

National Pollutant Discharge Elimination System (NPDES) Permit Program

F A C T S H E E T

Regarding an NPDES Permit To Discharge to Waters of the State of Ohio
for the **Trillium Farm Holdings LLC Mt. Victory Facility**

Public Notice No.: 12-03-037
Public Notice Date: March 21, 2012
Comment Period Ends: April 21, 2012

OEPA Permit No.: **2IK00032*AD**
Application No.: **OH0138207**

Name and Address of Applicant:

**Trillium Farm Holdings LLC
10513 Croton Road
Johnstown, OH 43031**

Name and Address of Facility Where
Discharge Occurs:

**Mt. Victory Facility
20449 County Road 245
Mt. Victory, Ohio 43340
Hardin County**

Receiving Water: **McDonald Creek**

Subsequent
Stream Network: **Rush Creek
Scioto River
Ohio River**

Introduction

Development of a Fact Sheet for NPDES permits is mandated by Title 40 of the Code of Federal Regulations, Section 124.8 and 124.56. This document fulfills the requirements established in those regulations by providing the information necessary to inform the public of actions proposed by the Ohio Environmental Protection Agency, as well as the methods by which the public can participate in the process of finalizing those actions.

This Fact Sheet is prepared in order to document the technical basis and risk management decisions that are considered in the determination of water quality based NPDES Permit effluent limitations. The technical basis for the Fact Sheet may consist of evaluations of promulgated effluent guidelines, existing effluent quality, instream biological, chemical and physical conditions, and the relative risk of alternative effluent limitations. This Fact Sheet details the discretionary decision-making process empowered to the Director by the Clean Water Act and Ohio Water Pollution Control Law (ORC 6111). Decisions to award variances to Water Quality Standards or promulgated effluent guidelines for economic or technological reasons will also be justified in the Fact Sheet where necessary.

Procedures for Participation in the Formulation of Final Determinations

The draft action shall be issued as a final action unless the Director revises the draft after consideration of the record of a public meeting or written comments, or upon disapproval by the Administrator of the U.S. Environmental Protection Agency.

Within thirty days of the date of the Public Notice, any person may request or petition for a public meeting for presentation of evidence, statements or opinions. The purpose of the public meeting is to obtain additional evidence. Statements concerning the issues raised by the party requesting the meeting are

invited. Evidence may be presented by the applicant, the state, and other parties, and following presentation of such evidence other interested persons may present testimony of facts or statements of opinion.

Requests for public meetings shall be in writing and shall state the action of the Director objected to, the questions to be considered, and the reasons the action is contested. Such requests should be addressed to:

**Legal Records Section
Ohio Environmental Protection Agency
Lazarus Government Center
P.O. Box 1049
Columbus, Ohio 43216-1049**

Interested persons are invited to submit written comments upon the discharge permit. Comments should be submitted in person or by mail no later than 30 days after the date of this Public Notice. Deliver or mail all comments to:

**Ohio Environmental Protection Agency
Attention: Division of Surface Water
Permits and Compliance Section
Lazarus Government Center
P.O. Box 1049
Columbus, Ohio 43216-1049**

The OEPA permit number and Public Notice numbers should appear on each page of any submitted comments. All comments received no later than 30 days after the date of the Public Notice will be considered.

Citizens may conduct file reviews regarding specific companies or sites. Appointments are necessary to conduct file reviews, because requests to review files have increased dramatically in recent years. For requests to copy more than 250 pages, there is a five-cent charge for each page copied. Payment is required by check or money order, made payable to Treasurer State of Ohio.

Background

The National Pollutant Discharge Elimination System (NPDES), created under the Clean Water Act of 1972, provides a means for monitoring, tracking, and preventing discharges of pollutants to waters of the states. Section 301 of the Clean Water Act and 40 CFR 122.1(b) requires NPDES permits for the discharge of pollutants from any point source into waters of the State. Pursuant to Section 502(14) of the Clean Water Act and 40 CFR 122.2, a Concentrated Animal Feeding Operation (CAFO) is listed in the definition of a point source. A discharge can be considered any addition of any pollutant or combination of pollutants to water of the United States. This includes runoff from feedlots, stock piled manure, silage bunkers, overflow from storage ponds, overflow from animal watering systems, and runoff from fields on which manure is not applied in accordance with proper agricultural practices.

Waters of the United States not only include rivers, streams, intermittent streams and lakes, but also irrigation ditches, laterals, canals, etc. which eventually flow into rivers, streams, and lakes.

Other federal regulations require concentrated animal feeding operations to acquire an NPDES permit. These include, but are not limited to the following:

- 40 CFR 122.3: Establishes concentrated animal feeding operations as “point sources subject to the NPDES permit program”.
- 40 CFR 122.21: States that CAFOs which discharge have a duty to seek coverage under an NPDES permit.
- 40 CFR 122.23: Details the fact that CAFOs are point sources that require NPDES permits for discharges. Once an operation is defined as a CAFO, best management practices for CAFOs apply to all animals in confinement at the operation and all manure, litter and process wastewater generated by those animals or the production of those animals, regardless of the type of animal.

Based on 40 CFR 122.23, Trillium Farm Holdings, LLC Mt. Victory facility meets the definition of a large CAFO and has a discharge, therefore is required to obtain coverage under an NPDES permit.

This permit does not allow a discharge of manure except under specific circumstances as specified in Part I, A of the permit. A discharge from the egg wash water lagoon is authorized if due to a 25-year, 24-hour (or greater) storm event or a chronic rainfall that is deemed excessive by Ohio EPA. In the event of a severe storm and a discharge occurs, Ohio Water Quality Standards may not be violated by any discharge from the production area. A discharge of solid manure is not authorized.

Storm water associated with industrial activity at the Mt. Victory facility and/or storm water contaminated by feathers and dust blown out of the barn fans (process wastewater) may be discharged to McDonald Creek in accordance with the NPDES permit effluent limitations based on Ohio Water Quality Standards. Spills of solid manure and egg wash water into the storm water conveyance system are not authorized to be discharged. The permit also requires housekeeping measures to minimize manure exposed to storm water during barn cleanouts. The discharge of this process wastewater is authorized because it was not considered by U.S. EPA in the establishment of effluent guidelines for the poultry sector. However, water quality standards in the receiving stream shall be maintained.

There are several pollutants associated with discharges from CAFOs, including: nutrients (particularly nitrogen and phosphorus), organic matter, solids, pathogens, and odorous/volatile compounds. Additional pollutants also include salts and trace elements and to a lesser degree antibiotics, pesticides, and hormones. These pollutants can enter the environment through a number of pathways, including: surface runoff and erosion, overflows from lagoons, spills and other dry-weather discharges, leaching into soil and

groundwater, and volatilization of compounds and subsequent redeposition to the landscape. These discharges of pollutants can originate from animal confinement areas, manure handling and containment systems, manure stockpiles, and cropland where manure is applied. However, the NPDES permit will generally prohibit discharge of these to waters of the State.

Trillium Farm Holdings LLC Mt. Victory facility is currently permitted under the Ohio Department of Agriculture, Livestock Environmental Permitting Program (ODA, LEPP) for 2,019,878 layers. In the June, 2011 Consent Order, agreed to by the previous owner Ohio Fresh Eggs, the Mt. Victory and Marseilles facilities are limited to a maximum capacity of 4,347,550 laying hens. The Consent Order also required the submittal of CAFO NPDES permit applications for all the Croton and northwest facilities. The terms of the Consent Order carry over to the new owner, Trillium Farm Holdings LLC, and supersede any less restrictive NPDES permit requirements until such time that the Order is revised and/or closed.

Location of CAFO/Receiving Water Use Classification

The Trillium Farm Holdings LLC Mt. Victory facility is located near Mt. Victory, Ohio, Hardin County in Hale Township. The facility discharges to McDonald Creek and subsequently Rush Creek, the Scioto River, and ultimately the Ohio River. Figure 1 depicts the location of the Mt. Victory site along with the surrounding stream networks.

McDonald Creek is designated for the following uses under Ohio Water Quality Standards (OAC 3745-1-9): Warmwater Habitat, Agricultural Water Supply, Industrial Water Supply, and Primary Contact Recreation.

Facility Description

The Trillium Farm Holdings LLC Mt. Victory facility is a large Concentrated Animal Feeding Operation. The facility has 15 conventional high rise barns housing a total of 2,019,878 layers. Manure is stored under the bird cages in the barns. There is an egg processing building located at the facility and the egg wash water is stored in an egg wash water lagoon. Lagoon wastewater is land applied using a center pivot irrigation system on 67 acres. The backflush wastewater from the drinking water treatment system is discharged into the egg wash water lagoon. Two storm water ponds receiving storm water associated with industrial activity from around the facility discharge to McDonald Creek. The design flow for the north storm water pond used in the permit development is 0.06 MGD and the design flow used for the south storm water pond is 0.04 MGD. As stated in the NPDES permit application, approximately 17,904 tons of manure and 7.2 million gallons of egg wash water are produced annually. The egg wash water lagoon has 577 total days of storage with a total capacity of 11.4 million gallons. The high rise barns have 889 days of storage with a total storage capacity of 4.03 million cubic feet. The storm water ponds have a total capacity of 13.46 million gallons. All of the solid layer manure is sold/gifted to crop farmers.

Description of Land Application Procedures and Available Land

As mentioned above, the solid manure generated at the facilities is sold/gifted to other individuals for land application. The egg wash water is land applied under the control of Trillium Farm Holdings LLC. Trillium Farm Holdings LLC currently has manure management plans developed through the Ohio Department of Agriculture in accordance with their Permit to Operate for the Mt. Victory facility. The plan is available by contacting Ohio EPA. Ohio EPA has reviewed the Manure Management Plan and has determined that the plan meets the requirements of the permit and federal CAFO regulations. Public comments on the plan should be submitted to Ohio EPA. As stated in Part II, Ohio EPA can notify Trillium Farm Holdings LLC at any time that the plans do not meet the minimum requirements of the permits and request plan modifications, which are required to be completed within 30 days of notification. It should be noted that comments regarding manure management plan requirements contained in the permit

conditions should be made during this public notice period of the draft permit.

The NPDES permit will require Trillium Farm Holdings LLC to operate and manage their production areas as a non-discharging system in regards to manure and manure pollutants for the most part. However, storm water will be permitted to be discharged in accordance with the permit requirements and effluent limitations. Manure will be required to be managed and transported in such a fashion as to prevent leaks, spills, and runoff. For manure that is sold to another party, the buyer must be notified of nutrient properties contained in the manure as determined from laboratory manure analysis. Land applied egg wash water shall be managed in accordance with the Manure Management Plan and requirements of the NPDES permit. Storm water runoff discharges are allowed from land application fields to surface water, provided the egg wash water is applied in accordance with the Manure Management Plan and the conditions of the permit.

Receiving Water Quality / Environmental Hazard Assessment

Ohio EPA conducted a comprehensive biological, chemical, and bacteriological assessment of the Upper Scioto River basin in 1995. An updated assessment is expected to be released in 2012. As part of the typical watershed survey, streams in the vicinity of the Mt. Victory facility were sampled for baseline documentation prior to the land application of poultry manure in the surrounding watersheds. The study area included McDonald Creek, receiving water for Mt. Victory. The following paragraphs are excerpts from the document *Biological and Water Quality Study of the Upper Scioto River Basin* (OEPA Technical Report DSW/MAS 1996-12-13) that pertain to McDonald Creek.

- “*McDonald Creek, Little Sandusky River, Tymochtee Creek, Prairie Run, Enoch Creek, and PawPaw Run*

Status of Aquatic Life Uses

All of the above waters are designated Warmwater Habitat. Neither the macroinvertebrate nor fish communities were meeting their respective WWH criterion at any of the locations sampled.

Status of non-aquatic Life Uses

All of the above listed streams are designated Agricultural Water Supply, Industrial Water Supply and Primary Contact Recreation. Those designations are appropriate.

Other Recommendations

Because aquatic communities and water quality is already compromised by poor land-use practices, lack of riparian buffers and channel maintenance activities, it is imperative that riparian buffers be expanded or reestablished adjacent to fields receiving poultry wastes to minimize further impacts.

Future Monitoring Concerns

A record detailing dates, frequency, amounts, and which fields received poultry wastes needs to be maintained. Nutrient, fecal coliform and fecal streptococcus levels need to be periodically monitored in streams adjacent to and downstream from fields receiving poultry wastes.”

- “*McDonald Creek*

The physical habitat in McDonald Creek was evaluated at three sites. The lower two sites were not channel modified and contained habitat of sufficient quality to support normal warm-water aquatic faunas as reflected by the low ratio of modified habitat attributes to warmwater habitat attributes. Substrates, though moderately silty, contained a variety of sizes. Channel development was good and woody debris added complexity. The most upstream site was channelized during the course of the summer, destroying any vestiges of warmwater habitat attributes observed at the beginning of the summer.”

It should also be noted that Rush Creek is listed as impaired in Ohio EPA's 2008 *Integrated Report* for recreation use. The watershed is scheduled for monitoring in 2009, with a Total Maximum Daily Load (TMDL) report projected for 2012.

Outfall Information and Parameter Selection

The following excerpts from the Ohio Administrative Code (OAC) give Ohio EPA the right to require monitoring of specific parameters in NPDES permits:

- OAC 3745-33-08(D): The director may include in an Ohio NPDES permit any other terms or conditions he finds reasonable and appropriate for the prevention and abatement of pollution.
- OAC 3745-33-07(A)(3): Pollutant monitoring of pollutants in groups one, two, or three of the pollutant assessment may be specified by the director.

The most commonly recognized pollutants associated with Concentrated Animal Feeding Operations include biochemical oxygen demand (BOD), total suspended solids (TSS), organics, bacteria, and nutrients. Typically these nutrients are in the form of various nitrogen and phosphorus compounds. These pollutants have the potential to impair water quality and fall within groups 2 or 3 of the pollutant assessment.

It is the intent of the NPDES permit to ensure that these substances do not impair water quality. Therefore, the permit has been set up in such a way as to monitor sites or sampling stations that cause, or have the potential to cause, water quality violations. A 30-month schedule of compliance has been included in Part I, C for Stations 001 and 002 to allow Trillium Farm Holdings to attain compliance with the final effluent limitations for the storm water pond discharges. The sampling stations are described below.

Station 001

Monitoring Station 001 (Figure 2, Table 3) shall refer to the Mt. Victory north storm water pond outfall. Samples for conventional pollutants (5-day Biochemical Oxygen Demand, Total Suspended Solids, Ammonia-Nitrogen, Total Phosphorus, and E. coli) along with water quality parameter (pH) and Flow rate shall be taken at the frequencies specified in Table 3.

Station 002

Monitoring Station 002 (Figure 3, Table 4) shall refer to the Mt. Victory south storm water pond outfall. Samples for conventional pollutants (5-day Biochemical Oxygen Demand, Total Suspended Solids, Ammonia-Nitrogen, Total Phosphorus, and E. coli) along with water quality parameter (pH) and Flow rate shall be taken at the frequencies specified in Table 4.

Station 901

Monitoring Station 901 (Figure 3, Table 5) shall refer to a site downstream of the Mt. Victory storm water pond outfalls in McDonald Creek at the property line. Samples for the conventional pollutant (Total Phosphorus) shall be taken at a frequency of once per quarter at the same time samples are collected from Stations 001 and 002.

Development of Water-Quality Based Effluent Limits

Determining appropriate effluent concentrations is a multiple-step process in which parameters are identified as likely to be discharged by a facility, evaluated with respect to Ohio water quality criteria, and examined to determine the likelihood that the existing effluent could violate the calculated limits.

Parameter Selection

Effluent data for the Mt. Victory facility storm water ponds was used to determine what parameters should undergo wasteload allocation.

Wasteload Allocation

For those parameters that require a wasteload allocation (WLA), the results are based on the uses assigned to the receiving water body in OAC 3745-1. Dischargers are allocated pollutant loadings/concentrations based on the Ohio Water Quality Standards (WQS – OAC 3745-1). Most pollutants are allocated by a mass-balance method because they do not degrade in the receiving water. Wasteload allocations using this method are done using the following general equation: Discharger WLA = (downstream flow x WQS) – (upstream flow x background concentration). Discharger WLAs are divided by the discharge flow so that the WLAs are expressed as concentrations.

The following data was used in the WLA for ammonia.

Water Quality Criteria in the Study Area

Parameter	Units	Outside Mixing Zone Criteria				
		Average			Maximum Aquatic Life	Inside Mixing Zone Maximum
		Human Health	Agriculture	Aquatic Life		
Ammonia – S	mg/l			1.1	9.1	
Ammonia -W	mg/l			1.9	5.0	

Instream Conditions and Discharger Flow

Parameter	Units	Season	Value	Basis
<i>Stream Flows</i>				
7Q10	cfs	Summer	0.054	USGS #3217500 Scioto River @ LaRue, OH
7Q10	cfs	Winter	0.089	
30Q10	cfs	Summer	0.070	
30Q10	cfs	Winter	0.140	
<i>pH</i>	S.U.	Summer	8.00	Analysis of Unimpacted Stream Data: Scioto River, OH, 75 th Percentile
	S.U.	Winter	8.3	
<i>Temperature</i>	Degree C	Summer	22.8	Analysis of Unimpacted Stream Data: Scioto River, OH, 75 th Percentile
	Degree C	Winter	5.0	
<i>Upstream Ammonia</i>	mg/l	Summer	0.025	Analysis of Unimpacted Stream Data: Scioto River, OH, 50 th Percentile
<i>Upstream Ammonia</i>	mg/l	Winter	0.025	Analysis of Unimpacted Stream Data: Scioto River, OH, 50 th Percentile
<i>Mt. Victory Storm Water Pond 001 Flow</i>	MGD	Annual	0.06	NPDES permit application
<i>Mt. Victory Storm Water Pond 002 Flow</i>	MGD	Annual	0.04	NPDES permit application

Additional Effluent Limitations and Monitoring Requirements

Effluent limitations and monitoring requirements contained in Parts II, Part VII and VIII of the permit are based on 40 CFR Parts 122, 123, 412, OAC Chapter 901:10-2, United States Department of Agriculture Natural Resources Conservation Service (USDA-NRCS) Practice Standards, and best professional judgment.

The submitted and approved Manure Management Plan shall address the form, source, amount, timing, agronomic rate, and method of application of nutrients to each field to achieve compliance with Part I, A of the permit, assure appropriate agricultural utilization of the nutrients, and minimize movement of pollutants to surface waters.

The NPDES permits require the submission of an annual report to Ohio EPA in Part II that shall include at a minimum the following information:

1. The number and type of animals confined in the previous year.
2. Estimated amount of manure generated in the previous year in gallons or tons.
3. Total amount of manure removed from the facility for land application and/or distribution or utilization in gallons or tons.
4. Total number of acres for land application covered by MMP.
5. Total number of acres under the control of the permittee that were used for land application in the previous year.
6. Manure distribution or utilization records.
7. Summary of the number of discharges from the production area and the number of discharges from land application areas that were not composed of agricultural storm water runoff for the past year, including date, time and approximate volumes. Please note this requirement does not pertain to the authorized discharges in Part I, A and B that are reported through Discharge Monitoring Reports in accordance with Part III, 4.
8. Information on any non-compliance not previously reported to Ohio EPA. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
9. A statement indicating if the MMP was developed by a certified manure management planner.
10. A copy of the training/seminar attendance documentation as required by Part II, G of this permit.
11. The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, the results of calculations conducted in accordance with Part II, J, 4, and the amount of manure applied to each field during the previous twelve months.

The NPDES permits include manure land application requirements in Part VIII. These requirements, include the development of a total nutrient budget for the operation, determination methods for appropriate manure application rates, record keeping requirements, application restrictions, and application timing restrictions.

The NPDES permits require specific monitoring and inspection requirements. The following table compiles requirements from Part VII and Part VIII of the permit along with the justification for inclusion of the requirements in the permit.

Table 1. Monitoring and Inspection Requirements

Action	Frequency	Record Keeping Requirements	Justification
Samples shall be taken of discharges authorized in Part I, A and B in accordance with those parts.	As required by Part I, B Tables 1-5	Date and time of samples, results of analysis, and the information required in Part III, 5 and 6.	40 CFR Part 122.48.
Grab samples shall be taken of all discharges from the production area not authorized by Part I, B.	Each time they occur	Date and time of sample, results of analysis, and the information required in Part III, 5 and 6.	Best Professional Judgment – To ensure compliance with Part I, A of the permit.
All discharges from the production area not authorized in Part I, B and land application area shall be recorded in the operating record.	Each time they occur	Cause, volume, and duration of discharge and any corrective actions needed and the dates those actions were taken.	40 CFR Part 122.42 and 40 CFR Part 412.37 requires these records to be maintained.
In accordance with Part VIII, B, 5 of this permit, grab samples shall be taken of discharges from land application areas where manure was applied on frozen and/or snow covered ground.	Each time they occur	Date and time of sample, results of analysis, and the information required in Part III, 5 and 6.	Best Professional Judgment – To ensure compliance with Part I, A and Part VIII of the permit.
Representative samples of the manure to be land applied shall be taken from each source (e.g., each lagoon, storage tank, or permanent stockpile area must be sampled).	1/year	The information required in Part III, 5 and 6.	40 CFR Part 412.4 and 40 CFR Part 412.37 requires the sampling and records to be maintained.
Representative soil samples of the manure land application fields.	Every 3 years	The information required in Part III, 5 and 6.	40 CFR Part 412.4 and 40 CFR Part 412.37 requires the sampling and records to be maintained.
Monitor operating level of all manure storage or treatment facilities (including storm water ponds).	1/week	Date and time of observation, manure level in each structure.	40 CFR Part 412.37 requires the inspections and record keeping.
Inspect manure storage or treatment facilities, including devices channeling contaminated storm water to the manure storage or treatment facility for evidence of erosion, leakage, animal damage, overflow or discharge.	1/week	Date and time of inspection, structural integrity, vegetation condition, and any corrective actions needed and the dates those actions were taken.	40 CFR Part 412.37 and Best Professional Judgment require the inspections and record keeping.
Inspect storm water diversion devices or runoff diversion structures.	1/week	Date and time of inspection, observations of flow quantity and color, structural integrity (e.g. signs of cracks, sparse or stressed vegetation, erosion, etc.), any corrective actions needed and the dates those actions were taken.	40 CFR Part 412.37 and Best Professional Judgment require the inspections and record keeping.
Inspect drinking and cooling water lines that are located above ground, readily visible or accessible for daily inspection.	Daily	Date and time of inspection, number of leaks, any corrective actions needed and the dates those actions were taken.	40 CFR Part 412.37 requires the inspections and record keeping.
Monitor forecast at the CAFO location.	Every land application event	Date, weather conditions (including percentage chance of rain) 24 hours prior to application, at the time of application, and 24 hours after application.	40 CFR Part 412.37 and Best Professional Judgment require the monitoring and record keeping.
Inspect land application fields.	In accordance with MMP	Date and signs of discharge or runoff into surface waters and/or conduits to surface waters of the State.	Best Professional Judgment requires the monitoring and record keeping to document compliance with 40 CFR Part 412.4.
Inspect land application equipment.	In accordance	List of equipment, date of inspections, corrective actions, calibration dates.	40 CFR Part 412.4 and Best Professional Judgment require the inspections and record keeping.



Figure 1. Location of Trillium Farm Holdings LLC Mt. Victory Facility

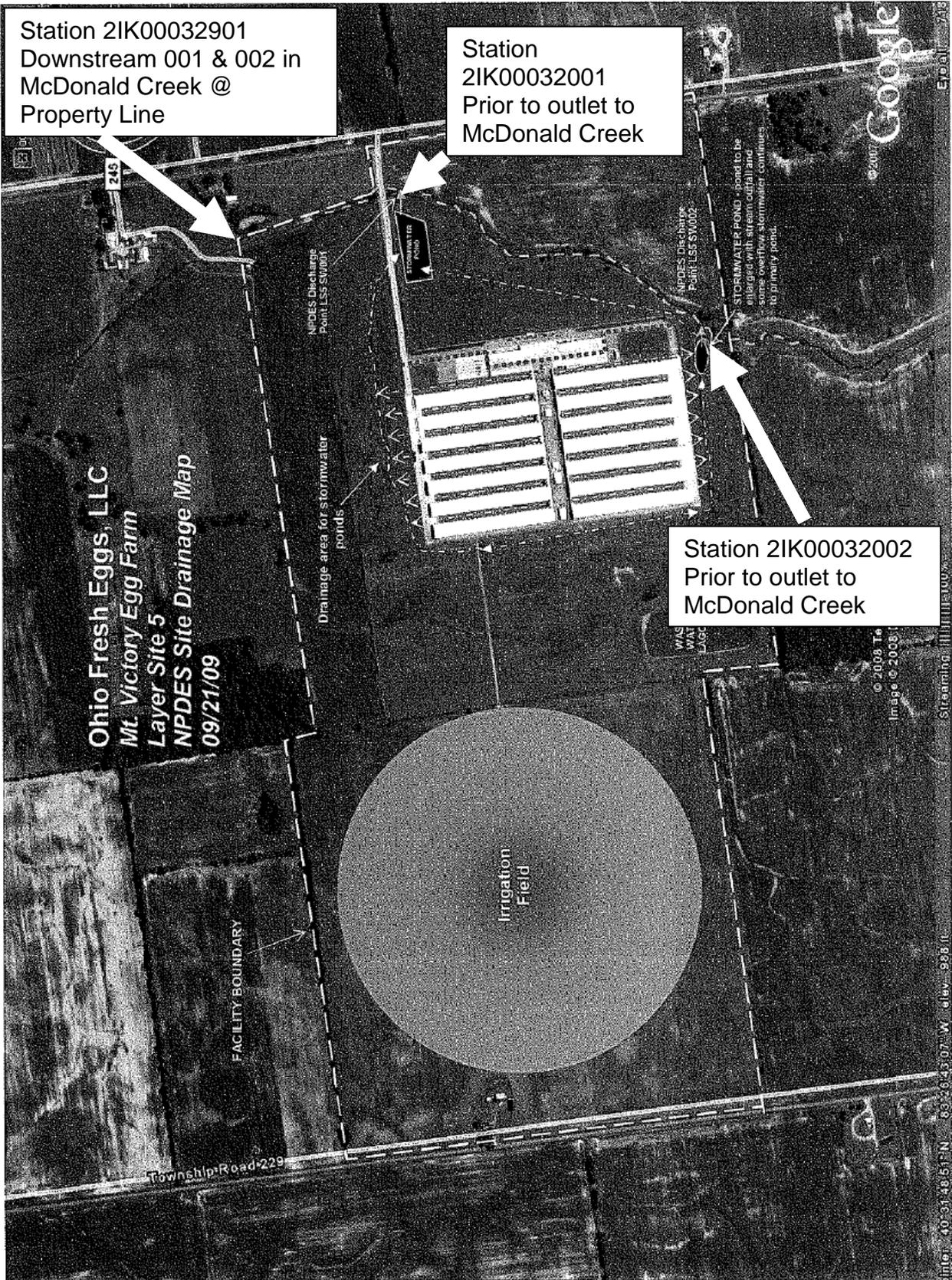


Figure 2. Trillium Farm Holdings LLC Mt. Victory Facility Sampling Locations

Table 2. Water Quality Information for Mt. Victory

MAS/1996-12-13

Upper Scioto TSD

April 2, 1997

Table 1. Pre-land application aquatic life use attainment status for streams sampled near the AgriGeneral - LaRue Farms, June-September, 1995. The Index of Biotic Integrity (IBI), Modified Index of well being (MIwb), and Invertebrate Community Index (ICI) are scores based on the performance of the biotic community. The Qualitative Habitat Evaluation Index (QHEI) measures the ability of the physical habitat to support aquatic life.

River Mile	Fish/Invertebrate IBI	MIwb ^a	ICI ^b	QHEI	Attainment Status	Comment
McDonald Creek		<i>WWH existing</i>				
9.1	<u>22</u> *	NA	Fair*	22	NON	Recently channelized
6.8	<u>23</u> *	NA	Fair*	60	NON	
2.7	<u>25</u> *	NA	Fair*	65	NON	

Table 3. Final North Storm Water Pond monitoring requirements for Trillium Farm Holdings LLC, Mt. Victory facility outfall 2IK00032001 and the basis for their recommendation.

Parameter		Effluent Limits				Justification
		Concentration		Loading (kg/day)		
		30 Day	Daily	30 Day	Daily	
Flow Rate	Gallons/day	----- Monitor ^b -----				BPJ ^a
BOD ₅	mg/L	30	45	6.81	10.2	BPJ
pH	S.U.	min 6.5, max 9.0				WQS
TSS	mg/L	30	45	6.81	10.2	BPJ
Ammonia – (NH ₃ -N)						
Summer	mg/L	1.93	15.9	0.44	3.62	WQS/WLA
Ammonia – (NH ₃ -N)						
Winter	mg/L	4.76	12.5	1.08	2.84	WQS/WLA
Phosphorus, Total	mg/L	1.0	1.5	0.23	0.34	BPJ
E. coli	#/100 ml	----- Monitor -----				BPJ

^aDefinitions: BPJ = Best Professional Judgment, WQS = Water Quality Standards, WLA = Wasteload Allocation

^bMonitoring of flow and other indicator parameters is specified to assist in the evaluation of effluent quality, frequency, and facility performance.

Table 4. Final South Storm Water Pond monitoring requirements for Trillium Farm Holdings LLC, Mt. Victory facility outfall 2IK00032002 and the basis for their recommendation.

Parameter		Effluent Limits				Justification
		Concentration		Loading (kg/day)		
		30 Day	Daily	30 Day	Daily	
Flow Rate	Gallons/day	----- Monitor ^b -----				BPJ ^a
BOD ₅	mg/L	30	45	4.54	6.81	BPJ
pH	S.U.	min 6.5, max 9.0				WQS
TSS	mg/L	30	45	4.54	6.81	BPJ
Ammonia – (NH ₃ -N) Summer	mg/L	2.34	19.4	0.35	4.39	WQS/WLA
Ammonia – (NH ₃ -N) Winter	mg/L	6.19	16.2	0.94	3.69	WQS/WLA
Phosphorus, Total	mg/L	1.0	1.5	0.15	0.23	BPJ
E. coli	#/100 ml	----- Monitor -----				BPJ

^aDefinitions: BPJ = Best Professional Judgment, WQS = Water Quality Standards, WLA = Wasteload Allocation

^bMonitoring of flow and other indicator parameters is specified to assist in the evaluation of effluent quality, frequency, and facility performance.

Table 5. Downstream monitoring requirements for Trillium Farm Holdings LLC Mt. Victory facility outfall 2IK00032901 and the basis for their recommendation.

Parameter		Effluent Limits				Justification
		Concentration		Loading (kg/day)		
		30 Day	Daily	30 Day	Daily	
Phosphorus, Total	mg/L	----- Monitor -----				BPJ ^a

^aDefinitions: BPJ = Best Professional Judgment