE Home
Quillin Farm TMDLs
Click menu to left for all layer options->
Bacteria
Integrated Report - IR
TMDL
Biological
Ions
Metals
Nutrients
BOD
Nitrogen
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PCBs
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TMDL - Sediments - Tidal Water:
Report The Chesapeake Bay TMDL
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Impairment Sediment
Substance TSS
Shed_Segm Chesapeake Bay Segment
Acres 248,417.22
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ReportLink More info
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Fecal Coliform Shellfish Harvesting - Tidal Waters
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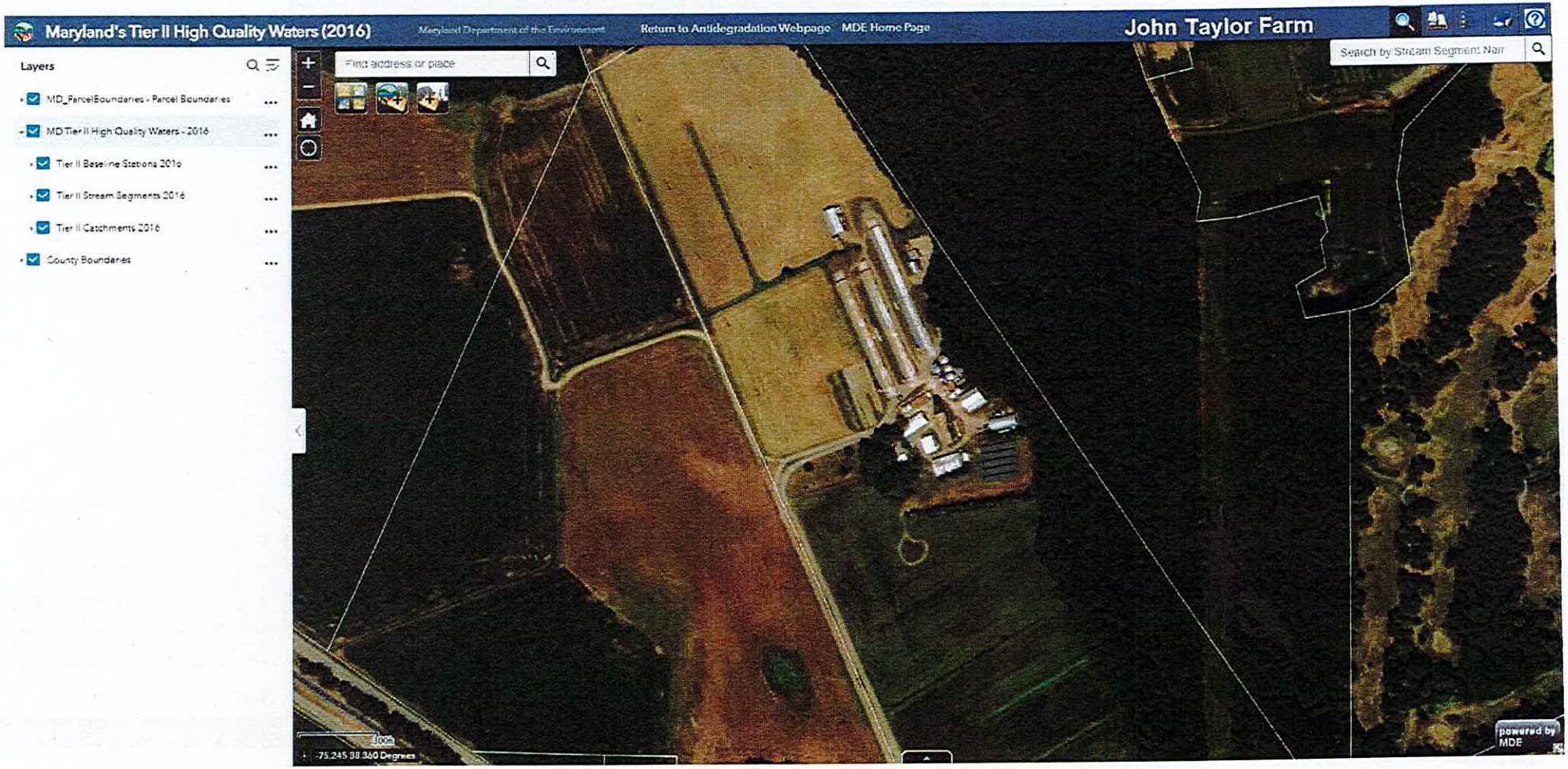
Maryland's Tier II High Quality Waters (2016)
Maryland Department of the Environment
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MDE Home Page
John Taylor Farm
Layers
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MD Tier II High Quality Waters - 2016
Tier II Baseline Stations 2016
Tier II Stream Segments 2016
Tier II Catchments 2016
County Boundaries
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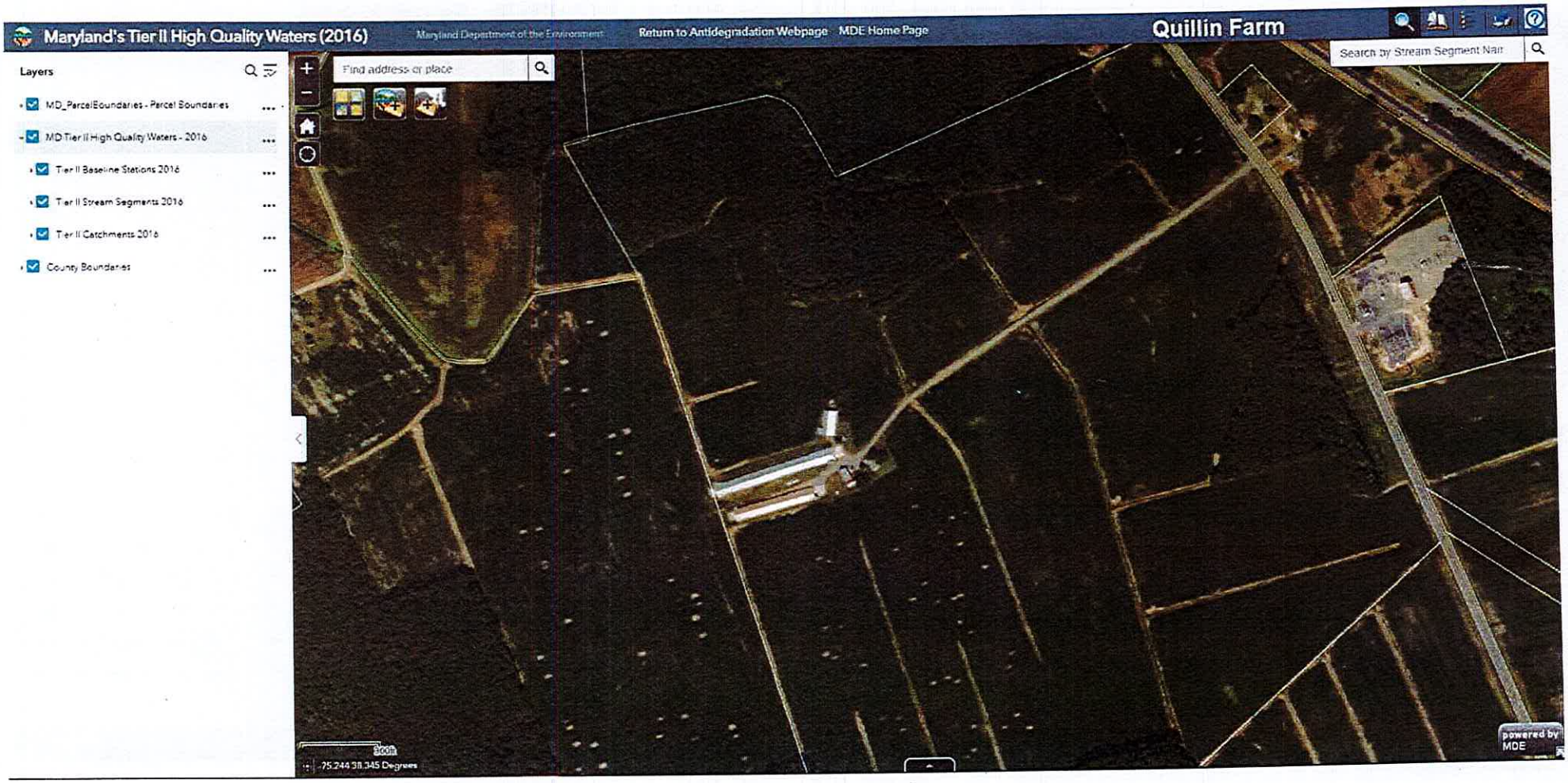
Maryland's Tier II High Quality Waters (2016)
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MD Tier II High Quality Waters - 2016
Tier II Baseline Stations 2016
Tier II Stream Segments 2016
Tier II Catchments 2016
County Boundaries
Find address or place
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SECTION 1: CNMP Purpose and Agreement

The Comprehensive Nutrient Management Plan (CNMP) is an important part of the conservation management system (CMS) for your Animal Feeding Operation (AFO). This CNMP documents the planning decisions and operation and maintenance for the AFO.

This 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 David Tatman 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.

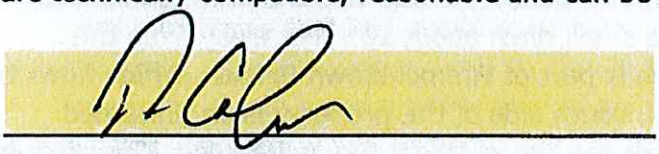
David Tatman

3/10/18

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.



Tom Coleman

3/2/18

Date

NRCS Planner Certification # 0229

Nutrient Management Certification # 2265

B 04 479 TSP

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	Tax Account ID	Farm #	Tract #	Account ID Acres	Watershed
John Taylor	[redacted]	181	2213	101.3	02-13-01-03-0691

Description of Operation / Additional Information

The John Taylor Farm is located just off of Route 50 in Worcester County, MD. There are currently three poultry houses on site along with one manure shed and one composter. Two houses measure 36' by 450' and the third measures 42' by 500'. The composter is a two bin composter with each bin measuring approximately 8' by 7'. The manure shed is 42' by 96' and can hold an estimated 332 tons of properly stacked manure. There are six heavy use area protection pads on site, though the producer would like to add another. The houses can altogether hold approximately 52,400 broiler chickens, with each bird weighing in around 5 pounds. The producer currently gets an average of 5 flocks per year from the integrator (Allen).

Sensitive Environmental Areas

The John Taylor Farm is primarily located within the Isle of Wight Bay watershed, which is a part of the Coastal Area watershed (021301). A small portion of the farm falls within the Upper Pocomoke River watershed, which is a part of the Pocomoke River watershed (021302). The farm is not within the 100 year floodplain. The closest labeled water that is considered part of the waters of the state of Maryland is a small ditch about 165 feet away from the northern side of the production area. This ditch is part of Timmonstown Branch, which flows to the Upper Pocomoke River. A ditch towards the south side of the property is an unnamed tributary to Church Branch, which flows towards the Isle of Wight Bay watershed. This ditch is approximately 430 feet away from the production area. A Palustrine Forested Broadleaved Deciduous Seasonally Flooded wetland area (PFO1E) is just over 100 feet from the eastern production area edge. The closest tidal water is approximately 3.5 miles from the farm. The primary soil type of the production area is Matapeake silt loam, which is non-hydric soil. The other two soil types found on the farm also scored very low on the hydric rating scale (5).

Animal Production

Poultry

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. David Tatman 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, 8'x7' each	With Manure Shed

Catastrophic Mortality Management

In the event of catastrophic mortality, the operator will notify MDE, contact the integrator, and most like follow an "in house" windrow method of composting. Should such a situation arise, the producer must follow all Maryland laws. See "Animal Mortality and Production Area Guidelines" tab for more information.

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)

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	5.154	3	52400	5	288	About 10%, varies see chart.

* 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

The receiving farm operation (Ag Renewal Enterprises, Inc.) is responsible for collecting and hauling the manure off site.

Manure Storage

Any manure that cannot be immediately exported is stored in the manure shed on site (42' by 96'). According to calculations, the manure shed can hold approximately 332 tons of properly stacked manure. No manure is to be stored on site outside of designated areas for any length of time.

Current / Proposed Manure Storage Conditions

Animal Type	Storage Structure	Size of Storage Structure	Storage Capacity	Date Constructed
Poultry	Manure Shed	42' x 96'	332 Tons	1/01/1990

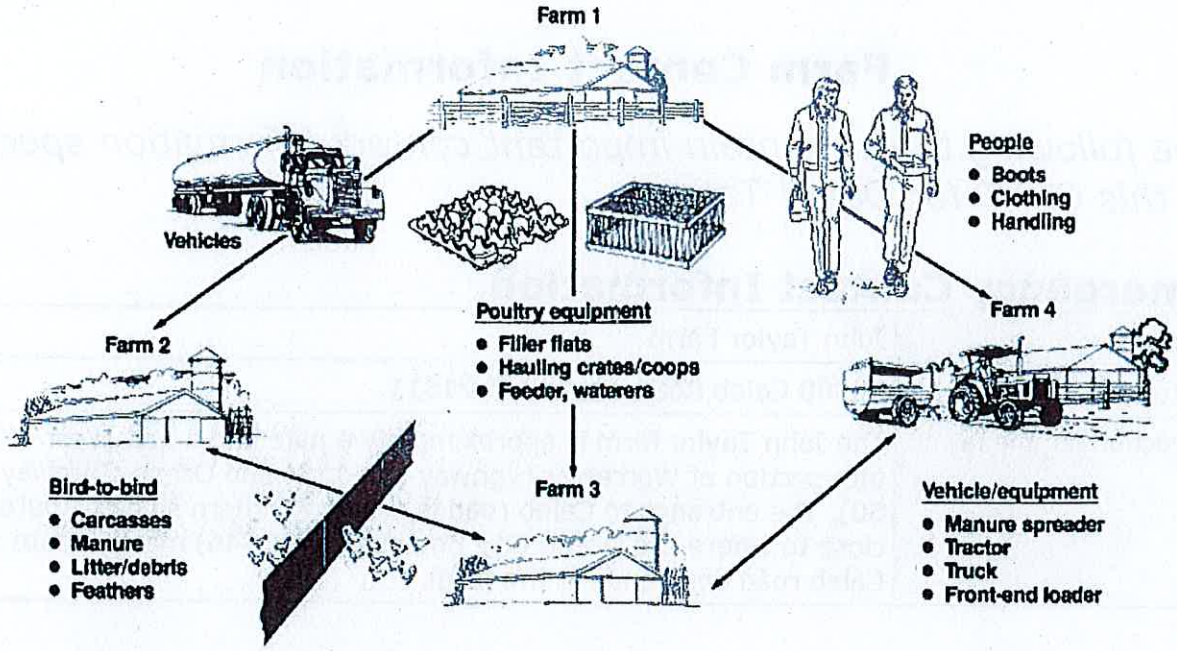
IMPORTANT! Manure should not be stockpiled or staged anywhere in the production area other than permanent manure storage structure for any length of time.

Transfer Information

Animal Type	Name	Address
Poultry	Ag Renewal Enterprises, Inc.	10304 Caleb Road, Berlin, Maryland 21811

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.



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.
5. 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.
6. 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
7. 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 (Karen Reddersen) 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 David Tatman.

Emergency Contact Information

Farm Name	John Taylor Farm
Farm Address	10308 Caleb Road, Berlin MD 21811
Directions to the farm	The John Taylor farm is approximately a mile and a half West of the intersection of Worcester Highway (Rt. 113) and Ocean Gateway (Rt. 50). The entrance to Caleb road is on the Northern side of Route 50, close to where Old Ocean City Boulevard (Rt. 346) meets Route 50. Caleb road dead ends at the farm.

Farm Contacts

	Name	Farm Phone	Cell Phone
Farm Owner	David Tatman	[redacted]	
Farm Operator	David Tatman	[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 6)	410-677-0802 (x4)	410-677-0802 (x4)
Health Department		
Sherriff's Office		
University of Maryland Extension Office (Snow Hill)	410-632-1972	410-632-1972

Integrator Information

Name	Address	Phone
Allen Harim LLC	126 N. Shipley Street, Seaford DE 19973	302-629-9163

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 Tom Coleman.

Practice and Facility Implementation Schedule

Identify Resource Concern	Practice Name (NRCS Code)	Description of Practice	Date to be Implemented
The producer would like to add a heavy use area protection pad in front of the manure shed on site. This would be a great addition to the operation.	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 structures.	1/1/2025

IMPLEMENTATION PRACTICE COMPLETED

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

I, David Tatman, 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 Worcester Soil Conservation District and have this schedule revised.

David Tatman

3/10/18
Date

Implementation Schedule Comments

The producer intends to add another Heavy Use Area Protection concrete pad to the operation. The pad would be placed in front of the manure shed. The date to be implemented shall be set by the producer.

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)

Normal Mortality - Animal mortality facilities will normally be operated or used on a daily basis. At each operation or use, the facility shall be inspected to note any maintenance needs or indicators of operation problems. Develop an operation and maintenance plan prior to design approval that is consistent with the purposes of the practice, its intended life, safety requirements, and the criteria for its operation.

The plan must include but is not limited to the following:

1. Objective of the landowner or operator and the operation requirements;
2. The mix proportions, moisture requirements, and materials used;
3. The sizing requirements;
4. The timing of the disposal/utilization process including loading, unloading, and turning or aeration of the material;
5. Temperature monitoring requirements, including a temperature log;
6. What must be done to prevent scavenging animals and leachate problems;
7. Bio-security requirements;

Catastrophic Mortality - Possible locations for catastrophic animal mortality facilities shall be located during the planning process to be operated as needed.

Burial of catastrophic mortality shall be timed to minimize the effects of mortality expansion during early stages of the decay process. Where possible and permitted by state law, mortality shall remain uncovered or lightly covered until bloating has occurred. Some topsoil shall be retained to re-grade the disposal site after the ground has settled as the decay process is largely completed.

Where composting is used for catastrophic mortality disposal, the operation and maintenance plan shall identify the most likely compost medium, possible compost recipes, operational information, and equipment that will need to be readily available.

Composting Facility (317)

Develop an operation and maintenance plan that is consistent with the purposes of this practice, and the life of the composting facility. Recipe ingredients and sequence that they are layered and mixed shall be given in the plan. Safety requirements for operation of the composting facility shall be provided. 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 165 oF. Take action immediately to cool piles that have reached temperatures above 185 oF.

Heavy Use Area Protection (561)

1. Inspect the Heavy Use Area at least twice a year;
2. Scrape the surface as needed to remove ex-cess manure and/or sediment;
3. Repair paved areas by repairing holes and replacement of paving materials.
4. Replace loose surfacing material such as gravel, cinders, sawdust, tanbark etc as needed when removed by livestock or equip-ment traffic or by scraping;
5. Maintain all vegetation that is part of the plan by fertilization and liming according to soil test recommendations and reseeding or re-planting as necessary.

Waste Storage Facility (313)

1. Check backfill areas around structure (concrete, steel, timber, etc) often 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.

2. Check walls and floors often - minimum of 2 times a year when facility is empty - for cracks and/or separations. Make needed repairs immediately.
3. 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 vegetative is damaged, berms and embankments will need to be re-vegetated as soon as possible.
4. Fences should be inspected and maintained in order to exclude livestock from the berms and embankments and to exclude unauthorized entry by people.
5. 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.
6. Check frequently for burrowing animals around buildings, structures, and in the berms and embankments. Remove them when they are found and repair any damage.
7. Inspect haul roads and approaches to and from the storage facility frequently to determine the need for stone, gravel or other stabilizing material.
8. Do not allow runoff from loading areas and from spills to flow into streams or road ditches.
9. Examine and repair all warning and hazard signs as needed.
10. Install and maintain a marking gauge post, which clearly shows the design levels of one-half and full for manure storage pits, ponds, and lagoons.
11. Clear blockages from roof gutters and outlets as needed.
12. Roof of feed area must be maintained and operate as intended for the life of the practice (15 years). The function of the roof is critical since the manure storage facility is sized accordingly.

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.

Documentation of Records

Operators should maintain the following records to document plan implementation, as applicable.

Record	Description	Agency Requiring
Animal Mortality & Disposal	Date and number of dead animals collected and disposal method.	MDE
Documentation of Manure Storage Conditions	Design volume and days of capacity; any deficiencies in the manure handling system and actions taken to correct (for example: damage due to fire or storm, date occurred, how damage was fixed and date of repair).	MDE
Documentation of Discharges	Date, time, and estimated quantity of any discharges and steps taken to correct.	MDE
Manure Available for Use/Removal	Estimate of removal of manure from poultry house (crust-out, total cleanout, center cut, etc) and destination (manure shed or export).	MDA/MDE
Manure Analysis	Copy of laboratory nutrient analysis of sample of manure produced on-farm (taken annually).	MDA/MDE
Animal Information	Type and number of animals kept on-farm and any changes in animal numbers.	MDA/MDE
Manure Export/Transfer	Record of manure that leaves the farm - date, quantity (tons/gallons), and destination (Name/Address).	MDA/MDE
Comprehensive Nutrient Management Plan (CNMP)	Retain approved CNMP and documentation related to updates or changes to your CNMP.	MDA/MDE
Nutrient Management Plan (NMP)	Retain certified Maryland NMP and documentation related to updates or changes to your NMP.	MDA/MDE
Calibration Record for Spreading Equipment	Time of year, calibration method used (load area, weight area). Must calibrate annually.	MDA
Soil test results	Who collected the samples and when, appropriate management units.	MDA/MDE
Results of Pre-Side Dress Nitrogen or Pre-Plant Soil Nitrate Testing	Any alternative sampling technique used to address specific crop requirements that lead to a change in the applied amounts should be documented.	MDA
Crop records	Crops planted and planting/harvesting dates, by field.	MDA
Nutrient Application Summary by Field	Nutrient application records for each application event, including commercial fertilizers that are applied to supplement manure.	MDA
Reviews by third parties	Records associated with any reviews by NRCS, third-party consultants, or representatives of regulatory agencies.	MDE
Annual Implementation Report	Annual reports which summaries nutrient application activities.	MDA/MDE

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:

- Topographic Map
- Poultry Litter Estimation Worksheet
- Animal Waste Management System Plan
- Maryland Department of the Environment MAFO/CAFO Permit
- Manure Import Form
- Manure Export Form
- Monthly Animal & Mortality Count
- Inspection/Monitoring Records

MANURE IMPORTS

Farm Name:	John Taylor Farm	Year:	
Operator:	David Tatman		

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

MANURE EXPORTS

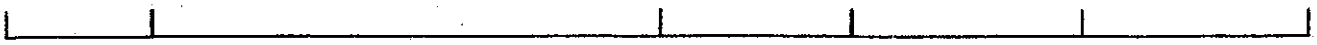
Farm Name:	John Taylor Farm	Year:	
Operator:	David Tatman		

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

MONTHLY ANIMAL & MORTALITY COUNT

Farm Name:	John Taylor Farm	Year:	
Operator:	David Tatman		

Month	Animal Count and Weight	Mortality	Mortality %	Comments



INSPECTION / MONITORING RECORDS

Farm Name:	John Taylor Farm	Year:	
Operator:	David Tatman		

Date	Activity Description	Operator / Inspector	Activity Data

USDA-NATURAL RESOURCES CONSERVATION SERVICE

Animal Mortality and Production Area Guidelines

CNMP Planning Document

USDA-NRCS, Maryland

1/13/2016

The contents of this document are meant to assist qualified planners to develop CNMPs; the information is consistent with NRCS standards to protect or enhance water quality for any Animal Feeding Operation (AFO). The document contains up-to-date animal mortality disposal methodologies and guidelines for poultry and cattle operations as well as useful tips and management considerations for the manure production areas.

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Animal Mortality Management

Composting

Dead Poultry Composting – Bins/Channels

Overview

Composting is the controlled aerobic biological decomposition of organic matter into a stable, humus-like product, called compost. Decomposition is enhanced and accelerated by mixing organic waste with other ingredients in a manner that optimizes microbial growth. Composting mortality can be likened to aboveground burial in a biomass filter where most of the pathogens are killed by high temperatures.

As the microbial population consumes the most readily degradable material and grows in numbers, the temperature of the compost pile begins to rise. Efficient composting requires that the initial compost mix have:

Composition of Materials

A balance source of energy (carbon) and nutrients (primarily nitrogen), typically with a carbon-to-nitrogen (C:N) ratio of 15:1 to 35:1.

- Sufficient moisture, typically 40% to 60%.
- Sufficient oxygen for an aerobic environment.
- A pH in the range of 6 to 8.

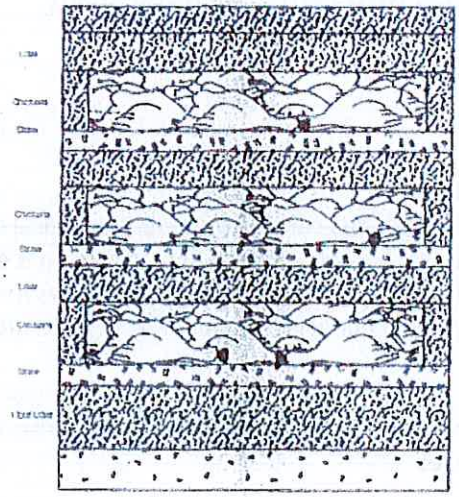
For proper composting, correct proportions of carbon, nitrogen, moisture, and oxygen need to be present in the mix. Common carbon sources are sawdust or wheat straw. It is desirable because of its bulking ability, which allows entry of oxygen. Other carbon sources that could be used are peanut hulls, cottonseed hulls, sawdust, leaves, etc. If lab testing of the litter or experience indicates that the carbon/nitrogen ratio is adequate (20 - 35:1 ratio), then litter alone should be sufficient for composting mortality as long as desirable bulking ability is achieved and moisture is properly managed. Moisture management is critical and must be maintained between 40 and 55 percent (40% -does not leave your hand moist when squeezed, 55% - if more than two drops drip from your hand the material is too moist).

Recipe for composting broiler mortality

INGREDIENT	VOLUME	WEIGHTS
Straw	1.0	0.10
Carcasses	1.0	1.0
Litter	1.5	1.2
Water	0.5	0.75

Compost process

- The first layer is one foot of litter.
- A 4-6 inch layer of carbon amendment (sawdust is preferred) is added according to the recipe
- A layer of carcasses is added. Carcasses shall be laid side-by-side and shall not be stacked on top of one another. Carcasses placed directly on dirt or concrete floors, or against bin walls will not compost properly.
- Water is added (uniform spray).
- Carcasses are covered with a 6-inch layer of litter.
- Next layer of carcasses begun with carbon amendment and above steps repeated.
- When composter is full, cap the 6-inch layer with four additional inches.



Compost Monitoring

Maintain the moisture content at 40 to 55 percent during the composting process (40% - does not leave your hand moist when squeezed, 55% will allow about one drop of water to be released when squeezed, > 55% - if more than two drops drip from your hand the material is too moist, therefore add sawdust or dry carbon source).

Temperature is the primary indicator to determine if the composting process is working properly. A minimum temperature of 130° F shall be reached during the composting process. A temperature of 140 ° F is optimum; however, temperatures may range up to 160° F. If the minimum temperature is not reached, the resulting compost shall be incorporated immediately after land application or recomposted by turning and adding moisture as needed. Compost managed at the required temperatures will favor destruction of any pathogens and weed seeds.

Good carcass compost should heat up to the 140° range within a few days. Failure of the compost material to heat up properly normally results from two causes. First, the nitrogen source is inadequate (example wet or leached litter). A pound of commercial fertilizer spread over a carcass layer will usually solve this problem. Secondly, the compost fails when too much water has been added and the compost pile becomes anaerobic. An anaerobic compost bin is characterized by temperatures less than 120°, offensive odors, and black oozing compound flowing from the bottom of the compost bin. In this case a drier bulking / carbon amendment should be added to dry the mix. Then, the material should be remixed and composted.

It is possible, though unlikely, for the temperature to rise above the normal range and create conditions suitable for spontaneous combustion. If temperature rises above 170° F, the material should be removed from the bin and cooled, spread on the ground to a depth not to exceed six inches in an area away from buildings. Water should be added only if flames occur. If temperature falls significantly during the composting period and odors develop, or if material does not reach operating temperature, investigate piles for moisture content, porosity, and thoroughness of mixing.

After this first stage process, the material should be turned into a second bin and allowed to go through a second heat process. For larger birds, especially turkeys, a third turning may be necessary for complete degradation of the birds. Typically, the process can be considered "done" within 21-28 days from the time the compost is filled for broilers. For turkeys, the process usually requires about 60 days. After the heat process, curing period of one to three months is usually required before the material is stable.

Compost may be land applied after the secondary or tertiary composting. If any animal parts are still in the mix, the material must be incorporated. If immediate application is not possible the material should be stored using the same requirements as that of stored litter in the Stacking Shed O&M statement.

Management

Inspect compost structure at least twice annually when the structure is empty. Replace any broken or badly worn parts or hardware. Patch concrete floors and curbs as necessary to assure water tightness. Examine roof structures for structural integrity and leaks. Inspections shall be documented on the attached worksheet.

The primary and secondary composters and the litter storage area should be protected from outside sources of water such as rain or surface runoff.

In order to assure desired operation of the composting facility, daily records should be kept during the first several compost batches. This can be helpful in identifying certain problems that may occur.

Dead Poultry Composting - Windrows

Overview

Composting is the controlled aerobic biological decomposition of organic matter into a stable, humus-like product, called compost. Decomposition is enhanced and accelerated by mixing organic waste with other ingredients in a manner that optimizes microbial growth. Composting mortality can be likened to aboveground burial in a biomass filter where most of the pathogens are killed by high temperatures.

As the microbial population consumes the most readily degradable material and grows in numbers, the temperature of the compost pile begins to rise. Efficient composting requires that the initial compost mix have:

Composition of Materials

A balance source of energy (carbon) and nutrients (primarily nitrogen), typically with a carbon-to-nitrogen (C:N) ratio of 20:1 to 35:1.

- Sufficient moisture, typically 40% to 60%.
- Sufficient oxygen for an aerobic environment.
- A pH in the range of 6.5 to 7.2.

For proper composting, correct proportions of carbon, nitrogen, moisture, and oxygen need to be present in the mix. Common carbon sources are sawdust or wheat straw. It is desirable because of its bulking ability, which allows entry of oxygen. Other carbon sources that could be used are peanut hulls, cottonseed hulls, sawdust, leaves, etc. If lab testing of the litter or experience indicates that the carbon/nitrogen ratio is adequate (20 - 35:1 ratio), then litter alone should be sufficient for composting mortality as long as desirable bulking ability is achieved and moisture is properly managed. Moisture management is critical and must be maintained between 40 and 60 percent (40% -does not leave your hand moist when squeezed, 60% - if more than two drops drip from your hand the material is too moist).

Assembling the Windrow Pile

The most appropriate location for a windrow is the highest point on the identified site. A plastic liner (0.24 in [0.6 cm] thick) of length and width adequate to cover the base dimensions of the windrow (see following dimensions) should be placed on crushed and compacted rock as a moisture barrier, particularly if the water table is high or the site drains poorly. The liner should then be completely covered with a base of co-composting material (such as wood chips, sawdust, dry loose litter, straw, etc). The co-composting material layer should have a thickness of 1 ft for small carcasses. A layer of highly porous, pack-resistant bulking material (such as litter) should then be placed on top of the co-composing material to absorb moisture from the carcasses and to maintain adequate porosity. The thickness of the bulking material should be 0.5 ft for small carcasses.

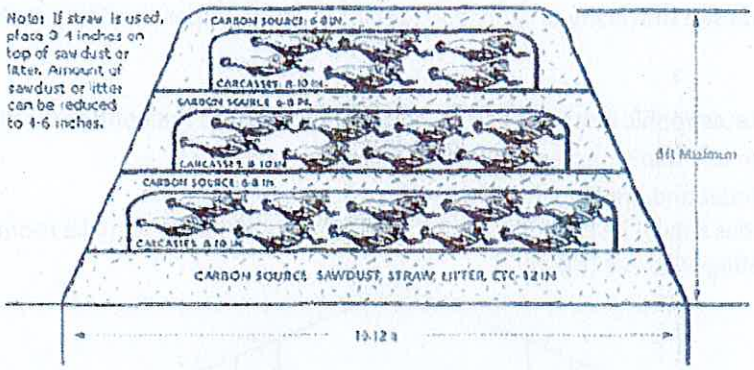


FIGURE 1. Cross-section of carcass composting in a windrow (Carr et al., 1998).

An evenly spaced layer of mortalities should then be placed directly on the bulking material layer. In the case of small and medium carcasses, mortalities can be covered with a layer of co-composting materials (thickness of 1 ft [30 cm]), and a second layer of evenly spaced mortalities can be placed on top of the co-composting material. This layering process can be repeated until the windrow reaches a height of approximately 6 ft (1.8 m). Mortalities should not be stacked on top of one another without an appropriate layer of co-composting materials in between. After placing mortalities (or the final layer of mortalities in the case of small and medium carcasses) on the pile, the entire windrow should be covered with a 1-ft (30-cm) thick layer of bio-filter material (such as carbon sources and/or bulking agents). Using this construction procedure, the dimensions of completed windrows will be as follows for the various categories of mortality (note that windrow length would be that which is adequate to accommodate the number of carcasses to be composted):

- Small carcasses: bottom width, 12 ft (3.6 m); top width, 5 ft (1.5 m); and height 6 ft (1.8 m)

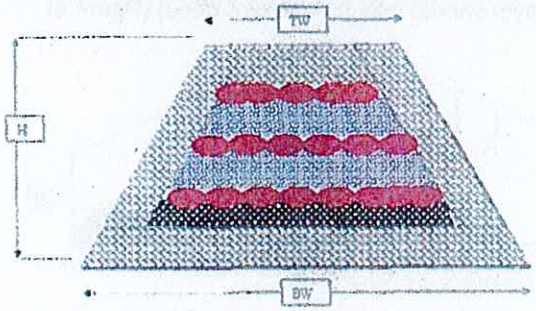
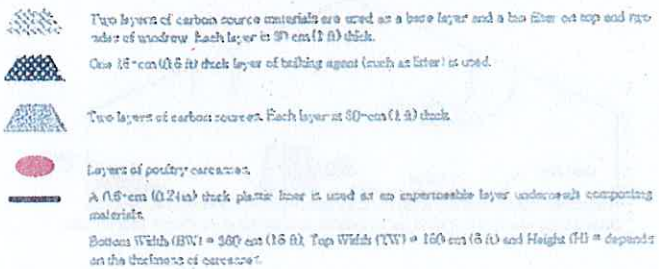


FIGURE 1. Cross-sectional dimensions of a trapezoidal-shaped windrow for small carcasses



For more information see University of Maryland Factsheet 723 (Composting Catastrophic Event Poultry Mortalities)

In the event that a catastrophic mortality occurs, composting in-house is an option for disposal. When composting in-house the following steps should be followed:

1. Raise feeder and drinker lines (Figure 1)
2. Mortalities should be pushed to one side of the poultry house to make room for the composting windrow (Figure 2)

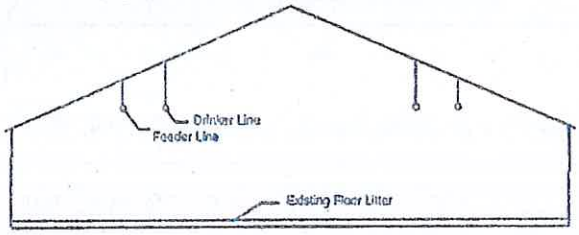


Figure 1. Cross-section of broiler house with feeder and drinker lines raised to ceiling.

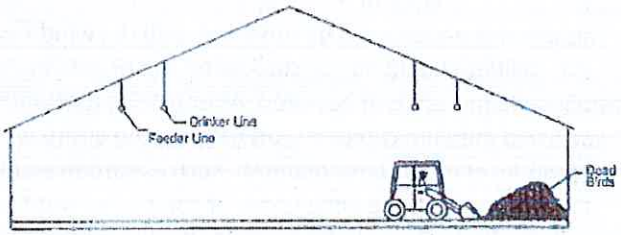


Figure 2. Use a skid loader to move dead birds to one side of the house.

3. Create a litter windrow that is 12 feet wide by 1 foot deep (Figure 3)
4. Place the dead birds evenly on top of the litter base (approximately 8 to 10 inches thick or for larger birds the layer should only be one bird deep) (Figure 4)

Figure 3. Create a windrow 12 feet wide with a base on one side of the house. Make sure outer edge of the windrow does not go beyond feeder line boundary.

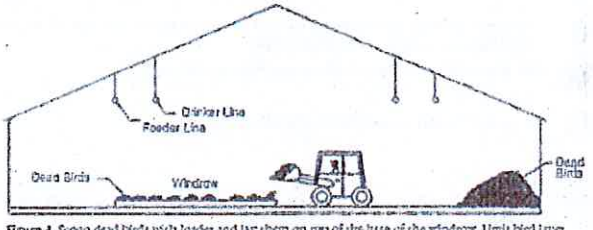


Figure 4. Scoop dead birds with loader and lay them on top of the base of the windrow. Limit bird layer thickness to 8 to 10 inches or one bird deep for roosters and turkeys.

5. Spray the carcasses with enough water to wet the feathers, but do not saturate the litter (Figure 5)

6. Cover the carcasses with 6 to 8 inches of sawdust/litter mix and have a one foot overlap on the sides (Figure 6)
7. Repeat these steps two more time or until the pile is approximately 6 feet tall (if the height of the poultry house prevents a 6 feet high pile, then the length of the pile can be adjusted to accommodate the mortality) (Figure 7)

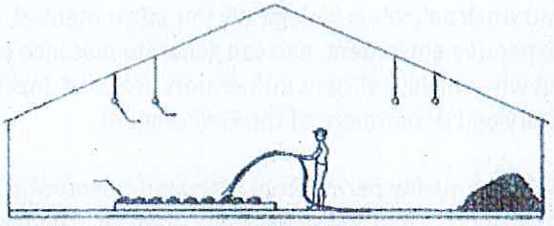


Figure 5. Spray the carcasses with enough water to saturate the feathers.

Figure 6. Deposit 6 to 8 inches of sawdust/litter mix to the width of the birds with a 12-inch overlap on each side of the windrow as shown.

The windrow should reach 135 to 145 degrees Fahrenheit within a week, but will then begin to decline between 10 to 14 days. Once it reaches 115 to 125 degrees Fahrenheit, the windrow should be turned.

For more information see University of Maryland Factsheet 801 (Guidelines for In-house Composting of Catastrophic Poultry Mortality, included at the end of this plan.

Burial*

***Burial as an animal mortality management practice should be reserved for catastrophic animal losses with proper guidance directed by county and state agencies.**

Incineration

Incinerators

Incinerating dead poultry and small animals is biologically the safest method. On the other hand, it can be slow, requires fuel and expensive equipment, and can generate nuisance complaints from particulate air pollution and odors, even when highly efficient incinerators are used. Incineration requires an air pollution permit from the Maryland Department of the Environment.

The producer has to obtain and air quality permit from Maryland Department of the Environment. There is a fee to use an incinerator as a method of mortality disposal. The fee is based on the size of the incinerator. For animal facilities proposing an incinerator for dead animal disposal, a permit for the air emissions needs to be obtained from the Department's Bureau of Air Quality before the incinerator can be built.

Incinerators used for dead animal disposal shall be properly operated and maintained. Operation shall be as specified in the owner's manual provided with the incinerator. The owner's manual shall be kept on site and made available to Department personnel upon request.

The use of the incinerator to dispose of waste oil, hazardous, or any other waste chemical is prohibited.

The use of the incinerator shall be limited to dead animal disposal only unless otherwise approved by the Maryland Department of the Environment.

Incinerators shall be operated in such a manner as is necessary to prevent the emission of objectionable odors.

The incinerator shall have yearly maintenance performed, as necessary. Replace firebricks and scrape and repaint metal components, particularly the fluestock, with heat resistant outdoor paint.

Landfill Disposal

County disposal facilities only accept animal carcasses from their respective counties (with the exception of the mid-Shore counties) and required a driver's license for verification. The operator must call the landfill administration at least an hour before the planned drop-off for instructions on how to deliver the carcass and also if they will accept it.

Currently, some waste management provisions allow animal mortalities resulting from natural causes or disease provided the facility receives the county Health Officer's approval order prior to delivery.

County Landfill Information for Maryland

County	Disposal Facility	Phone Number	Farm Animal Carcasses	Cause for Mortality	
				Natural Causes	**Disease related**
Allegany	Mountainview Landfill	301.463.3373	Yes	Yes	May need to contact local vet or county Health Officer
Anne Arundel	Millersville Landfill	410.222.6177	No	---	---
Baltimore	Eastern Sanitary Landfill	410.887.8695	Yes	Yes	No
Cecil	Central Landfill	410.996.6275	No	---	---
Calvert	Appeal Landfill	410.326.0210	Yes	Yes	Yes – Contact landfill for information
Carroll	Northern Landfill	410.386.4550	Yes	Yes	No
Charles	Charles Co. Landfill	301.932.9038	No	---	---
Frederick	Frederick Co. Landfill	301.600.1848	Yes	Yes	Contact Landfill
Garrett	Garrett Co. Landfill	301.387.0322	Yes	Yes	Contact Landfill
Harford	Scarboro Landfill	410.638.3637	Yes	Yes	No
Howard	Alpha Ridge Landfill	410.313.6444	No	---	---
Mid-Shore Regional Landfill (Queen Anne's, Talbot, Caroline, Kent)	Maryland Environmental Service – call for location	410.729.8200	Yes	Yes	Contact Landfill and County Health Officer
Montgomery	None	---	---	---	---
Prince Georges	Brown Station Road Landfill	301.952.7625	No	---	---
St. Mary's	---	Contact Calvert Co. Landfill	---	---	---
Washington	Washington Co. Landfill	435.673.2813	Yes	Yes	No
Wicomico	Newland Park Landfill	410.548.4935	No	---	---
Worcester	Central Landfill	410.632.3177	No	---	---

Rendering Services*

**Currently, the only available carcass disposal services in Maryland are Valley Proteins, 1-800-332-3269 and Kohout disposal from Hartley DE 302-492-3378. Valley Proteins will only process, via pick-up or drop off, horses, swine and llamas. Valley Proteins does not accept bovine carcasses. Kohout disposal provides pick-up of any dead and/or disabled animals from most of the Eastern Shore counties.*

Principles

Rendering of animal mortalities involves conversion of carcasses into three end products—namely, carcass meal (proteinaceous solids), melted fat or tallow, and water—using mechanical processes (e.g., grinding, mixing, pressing, decanting and separating), thermal processes (e.g., cooking, evaporating, and drying), and sometimes chemical processes (e.g., solvent extraction). The main carcass rendering processes include size reduction followed by cooking and separation of fat, water, and protein materials using techniques such as screening, pressing, sequential centrifugation, solvent extraction, and drying.

Mortality and Biosecurity

In an outbreak of disease such as foot and mouth disease, transport and travel restrictions may make it impossible for rendering plants to obtain material from traditional sources within a quarantine area. Additionally, animals killed as a result of a natural disaster, such as a hurricane, might not be accessible before they decompose to the point that they cannot be transported to a rendering facility and have to be disposed of on-site.

Handling

Animal mortalities should be collected and transferred in a hygienically safe manner according to the rules and regulations of TDH (2000). Because raw materials in an advanced stage of decay result in poor-quality end products, **CARCASSES SHOULD BE PROCESSED AS SOON AS POSSIBLE**; if storage prior to rendering is necessary, carcasses should be refrigerated or otherwise preserved to retard decay. The cooking step of the rendering process kills most bacteria, but does not eliminate endotoxins produced by some bacteria during the decay of carcass tissue. These toxins can cause disease, and pet food manufacturers do not test their products for endotoxins.

Production Area Management Guidelines

Poultry Operations

To provide environmental benefits, conservation practices must be operated and maintained as designed. The following list describes some common problems to look for in the production area of poultry operations. **It is VERY IMPORTANT that the production area (manure storage, composters, HUA pads, etc.) be kept clean and free from ANY manure that could come in contact with surface water.**

Natural Resources Conservation Service (NRCS) and Soil Conservation District staff are available to provide follow-up assistance if needed.

Manure Storage Area

Manure removed from poultry houses should be stored in a covered shed until it can be applied to crops or otherwise used. The following are potential problems you may see that MUST be addressed to keep clean water on your farm, clean:

- Manure piled outside shed.
- Manure stacked too high against walls.
- Shed contains equipment or supplies that are not easily moveable (e.g., not on wheels).
- Obvious surface water conveyance near the open ends of the shed to a drainage ditch or swale.
- Structural damage to shed.
- Evidence of water or "puddling" in the storage shed.

Composters

Properly operated composters provide an environmentally sound method for disposing of normal mortality from poultry houses.

The following are potential problems you may see:

- Leakage.
- Excessive odor or flies.
- Dead birds visible.
- Evidence of animals feeding on dead birds.
- Thermometer not readily available (DE only).
- Recipe sign not posted (DE only).
- Missing or broken boards.
- Misuse and nonuse.
- Composter should be used for what it was intended for.

Be sure that the composter's design capacity is adequate for the flock mortality rate. Compost bins built 5, 10 or 20 years ago were sized based on smaller average bird sizes. While mortality rates may have dropped the size of the dead birds has increased significantly for some poultry breeds. Consult the Conservation Practice Job Sheet for figures, sizing and operation and maintenance guidelines.

Concrete Pads

Concrete pads at the ends of poultry houses and manure sheds can reduce erosion and protect surface and ground water from contamination. Concrete pads should be properly installed, maintained, and kept clean of manure.

The following are potential problems you may see:

- Manure present on pads.

- Obvious surface water conveyance to a drainage ditch or swale near the open ends of poultry houses and manure sheds.
- Concrete cracking or breaking off.

Proper and Maintained Vegetation Around Production Area and Between Houses

It is very important to have good grass cover around the farm buildings and between the poultry houses. Well established grasses also prevent soil erosion which in severe cases could result in damage to the house pad or the footing and foundation of the poultry house. Grass also helps reduce reflected heat which in turn helps keep house temperatures under control in hot weather. Grass should always be kept mowed and weeds should also be kept under control. Not only are un-mowed weeds and grass unsightly, but they can encourage rodents and can also reduce the effectiveness of natural ventilation. Tall weeds and grass provide rats and mice a place to hide that is close to the building. Most rodent control programs will stress the need to keep areas around buildings mowed frequently. Standing puddles of water encourage mosquitoes and kill vegetation, so low spots should be filled to prevent such problems. Also, drainage ditches, drainage ways, and swales should be properly mowed and maintained to give storm water an easy exit. Any trash and debris should be removed from ditches and grass and weeds kept short to encourage water flow.

Windbreaks and Hedgerows

Windbreaks, hedgerows, or vegetative environmental buffers, are planted around poultry houses to provide shelter from winter winds; reduce particulates, ammonia, and other odors from tunnel fans; create visual screens; and provide shade to reduce extreme summer heat.

The following are potential problems you may see:

- Trees dead, dying, or damaged (e.g., broken off, mowed over, bagworms, etc.).
- Lack of weed control around trees or insect control.
- Irrigation system not functioning (e.g., major leaks, broken lines, etc.).
- No irrigation system (newly established trees should be irrigated for the first 2-3 years).

Other Concerns

Other issues that may result in environmental concerns include, but are not limited to:

- Manure scattered around the production area on roads, along the edge of concrete pads or building foundations.
- Manure runoff visible.
- Roof runoff that is creating erosion or drainage problems.
- Lack of good vegetative cover for filtering storm runoff between waste storage structures, composters, or ends of the poultry houses, and drainage outlets.
- Overall farm appearance (a farm that "looks good" is less likely to generate complaints from neighbors).
- Potholes in travelways or standing water in swales, near exhaust fans.
- Maintenance of stormwater management structures or ponds.

MARYLAND NUTRIENT MANAGEMENT PLAN
FOR

David Tatman
9430 Old Ocean City Blvd.
Berlin, MD 21811

PREPARED BY:

Signature of Certified Consultant
Consultant Name: Staci Warrington
Title: Certified Crop Adviser
Certification #: DE3381
License #: 4223
Business: Mid-Atlantic Crop Consulting, LLC.
Address: 8 Shinnecock Road
City, State: Dover, DE. 19904
Phone: 302-249-2800

ABOUT YOUR NUTRIENT MANAGEMENT PLAN:

Farm operators are required to obtain and implement a nutrient management plan under Maryland Department of Agriculture Nutrient Management Regulations (COMAR 15.20.07). This document serves as your Maryland Department of Agriculture Nutrient Management Plan. The content of this plan meets the required "Content and Criteria for a Nutrient Management Plan Developed for an Agricultural Operation" under COMAR 15.20.08. This Maryland Nutrient Management Plan will be integrated with a Maryland Soil Conservation and Water Quality Plan and become a part of a Comprehensive Nutrient Management Plan (CNMP) and therefore must also meet USDA Natural Resource Conservation Service (NRCS) Maryland Nutrient Management Standard 590 of the Field Office Technical Guide. Operators are required to obtain and implement a CNMP by the Maryland Department of the Environment for a General Discharge Permit for Animal Feeding Operations.

DESCRIPTION OF OPERATION:

Operator Name:	**David Tatman**
County:	**Worcester**
Number of Houses:	**3**
Bird Type:	**Broiler**
Total Capacity:	**61,800**

FARM IDENTIFICATION INFORMATION

Farm Name	FSA Farm/Tract #	Tax Account ID Numbers	Total Account ID Acres	Watershed Location Code
John Taylor	Farm: 181 Tract: 2213	[redacted]	101.3 Acres	021301030691

DURATION OF PLAN: This plan is valid unless management changes occur that require an update. (See "Plan Update Requirements" below).

NMP PORTION VALID: 8/24/22-8/24/25

PLAN UPDATE REQUIREMENTS: Management changes in an agricultural operation may require the operator to modify or update their plan before its expiration to account for changes in the operation or unforeseen circumstances. The following is a list of situations that require the Nutrient Management Plan to be updated or revised **before** the end of the time period for which the plan was developed:

- A change in animal units of 10 percent or greater
- A change in production that results in significant management adjustments

If the operator is unsure whether or not a plan update is needed, please contact the certified consultant responsible for this plan.

MANURE NUTRIENT 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. To fulfill this requirement you may do one of the following:

1) collect a sample of litter before it is transported off-farm and obtain an analysis, or
2) obtain a copy of the litter analysis from one of the farmers who will be receiving the manure from your operation.

MANURE MANAGEMENT:

MANURE SUMMARY

Animal Type and Number	**Estimated Total Manure Generated/ Produced** (In-house)	**Estimated Manure Available for Utilization** (Removed from house)	**Manure Storage Capacity/Conditions**
Bird Type: Broiler Birds per flock: 61,800	227 tons/year	80 tons/year crustout	-Manure shed capable of holding 318 tons -Composter

The "Estimated Manure Available for Utilization" quantity above was derived from an estimation calculation using the best available knowledge. However, operators must keep records of the **actual**:

- Date of removal of litter from production and/or storage facility;
- Location litter will be stored or utilized (name and location of receiver if exported);
- Quantity estimate of litter removed from production and/or storage facility; and
- Changes in production that may impact litter management.

EXPECTED MANURE EXPORT DESTINATION: At the time this plan was developed, the below individual/business is expected to possibly receive manure removed from this operation. If the expected export destination changes during the duration of this plan, the operator must keep records of the actual destination of manure leaving the farm.

Receiving Destination (Name and Address)
Ag Renewable Enterprises, Inc. **10308 Caleb Road** **Berlin, MD. 21811**

RECORD KEEPING REQUIREMENTS: The *Water Quality Improvement Act* requires that producers maintain records on manure management, animal numbers, and manure quantity for review by the Maryland Department of Agriculture. 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. Operators may use the "Poultry Litter Removal Data Collection Sheet" included in the "RECORD KEEPING" section of this plan for tracking the

movement of litter. Additional records may be required to meet conditions in a CNMP and a Maryland Department of the Environment General Discharge Permit for Animal Feeding Operations. Please refer to the Record Keeping section of your CNMP and conditions of your CAFO permit.

MARYLAND DEPARTMENT OF AGRICULTURE INSPECTION AND REPORTING: MDA may contact operators to schedule a periodic review of nutrient management plans and records that are required to be kept by the operator. In addition to periodic reviews, MDA requires that all farm operators submit an Annual Implementation Report (AIR). The submission of the AIR to MDA is not a substitute for maintaining a current and updated Maryland Nutrient Management Plan. For more information about the AIR and Implementation Reviews, see the "IMPLEMENTATION GUIDANCE" section of this plan or contact MDA at 410-841-5959.

POULTRY LITTER QUANTITY ESTIMATE

Name: Taylors
Address:
City, State, Zip: berlin, md

County: worcester co
Watershed: 203
Phone:

Date: Jan-14
Tract / Farm: home
Houses included: 3

Bird type: Broiler

A.	Years between total cleanouts:	Yr. next total cleanout:	2015
		- Yr. last total cleanout:	- 2009
		= Years in cleanout cycle:	6
B.	Total # of birds per flock (for all houses on this cleanout cycle):		100,000
C.	Flocks per year		4.5
D.	Number of flocks per cleanout cycle (A x C):		27
E.	Estimated tons of cake per 1000 birds per flock: *		0.2
F.	Estimated tons of litter + cake per 1000 birds per flock: *		1.1
G.	Tons cake produced per flock (B x E/1000):		20
H.	Tons cake removed per cycle (G x [D-1])		520
I.	Tons litter + cake produced per cycle (B x D x F/1000):		2,970
J.	Tons of litter produced per cycle (I - H):		2,450
K.	Tons of litter produced per year (J/A):		408

Quantity of Poultry Litter Available - Broiler

	Tons Available Litter								
	L	M	N	O	P	Q	R	S	T
Year	% of partial or total litter to be removed this year (enter % of N removed)	Tons of litter remaining in the house from last year (N-O), prev. year	Total tons of litter that is present in the house this year (K) + (M, this year)	Tons of litter removed this year (L x N)/100	Cakeouts this Year	Tons Cake Removed (G x P)	Tons litter + Cake removed this year (O + Q)	Tons used in NMP	Tons Surplus (R - S)
2010	10	0	408	41	4	80	121	121	0
2011	10	368	776	78	5	100	178	178	0
2012	10	698	1,107	111	4	80	191	191	0
2013	10	996	1,404	140	5	100	240	240	0
2014	10	1,264	1,672	167	4	80	247	247	0
2015	100	1,505	1,913	1,913	4	80	1,993		1,993
				2,450	26	520	2,970	977	1,993

* 2000 Delmarva Poultry Litter Production Estimates, George W. Malone, University of Delaware, Georgetown Delaware.

John Taylor Farm AI-67785

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

Operator:
AG RENEWAL ENTERPRISES INC
10308 CALEB RD
BERLIN, MD 21811

OBJECTIVE(S)

Implement Comprehensive Nutrient Management Plan. Transition fields 4,5,6,7 and 10 to organic production.

Crop

Tract: 2213

Conservation Crop Rotation

Grow crops in a planned rotation for biodiversity and to provide adequate amounts of organic material for erosion reduction, nutrient balance and sustained soil organic matter. The operator will implement a 5 year rotation. The first 3 years will be hay while the are transitioning to organic certification followed by corn and soybeans in years 4 and 5.

Field	Planned Amount	Month	Year	Applied Amount	Date
4	7.4 ac	3	2016		
4	7.4 ac	3	2017		
4	7.4 ac	3	2018		
5	4.9 ac	3	2016		
5	4.9 ac	3	2017		
5	4.9 ac	3	2018		
6	8.7 ac	3	2016		
6	8.7 ac	3	2017		
6	8.7 ac	3	2018		
7	17.2 ac	3	2016		
7	17.2 ac	3	2017		
7	17.2 ac	3	2018		
10	4.4 ac	3	2016		
10	4.4 ac	3	2017		
10	4.4 ac	3	2018		
Total:	42.6 ac				

Conservation Crop Rotation

The cropping system will include a rotation of corn small grain, and soybeans. A rotation will reduce erosion, help control weeds, insects, diseases, and improve water quality. Lime and fertilizer applications should be based on soil tests and realistic yield goals.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	6.2 ac	5	2016		
2	13.8 ac	5	2016		
3	7.5 ac	5	2016		
9	1.8 ac	5	2016		
Total:	29.3 ac				


FEMA National Flood Hazard Layer (Official)
Details
Basemap
Share
Print
Measure
Find address or place
(click to expand)
Effective
Panels
Gages
Sections
Flood Elevations
Barrier Resources System Area
Unaccredited Levee
Accredited Levee
Structures
Flood Structure
Bridge
Dam, Weir, Jetty
Other Structure
Hazard Boundaries
Limit Lines
SFHA / Flood Zone Boundary
Other Boundaries
Help
Terms of Use
Privacy
Contact
Report Abuse
PANEL
24047C0155H
eff. 7/16/2015
AREA OF MINIMAL FLOOD HAZARD
PANEL
24047C0153H
eff. 7/16/2015
USGS, The National Map: Orthoimagery | Commonwealth of Virginia, USDA FSA, Micr

Cover Crop

Following crop harvest, plant a cover crop of small grains (wheat, barley, or rye) for nutrient management and erosion control. For best results, plant no later than October 1st in order to provide nutrient uptake during the fall and adequate growth for erosion control during winter and early spring. For optimum water quality benefits, do not apply nutrients or manure to the cover crop. Follow written recommendations for specific planting information.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	6.2 ac	10	2016		
2	13.8 ac	10	2016		
3	7.5 ac	10	2016		
Total:	27.5 ac				

Nutrient Management

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

Field	Planned Amount	Month	Year	Applied Amount	Date
1	6.2 ac	12	2016		
2	13.8 ac	12	2016		
3	7.5 ac	12	2016		
4	7.4 ac	3	2016		
5	4.9 ac	3	2016		
6	8.7 ac	3	2016		
7	17.2 ac	3	2016		
9	1.8 ac	12	2016		
10	4.4 ac	3	2016		
Total:	71.9 ac				

Waste Utilization

The operator's "Nutrient Management Plan" will detail the proper manure application rates, timing, and methods of application to provide needed crop nutrients and to minimize the transport of nutrients to ground and surface water.

Field	Planned Amount	Month	Year	Applied Amount	Date
1	6.2 ac	12	2016		
2	13.8 ac	12	2016		
3	7.5 ac	12	2016		
4	7.4 ac	3	2019		
5	4.9 ac	3	2019		
6	8.7 ac	3	2019		
7	17.2 ac	3	2019		
9	1.8 ac	12	2016		
10	4.4 ac	3	2019		
Total:	71.9 ac				

Farmstead

Tract: 2213

Composting 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
12	1 no	1	1992	1 no	1/1/1992
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
12	1 no	12	2016		
Total:	1 no				

Comprehensive Nutrient Management Plan - Written

Obtain a comprehensive nutrient management plan (CNMP) that describes and documents a conservation system within a conservation plan that is unique to animal feeding operations. The CNMP addresses all aspects of the Animal Feeding Operation including manure handling, nutrient management, feed management, and other conservation practices. Maryland Department of the Environment requires that a CNMP that is developed to meet EPA/MDE CAFO regulatory requirements to control soil erosion and protect water quality must be implemented as scheduled. Any CNMP components that are funded through cost-share programs must also be implemented as scheduled.

Field	Planned Amount	Month	Year	Applied Amount	Date
12	1 no	12	2016	1 no	12/10/2013
Total:	1 no			1 no	

Heavy Use Area Protection

Construct a Heavy Use Area (HUA) at the load-out doors of the poultry house. The Heavy Use Area will reduce erosion and improve water quality by providing a stable area for handling manure during partial or total cleanout. Follow the NRCS engineering design provided and the required Operation and Maintenance plan. A sign, provided by NRCS, will be posted so that O&M requirements are clearly understood. Follow all EQIP contract requirements.

Field	Planned Amount	Month	Year	Applied Amount	Date
12	0.2 ac	10	2017		
Total:	0.2 ac				

Heavy Use Area Protection

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
12	0.6 ac	5	2009	0.6 ac	5/14/2009
Total:	0.6 ac			0.6 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
12	1 no	1	1988	1 no	1/1/1988
Total:	1 no			1 no	

CERTIFICATION OF PARTICIPANTS

Jack Taylor Pres 8/26/16
AG RENEWAL ENTERPRISES IN DATE

CERTIFICATION OF:

DISTRICT CONSERVATIONIST

8/26/16
NELSON BRICE DATE

CONSERVATION DISTRICT

8/26/16
WORCESTER SCD 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.

PRIVACY ACT

The above statements are made in accordance with the Privacy Act of 1974 (5 U.S.C 522a). Furnishing this information is voluntary; however failure to furnish correct, complete information will result in the withholding or withdrawal of such technical or financial assistance. The information may be furnished to other USDA agencies, the Internal Revenue Service, the Department of Justice, or other state or federal law enforcement agencies, or in response to orders of a court, magistrate, or administrative tribunal.

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Washington, DC 20250-9410

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Conservation Plan Map

Date: 5/13/2009

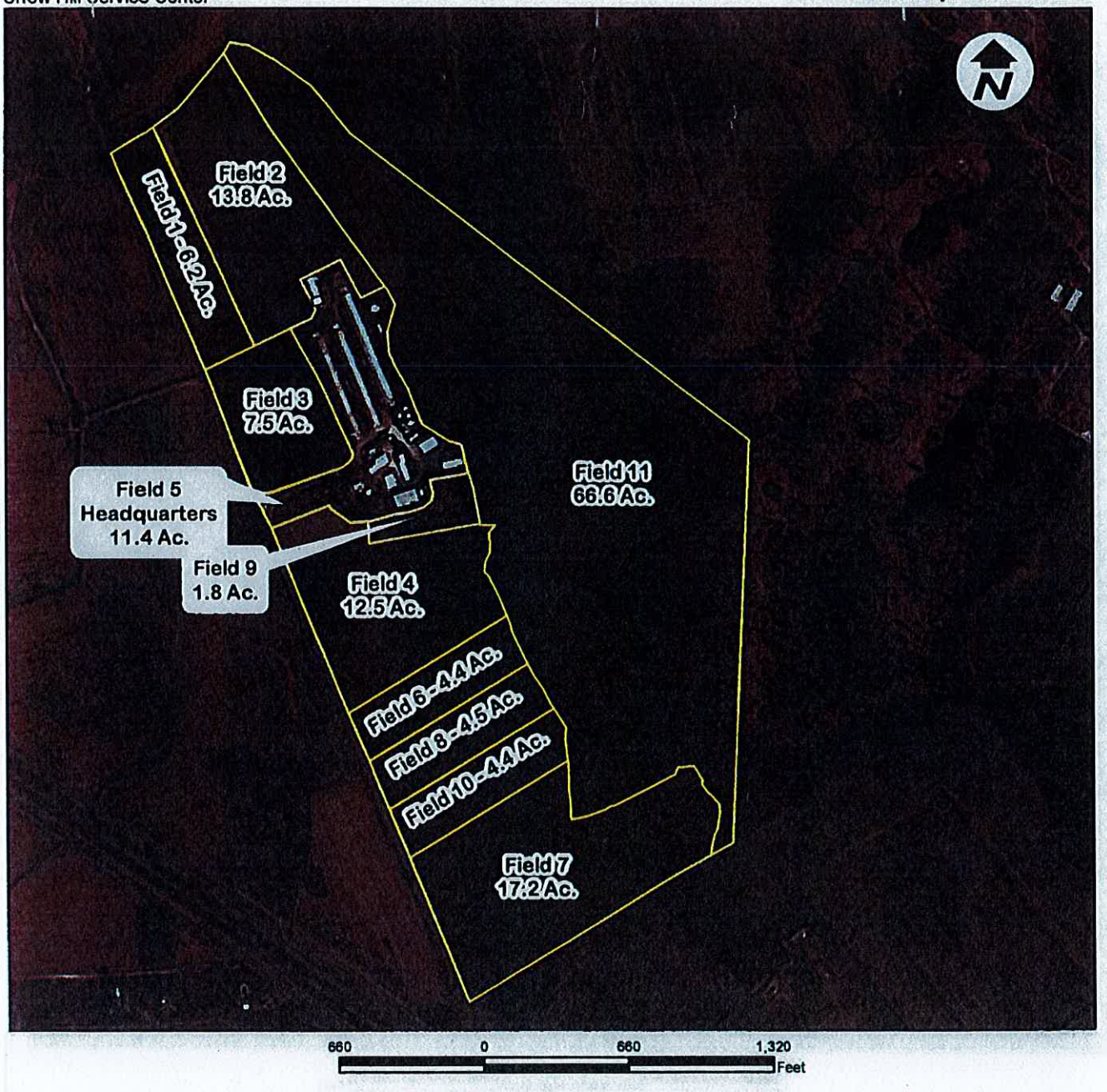
AG Renewal Enterprises INC

Tract: 2213 Farm: 181

Worcester County, Maryland

Worcester Soil Conservation District
Natural Resources Conservation Service
Snow Hill Service Center

Assisted By: Herman Purnell



Legend

- ☐ Practices (polygons)
- ☐ Consplan

Soils Map

Date: 5/13/2009

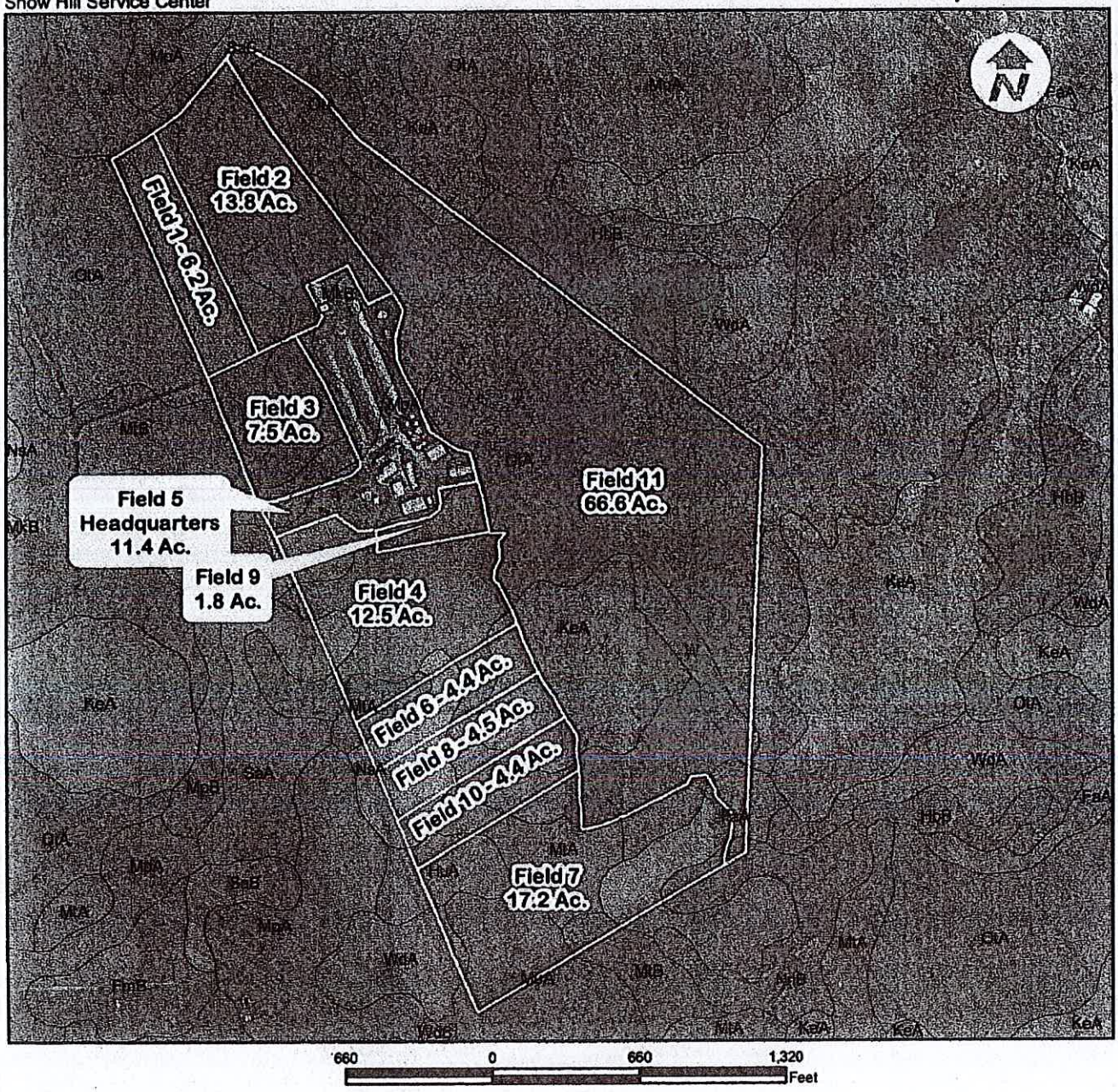
AG Renewal Enterprises INC

Tract: 2213 Farm: 181

Worcester County, Maryland

Worcester Soil Conservation District
Natural Resources Conservation Service
Snow Hill Service Center

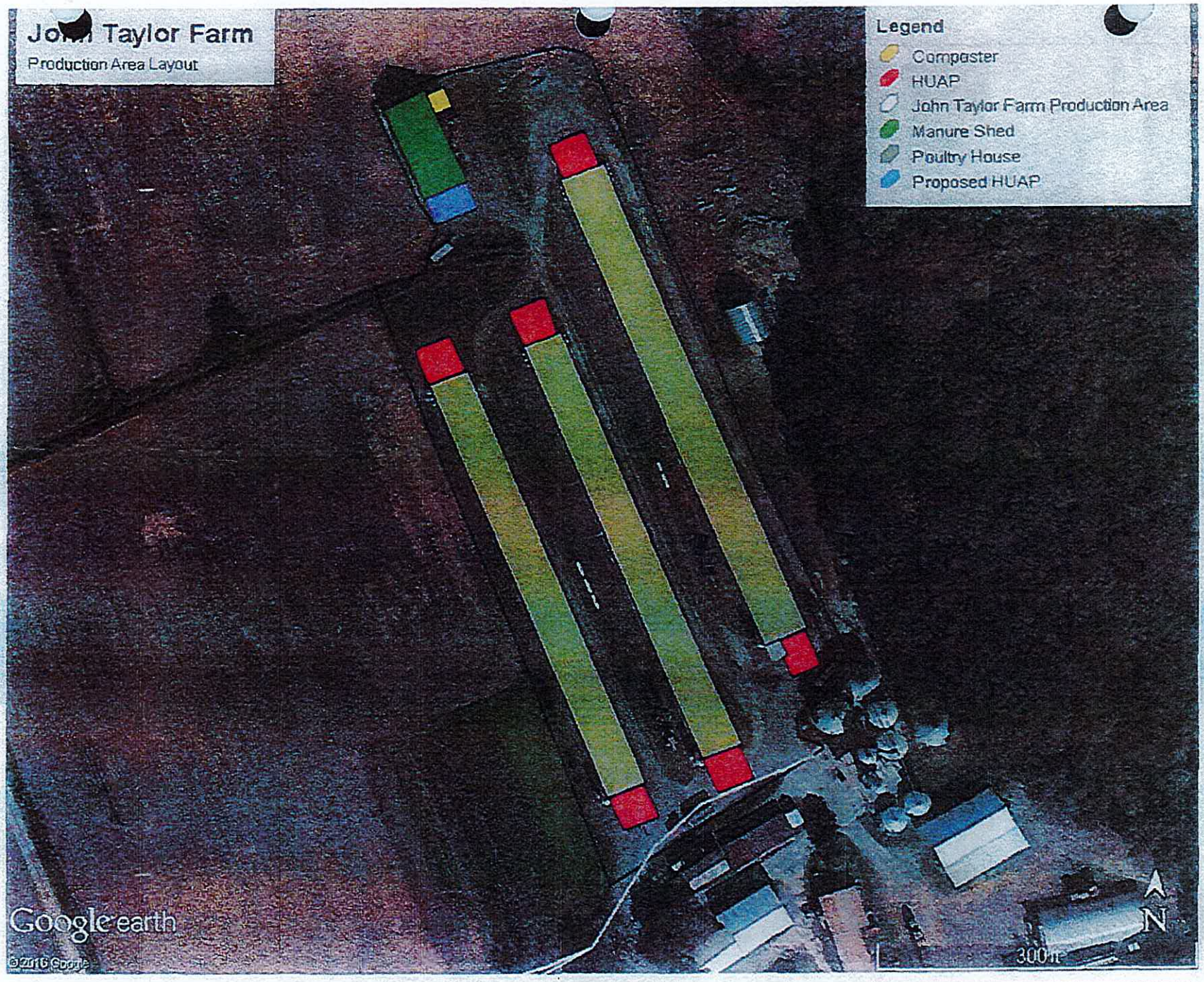
Assisted By: Herman Purnell



Legend

☐ Practices (polygons)

Consplan


John Taylor Farm
Production Area Layout
Legend
Composter
HUAP
John Taylor Farm Production Area
Manure Shed
Poultry House
Proposed HUAP
Google earth
© 2016 Google
300 ft
N

Honie Farm

Conservation Plan Map

Date: 12/05/2009

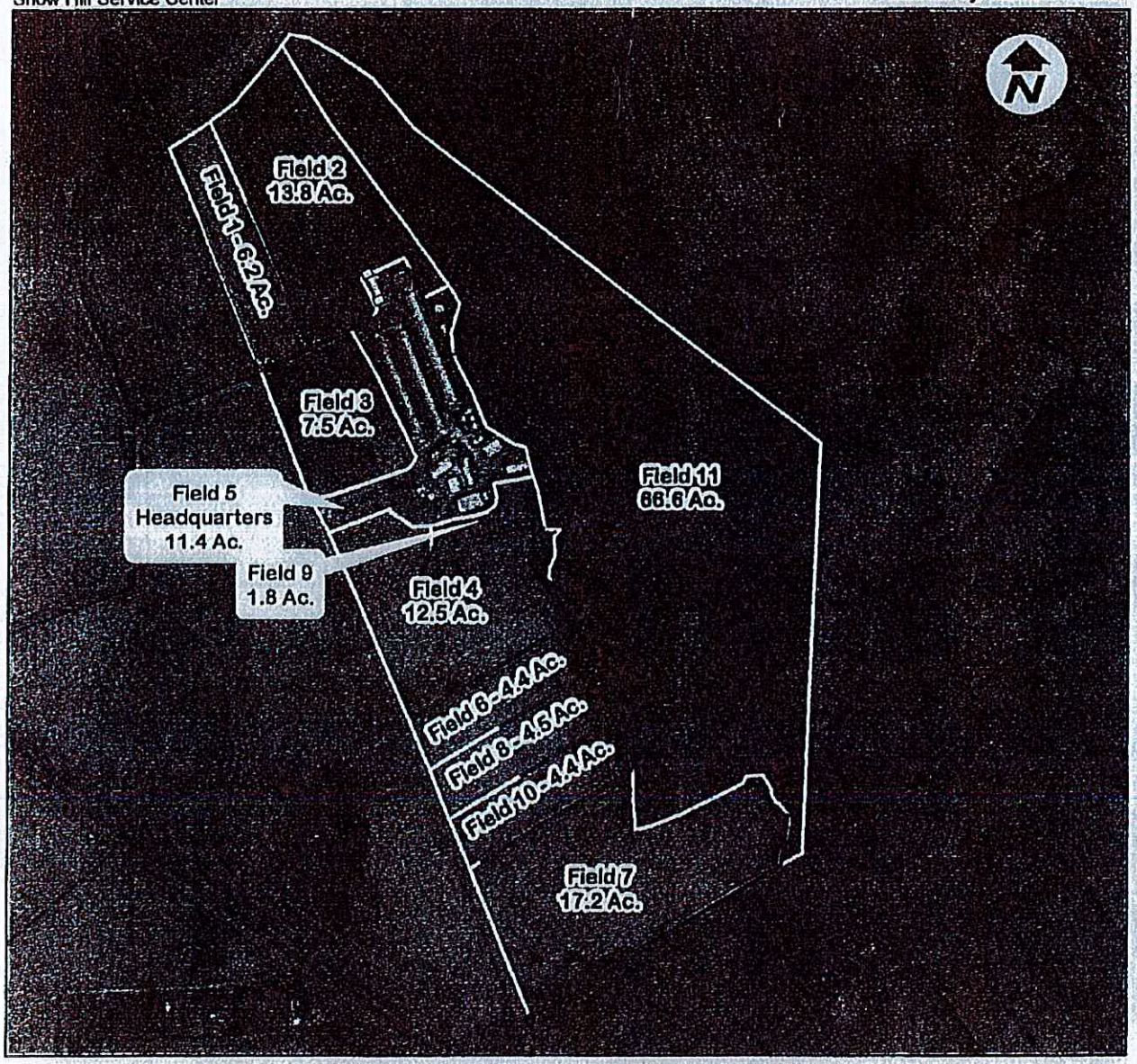
AG Renewal Enterprises INC

Tract: 2213 Farm: 181

Worcester County, Maryland

Worcester Soil Conservation District
Natural Resources Conservation Service
Snow Hill Service Center

Assisted By: Herman Purnell



Legend

- ☐ Practices (polygons)
- → line

Consplan

Home Farm

Soils Map

Date: 12/05/2009

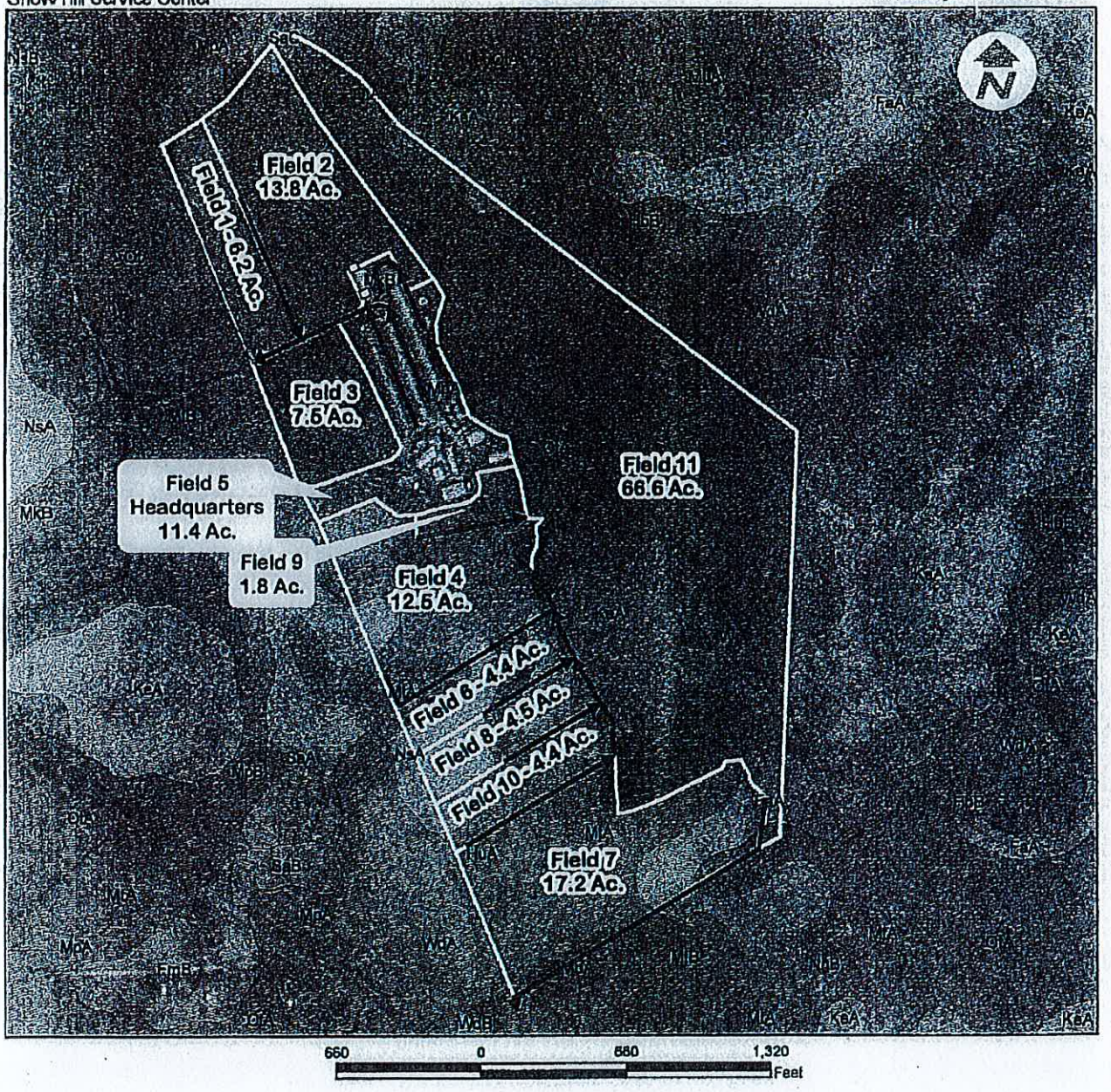
AG Renewal Enterprises MC

Tract: 2213 Farm: 181

Worcester County, Maryland

Worcester Soil Conservation District
Natural Resources Conservation Service
Snow Hill Service Center

Assisted By: Herman Purnell



Legend

- ☐ Practices (polygons)
- ➡ line
- Consplan

AI- 67785 (John Taylor Farm)

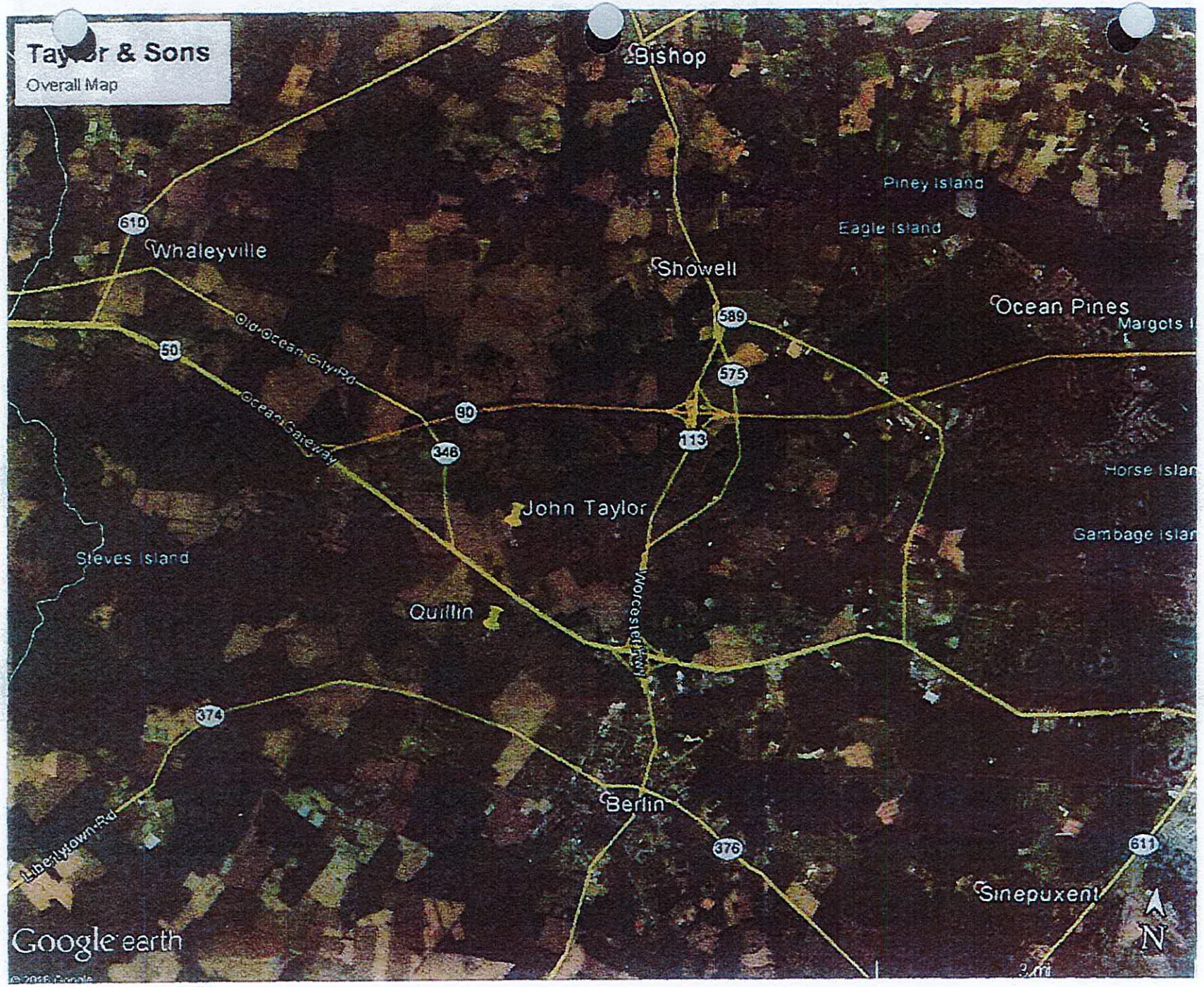
Conservation Plan Notes

John Taylor Farm
10308 Caleb Road
Berlin, MD. 21811
Owner/Operator: David Tatman

Conservation Notes:

The John Taylor Farm is located just off of Route 50, outside of Berlin, Maryland. The farm is primarily located within the Isle of Wight Bay watershed, which is a part of the Coastal Area watershed (021301). A small portion of the farm falls within the Upper Pocomoke River watershed, which is a part of the Pocomoke River watershed (021302). The farm is not within the 100 year floodplain. The closest labeled water that is considered part of the waters of the state of Maryland is a small ditch about 165 feet away from the northern side of the production area. This ditch is part of Timmonstown Branch, which flows to the Upper Pocomoke River. A ditch towards the south side of the property is an unnamed tributary to Church Branch, which flows towards the Isle of Wight Bay watershed. This ditch is approximately 430 feet away from the production area. A Palustrine Forested Broadleaved Deciduous Seasonally Flooded wetland area (PFO1E) is just over 100 feet from the eastern production area edge. The closest tidal water, Turville Creek, is approximately 3.5 miles from the farm. The primary soil type of the production area is Matapeake silt loam, which is non-hydric soil. The other two soil types found on the farm, Mattapex fine sandy loam and Mattapex silt loam, also scored very low on the hydric rating scale (5).

A heavy use area protection pad could be of use in front of the manure shed that is on site. The producer has already mentioned that he intends to add a concrete pad in this location as soon as he is able to. Aside from that note, no other issues were identified upon inspection of the farm. The existing heavy use pads looked to be clean, tidy, and free of any manure. It is important to keep these pads clean, as rain water can wash the manure from these impervious surfaces and carry it to nearby ditches, which could eventually reach waters of the state. There were no clear signs of drainage issues and no erosion issues noted. Water does not appear to pond in any one area or flow excessively to a particular location.


Taylor & Sons
Overall Map
Bishop
Piney Island
Eagle Island
610
Whaleyville
Showell
Ocean Pines
589
Old Ocean City Rd
50
575
Ocean Gateway
90
113
348
John Taylor
Horse Islan
Gambage Islan
Steves Island
Quillin
Worcester Hwy
374
Berlin
Libertytown Rd
376
611
Sinepuxent
N
Google earth


Taylor & Sons
Overall Map
Old Ocean City Rd
Ocean Gateway
John Taylor
Deer Park Dr
Tall Timber Rd
Caleb Rd
50
346
Main St Exd
Old Ocean City Blvd
818
Quillin
Google earth
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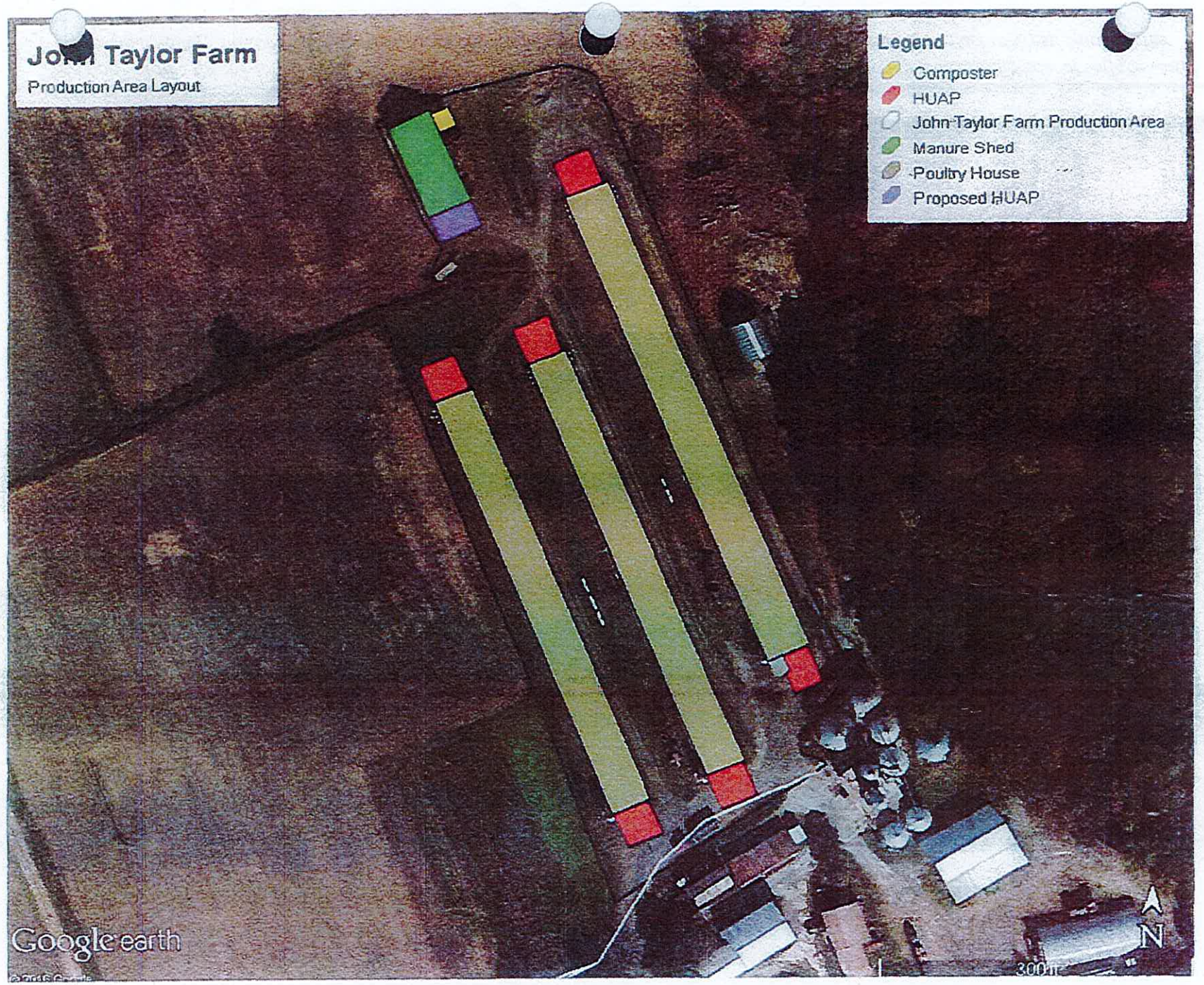
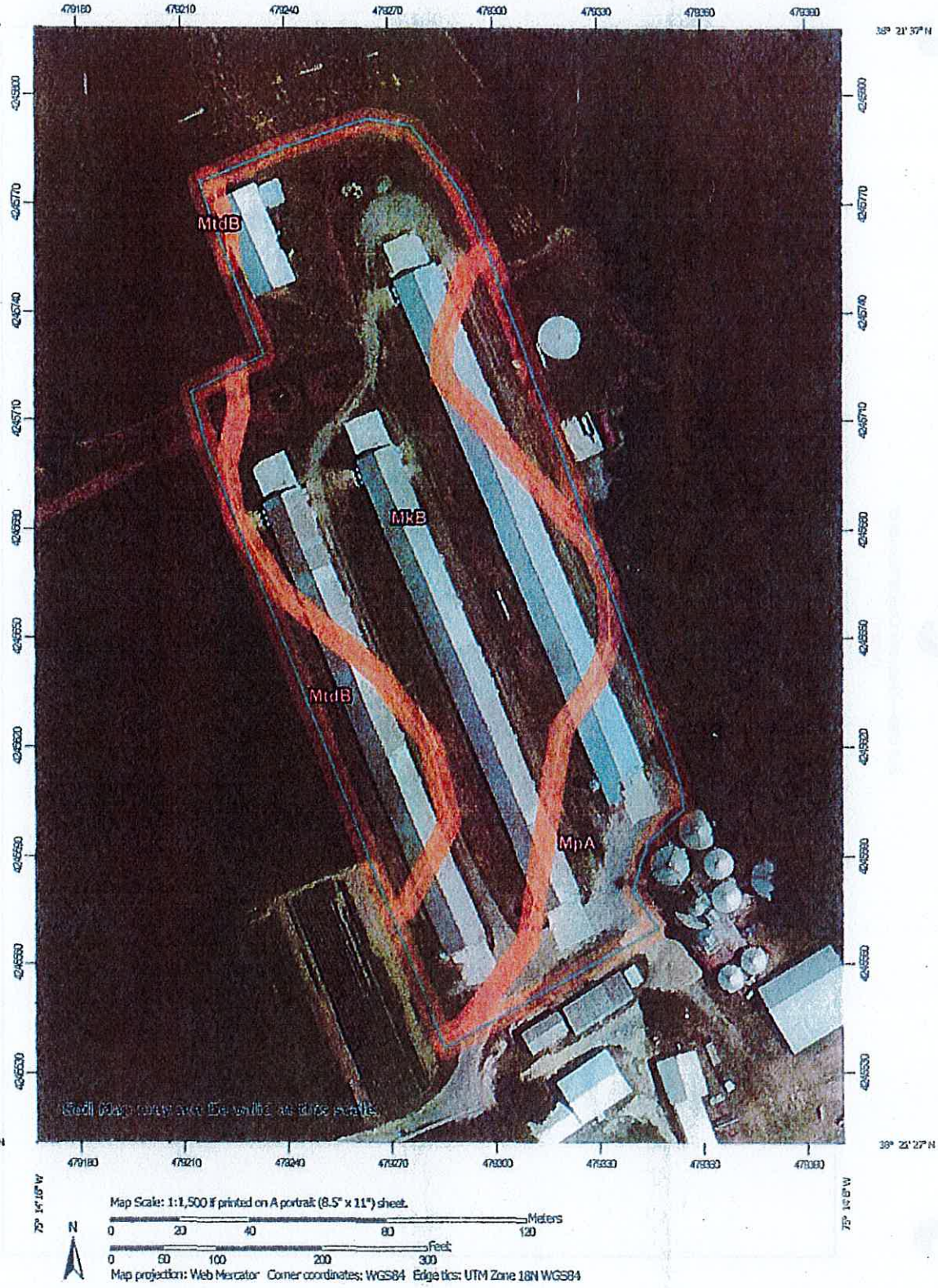
3000 ft


John Taylor Farm
Production Area Layout
Legend
Composter
HUAP
John Taylor Farm Production Area
Manure Shed
Poultry House
Proposed HUAP
Google earth
300 ft
N

John Taylor (Home) Farm Flow of Surface Water

The slope profile for the John Taylor (Home) farm is shown above. Red arrows are shown on the map to indicate the flow of surface water during a heavy rain event. The general lay of the land shows that there is a slight downward slope from East to West. Slope profile calculations indicated that there is virtually no change in elevation from North to South.

Soil Map—Worcester County, Maryland
(Home)



Map Scale: 1:1,500 if printed on A portrait (8.5" x 11") sheet.

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Worcester County, Maryland
Survey Area Data: Version 13, Sep 20, 2016

Soil map units are labeled (as space allows) for map scales *1:50,000 or larger.*

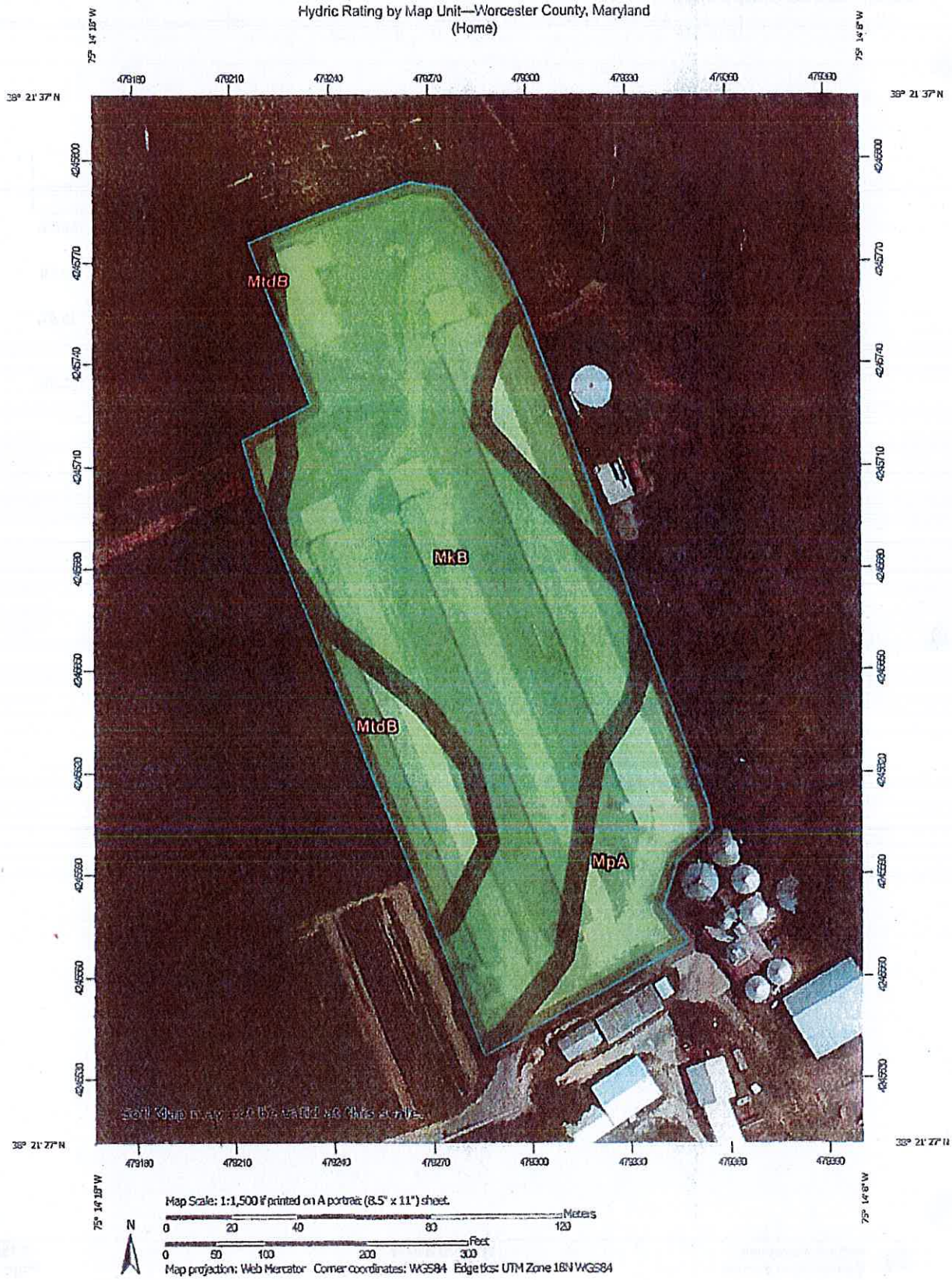
Date(s) aerial images were photographed: Jun 17, 2010—Jul 4, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Worcester County, Maryland (MD047)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MkB	Matapeake silt loam, 2 to 5 percent slopes	3.6	69.7%
MpA	Mattapex fine sandy loam, 0 to 2 percent slopes	1.0	19.4%
MtdB	Mattapex silt loam, 2 to 5 percent slopes, Northern Tidewater Area	0.6	10.8%
Totals for Area of Interest		5.1	100.0%

Hydric Rating by Map Unit—Worcester County, Maryland
(Home)



Map Scale: 1:1,500 if printed on A portrait (8.5" x 11") sheet.

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- *Not rated or not available*

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

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Source of Map: Natural Resources Conservation Service
Web Soil Survey *URL*:
Coordinate System: Web Mercator (EPSG:3857)

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Survey Area Data: Version 13, Sep 20, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 17, 2010—Jul 4, 2010

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Hydric Rating by Map Unit

Hydric Rating by Map Unit— Summary by Map Unit — Worcester County, Maryland (MD047)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
MkB	Matapeake silt loam, 2 to 5 percent slopes	0	3.6	69.7%
MpA	Mattapex fine sandy loam, 0 to 2 percent slopes	5	1.0	19.4%
MtdB	Mattapex silt loam, 2 to 5 percent slopes, Northern Tidewater Area	5	0.6	10.8%
Totals for Area of Interest			5.1	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. *Soil survey manual. Soil Conservation Service.* U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

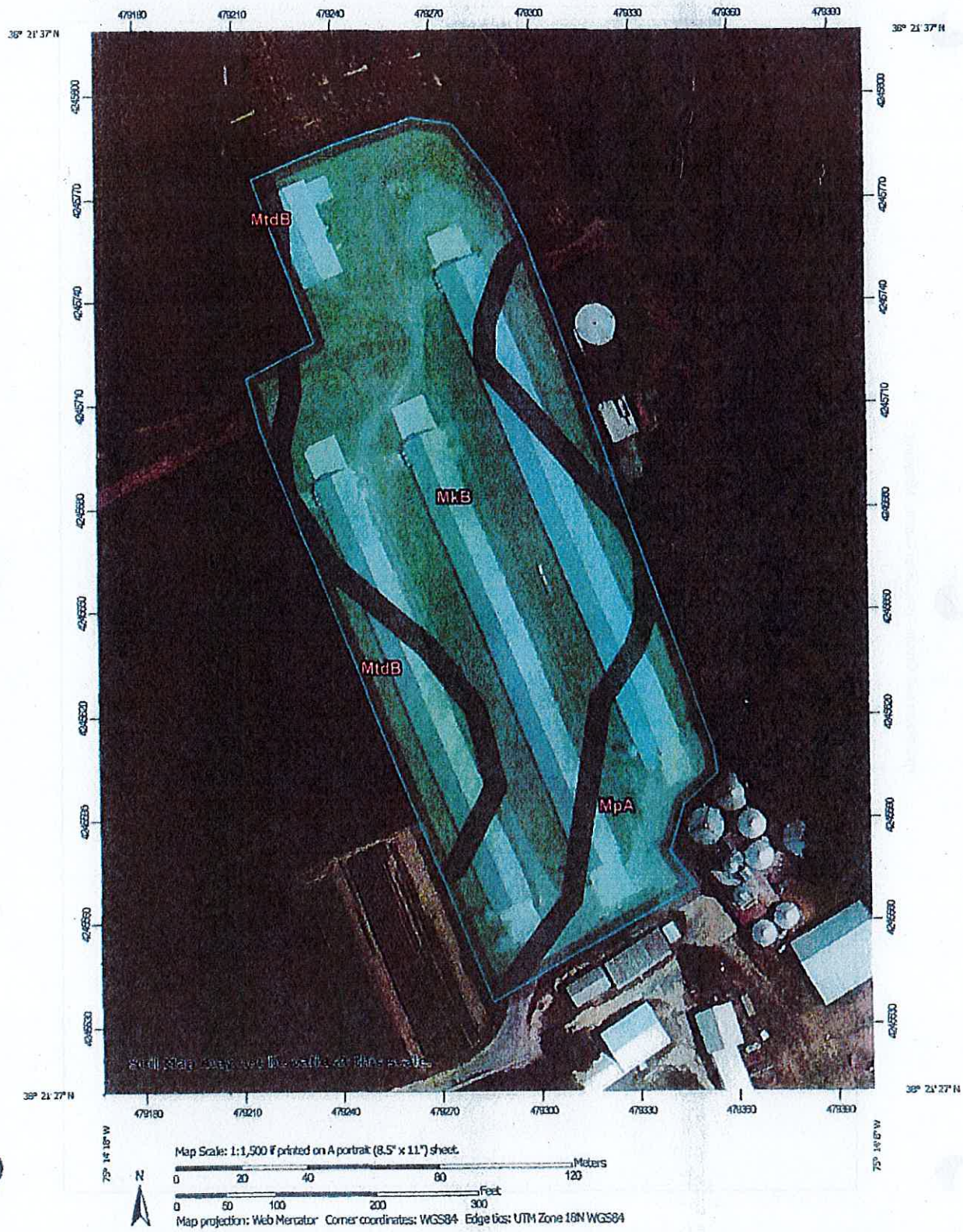
Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Hydrologic Soil Group—Worcester County, Maryland
(Home)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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Survey Area Data: Version 13, Sep 20, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 17, 2010—Jul 4, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group—Summary by Map Unit — Worcester County, Maryland (MD047)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
MkB	Matapeake silt loam, 2 to 5 percent slopes	C	3.6	69.7%
MpA	Mattapex fine sandy loam, 0 to 2 percent slopes	C	1.0	19.4%
MtdB	Mattapex silt loam, 2 to 5 percent slopes, Northern Tidewater Area	C	0.6	10.8%
Totals for Area of Interest			5.1	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher


35.1 ft
35.6 ft
36.1 ft
36.6 ft
37.1 ft
37.6 ft
38.1 ft
38.6 ft
39.1 ft
39.6 ft
40.1 ft
40.6 ft
41.1 ft
41.6 ft
42.1 ft
42.6 ft
43.1 ft
43.6 ft
44.1 ft
44.6 ft

ıe ▾ Desig ed Use Classes for Maryland's Surface Waters

Details | Basemap | Share | Print | Measure | Bookmarks | Find address or place

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II

II-P

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II

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III

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IV

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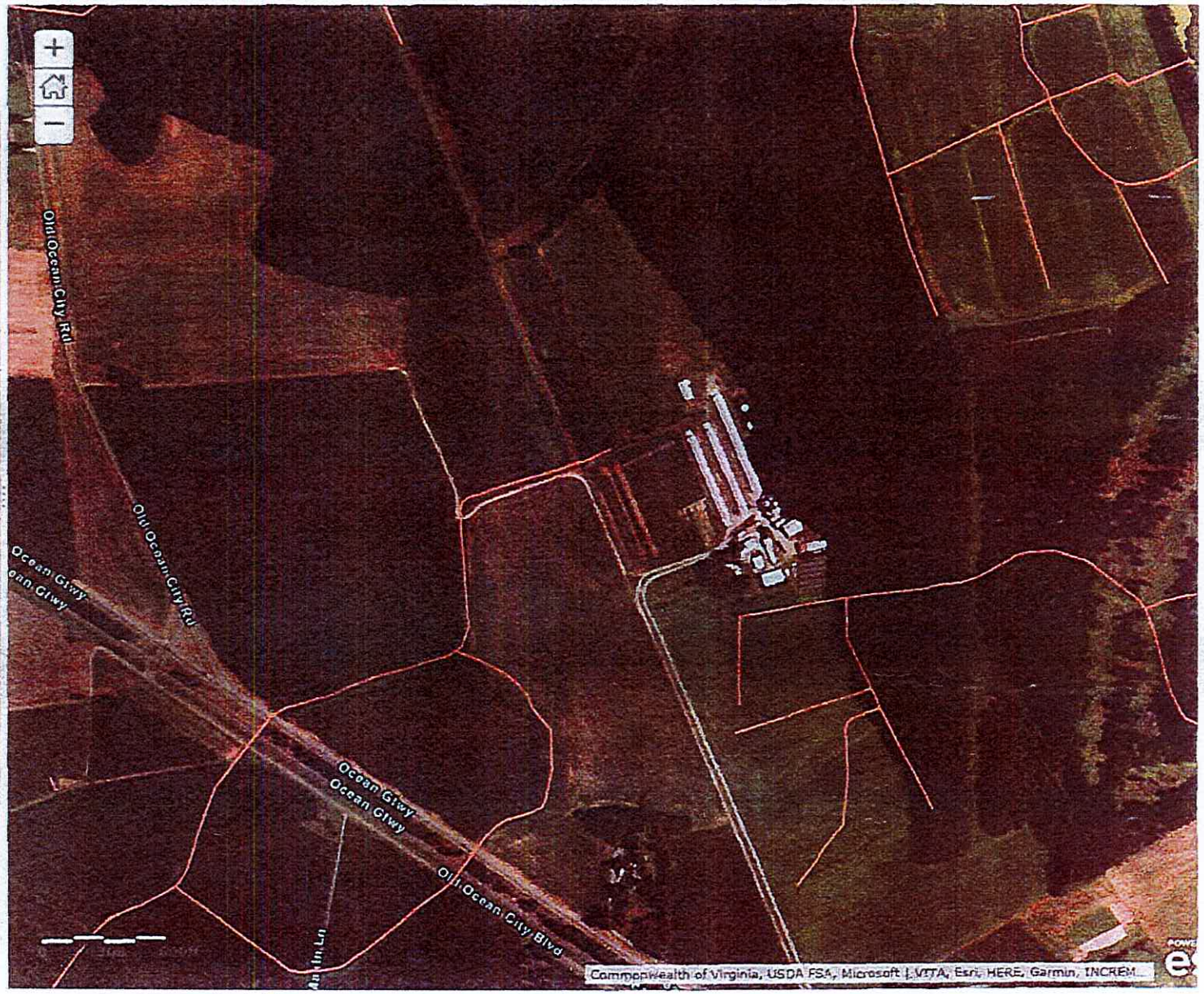


Designated Use Classes for Maryland's Surface Waters
Details
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Help
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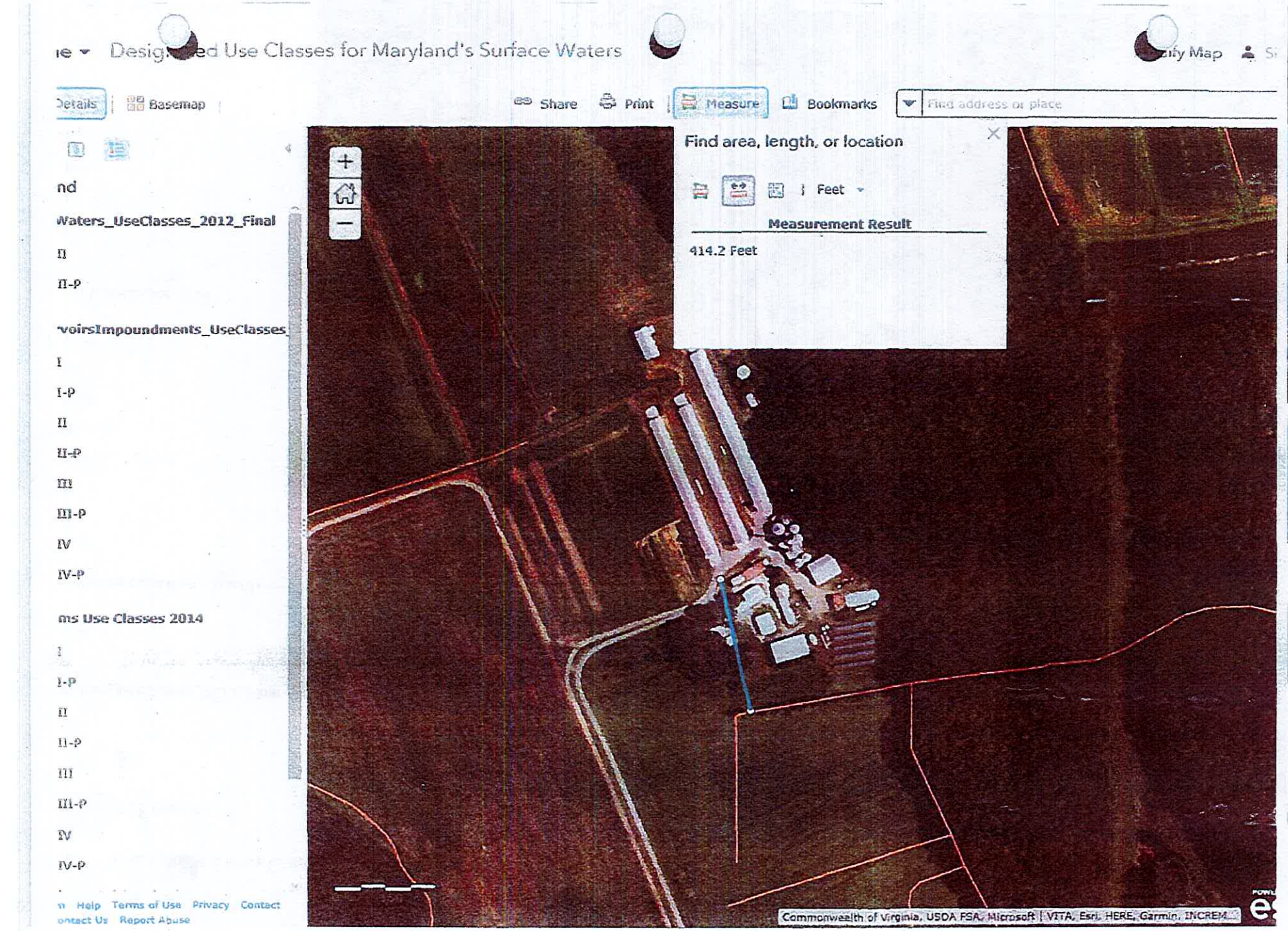
Report Abuse
Commonwealth of Virginia, Microsoft | VITA, Esri, HERE, Garmin, INCREMENT P, USGS


Designated Use Classes for Maryland's Surface Waters
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Share
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Terms of Use
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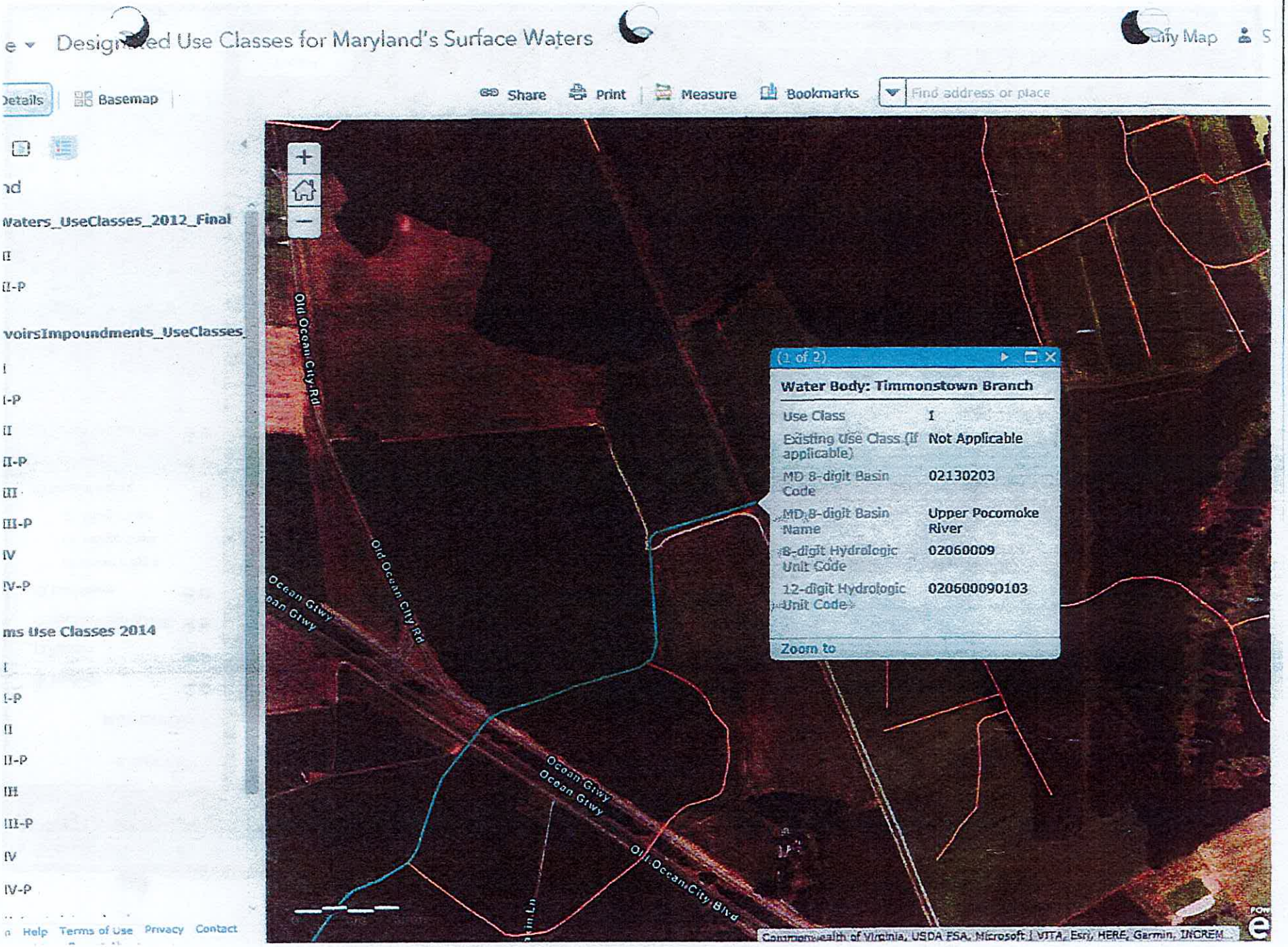
Contact
Report Abuse
Commonwealth of Virginia, USDA FSA, Microsoft | VITA, Esri, HERE, Garmin, INCREM


Designated Use Classes for Maryland's Surface Waters
Share
Print
Measure
Bookmarks
Find address or place
Basemap
Waters_UseClasses_2012_Final
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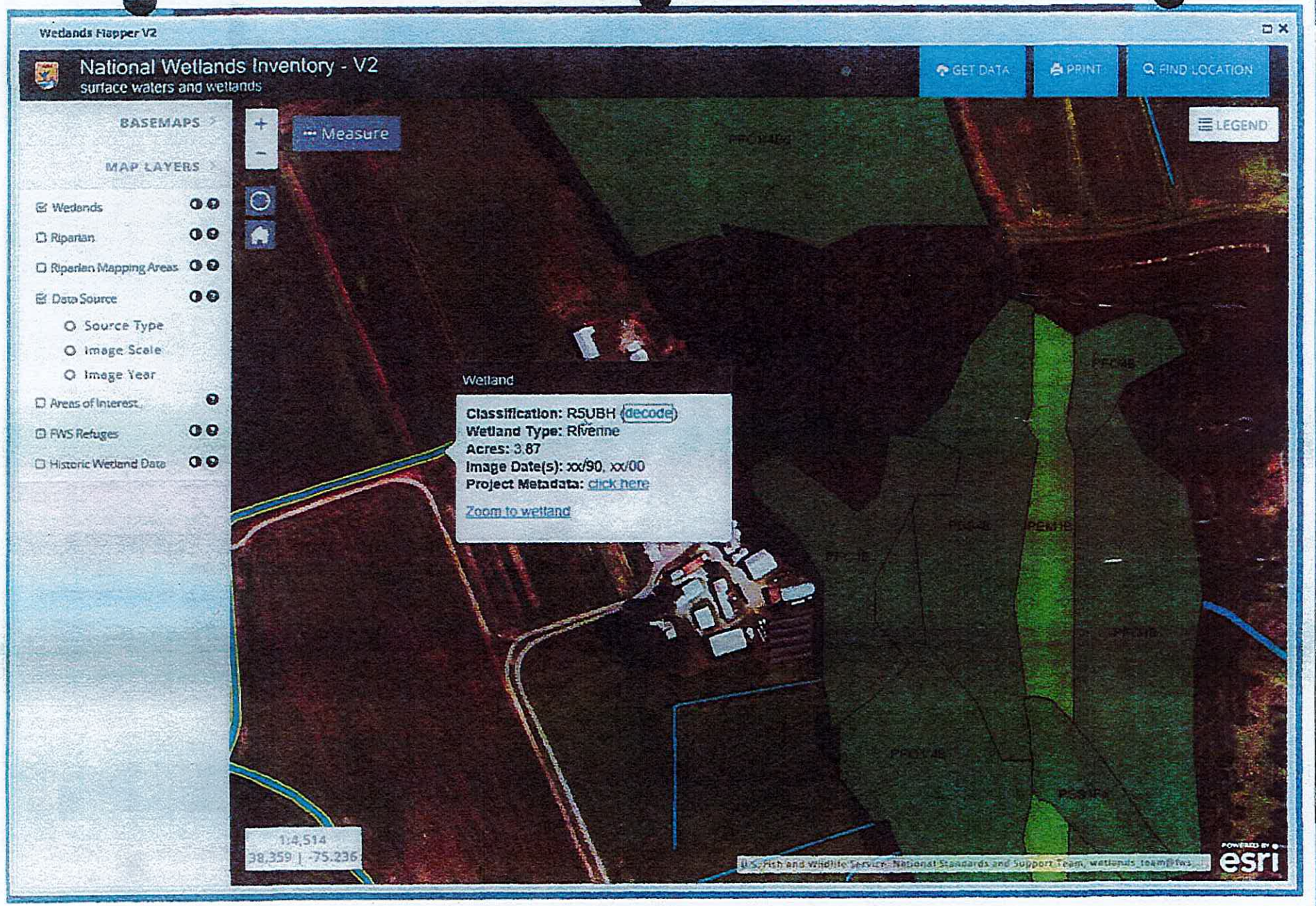
Help
Terms of Use
Privacy
Contact
(1 of 2)
Water Body: Timmonstown Branch
Use Class 1
Existing Use Class (If applicable) Not Applicable
MD 8-digit Basin Code 02130203
MD 8-digit Basin Name Upper Pocomoke River
8-digit Hydrologic Unit Code 02060009
12-digit Hydrologic Unit Code 020600090103
Zoom to
Old Ocean City Rd
Ocean Gtwy
Old Ocean City Blvd
Commonwealth of Virginia, USDA FSA, Microsoft | VITA, Esri, HERE, Garmin, INCREM


Wetlands Mapper V2
National Wetlands Inventory - V2
surface waters and wetlands
GET DATA
PRINT
FIND LOCATION
LEGEND
BASEMAPS
MAP LAYERS
Wetlands
Riparian
Riparian Mapping Areas
Data Source
Source Type
Image Scale
Image Year
Areas of Interest
FWS Refuges
Historic Wetland Data
Measure
Feet
Measurement Result
107.4 Feet
PEM1B
1:4,514
38.360 | -75.240
U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands, comments
esri


Wetlands Mapper V2
National Wetlands Inventory - V2
surface waters and wetlands
GET DATA
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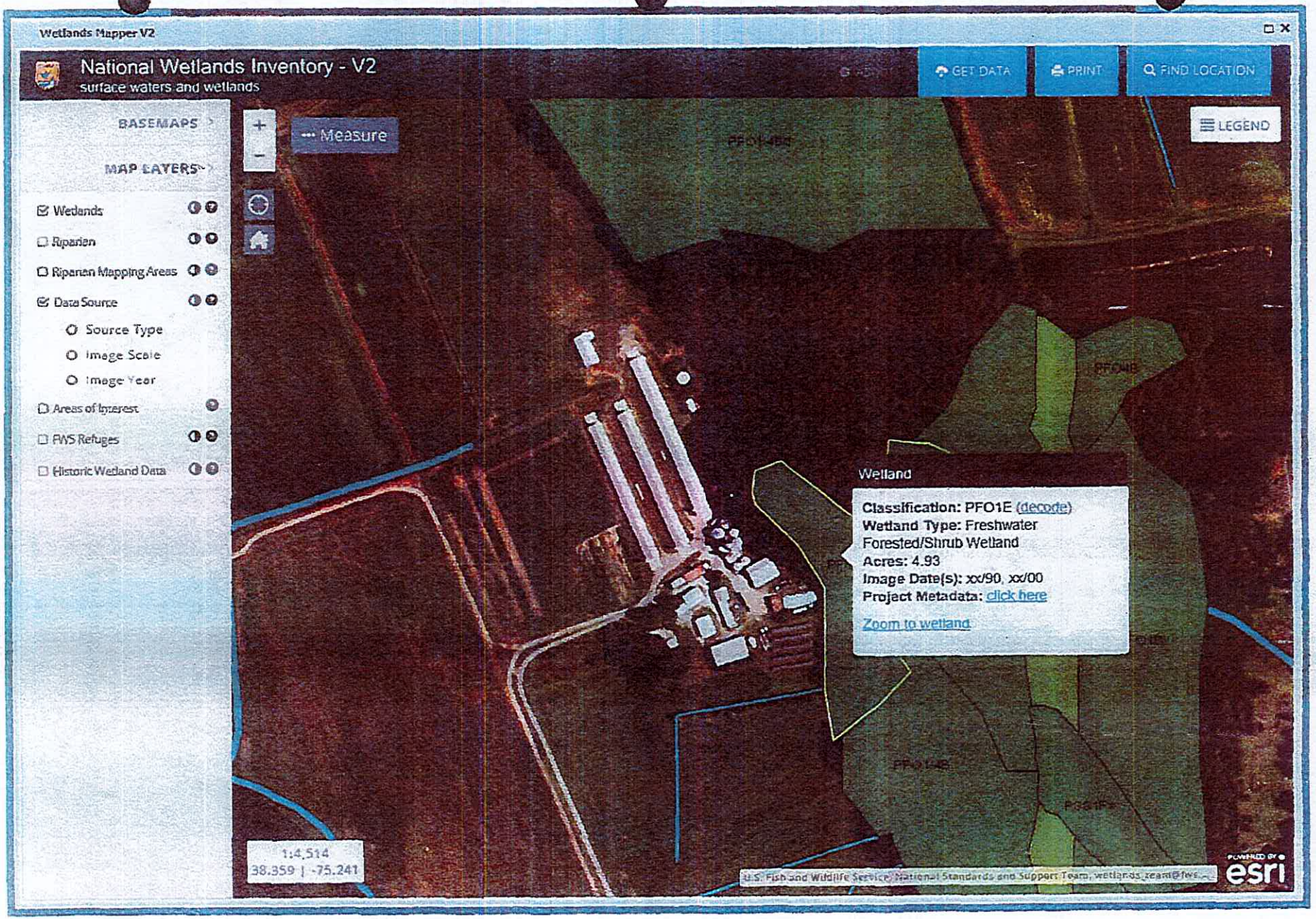
BASEMAPS
MAP LAYERS
Measure
LEGEND
Wetlands
Riparian
Riparian Mapping Areas
Data Source
Source Type
Image Scale
Image Year
Areas of Interest
FWS Refuges
Historic Wetland Data
Wetland
Classification: R5UBH (decode)
Wetland Type: Riverine
Acres: 3.87
Image Date(s): xx/90, xx/00
Project Metadata: click here
Zoom to wetland
1:4,514
38.359 | -75.236
esri


Wetlands Mapper V2
National Wetlands Inventory - V2
surface waters and wetlands
GET DATA
PRINT
FIND LOCATION
BASEMAPS
MAP LAYERS
Wetlands
Riparian
Riparian Mapping Areas
Data Source
Source Type
Image Scale
Image Year
Areas of Interest
FWS Refuges
Historic Wetland Data
Measure
LEGEND
Wetland
Classification: PFO1E (decode)
Wetland Type: Freshwater Forested/Shrub Wetland
Acres: 4.93
Image Date(s): xx/90, xx/00
Project Metadata: click here
Zoom to wetland
1:4,514
38.359 | -75.241
U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws...
esri